

BESSEMER CITY

STORMWATER PROGRAM RATE STUDY

WithersRavenel
Our People. Your Success.

JULY 2022

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Introduction

The City of Bessemer City engaged WithersRavenel to help create a long-term financial plan for its Stormwater program so City staff may evaluate and enhance decision making and ensure sufficient, future funding for the program. The program historically has been funded by the general fund, but it is expected to expand and require additional support. As a result of the planned growth, it is imperative that the stormwater program continue to address community needs and adhere to National Pollutant Discharge Elimination System (NPDES) requirements of the Clean Water Act as well as State Water Supply Watershed (WSW) requirements.

In conducting this study, WithersRavenel examined various fee options, reviewed previously prepared studies and growth projections, and analyzed the financial impact projected changes would have on the program and parcel owners. The following objectives were identified for the study:

- Create and review a database of parcels and impervious surfaces.
- Identify operational and maintenance issues and needs not currently being addressed in the existing stormwater program and develop an operating budget for FY 2023.
- Create a Capital Improvements Plan (CIP) and determine a funding strategy for implementing it.
- Project program revenues and expenditures over ten years.
- Propose stormwater fees that fund operating and capital costs.
- Provide information to conduct fee benchmarking for similar municipal stormwater management programs.
- Develop an updated draft ordinance that reflects the goals, assumptions and policies that are inherent to the creation of the Stormwater Program.

Certain assumptions have been made with respect to conditions that may occur in the future. While these assumptions are reasonable for the purposes of this study, they are dependent upon future events and actual conditions may differ from those assumed. In addition, information has been used and relied upon which has been provided by others. This information includes, among other things, audited financial statements, annual operating budgets, and parcel information. While this information is deemed reliable, the information has not been independently verified and no assurances are offered with respect thereto. To the extent that actual future conditions differ from those assumed herein or provided by others, the actual results may differ from those anticipated.

This analysis addresses the impervious surfaces, current and proposed budgets, the financial analysis, debt service obligations, stormwater fees, and presents findings and conclusions.

Impervious Surface Database

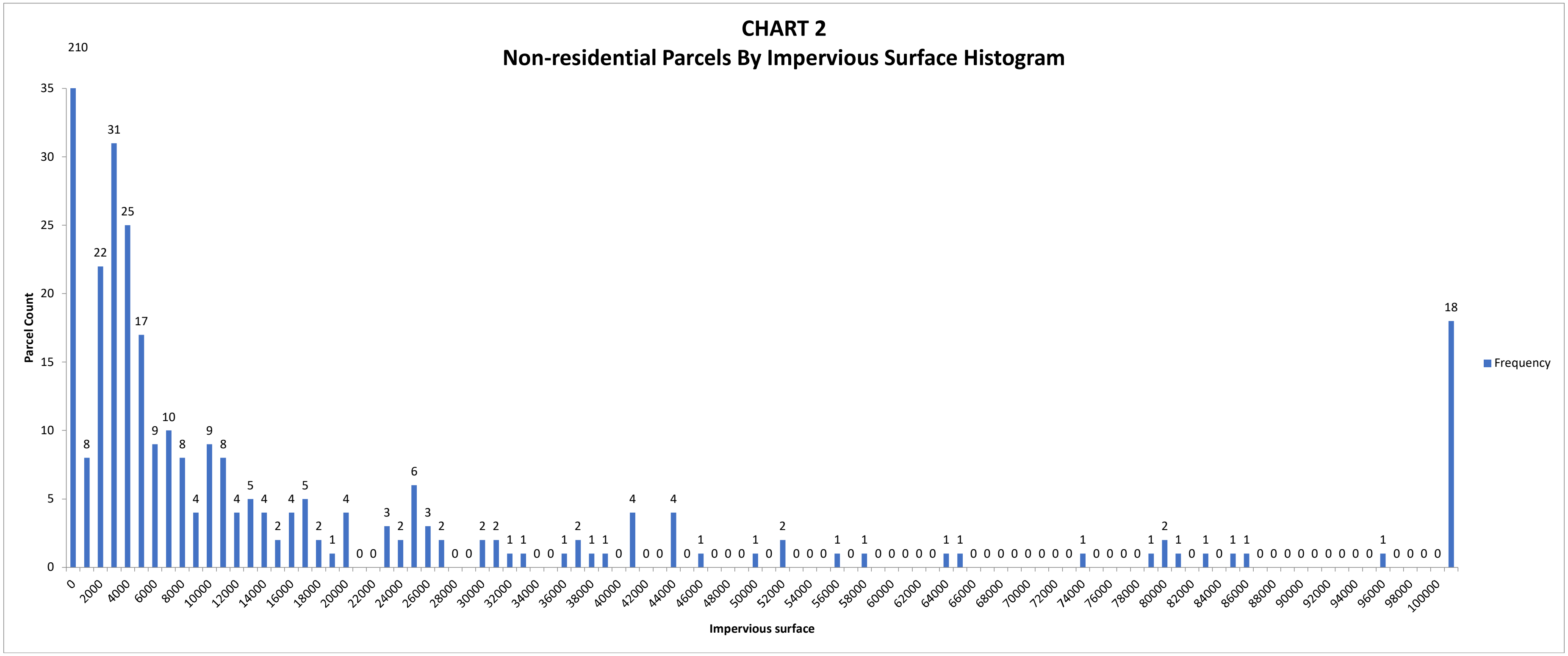
An aerial database of impervious surfaces is necessary to establish an equivalent residential unit (ERU) for assessing fees. WithersRavenel used aerial data from the city to develop a database of all non-residential impervious surfaces and a sample of residential impervious surfaces. The databases are grouped into two categories: residential parcels and nonresidential parcels.

The residential parcel list comprises a sample of residential parcels to ascertain their average impervious surface. There were 2,596 total residential parcels and the average impervious surface from the 260 residential parcels sampled was 3,286 square feet.

The list of nonresidential parcels consists of 462 tracts. Of which, 460 are currently developed and two others are planned by Trinity and Amazon. The Trinity development will be complete in FY 2023 and the Amazon development is expected to be complete in FY 2024. The range of square footages per parcel varied more than the residential list, ranging from 0 to 1.5 million square feet, with an average of approximately 4,042 square feet per parcel. Furthermore, the nonresidential parcel list includes categories indicating each parcel's use. Counts of parcels by use and by size is depicted in the below tables. As shown, the most common categories are Mixed Use Commercial and Church/Religious, and the majority of non-residential parcels have less than 20,000 square feet of impervious surface.

Table 1
Non-Residential Parcel Counts by Category

Government	83
Mixed Use Commercial	77
Church/Religious	60
Industrial Land	43
Commercial Land	30
General Retail	26
Office	16
Industrial	14
Vehicle Repair	12
Restaurant	11
House on Commercial Site	11
Apt Complex/Multi-Family	9
Public Utilities	7
Warehouse	7
Conv Store/Gas Station	6
Parking Lot	6
Beauty/Barber Shop	5
Fraternal/Veteran Org	5
Mining/Minerals	4
Section 42 Housing	3
Charitable	3
Schools/Colleges	3
Medical Non Profit	3
Medical/Dental Office	2
Funeral Home	2
Misc. Exempt/Exclusion	2
Mobile Home Park	2
Bank/Savings & Loan	1
Converted Residence	1
Cemetery/Graveyard	1
Live/Work	1
Self Storage	1
Daycare	1
Vet Clinic/Grooming	1
Entertainment	1
Mini-Warehouse	1
Fire/Police Station	1
Grand Total	462


CHART 2
Non-residential Parcels By Impervious Surface Histogram
Parcel Count
Impervious surface
Frequency
210
18

This information serves as the foundation for stormwater fee development. As new impervious surfaces are created it will be important for the City to periodically update this database.

Cost Opinions and Budget Development

The City provided WithersRavenel their Stormwater Management Plan (SWMP), which details how the City will comply with their NPDES permit through specified Best Management Practices (BMPs) over their 5-year permit term. Permit Year 1 corresponds to Fiscal Year 21/22. Costs for each BMP were estimated and organized by permit and fiscal year to generate initial budgets and projected out to Permit year 11/Fiscal Year 31/32. Estimates were based on previous work completed by WithersRavenel and unknown costs were assigned a value of $1,000. Items not required by the permit but related to program goals, such as master plans and aerial imagery subscriptions, were also included.

Additionally, the City Manager provided WithersRavenel estimated stormwater budgets for FY 2021 and FY 2022. Costs were based upon existing public works expenses and projected new expenses. Portions of debt service from previously financed public works equipment was also allocated to the stormwater budgets. The resulting budgets are depicted in the below table:

TABLE 3
Initial Stormwater Budgets

	2021	2022
SALARIES AND BENEFITS	$83,514	$123,433
PROFESSIONAL SERVICES	0	50,000
MAINTENANCE AND REPAIRS	5,000	15,000
SUPPLIES	1,900	8,500
TRAVEL AND TRAINING	1,000	1,750
OTHER	1,500	3,350
PUBLIC OUTREACH		1,000
TOTAL OPERATING EXPENDITURES	92,914	203,033
DEBT SERVICE	16,133	34,278
CAPITAL OUTLAY		
TOTAL EXPENDITURES	$109,047	$237,311

The largest expenditure in both budgets is Salaries and Benefits. Professional services are not planned in FY 2021 but is expected to cost approximately $50,000 in FY2022 to include engineering and mapping services. Similarly, Maintenance and Repairs and Supplies will increase significantly in FY 2022 due to growth of the program. The program will more than double its costs between FY 2021 and FY 2022 with an overall budget of approximately $237,000. The stormwater program has never issued debt.

Capital Improvements Plan

The Capital Improvements Plan reflects the fund's planned capital improvements for the next ten years. Discussions with City staff led to the development of a CIP containing projects of various priorities totaling approximately $2 million. As illustrated in Table 4, there are six improvement projects proposed for the fund through FY 2032. Due to the financial hardships that these projects may place upon the fund, the analysis assumes that each improvement is planned to be paid by a capital outlay / paygo in a specific fiscal year or by new debt issuance resulting in annual debt service payments.

This leads to financing $1.75 million of projects included in the proposed Capital Improvements Plan. The yearly costs exceed $200,000 during some years, which may place pressure upon the fund budget. The largest projects include:

WATER AND SEWER

- $1,200,000 for watershed improvements.
- $300,000 for a sweeper.
- $250,000 for a leaf truck.

TABLE 4
BESSEMER CITY - STORMWATER FUND
CAPITAL IMPROVEMENTS PLAN

PROJECT DESCRIPTION	CUMULATIVE COST	BUDGET FY 2022	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	YEAR 7 FY 2029	YEAR 8 FY 2030	YEAR 9 FY 2031	YEAR 10 FY 2032
Sweeper	$ 300,000			$ 300,000								
Leaf Truck	$ 250,000				$ 250,000							
Long Creek Stormwater Master Plan	$ 75,000		$ 50,000	$ 25,000								
Crowder Creek Stormwater Master Plan	$ 75,000			$ 50,000	$ 25,000							
Basin Study (Asset Assessment)	$ 105,000					$ 50,000	$ 55,000					
Watershed Improvements	$ 1,200,000							$ 1,200,000				
TOTAL	$ 2,005,000	$ -	$ 50,000	$ 375,000	$ 275,000	$ 50,000	$ 55,000	$ 1,200,000	$ -	$ -	$ -	$ -
DEBT PACKAGES	$ 1,750,000			$ 300,000	$ 250,000			$ 1,200,000				
ANNUAL DEBT	$ 1,750,000	$ -	$ -	$ 300,000	$ 250,000	$ -	$ -	$ 1,200,000	$ -	$ -	$ -	$ -
ANNUAL CAPITAL OUTLAY	$ 255,000	$ -	$ 50,000	$ 75,000	$ 25,000	$ 50,000	$ 55,000	$ -	$ -	$ -	$ -	$ -

NOTES:

Master Plans focus on creating hydrologic/hydraulic modeling of their existing storm system to identify areas of concern. Scope includes ordinance review, review of citizen concerns/known problem areas, H&H modeling.

Basin Studies focus on assessing their existing storm system to develop a comprehensive capital improvement plan. Scope includes Levels of service, age, condition, likelihood of failure, ranking for replacement.

Debt Service Requirements

The stormwater program had two outstanding debt obligations in FY 2022. The street sweeper loan with payments of $35,440 will mature this year while the second loan for a leaf truck with payments of $35,957 will mature FY 2026. A summary of the existing debt packages is shown in Table 5.

TABLE 5
BESSEMER CITY - STORMWATER FUND
DEBT SERVICE SUMMARY

RATE	NAME	2022	YEAR 1 2023	YEAR 2 2024	YEAR 3 2025	YEAR 4 2026	YEAR 5 2027	YEAR 6 2028	YEAR 7 2029	YEAR 8 2030	YEAR 9 2031	YEAR 10 2032
3.29%	Street Sweeper	35,440										
2.60%	Leaf Truck	35,957	35,957	35,957	35,957	35,957						
TOTAL		**71,397**	**35,957**	**35,957**	**35,957**	**35,957**	**0**	**0**	**0**	**0**	**0**	**0**

To maintain a positive net income with large capital improvement projects, the analysis assumes that funds will be acquired using borrowed capital. The remaining yearly capital requirements will be paid by cash outlays that annually average $25,000. The planned method to finance the improvements in the CIP is shown in the following table:

TABLE 6
Proposed Debt Packages

FISCAL YEAR	TYPE	PRINCIPAL	RATE	TERM (YEARS)
2024	INSTALLMENT LOAN	$ 300,000	2%	5
2025	INSTALLMENT LOAN	$ 250,000	2%	5
2028	INSTALLMENT LOAN	$ 1,200,000	6%	15

When including the debt package into the fund's financial analysis, it was concluded that the net income will remain positive over most of the next ten years.

Financial Analysis

Each of the columns in the financial model shown in Table 7 represents the City's proposed stormwater revenue and expenditures for a specific fiscal year. Revenues and expenditures from the current fiscal year appear in a column on the left side of the table followed by adjacent columns on the right showing projections for the following ten years. The projections provide additional line-item detail compared to the current City budget. Each row in the table shows a revenue or expense line item from the projections. Revenues are listed in the top portion of the table followed by operating expenses, capital outlays, and debt payments.

After discussions with City staff, it is assumed that impervious surfaces and fee revenue will increase at an average annual rate of 0.5%. As per the development schedule, Trinity and Amazon revenues are expected to begin FY 2023 and FY 2024. Regarding expenditures, salaries and benefits related to a proposed Stormwater Manager position in FY 2024 are projected to increase by an average annual rate of 6% and most other expenditure categories are projected to increase at an average annual rate of 4%.

Several notable line items are highlighted in yellow including capital outlay, debt, and new revenue sources. Also highlighted are each fiscal year's net income or loss followed by projected fund balances. The proposed stormwater revenue over the next ten years is also highlighted in the table. These revenues are high enough to yield feasible operations for the fund, yet not so high as to create excessive fund balance or violate statutes. The impacts on the fund are summarized in Chart 8.

TABLE 7
BESSEMER CITY - STORMWATER FUND
FINANCIAL ANALYSIS WITH $6 INITIAL MONTHLY ERU

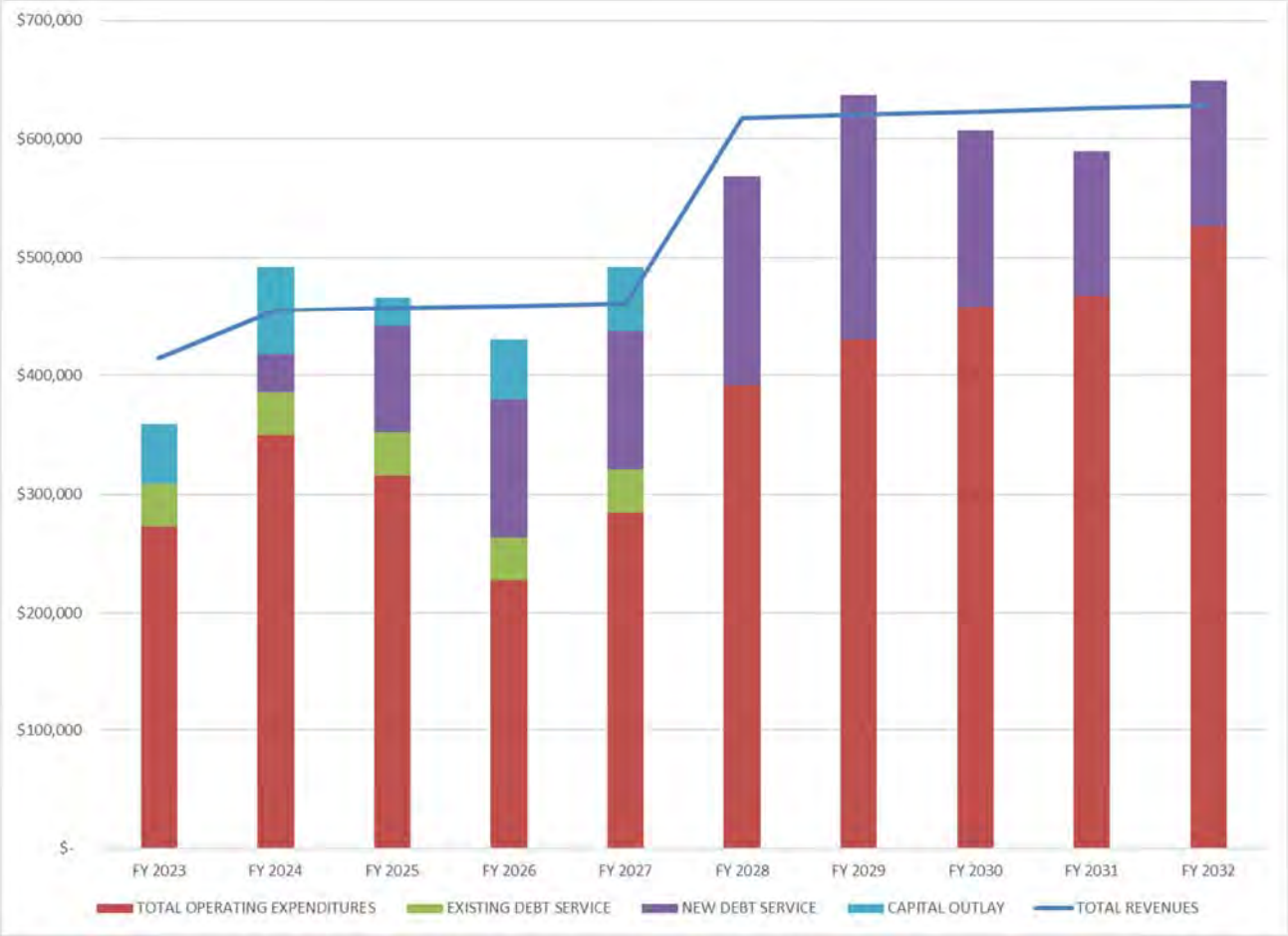
LINE ITEM	BUDGET FY 2022	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	YEAR 7 FY 2029	YEAR 8 FY 2030	YEAR 9 FY 2031	YEAR 10 FY 2032
REVENUES:											
FEES	100,000										
FEES - RESIDENTIAL		186,912	187,847	188,786	189,730	190,678	191,632	192,590	193,553	194,521	195,493
FEES - NON-RESIDENTIAL		216,190	217,271	218,357	219,449	220,546	221,649	222,757	223,871	224,990	226,115
FEES - AMAZON			27,332	27,332	27,332	27,332	27,332	27,332	27,332	27,332	27,332
FEES - TRINITY		11,262	22,524	22,524	22,524	22,524	22,524	22,524	22,524	22,524	22,524
NONOPERATING INCOME:											
INVESTMENT INCOME		100	100	100	100	100	100	100	100	100	100
SUBTOTAL REVENUES	100,000	414,464	455,074	457,099	459,135	461,181	463,237	465,303	467,380	469,467	471,565
NEW SOURCES OF REVENUE:											
REVENUE FROM FEE INCREASE							154,225	154,913	155,604	156,299	156,998
PERCENTAGE INCREASE							33%				
TOTAL REVENUES	100,000	414,464	455,074	457,099	459,135	461,181	617,461	620,216	622,984	625,766	628,562
EXPENDITURES:											
PROFESSIONAL FEES	$ 71,600										
MATERIALS AND SUPPLIES	$ 300										
COMMUNICATIONS AND POSTAGE	$ 1,000										
PRINTING	$ 400										
MAINTENANCE AND REPAIRS	$ 30,000										
TRAVEL AND TRAINING	$ 200										
DUES AND SUBSCRIPTIONS	$ 3,500										
BMP 2 - PERMIT RENEWAL			$ 30,000				$ 30,000				
PUBLIC EDUCATION AND OUTREACH											
BMP 4/13 - PARTNERSHIP WITH REGIONAL STORMWATER PARTNERSHIP OF THE CAROLINAS		$ 3,500	$ 3,600	$ 3,700	$ 3,800	$ 4,000	$ 4,200	$ 4,400	$ 4,600	$ 4,800	$ 5,000
BMP 5 - CITY SPONSORED EVENT OR FESTIVAL		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410
BMP 8/10/23/26 - HOTLINE		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410
PUBLIC INVOLVEMENT AND PARTICIPATION											
BMP 12 - ANNUAL CITY-WIDE CLEANUP EVENT		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410

TABLE 7
BESSEMER CITY - STORMWATER FUND
FINANCIAL ANALYSIS WITH $6 INITIAL MONTHLY ERU

LINE ITEM	BUDGET FY 2022	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	YEAR 7 FY 2029	YEAR 8 FY 2030	YEAR 9 FY 2031	YEAR 10 FY 2032
ILLICIT DISCHARGE DETECTION AND ELIMINATION											
BMP 14 - ADDITIONS TO MS4 MAP		$ 125,000	$ 125,000	$ 125,000							
BMP 15 - UPDATE MAP		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410
BMP 17/21 - STAFF TRAINING		$ 1,000									
BMP 18/20 - IDDE PLAN AND DATABASE		$ 30,000									
BMP 22 - FACT SHEETS		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410
IMAGERY SUBSCRIPTION		$ 7,500	$ 7,800	$ 8,100	$ 8,400	$ 8,700	$ 9,000	$ 9,400	$ 9,800	$ 10,200	$ 10,600
CONSTRUCTION SITE RUNOFF CONTROL											
BMP 25 - STAFF TRAINING		$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360	$ 1,410
BMP 28 - CONTRACTOR EDUCATION		$ 1,000									
POST-CONSTRUCTION SITE RUNOFF CONTROL											
BMP 30/31/32 - REVISIONS TO CODE OF ORDINANCES											
BMP 32 - INSPECTION OF LOW-DENSITY PROJECTS		$ 5,000	$ 5,200	$ 5,400	$ 5,600	$ 5,800	$ 6,000	$ 6,200	$ 6,400	$ 6,700	$ 7,000
BMP 33 - INVENTORY OF POST-CONSTRUCTION SCMS AND LOW-DENSITY PROJECTS		$ 10,000									
POLLUTION PREVENTION AND GOOD HOUSEKEEPING											
BMP 36/39/43 - INVENTORY OF MUNICIPAL FACILITIES/FACILITIES WITH SPILL POTENTIAL/MUNICIPAL SCMS		$ 5,000	$ 5,000								
BMP 37 - FACILITY INSPECTIONS			$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360
BMP 38/40/41/45/48 - STAFF TRAINING			$ 1,000	$ 1,040	$ 1,080	$ 1,120	$ 1,160	$ 1,210	$ 1,260	$ 1,310	$ 1,360
BMP 40 - SPILL RESPONSE PROCEDURES		$ 5,000									
BMP 42 - MS4 SYSTEM INSPECTIONS AND MAINTENANCE			$ 30,000								
BMP 46 - NPDES INDUSTRIAL PERMIT COMPLIANCE		$ 20,000	$ 20,000								
BMP 49/50/51 - PAVEMENT MANAGEMENT		$ 15,000	$ 15,000								
STORMWATER MANAGER			$ 90,000	95,000	101,000	107,000	113,000	120,000	127,000	135,000	143,000
MAINTENANCE AND REPAIRS		$ 40,000	$ 40,000	40,000	100,000	150,000	250,000	250,000	300,000	300,000	350,000
TOTAL OPERATING EXPENDITURES	$ 107,000	$ 273,000	$ 349,800	$ 315,720	$ 227,640	$ 284,660	$ 391,730	$ 429,930	$ 458,130	$ 467,430	$ 526,730
EXISTING DEBT SERVICE	$ 71,430	$ 35,957	$ 35,957	$ 35,957	$ 35,957	$ 35,957					
NEW DEBT SERVICE		$ -	$ 31,675	$ 89,745	$ 116,140	$ 116,140	$ 177,363	$ 206,912	$ 148,842	$ 122,446	$ 122,446
CAPITAL OUTLAY	$ -	$ 50,000	$ 75,000	$ 25,000	$ 50,000	$ 55,000	$ -	$ -	$ -	$ -	$ -
TOTAL EXPENDITURES	$ 178,430	$ 358,957	$ 492,431	$ 466,421	$ 429,737	$ 491,757	$ 569,093	$ 636,842	$ 606,972	$ 589,876	$ 649,176
NET INCOME	$ (78,430)	$ 55,507	$ (37,358)	$ (9,322)	$ 29,398	$ (30,576)	$ 48,368	$ (16,626)	$ 16,012	$ 35,890	$ (20,614)
UNRESTRICTED NET POSITION	$ (78,430)	$ 55,507	$ 18,150	$ 8,828	$ 38,225	$ 7,649	$ 56,017	$ 39,391	$ 55,404	$ 91,294	$ 70,680
UNRESTRICTED NET POSITION / TOTAL EXPENDITURES	-44%	15%	4%	2%	9%	2%	10%	6%	9%	15%	11%
NEW DEBT FOR CAPITAL PROJECTS:											
LOAN AMOUNT			300,000	250,000			1,200,000				
PAYMENT			31,675	26,396			61,223				
ANNUAL PAYMENTS			63,349	52,791			122,446				
RATE			2.00%	2.00%			6.00%				
TERM			5	5			15				
ERU MULTIPLIER		6.00	6.00	6.00	6.00	6.00	8.00	8.00	8.00	8.00	8.00

ASSUMPTIONS:
IMPERVIOUS SURFACE AREA INCREASES BY AVERAGE ANNUAL RATE OF 0.5%.
EXPENDITURES GROW BY AVERAGE ANNUAL RATE OF 4%, STORMWATER MANAGER EXPENSE INCREASES BY AVERAGE ANNUAL RATE OF 6%.
TRINITY DEVELOPMENT COMPLETE MID FY 2023. IMPERVIOUS SURFACE ESTIMATED BY CITY STAFF.
AMAZON DEVELOPMENT COMPLETE BEGINNING FY 2024

Chart 8
Projected Revenues and Expenditures



A proposed new stormwater fee based upon the City's impervious surface database will help the City fund the proposed operating costs while minimizing general fund subsidy.

Fee Modeling and Findings

The following considerations were made with City staff when developing a stormwater fee for FY 2023:

- Stormwater fee payers are currently organized into one of the following three categories:
  - Residential $3.07 /month
  - Commercial $6.00 / month
  - Industrial $12.00 / month

  The current fee structure charges Commercial and Industrial parcel owners more per month due to their typically greater impervious surfaces however it does not adequately address the magnitude of those differences.

- Residential parcel owners are proposed to continue paying a uniform fixed fee each month regardless of impervious surface. Non-residential parcels would pay a multiplier of the residential fee by dividing each impervious surface by the residential average or ERU of 3,286 square feet. For example, a nonresidential parcel with double or 6,572 square feet of impervious surface would pay double the residential fee. Grouping non-residential parcel owners into one of three fee tiers was considered by City staff but was declined in favor of the ERU methodology for its greater equity.
- A monthly fee of $6.00 charged to residential parcels generates $187,000 of residential revenue in the first year. The fee as an ERU applied to nonresidential parcels generates approximately $227,000 from nonresidential parcels. The combined total is approximately $414,000. When the Amazon development is complete in FY 2024, the city will receive an additional annual fee revenue of $27,000.
- Nonresidential parcel owners as a group would pay significantly more than residential parcel owners because their parcels usually contain significantly more impervious surface and typically generate significantly more stormwater runoff.
- The top ten nonresidential parcel owners would pay nearly 73% of all nonresidential fee revenue.
- The top ten nonresidential parcel owners pay a combined total of $186,382 annually, equivalent to approximately 2,588 residential parcels.
- Area municipalities charge monthly stormwater fees that range from $1.80 to $16.40 and average $5.36, as shown in Table 9. However, any comparison of fees should consider how thoroughly each municipality addresses its stormwater needs, whether the fee fully supports stormwater operations, and NPDES requirements through its Levels of Service.

Table 9
Area Municipality Stormwater Fees

NAME	3000 SQ FT FEE
Belmont	$5.00
Charlotte	$16.40
Cornelius	$6.58
Cramerton	$3.00
Dallas	$4.52
Gastonia	$3.75
Huntersville	$6.54
Kings Mountain	$2.50
Lowell	$6.75
Mecklenburg County - Unincorporated	$6.10
Mount Holly	$3.50
Pineville	$6.14
Ranlo	$1.80
Shelby	$2.50

Source: UNC Environmental Finance Center

To analyze the proposed stormwater fees and, a fee model was created that shows the impact of various fee modifications. In proposing new fees, the objectives are to establish a financially sustainable fund yet not create excessive fund balance.

Outcomes

As a result of the analysis, a stormwater fee / ERU multiplier of $6.00 is proposed to begin financing system growth, inflation, and future capital needs for the next five years. Furthermore, in FY 2028, the monthly ERU fee / ERU multiplier increases to $8.00. The proposed fees will maintain a minimal fund balance, support initial capital needs, and address growing operating costs while considering growth within the City.

Conclusions

The Stormwater program currently recovers its system costs through stormwater fees and general fund support. However, a more equitable method is to charge a stormwater fee that is greater for those that potentially contribute more stormwater runoff from their parcels and exclusively funds the program. The proposed stormwater fee will allow the program to operate independently and prepare for the phase-in of new operating and capital costs associated with a forthcoming capital improvements plan. The cost increases are estimated from City staff and the stormwater management plan and projections of future events. Since the program is in its initial development, it is recommended that the City review the assumptions and calculations each year using updated information to determine if adjustments are required to meet established financial objectives. Furthermore, it is recommended the city maintains an updated stormwater ordinance. The following section describes the recent review by WithersRavenel.

Ordinance Review

Background

Bessemer City is a regulated Phase II Municipal Separate Storm Sewer System (MS4) community under the NPDES Program administered by the North Carolina Department of Environmental Quality (DEQ) and Federal Environmental Protection Agency (EPA). As a Phase II community, Bessemer City is subject to the requirements of permit that regulates stormwater discharges to the MS4. Bessemer City is also subject to the state-wide WSW Protection Program that regulates water quality in specified watersheds.

It is also understood that Bessemer City would like recommendations for sample ordinance that defines impervious/built upon area (BUA), to establish a stormwater utility and enterprise fund, and to address flood protection.

Applicable Programs that Require Stormwater Ordinance

The following stormwater programs apply to Bessemer City:

- NPDES Phase II MS4 Permit
    - Permit No. NCS000412, effective November 1, 2021-June 30, 2026
- 15A NCAC 2B .0620 - .0624 – WSW Protection Program
    - Bessemer City has a WSW-II (Long Creek) that covers the northwest portion of the City

Documents/Ordinances Reviewed

The following documents were reviewed as part of this task with the following findings:

- Bessemer City NPDES Phase II MS4 Permit No. NCS000412
    - 1.4 – Requires an interlocal/legal agreement (ILA) if another entity (Gaston County) is implementing minimum control measures (MCM) on behalf of Bessemer City. If relying on the County, the County ordinance must meet the permit requirements
    - 3.4 – Requires an Illicit Discharge Detection and Elimination (IDDE) ordinance, which must give authority to prohibit discharges and perform inspections and must include enforcement procedures and actions
    - 3.5 – Requires a Construction Site Runoff Control ordinance. Must include construction site waste control, which can be incorporated into the IDDE ordinance or enforced through an existing dumping prohibition
    - 3.6 – Requires a Post-Construction Site Runoff Control ordinance that grants legal authority, establishes plan review requirements, and requires inspections
        - Requires ordinance to specify Federal, State, and local government projects must comply with Post-Construction Program requirements
        - Must comply with 15A NCAC 02H .1017 – NPDES MS4 and Urbanizing Areas: Post-Construction Requirements
            - Ordinance must have high-density/low-density thresholds for development
            - Ordinance must require stormwater control measures (SCMs) meet the State Minimum Design Criteria (MDC)
            - Ordinance must require development to achieve “runoff treatment” or “runoff volume match” for the 1-inch storm
    - 3.6.3 – Requires inspections of low-density projects, and ordinance must grant authority to inspect

  - 3.6.5 – Requires fecal coliform reduction from pet waste, which can be incorporated into a litter ordinance. Also requires reduction from on-site domestic wastewater treatment, which should be coordinated with the County
- Bessemer City Stormwater Management Plan (SWMP)
  - Describes how Bessemer City will comply with the NPDES Permit requirements with Best Management Practices (BMPs)
    - BMP 17 – Review and update the IDDE ordinance
    - BMP 28 – Develop and implement an ordinance to require construction site operators to control waste
    - BMP 31 – Revise existing ordinance to specifically require compliance by Federal, State, and Local government projects and revise reference to stormwater design manual to specify NCDEQ Stormwater Design manual
    - BMP 32 – Add an ordinance to the City code requiring each stormwater control measure to have an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13)
    - BMP 33 – Establish the legal authority for inspection of low-density projects at least once during the permit term; and carry out the inspections
  - Indicates an existing ILA with Gaston County to implement Construction Site Runoff Control and Post-Construction Site Runoff Control MCMs.
    - The ILA with Gaston County was not reviewed
- Bessemer City Land Development Code Chapter 5 – Environmental Protection
  - 5.2. WS Watershed Protection Overlay – Indicates an ILA with Gaston County. Points to Gaston County Unified Development Ordinance (UDO) – Chapter 15
  - 5.3. Erosion and Sedimentation Control
  - 5.4. Stormwater Management – Points to Bessemer City Code of Ordinance Chapter 152
- Bessemer City Code Of Ordinances
  - Chapter IV, Article C – Utility Regulations – Describes establishment of other City utilities
  - Chapter 54: Solid Waste – 54.03 describes prohibited disposal of wastes and building material scraps are referenced and 54.99 describes penalties
  - Chapter 152: Drainage Regulations – Describes storm drainage regulations
    - No ordinance language related to water quality requirements of the NPDES Permit specified
  - Chapter 153: Watershed Protection – Points back to UDO/LDC
- Gaston County Code of Ordinance Chapter 5.5 – Environment
  - Need to ensure the ILA is up to date to give Gaston County authority to enforce the ordinance or new City ordinance if adopted
- UNC Phase II Stormwater Model Ordinance for North Carolina – attached with comments
  - Not updated since 2007 - changes noted within the comments to reflect current permit requirements. Requirements highlighted in green and recommendations highlighted in blue
  - Definitions should be updated to reflect DEQ definitions in 15A NCAC 02H
- Gaston County UDO – Chapter 15 – Water Supply Watershed Regulations
  - Need to ensure the ILA is up to date to give Gaston County authority to enforce the ordinance or new City ordinance if adopted
- Draft Model Water Supply Watershed Protection Ordinance – attached with comments
  - 5A NCAC 02B .0624 – Requires density thresholds inside the WS-II
- Salisbury, NC Code of Ordinance Article IX – Section 25-270

Required Actions

1. Determine if would like to continue to rely on Gaston County ordinance for Post-Construction site runoff control.
    a. If so, coordinate with County to update ordinance to meet all NPDES permit requirements
    b. If so, update LDC Chapter 5.4 to describe ILA with Gaston County and make sure Chapter 153 of Code of Ordinance refers to 5.2 of the LDC
2. Update ILA to identify the responsible parties for items such as issuance of performance securities, platting, BUA tracking, and as-built, annual SCM and low-density inspections.
3. Coordinate with the County to establish a fecal coliform reduction program from on-site domestic wastewater treatment.
4. Adopt fee ordinance to establish a stormwater utility and enterprise fund. Chapter IV, Article C – Utility Regulations of the Code of Ordinance describes establishment of water, sewer, and gas utilities. Consider adding language in that section for a stormwater utility or within the stormwater ordinance.

Recommendations

1. Bessemer City is required to abide by the requirements of the NPDES Permit, regardless of whether another entity is implementing MCMs on the City's behalf.
    a. Recommend adopting a post-construction ordinance into Bessemer City's LDC, which will be more easily updated if requirements of the permit change. The County may still perform post-construction reviews, but for compliance with Bessemer City's ordinance. Communities such as the Towns of Rolesville and Wendell rely on a county to review projects for compliance with Town post-construction ordinance. In this case, the responsible parties for items such as issuance of performance securities, platting, BUA tracking, and as-built, annual SCM and low-density inspections should be well-defined in the ILA.
    b. Recommend adopting the UNC Phase II Stormwater Model Ordinance for North Carolina with comments addressed including updating definitions to reflect DEQ definitions in 15A NCAC 02H and to match the WSW Model Ordinance
2. Bessemer City is required to abide by the requirements of the WSW Protection Program, regardless of whether another entity is performing development reviews on the City's behalf.
    a. Recommend adopting the Model WSW Protection Ordinance when finalized with definitions that are consistent with the updated stormwater ordinance or coordinating with the County to update the County's ordinance to reflect the changes.
3. The MS4 and WSW Programs are water quality programs which do not require ordinance with a specified water quantity component (e.g. peak flow mitigation or additional volume matching). The MS4 rules require high-density projects to provide "runoff treatment" or "runoff volume match" for the required storm 1-inch design storm, which is intended to provide water quality treatment. WSW rules add additional density restrictions. Most municipalities also require measures to address water quantity related to runoff generated from new development.
    a. Recommend incorporating peak flow attenuation for the 1-year, 24-hour storm, which is no longer required, but is an existing requirement in the Gaston County ordinance. The following language gives flexibility for sites with very minimal peak discharge in existing conditions to meet the intent of attenuation: "Post-development peak discharge rates shall not exceed 1.0 cubic feet per second increase from pre-development peak discharge rates for the 1-year, 24-hour storm." Some sites with sandier soils that are well vegetated before development generate very little flow in existing conditions. The State MDC requires SCMs with orifices to draw down within 2 to 5 days, which may make it infeasible to reduce flow

to less than existing conditions for these special cases. An increase of up to 1.0 cubic feet per second will provide a minimal increase in peak discharge, while still allowing the required flow from SCMs with orifices.

b. Recommend peak flow attenuation for the 10-year, 24-hour storm if additional flood risk mitigation is desired and consideration of additional larger storms depending on the City's desired stormwater management strategy. For larger storms, downstream impact analyses are often required by other municipalities. Sample peak flow text from the Town of Cary and City of Raleigh has been provided. If additional peak flow requirements are considered, recommend gathering community and development stakeholder feedback.

4. Recommend adopting stormwater utility and enterprise fund language from Salisbury, NC example. Sample language from the City of Raleigh has also been provided.
5. Recommend adopting standard definitions throughout all ordinances that comply with 15A NCAC 02H.

Attachments

1. UNC Phase II Stormwater Model Ordinance for North Carolina – with Comments
2. Draft Model Water Supply Watershed Protection Ordinance
3. Water Supply Watershed Map
4. Salisbury, NC Code of Ordinance Article IX – Sections 25-270-274
5. City Of Raleigh, NC Ordinance No. (2003) – 537
6. Town of Cary, NC Land Development Ordinance – Chapter 7
7. City of Raleigh, NC Unified Development Ordinance – Article 9.2E
8. Applicable Programs
    a. NPDES Phase II MS4 Permit No. NCS000412
    b. Bessemer City SWMP
    c. 15A NCAC 02H .1017 – NPDES MS4 and Urbanizing Areas: Post-Construction Requirements
    d. 15A NCAC 2B .0620 - .0624 – WS Watershed Protection Program
9. Bessemer City Land Development Code Chapter 5 – 5.2-5.4
10. Bessemer City Code Of Ordinances – Chapter IV, Article C
11. Bessemer City Code Of Ordinances – Chapter 54
12. Bessemer City Code Of Ordinances – Chapter 152-153

UNC Phase II Stormwater Model Ordinance for North Carolina – with Comments

WR Review
Green – Required additions
Blue – Suggested changes

Phase II Stormwater Model Ordinance for North Carolina

By Richard Whisnant and Betsy Kane
UNC School of Government

UNC ENVIRONMENTAL FINANCE CENTER

Revision history

--changes from 9/7/05 version:

Numerous changes to conform to 2006 Stormwater bill, SL 2006-246. Notably:

-revised standards for design storm and drawdown rate

-special provisions for Shellfish Resource Waters and CAMA projects

-separation from seasonal high water table for certain BMPs

-explicit authorization for clustered development

-conformed vested rights provisions for phased development plans

-statutory exceptions to buffers, deed restrictions and protective covenant requirements

-conformed definitions: *Development, redevelopment, low-densiyt project, owner*

Editorial and typographical changes suggested by Sarah Bruce, Triangle J COG and others

Additional types of persons authorized to do inspections

--Changes from 7/1/05 draft:

Corrected reference to the Code of Federal Regulations (CFR) in XX-105(B), Exemptions (p. 12 of the 7/1/05 pdf file)—reference should read “40 CFR 232” rather than “40 CFR 302.”

--changes from 5/19/05 draft.

-§ 105(D) added reference to local zoning and jurisdictional boundary ordinances as potentially important authority for determinations about site-specific applicability.

§ 108(A) Comment--added reference to nuisance code provisions as potentially conflicting with Phase II stormwater

§ 203 – removed stray right bracket.

§ 306 Comment--added cautionary note about accepting BMPs for maintenance.

§ 402(B)--in light of concerns about failure of BMPs owned by homeowners' associations, added hold harmless clause for local governments that must take over BMP maintenance due to failure of the homeowners' association to keep a BMP functioning correctly.

§ 503(C)--added comment noting potential need for enhanced notice and opportunity to correct violations if the stormwater ordinance is enacted and administered as an exercise of the unit's planning and zoning authority.

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SECTION 1: GENERAL PROVISIONS

Commentary: Throughout this model ordinance, the bold underlines serve as prompts where text that is appropriately customized for the locality should be inserted. For example, where "name of governing board" is indicated in the blank, the name of the local governing body – for example, "Tarheelville City Council" or "Dogwood County Commission" – should be inserted.

Commentary from the drafters of the model ordinance are placed in boxes such as this. These comments should be removed from the ordinance text actually adopted; they are not part of the ordinance itself.

Optional provisions are provided throughout this document and are intended to address the diverse needs of local government depending on characteristics such as population, financial resources, and staffing resources. Optional provisions are shown in [brackets] and generally are accompanied by some explanation in the commentary.

If adopted in its entirety, either with or without the optional provisions, this ordinance is designed to ensure that communities comply with Phase II post-construction requirements. Local governments may make changes to or omit any of the model's provisions, but the resulting non-standard ordinance will have to be reviewed and approved by the Division of Water Quality of the North Carolina Department of Environment and Natural Resources before Phase II compliance is assured.

Defined terms are shown in italics. The definitions section of the ordinance is at the end.

Footnotes give information on the original source of the text language. Note that changes may have been made in the source language to better match North Carolina's needs.

xx-101 TITLE

This ordinance shall be officially known as "The Phase II Stormwater Ordinance." It is referred to herein as "this ordinance."

xx-102 AUTHORITY

The (name of governing board) is authorized to adopt this ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; (name of municipal charter, if relevant); North Carolina General Statutes 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2004-163; Chapter 160A, §§ 174, 185 and (cite any special legislation applicable to the specific local government). [;-as well as- [; Chapter 143-214.5, Water Supply Watershed Protection] Chapter 113A, Article 4 (Sedimentation Pollution Control)][; Article 21, Part 6 (Floodway Regulation) [; Chapter 160A, Article 19 (Planning and Regulation of Development); Chapter 153A, Article 18].

Commented [BK1]: Determine applicability of Session Laws 2006-246, 2018-145, 2019-111, 2021-138

Regarding this section which recites authority for this ordinance: Some jurisdictions may wish to integrate this ordinance with a local erosion and sediment control ordinance, in which case adding the reference to Chapter 113A is appropriate. Some jurisdictions may wish to integrate this ordinance with existing floodway regulations, in which case adding the reference to Chapter 143, Article 21, Part 6 is appropriate. Note that both the erosion and sediment control and floodway regulations are appropriate for integration with Phase II stormwater controls, but each of these programs has particular requirements that are not covered in this model ordinance.

Local governments that anticipate including a program of open space acquisition as part of their stormwater program should include a reference to statutory authority for that function here as well (Article 19, Part 4, Chapter 160A, as well as G.S. 160A-372).

Jurisdictions that are adopting this ordinance as part of a land use ordinance or unified development ordinance should include a reference to statutory authority for planning and regulation of development (Chapter 153A, Article 18 (Parts 1, 2, and 3), including particularly but not limited to G.S. 153A-324 (enforcement), G.S. 153A-330 and 331 (subdivision), and G.S. 153A-340 (zoning). In addition, when adopting this ordinance as part of land use regulations local governments should follow the standards for adoption/amendment of such ordinances set out in G.S. 153A-323 and 160A-.

xx-103 FINDINGS

It is hereby determined that:

Development and *redevelopment* alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

Commented [BK2]: Make sure all of these terms are defined and the same terminology is used throughout

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology that are harmful to public health and safety as well as to the natural environment; and

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from *development* sites.

Further, the Federal Water Pollution Control Act of 1972 ("Clean Water Act") and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II requirements, compel certain urbanized areas, including this jurisdiction, to adopt minimum stormwater controls such as those included in this ordinance.

The preceding paragraph should not be included by a jurisdiction that is adopting this ordinance without having been designated as subject to the Phase II state and federal stormwater requirements.

Therefore, the (name of governing board) establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge. [1]

xx-104 PURPOSE

(A) General

The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-*development* stormwater runoff and nonpoint and point source pollution associated with new *development* and *redevelopment* [as well as illicit discharges into municipal stormwater systems]. It has been determined that proper management of construction-related and post-*development* stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic resources.

[1] Adapted from Stormwater Center/EPA Model Ordinance.

Commentary: The optional reference to illicit discharges should be included only if the jurisdiction is using this ordinance to add to or integrate its powers to regulate illicit discharges into the municipal stormwater system. Illicit discharge control is one of the six required minimum measures of Phase II stormwater programs; Phase II communities must implement an illicit discharge program. But the timing and approach to illicit discharge controls may vary from the timing and approach to post-construction stormwater control, which is the required Phase II minimum measure at which this model ordinance is most directly aimed. A separate set of model provisions for illicit discharge control is provided in optional section 8 of this ordinance.

The other minimum measures mandated in Phase II stormwater programs – public education and outreach; public participation and involvement; construction site runoff control; and pollution prevention/good housekeeping – should also be pursued by the jurisdiction as part of its Phase II program.

(B) Specific

Commentary: The locality adopting the ordinance may wish to supplement the objectives included below, depending on the nature of its stormwater program and specific local needs. This list is a general set of objectives to reduce the impacts of post-development stormwater runoff quantity and quality from land development activities. More specific objectives might be included by the locality adopting the ordinance based upon a watershed management plan, impervious surface targets, the findings of a watershed assessment or study, a local water quality problem or Total Maximum Daily Load (TMDL) requirement.

This ordinance seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for *development* that protect the integrity of watersheds and preserve the health of water resources;

2. Requiring that new *development* and *redevelopment* maintain the pre-*development* hydrologic response in their post-*development* state as nearly as practicable for the applicable design storm to reduce flooding, streambank erosion, nonpoint and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;

3. Establishing minimum post-*development* stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;

4. Establishing design and review criteria for the construction, function, and use of *structural stormwater BMPs* that may be used to meet the minimum post-*development* stormwater management standards;

5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;

6. Establishing provisions for the long-term responsibility for and maintenance of *structural and nonstructural stormwater BMPs* to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;

7. Establishing administrative procedures for the submission, review, approval and disapproval of *stormwater management plans*, for the inspection of approved projects, and to assure appropriate long-term maintenance and compliance with built-upon area restrictions.

~~[8. Coordinating site design plans that include open space and natural areas with the (name of the open space and natural areas protection plan of the local government, or the section of its comprehensive plan dealing with open space/natural areas, if applicable).][2]~~

~~[9.~~8. Controlling illicit discharges into the municipal separate stormwater system.~~]~~

~~[10. Controlling erosion and sedimentation from construction activities.]~~

~~[11~~9. Assigning responsibility and processes for approving the creation and maintenance of adequate drainage and flood damage prevention measures.~~]~~

Commentary: Optional provisions 8, 9, 10 and 11 are appropriate only if the jurisdiction is integrating this model ordinance with existing programs for open space protection, illicit discharge control, erosion and sediment control for construction, and/or floodway and related drainage regulation. Any such existing programs may be good candidates for inclusion in an integrated stormwater ordinance, which would have the advantage of collecting most or all the relevant stormwater-related development requirements in a single place. However, this model ordinance does not attempt to provide comprehensive substantive provisions for these programs.

xx-105 APPLICABILITY AND JURISDICTION

Commentary: The applicability mandate in the temporary rule (15A NCAC 2H.0126) is that the post-construction program cover "all new development [and redevelopment] projects that cumulatively disturb one acre or more, and to projects less than an acre that are part of a larger common plan of development or sale."

Session Law 2004-163 provides that, to the extent that post-construction measures are implemented by a zoning ordinance, vested rights shall be determined as provided in G.S. 160A-385.1, G.S. 153A-344.1, and other applicable provisions of statutory and common law. To the extent that post-construction measures are implemented by means other than a zoning ordinance, vested rights shall be determined as provided by applicable statutory and common law.

(A) General

Beginning with and subsequent to its effective date, this ordinance shall be applicable to all *development* and *redevelopment* throughout the corporate limits and extraterritorial jurisdiction, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to Subsection (B) of this Section, Exemptions.

Commented [BK3]: Stormwater management plan, stormwater permit, and stormwater management permit are used throughout the ordinance. If the City would like the plan and permit to be separate requirements, define and revise. Select one term and revise throughout if not

Commented [BK4]: Need to establish the legal authority for inspection of low-density projects at least once during the permit term and procedures for carrying out the inspections.

Commented [BK5]: Corporate limits required, ETJ is not

~~[2] Adapted from Metropolitan North Georgia Water Planning District Model Ordinance.~~

(B) Exemptions

Development that cumulatively disturbs less than one acre and is not part of a *larger common plan of development or sale* is exempt from the provisions of this ordinance.

Redevelopment that cumulatively disturbs less than one acre and is not part of a larger common plan of *development* or sale is exempt from the provisions of this ordinance.

Development and *redevelopment* that disturb less than one acre are not exempt if such activities are part of a *larger common plan of development or sale*, even though multiple, separate or distinct activities take place at different times on different schedules.[3]

Activities that are exempt from permit requirements of Section 404 of the federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this ordinance.

(C) Developments Conducted by Federal, State, or Local Governments

Projects conducted by or on property owned by any Federal, State or Local government entity must comply with this ordinance. Projects shall be reviewed and approved by the North Carolina Department of Environmental Quality, Division of Energy, Mineral, and Land Resources Stormwater program.

Commented [BK6]: Government projects can be sent to DEQ if desired, but must inform DEQ of this intent

(D) No Development or Redevelopment Until Compliance and Permit

No *development* or *redevelopment* shall occur except in compliance with the provisions of this ordinance or unless exempted. No *development* for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

~~**(E) Map**~~

Commented [BK7]: DEQ no longer maintains a map.

~~Commentary: The geographic coverage area is determined by reference to the standards in Session Law (SL) 2006-246., The *Division* has created a geographic information system (GIS) that can be used in conjunction with local GIS data to show jurisdictional limits. Local governments that adopt this ordinance in whole or part should consider designing their maps so as to integrate easily with this *Division* GIS.~~

~~The provisions of this ordinance shall apply within the areas designated on the map titled "Phase II Stormwater Map of (name of local government), North Carolina" ("the Stormwater Map"), which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this ordinance.~~[4]

~~The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be updated to take into account changes in the land area covered by this ordinance and the geographic location of all *structural BMPs* permitted under this ordinance. In the event of a dispute, the applicability of this ordinance to a particular area of land or BMP shall be determined by reference to the North~~

[3] Adapted from the North Georgia Model Ordinance.

[4] ~~Adapted from North Carolina Model Watershed Protection Ordinance.~~

~~Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.~~

xx-106 INTERPRETATION

Commentary: Each local government should consider whether to use existing rules of interpretation, if any are in current use for other ordinances, or whether to adopt the ones provided here. If the local government uses existing rules, they should be fully reviewed for their potential effect on the application of this ordinance.

(A) Meaning and Intent

All provisions, terms, phrases, and expressions contained in this ordinance shall be construed according to the general and specific purposes set forth in Section 104, Purpose. If a different or more specific meaning is given for a term defined elsewhere in (name of municipality's or county's code of ordinances), the meaning and application of the term in this ordinance shall control for purposes of application of this ordinance.[5]

(B) Text Controls in Event of Conflict

In the event of a conflict or inconsistency between the text of this ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

(C) Authority for Interpretation

The Stormwater Administrator has authority to determine the interpretation of this ordinance. Any person may request an interpretation by submitting a written request to the Stormwater Administrator, who shall respond in writing within 30 days. The Stormwater Administrator shall keep on file a record of all written interpretations of this ordinance.

(D) References to Statutes, Regulations, and Documents

Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the *Design Manual*), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

(E) Computation of Time

The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the (name of local government), the deadline or required date of action shall be the next day that is not a Saturday, Sunday or holiday observed by the (name of local government). References to days are calendar days unless otherwise stated.

[5] Provisions A through H were adapted from Town of Cary Land Development Ordinance.

(F) Delegation of Authority

Any act authorized by this Ordinance to be carried out by the Stormwater Administrator of (name of local government) may be carried out by his or her designee.

(G) Usage

(1) Mandatory and Discretionary Terms

The words "shall," "must," and "will" are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words "may" and "should" are permissive in nature.

(2) Conjunctions

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word "and" indicates that all connected items, conditions, provisions and events apply. The word "or" indicates that one or more of the connected items, conditions, provisions or events apply.

(3) Tense, Plurals, and Gender

Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.

(H) Measurement and Computation

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

xx-107 DESIGN MANUAL

(A) Reference to Design Manual

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the *North Carolina Department of Environmental Quality Stormwater Design Manual* (*Design Manual*) as the basis for decisions about stormwater permits and about the design, implementation and performance of *structural and non-structural stormwater BMPs*.

The *Design Manual* includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II laws.[6]

[6] From Stormwater Center/EPA Model Ordinance.

(B) Relationship of Design Manual to Other Laws and Regulations

Commentary: This provision is intended to prevent a situation where another, less stringent standard has the force of law, and might be interpreted as overriding the design manual if the manual does not have the force of law – for example, where a community has an enacted standard for storm sewers that are to be accepted into the public maintenance system, and this enacted standard is less stringent than the guidelines in the design manual.

If the specifications or guidelines of the *Design Manual* are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the *Design Manual*.

(C) Changes to Standards and Specifications

If the standards, specifications, guidelines, policies, criteria, or other information in the *Design Manual* are amended subsequent to the submittal of an application for approval pursuant to this ordinance but prior to approval, the new information shall control and shall be utilized in reviewing the application and in implementing this ordinance with regard to the application.

(D) [Amendments to Design Manual]

Commentary: This optional section would be relevant if a special local design manual is in use.

[The *Design Manual* may be updated and expanded from time to time, based on advancements in technology and engineering, improved knowledge of local conditions, or local monitoring or maintenance experience.[7]

Prior to amending or updating the *Design Manual*, proposed changes shall be generally publicized and made available for review, and an opportunity for comment by interested persons shall be provided.]

xx-108 RELATIONSHIP TO OTHER LAWS, REGULATIONS AND PRIVATE AGREEMENTS

(A) Conflict of Laws

Commentary: This is a standard legal provision that generally provides that the stricter law or regulation will control in the event of conflict.

From a policy rather than a legal perspective, it should be noted that ordinances and standards in many communities may interfere with effective site design and planning for stormwater management. Some examples may include:

- Excessive curb & gutter requirements that increase directly connected impervious areas discharging directly into the stormwater conveyance system
- Street design standards that provide for overly generous pavement widths in low-traffic areas
- Minimum residential lot sizes and other ordinance provisions that hinder sensitive site layout designed around riparian buffers, conservation of open space and clustered development.
- Oversized minimum parking requirements that result in large paved parking lots

[7] Adapted from Metro North Georgia Water Management District and Stormwater Center/EPA Model Ordinances.

▪ Building codes that add to the cost of rehabilitating older buildings, prevent adaptive re-use in existing urbanized areas or promote greenfield development
▪ Nuisance code provisions that limit vegetation height and restrict wildlife habitat

Thus, many common development standards tend to promote the creation of impervious surface and encourage sprawling, low-density land use patterns that actually worsen stormwater problems, especially when viewed at the watershed scale.

Each jurisdiction will need to consider its standards and ordinances in light of their effects on stormwater runoff. For example, curb & gutter policies may need to be reformulated to allow alternatives that let stormwater flow across vegetative strips before it is sent to the stormwater conveyance system; planting islands may be required to limit the impervious surface in cul-de-sacs; and smaller lot sizes with cluster provisions can permit open space in yards to be reconfigured as preserved common open space. A number of North Carolina cities and counties have adopted the new "Rehab Code" which provides adjusted building code standards to promote the re-use of older buildings (information available at www.ncrehabcode.com).

If possible, communities should undertake a comprehensive review of their policies and standards with the involvement of planning and zoning staff, public works or engineering personnel, and the Stormwater Administrator, with the goal of reducing regulatory barriers and enabling designers to develop plans that deal with stormwater in the most environmentally sound and cost-effective ways.

Some communities may find that it makes sense to approach this comprehensive review along with an evaluation of whether a watershed-wide plan should be implemented (see Section xx-304)

This ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law. Where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.[8]

(B) Private Agreements

This ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this ordinance are more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this ordinance shall govern. Nothing in this ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this ordinance. In no case shall (name of local government) be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.[9]

xx-109 SEVERABILITY

If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall

[8] From Metro North Georgia Water Management District Model Ordinance.
[9] Adapted from Town of Cary Land Development Ordinance.

not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance.

xx-110 EFFECTIVE DATE AND TRANSITIONAL PROVISIONS

(A) Effective Date

This Ordinance shall take effect on _____, 200___.

Commented [BK8]: Should refer to the first date of the City's first NPDES permit. Some communities exclude BUA constructed prior to the first ordinance/permit from requirements (existing exempt BUA)

(B) Final Approvals, Complete Applications

All *development* and *redevelopment* projects for which complete and full applications were submitted and approved by the (name of local government) prior to the effective date of this ordinance and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of *development* or *redevelopment* shall be exempt from complying with all provisions of this ordinance dealing with the control and/or management of post-construction runoff, but shall be required to comply with all other applicable provisions[, including but not limited to illicit discharge provisions].

Commentary: As noted, illicit discharge provisions are optional for this ordinance, although a Phase II community must address illicit discharges through a legal mechanism as one of the six minimum measures required by Phase II. If included in this ordinance, then the last phrase should be added. If the ordinance is adapted by the local jurisdiction to incorporate additional components in addition to post-construction runoff control and illicit discharge, the paragraph above should be revised to reflect the applicable provisions (as in the case of illicit discharge) regardless of when a complete application was submitted and accepted.

A phased development plan shall be deemed approved prior to the effective data of this ordinance if it has been approved by all necessary government units, it remains valid, unexpired, unrevoked and not otherwise terminated, and it shows:

1. For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved.

2 For any subsequent phase of development, sufficient detail so that implementation of the requirements of this ordinance to that phase of development would require a material change in that phase of the plan.[10]

(C) Violations Continue

Any violation of provisions existing on the effective date of this ordinance shall continue to be a violation under this ordinance and be subject to penalties and enforcement under this ordinance unless the use, *development*, construction, or other activity complies with the provisions of this ordinance.[11]

[10] SL 2006-246.
[11] Adapted from Town of Cary Land Development Ordinance.

SECTION 2: ADMINISTRATION AND PROCEDURES

Commentary: Jurisdictions should consider how to coordinate the stormwater review process with local land development approval procedures. Activities that trigger stormwater review can occur earlier than activities that trigger a zoning permit or preliminary subdivision plat, and so the stormwater permit review should occur earlier than a building permit or a zoning permit (sometimes called a "change-in-use approval," "certificate of zoning compliance" or similar name). Communities that administer their own grading permit, or that rely on a state-issued erosion and sedimentation control plan approval, should ensure that stormwater permit review occurs prior to or in conjunction with that grading or sediment and erosion control plan approval.

In some cases, a stormwater plan for a subdivision may require revision when the preliminary subdivision plan is finalized. One approach to managing the process would be to require an initial stormwater approval as a prerequisite for preliminary plat approval; then after the preliminary plat has been approved, the final stormwater permit can be approved, provided that nothing has happened in the preliminary plat stage to compromise the stormwater design. Alternatively, the final stormwater permit could be obtained in advance, and the subdivision review process could require a signoff from the Stormwater Administrator affirming that the plat is consistent with approved stormwater plans.

xx-201 REVIEW AND DECISION-MAKING ENTITIES

(A) Stormwater Administrator

(1) Designation

A Stormwater Administrator shall be designated by the (name of governing board) to administer and enforce this ordinance.

Commentary: The person designated as the Stormwater Administrator will need to have the technical background and expertise to carry out the duties outlined in the ordinance. It may be necessary for some communities to contract out the position either to another local government or possibly to a private entity.

(2) Powers and Duties

In addition to the powers and duties that may be conferred by other provisions of the (name of local municipal or county code) and other laws, the Stormwater Administrator shall have the following powers and duties under this ordinance:

a. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this ordinance.

b. To make determinations and render interpretations of this ordinance.

c. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the (name of governing board) on applications for *development* or *redevelopment* approvals.

d. To perform inspections or designate appropriate other person(s) who shall carry out inspections for compliance with this ordinance.

~~d.~~e. To enforce the provisions of this ordinance in accordance with its enforcement provisions.

~~e.~~f. To maintain records, maps, forms and other official materials as relate to the adoption, amendment, enforcement, and administration of this ordinance.

~~f.~~g. To provide expertise and technical assistance to the (name of governing board and, if a stormwater board is established, the name of that board as well), upon request.

~~g.~~h. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.

~~h.~~i. To take any other action necessary to administer the provisions of this ordinance.

xx-202 REVIEW PROCEDURES

(A) Permit Required; Must Apply for Permit

A stormwater permit is required for all *development* and *redevelopment* unless exempt pursuant to this ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

(B) Effect of Permit

A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including *structural BMPs* and elements of site design for stormwater management other than *structural BMPs.*

The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the *development* or *redevelopment* site consistent with the requirements of this ordinance, whether the approach consists of *structural BMPs* or other techniques such as low-impact or low-density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this ordinance.

Commentary: This provision mandates a permit for stormwater management on all non-exempt sites. Both structural BMPs and site design are covered by the permit review and approval. For example, if a site uses primarily low-impact development rather than specific BMPs to manage and control stormwater runoff, the design and layout are subject to review and approval under a stormwater permit, just as are the design and layout of BMPs.

However, as the provision makes clear, the permit is for the construction period only and does not normally endure past post-inspection approval. Ongoing maintenance of BMPs is ensured by Section 4, Maintenance, which gives specific requirements for ongoing operation and maintenance, including a recorded O&M agreement that is binding on subsequent owners, annual inspections, reporting, and record-keeping requirements.

(C) Authority to File Applications

All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the land *owner* or the land *owner's* duly authorized agent.

Commentary: The local government may choose to treat stormwater applications by persons other than the owner/sole owner in the same way that other such applications (such as zoning requests and variances) are treated.

(D) Establishment of Application Requirements, Schedule, and Fees

(1) Application Contents and Form

The Stormwater Administrator [Stormwater Advisory Board] shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-*development* stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this ordinance.

(2) Submission Schedule

The Stormwater Administrator [Stormwater Advisory Board] shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications~~,~~ and that the various stages in the review process are accommodated.

[*Optional provision*: Replace first sentence with "The Stormwater Administrator shall establish a submission schedule for applications, which shall be reviewed and approved by the (name of governing board) [Stormwater Advisory Board].]

(3) Permit Review Fees

The (name of governing board) shall establish permit review fees as well as policies regarding refund of any fees upon withdrawal of an application, and may amend and update the fees and policies from time to time.

Commentary: Fees for **State** stormwater permits are limited under G.S. 143-215.3D to $420. The jurisdiction should consider whether to use this same limit in order to be consistent with state-issued permits. Alternatively, under the reasoning of Homebuilder's Association v. Charlotte, 336 N.C. 37 (1994), which upheld the inherent power of North Carolina local governments to charge fees to cover the costs of regulatory programs, the jurisdiction could analyze the full costs of its Stormwater Phase II program and set its fees at some reasonable level that is expected to cover those costs.

Commentary: Fees for application review should be distinguished from fees or user charges that a jurisdiction may want to impose as a means of paying for its ongoing stormwater program as a "public enterprise" (also known as a "stormwater utility"). North Carolina law allows the imposition of such fees and charges, but only with the process and limits set out at G.S. § 160A-314. The best practice for all jurisdictions adopting this ordinance or similar Phase II ordinances would be to schedule and hold a public hearing in accordance with § 160A-314, whether or not user fees will be assessed to pay for the stormwater program. This ordinance does not attempt to set out the additional provisions that would be needed to create a stormwater utility.

~~(4) Administrative Manual~~

~~For applications required under this Code, the Stormwater Administrator shall compile the application requirements, submission schedule, fee schedule, a copy of this ordinance, and information on how and where to obtain the Design Manual in an Administrative Manual, which shall be made available to the public.~~

Commented [BK9]: Required by the Permit to post the SWMP, ordinances, and fees online. Should post all of these items on the website, but recommend deleting this section so no manual needs to be maintained and updated

Commentary: The Administrative Manual may be as simple as a three-ring binder containing in one place the updated master versions of the ordinance, fee schedule, application requirements, submission schedule, and so on. Copies of the information can be made available to the public as photocopied handouts or simple brochures at the permit counter, clerk's office, or other convenient location.

(E) Submittal of Complete Application

Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section.

An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this ordinance, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.

(F) Review

[Within _____working days after a complete application is submitted,] the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this ordinance.

Commentary: The time limitation here and in subsection (3) below is optional. The adopting local government may wish to consider allowing increased flexibility in review times for a period of time immediately following adoption of the ordinance, as both staff and applicants adjust to the new requirements.

(1) Approval

If the Stormwater Administrator finds that the application complies with the standards of this ordinance, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included as part of the approval.

(2) Fails to Comply

If the Stormwater Administrator finds that the application fails to comply with the standards of this ordinance, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application.

(3) Revision and Subsequent Review

A complete revised application shall be reviewed by the Stormwater Administrator [within _____working days] after its re-submittal and shall be approved, approved with conditions or disapproved.

If a revised application is not re-submitted within thirty (30) calendar days from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

One re-submittal of a revised application may be submitted without payment of an additional permit review fee. Any re-submittal after the first re-submittal shall be accompanied by a permit review fee additional fee, as established pursuant to this ordinance.

Commentary: Some local governments may prefer not to allow the first re-submittal without requiring the additional fee. The policy choice is up to the local government and may be adjusted to be consistent with re-submittal policies for other types of permit applications.

xx-203 APPLICATIONS FOR APPROVAL

(A) Concept Plan and Consultation Meeting

Commentary: This section allows a pre-application conference and conceptual discussion between the developer and the Stormwater Administrator, at the discretion of the Stormwater Administrator. It creates some additional steps in the review process, thus imposing costs, and so may not be appropriate for all applications and for all time. However, for large development projects, those with substantial impact, or for developers, engineers or stormwater administrators who are new to the jurisdiction's processes and rules for handling stormwater, the conference may be a useful way to focus and improve the application and the project itself.

Smaller communities or those with fewer staff resources may feel that providing the option of concept plans and consultation meetings would be unduly burdensome, given their present limitations. However, the option may become useful as the community grows or adds staff – even if it is rarely utilized in the beginning. Also, concept plan review may be kept very informal if this would help to limit costs. For this reason the provision should be included in the adopted ordinance. Note that the suggested submittal of materials outlined in (1), (2), and (3) below is permissive, not mandatory.

Finally, because stormwater management is best addressed as early as possible in the site design and approval process, communities withmore staff resources should consider whether an informal consultation meeting should be mandatory or at least strongly encouraged. This would allow dialogue and information sharing before "hardlining" of site design begins. It could result in cost savings to applicants in terms of more efficient site design (working with a site's existing vegetation or topography, for example, as stormwater management components).

Before a stormwater management permit application is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed *development* project. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the *development* process. The purpose of this meeting is to discuss the post-construction stormwater

management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced. Local watershed plans, the (name of locality's open space or natural area protection plan, or section of its comprehensive plan dealing with open space/natural resources, if applicable), and other relevant resource protection plans should be consulted in the discussion of the concept plan.

To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:

(1) Existing Conditions / Proposed Site Plans

Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

(2) Natural Resources Inventory

A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for *development* and stormwater management.

(3) Stormwater Management System Concept Plan

A written or graphic concept plan of the proposed post-*development* stormwater management system including: preliminary selection and location of proposed structural stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

(B) Stormwater Management Permit Application

The stormwater management permit application shall detail how post-*development* stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this ordinance, including Section 3, Standards. All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the

designs and plans are sufficient to comply with applicable standards and policies found in the *Design Manual*, and that the designs and plans ensure compliance with this ordinance.

The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to Section xx-202(D).

(C) As-Built Plans and Final Approval

Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans for all stormwater management facilities or practices after final construction is completed.

The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

(D) Other Permits

No certificate of compliance or occupancy shall be issued by the (insert name of local official, department, or agency responsible for issuing building permits and certificates of occupancy) without final as-built plans and a final inspection and approval by the Stormwater Administrator, except where multiple units are served by the stormwater practice or facilities, in which case the (name of local official, department, or agency that issues building permits) may elect to withhold a percentage of permits or certificates of occupancy until as-built plans are submitted and final inspection and approval has occurred.

xx-204 APPROVALS

(A) Effect of Approval

Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

(B) Time Limit/Expiration

Commentary: An expiration date or validity period for permits/approvals to require that construction begin and be completed within certain time periods should be included for a number of reasons, such as preventing obsolete approvals from persisting indefinitely. This ordinance allows for a single, one-year extension upon written request. Where possible, the time limit should run concurrently with the erosion and sedimentation control plan approval to avoid staggered expirations.

An approved plan shall become null and void if the applicant fails to make *substantial progress* on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

xx-205 APPEALS

(A) Right of Appeal

Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance made by the Stormwater Administrator, may file an appeal to the (Board of Adjustment or governing board) within 30 days.

Commentary: We recommend that appeals be routed to Board of Adjustment if the community has one, and the procedures for stormwater appeals dovetailed as far as possible with procedures for handling other kinds of appeals to that board (such as appeals of zoning determinations). This recommendation is for both policy and legal reasons: (1) it avoids the problem of creating and managing another specialized board; and (2) Boards of Adjustment are accustomed to conducting quasi-judicial procedures, which must also be applied to stormwater appeals.

If the community does not have a Board of Adjustment, appeals should be routed to the same board to which other appeals from decisions of administrative staff are sent (which may be the governing board, as long as it is acting in a quasi-judicial capacity). For those communities which do not have an existing quasi-judicial procedure that is already being followed by a Board of Adjustment or other body, optional subsections (B) and (C) below should be added to provide basic procedural rules.

(B) [Filing of Appeal and Procedures]

[Appeals shall be taken within the specified time period by filing a notice of appeal and specifying the grounds for appeal on forms provided by (name of local government). The Stormwater Administrator shall transmit to the (name of board that will hear appeals) all documents constituting the record on which the decision appealed from was taken.

The hearing conducted by the (name of board that will hear appeals) shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence.]

(C) [Review by Superior Court]

[Every decision of the (name of board that will hear appeals) shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within thirty (30) days after the latter of the following:

(1) The decision of the (name of board that will hear appeals) is filed; or

(2) A written copy of the decision is delivered to every aggrieved party who has filed a written request for such copy with the (Chair or Secretary of the board that will hear appeals) at the time of its hearing of the case.]

SECTION 3: STANDARDS

xx-301 GENERAL STANDARDS

All *development* and *redevelopment* to which this ordinance applies shall comply with the standards of this section as well as the standards established in 15A NCAC 02H.

Commentary: Standards for the high-density/low-density option for complying with Phase II implementation are given in the following provisions. However, note also that pursuant to SL 2004-163, Section 12, subsection (14)i., it is permissible for a local government to implement Phase II requirements by other means. That provision specifies that the regulated entity may comply by developing its own comprehensive watershed plan, designing its own post-construction practices based on the Department's guidance and engineering standards, or incorporate the post-construction model practices set out in the Stormwater Management Rule. A placeholder for application of a comprehensive watershed plan approach is provided in Section xx-304 below. Presumably, the other two approaches specified in the statute would be implemented through formulation of a special Design Manual applicable in the local jurisdiction (see Section xx-107, Design Manual).

xx-302 CONTROL AND TREATMENT OF RUNOFF VOLUME

(A) All projects shall meet the stormwater system design requirements set forth in 15A NCAC 02H .1003. Projects shall use a project density threshold of greater than twenty-four (>24%) percent built-upon area, whereupon high-density stormwater design is required. All *engineered stormwater controls* will meet the standards set in the Design Manual and the State's Minimum Design Criteria, 15A NCAC 02H .1050 through .1062.

(B) Where high-density stormwater design is required, stormwater systems shall meet the standards set forth in 15A NCAC 02H .1003(3) and be designed to control and treat the volume of runoff generated from all built-upon area by one inch of rainfall or equivalent runoff volume in one or more Primary SCMs. These projects may utilize offsite Primary SCMs dedicated to treating an area encompassing the project.

(C) Where high-density stormwater design is not required, stormwater systems shall meet the low-density stormwater design standards set forth in 15A NCAC 02H .1003(2).

~~xx-302 DEVELOPMENT~~ **STANDARDS FOR LOW-DENSITY PROJECTS**

~~*Low-density projects* shall comply with each of the following standards:~~

~~(A) Stormwater runoff from the *development* shall be transported from the *development* by vegetated conveyances to the maximum extent practicable.~~

~~Commentary: The term "maximum extent practicable" is not defined in the federal Phase II rule or the temporary state rule. However, the commentary accompanying the federal rule clarifies that the "maximum extent practicable" standard should be applied in a site-specific manner taking into account cost considerations as well as protection of water quality. It appears, therefore, that a site-specific review should be performed to ensure that vegetated conveyances in low-density projects meet this standard.~~

~~(B) All *built-upon area* shall be at a minimum of 30 feet landward of all perennial and intermittent surface waters. A perennial or intermittent surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural~~

Commented [BK10]: The permit requires the post-construction program to comply with 15A NCAC 02H .1017. All of the State stormwater management rules are described in 15A NCAC 02H including the minimum design criteria and low/high-density requirements and calculation of density.

Commented [BK11]: 15a NCAC 02H .1003 - Requirements That Apply To All Projects

Commented [BK12]: TSS treatment requirement was removed and replaced with the primary/secondary SCM definitions in the 2017 update of 15A NCAC 02H

Commented [BK13]: Recommend removing this section and just referring to 15A NCAC 02H or copying the requirements specified for high and low density projects from 15a NCAC 02H .1003

Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using *Division* approved methodology.

Commentary: The cited portion of the riparian buffer rule provides, "When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the *Division* or the appropriate delegated local authority. Upon request, the *Division* or delegated local authority shall make on-site determinations" regarding whether the stream depicted is subject to the rule. If the Phase II community has a riparian buffer program in place, it may be able to obtain delegation from the State to make "stream calls." If a buffer program is not already in place, the Phase II community may be able to get training for its Stormwater Administrator to make stream determinations through the *Division* or the Cooperative Extension Service.

(C) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future *development* and *redevelopment* maintains the site consistent with the approved project plans.

xx 303 **DEVELOPMENT STANDARDS FOR HIGH-DENSITY PROJECTS**

High density projects shall implement stormwater control measures that comply with each of the following standards:

(A) The measures shall control and treat runoff from the first inch of rain [and, for projects in areas subject to the Coastal Area Management Act of 1974, the measures shall control and treat runoff from the first one and one half inches of rain. In addition, projects that are located within one half mile and draining to *Shellfish Resource Waters* must control and treat the difference in stormwater runoff from the pre- and post-*development* conditions for, at a minimum, the *1 year, 24 hour storm*.] Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

The optional provisions should be included for jurisdictions in the coastal zone. They were added by SL 2006-246.

(B) All structural stormwater treatment systems used to meet these requirements shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS).

Commented [BK14]: TSS treatment requirement was removed and replaced with the primary/secondary SCM definitions in the 2017 update of 15A NCAC 02H

(C) General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the *Design Manual*.

(D) All *built-upon area* shall be at a minimum of 30 feet landward of all perennial and intermittent surface waters. A surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to

~~this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using *Division* approved methodology.~~

~~(E) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future *development* and *redevelopment* maintains the site consistent with the approved project plans.~~

~~xx-304~~xx-303 COMPREHENSIVE WATERSHED PLAN

Commentary: SL 2006-246, § 9(b) provides that public bodies may develop and implement comprehensive watershed protection plans that can be used to meet part, or all, of the post-construction requirements of the rule. Thus, if a suitable comprehensive watershed plan has been approved by the local government adopting this ordinance and approved by the *Department*, this section can be used in place of the low-density/high-density standards set out in Sections xx-302 and xx-303 above. In that case, all the standards of the watershed plan that would be appropriate for implementation by an ordinance should be set out in this section. (Some aspects of a watershed plan would be implemented by other, non-regulatory means, such as capital improvements programming, staffed local government activities, and other methods not suitable for inclusion in an ordinance).

In addition to eliminating some of the administrative burdens created with a site-by-site permitting and maintenance program, a comprehensive watershed plan can address factors that are not dealt with in applying a site-by-site low-density or high-density approach. As one example of the shortcomings of site-by-site regulation, lot coverage limitations under a low-density district may actually worsen stormwater effects when viewed at the watershed or sub-watershed scale. That is because low densities frequently require more off-site impervious infrastructure (such as roads) than the same amount of development configured in a more urban pattern. In addition, surfaces such as turfgrass lawns can act like impervious surface in the amount of runoff generated due to compaction and other factors. Nutrient loading from lawn fertilizers is often a problem. These drawbacks and others have brought many localities concerned about water quality to apply a watershed-wide approach, rather than attempting to control impacts at the level of individual parcels or development sites or applying a one-size-fits-all impervious surface limitation.

A watershed approach will use a variety of tools to limit stormwater impacts, tailored to the specific needs that are identified in the watershed. With this approach, a comprehensive program for resource protection is developed based on the specific issues that are unique to the watershed. For example, one watershed may have steep slopes or highly erodible soils that warrant special treatment, while surface waters in another watershed may sustain special uses such as swimming or fishing that merit other protective measures. Some watersheds will be particularly affected by the presence of specific pollutants, while others may involve the consideration of aquifer recharge areas. A comprehensive watershed plan will involve data collection and a rational analysis of the issues that are present.

Based on the analysis, the most appropriate means of implementation should be chosen. The menu of implementation options could include:

- Riparian buffers scaled to achieve reduction of specific pollutants
- Programmatic acquisition and preservation of open space, especially hydrologically important open space.
- Conservation of important water-related features or critical/sensitive areas (e.g., wetlands, floodplains, steep slopes, intermittent or seasonal streams, vernal pools, forested cover)
- Allowing higher-density or compact development options on less sensitive sites
- Providing for flexibility in the application of an impervious surface district
- Adjusting infrastructure policies to reduce pavement requirements
- Establishing graduated (rather than averaged) utility fees based on impacts generated
- Developing a list of preferred BMPs that are tailored to identified water quality protection goals

- Allowing low-impact development (LID) options to allow decentralized management of rainfall in a way that mimics pre-development hydrology
- Public education and cleanup campaigns
- Restoration of impaired streams and ecosystems

Some of the questions that should be resolved through the watershed planning process include:

- Which hydrologic variables do we want to manage in the subwatershed?
- What are the primary stormwater pollutants of concern?
- Which management practices should be avoided because of their environmental impacts?
- What is the most effective mix of structural and non-structural management practices that can meet the subwatershed goals?
- What is the most economical way to provide stormwater management?
- Which stormwater management practices are the least burdensome to maintain with local budgets?[12]

A number of information sources are available to communities that wish to undertake a comprehensive watershed plan. The Center for Watershed Protection, for example, provides a variety of online resources at their website, http://www.cwp.org.

In summary, a comprehensive watershed approach is widely viewed as the most effective way to achieve water quality goals. It can also eliminate many of the burdens to local government and to property owners that arise from a site-by-site permitting and maintenance approach.

~~xx-305~~xx-304 STANDARDS FOR STORMWATER CONTROL MEASURES

(A) Evaluation According to Contents of Design Manual

All stormwater control measures and stormwater treatment practices (also referred to as Best Management Practices, or BMPs) required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the *Design Manual*. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this ordinance.

(B) Determination of Adequacy; Presumptions and Alternatives

Stormwater treatment practices that are designed, ~~and~~ constructed, and maintained in accordance with the criteria and specifications in the *Design Manual* will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the *Design Manual,* the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

~~(C) Separation from Seasonal High Water Table~~

[12] Center for Watershed Protection.

~~For BMPs that require a separation from the seasonal high-water table, the separation shall be provided by at least 12 inches of naturally occurring soil above the seasonal high-water table.~~[13]

~~xx-306~~xx-305 **DEDICATION OF BMPS, FACILITIES & IMPROVEMENTS**

Commentary: If the local government accepts any BMPs into public maintenance pursuant to this section, at the time of acceptance a binding agreement or process should be established by which the locality will recover costs from the owner for carrying out maintenance activities on the BMPs. Before accepting BMPS for maintenance, the jurisdiction should weigh the costs and benefits of so doing and identify a way to pay for maintenance.

The (name of local government) may accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.[14]

~~xx-307~~xx-306 **VARIANCES**

Commentary: This provision is adapted from the Coastal Area Management Act, N.C. Gen. Stat. § 113A-120.1

(A) Any person may petition the ~~(~~name of local government~~)~~ for a variance granting permission to use the person's land in a manner otherwise prohibited by this ordinance. To qualify for a variance, the petitioner must show all of the following:

(1) Unnecessary hardships would result from strict application of this ordinance.

(2) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.

(3) The hardships did not result from actions taken by the petitioner.

(4) The requested variance is consistent with the spirit, purpose, and intent of this ordinance; will secure public safety and welfare; and will preserve substantial justice.

(B) The ~~(~~name of local government~~)~~ may impose reasonable and appropriate conditions and safeguards upon any variance it grants.

(C) Statutory exceptions

Notwithstanding subdivision (A) of this section, exceptions from the 30-foot landward location of built-upon area requirement as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:

(1) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed,

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[13] ~~From SL 2006-246, § 9(k).~~

[14] From Virginia Stormwater Management Model Ordinance.

constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.

(2) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located 15 feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.

(3) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

These statutory exceptions were included in SL 2006-246, § 11.

~~xx-308~~xx-307 **ADDITIONAL STANDARDS FOR SPECIAL SITUATIONS**

Commentary: State law requires special, additional stormwater protection in areas that drain to certain classes of water: shellfish waters (SA), trout waters (TR), and nutrient sensitive waters (NSW). Each jurisdiction adopting this model ordinance should determine whether it is responsible for *development* or *redevelopment* in one of these areas. If so, it should adopt the following provisions, as appropriate.

~~(A) [SA Waters]~~

~~[In addition to the standards for stormwater handling set out in the *design manual*, *development* and *redevelopment* that drains in whole or part to class SA waters shall design and implement the best stormwater practices that ensure reduction of fecal coliform loading. The best practices are ones that result in the highest degree of fecal die-off and control sources of fecal coliform to the maximum extent practicable while still meeting the other requirements of this ordinance. Wet detention ponds designed in accordance with the requirements of this ordinance may be used for projects draining to Class SA waters.~~

Commented [BK15]: Not applicable to Bessemer City, but Water Supply Watershed rules are applicable. See WSW Model Ordinance

~~(1)~~(A) [Pet ~~waste~~Waste]

Commentary: Some jurisdictions have existing pet waste ordinances, or cover pet waste in their littering ordinance. If the jurisdiction does not have a pet waste program or an ordinance regarding pet waste, and has development or redevelopment draining to class SA waters, the following language should be considered for adoption..

Commented [BK16]: Permit requires fecal coliform reduction from pet waste. Verify existing pet waste or litter ordinance does not exist

(1) ~~(a)~~ **Dogs At Large Prohibited**[15]

(i) It shall be unlawful for the owner of any dog to allow the animal to be off the premises of his owner and not on a leash in (name of local government).

(2) ~~(b)~~ **Restrictions on Pet Waste**

(i) ~~(i)~~ It shall be unlawful for the owner or custodian of any dog to take it off the owner's own property limits without the means to properly remove and dispose of the dog's feces from any public or private property.

(ii) ~~(ii)~~ It is the responsibility of a dog's owner or custodian to clean up the dog's feces from any public or private property outside of the dog's owner's own property limits. Such property includes, but is not limited to, parks, rights-of-way, paths, and public access areas.

(iii) ~~(iii)~~ "Means to properly remove and dispose of feces" shall consist of having on or near one's person a device such as a plastic bag, or other suitable plastic or paper container, that can be used to clean up and contain dog waste until it can be disposed of in an appropriate container. Such a device must be produced and shown, upon request, to anyone authorized to enforce these ordinances.

(iv) ~~(iv)~~ This provision shall not apply to handicapped persons assisted by trained guide or assistance dogs.

(v) ~~(v)~~ "Public nuisance" is defined to include "a dog which deposits feces on public property or on private property without the consent of the owner or person in lawful possession of the private property, and the person owning, possessing, harboring or having the care, charge, control or custody of the dog fails to remove the feces so deposited. Provided, however, this definition shall not apply to any dog assisting a handicapped person.

~~**(2) No Direct Discharge or Expansion of Discharges to SA Waters**~~

~~No new direct points of stormwater discharge to SA waters or increases in the volume of stormwater flow through conveyances or increases in capacity of conveyances in existing stormwater conveyance systems that drain to Class SA waters are permitted. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin must not increase the net amount or rate of stormwater discharge through existing outfalls to Class SA waters. Diffuse flow of stormwater at a nonerosive velocity to a vegetated buffer or other natural area capable of providing effective infiltration of the runoff from the one-year, 24-hour storm shall not be considered a direct point of stormwater discharge. Consideration shall be given to soil type, slope, vegetation, and existing hydrology when evaluating infiltration effectiveness.~~[16]~~]~~

[15] Adapted from the Town of Wrightsville Beach.

[16] ~~SL 2006-246, §9(h).~~

~~**(B) [Trout Waters]**~~

~~[In addition to the standards for handling stormwater set out in the *design manual*, *development* and *redevelopment* that drains in whole or part to class TR waters shall design and implement the best stormwater practices that do not result in a sustained increase in receiving water temperature, while still meeting the other requirements of this ordinance.]~~

~~**(C) [Nutrient Sensitive Waters**~~

~~In addition to the standards for stormwater handling set out in the *design manual*, *development* and *redevelopment* that drains in whole or part to class NSW waters shall design and implement the best stormwater practices that reduce nutrient loading, while still meeting the other requirements of this ordinance.]~~

~~Commentary: This requirement, for choosing BMPs that reduce nutrient loading, is met already by jurisdictions with Department approved NSW Urban Stormwater Management Programs in place. In addition to this ordinance requirement, Phase II jurisdictions with development or redevelopment draining to NSW waters are required to develop a nutrient application management program (for both inorganic fertilizer and organic nutrients) under state law.~~

~~xx-309~~xx-308 **[ONSITE WASTEWATER]**

Commented [BK17]: Permit requires fecal coliform reduction from on-site domestic wastewater, which should be coordinated with the County

Commentary: State law requires Phase II jurisdictions to implement an oversight program to ensure proper operation and maintenance of onsite wastewater treatment systems for domestic wastewater. This program should be coordinated with the county health department. The Department has determined that this requirement can be met simply by the Phase II jurisdiction coordinating with the county to ensure that onsite wastewater systems within the jurisdiction are properly permitted.

However, Phase II jurisdictions should be aware that health department standards for onsite systems generally cover only the approval of the technology and its installation, not the ongoing management of the systems. Therefore, some jurisdictions, particularly those that choose to set up stormwater enterprises, may wish to extend the maintenance obligations for stormwater BMPs to newly installed onsite wastewater systems. This optional language seeks to accomplish that. As a start, the jurisdiction should consider how to integrate the existing health department permit data for onsite systems into an inventory of onsite systems in the Phase II jurisdiction.

(A) Operation and Maintenance Requirements

Commented [BK18]: If desire annual inspections and O&M plans, will need to coordinate with County to track permits and inspections. Inspections and O&M plans are not required by the permit. Specific requirement is "The permittee shall control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems."

New and replaced onsite systems for domestic wastewater installed after the effective date of this ordinance shall be subject to the same requirements for operation and maintenance as *structural BMP*s for stormwater, including, at a minimum, annual inspection reports and a recorded operation and maintenance agreement, pursuant to Section 4 of this ordinance.

(B) Standards for Operation and Maintenance

Onsite systems for domestic wastewater covered by this ordinance shall be operated and maintained so as to avoid adverse effects on surface water and groundwater, including eutrophication of surface water and microbial or nitrate contamination of groundwater. Septic tank residuals shall be pumped whenever necessary to assure the proper operation of the system to meet these standards, and the septage shall be reused or disposed of in a manner

that does not present significant risks to human health, surface water or groundwater.]

SECTION 4: MAINTENANCE

xx-401 GENERAL STANDARDS FOR MAINTENANCE

Commented [BK19]: Review for agreement with the requirements in 15A NCAC 02H .1003 and the WSW Model Ordinance

Commentary: The long-term effectiveness of any structural BMP relies, above all, on appropriate maintenance. This section is intended to provide a full array of provisions to ensure that such maintenance occurs, including identifying who will be responsible for maintenance over the long term as well as during development, and ensuring that funds for maintenance and repair are available when appropriate.

(A) Function of BMPs As Intended

The *owner* of each *structural BMP* installed pursuant to this ordinance shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the *structural BMP* was designed.

(B) Annual Maintenance Inspection and Report

The person responsible for maintenance of any *structural BMP* installed pursuant to this ordinance shall submit to the Stormwater Administrator an inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

(1) The name and address of the land *owner*;

(2) The recorded book and page number of the lot of each *structural BMP*;

(3) A statement that an inspection was made of all *structural BMP*s;

(4) The date the inspection was made;

(5) A statement that all inspected *structural BMP*s are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and

(6) The original signature and seal of the engineer, surveyor, or landscape architect.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.[17]

[17] Drawn from Wake County stormwater ordinance (based on Neuse Urban Stormwater program).

xx-402 OPERATION AND MAINTENANCE AGREEMENT

(A) In General

Prior to the conveyance or transfer of any lot or building site to be served by a *structural BMP* pursuant to this ordinance, and prior to issuance of any permit for *development* or *redevelopment* requiring a *structural BMP* pursuant to this ordinance, the applicant or *owner* of the site must execute an operation and maintenance agreement that shall be binding on all subsequent *owner*s of the site, portions of the site, and lots or parcels served by the *structural BMP*. Until the transference of all property, sites, or lots served by the *structural BMP*, the original *owner* or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

The operation and maintenance agreement shall require the *owner* or *owner*s to maintain, repair and, if necessary, reconstruct the *structural BMP*, and shall state the terms, conditions, and schedule of maintenance for the *structural BMP*. In addition, it shall grant to (name of local government) a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the *structural BMP*; however, in no case shall the right of entry, of itself, confer an obligation on (name of local government) to assume responsibility for the *structural BMP*.

The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval.[18] A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation. [19]

(B) Special Requirement for Homeowners' and Other Associations

For all *structural BMP*s required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required operation and maintenance agreement shall include all of the following provisions:

(1) Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.

(2) Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the *structural BMP*s. If *structural BMP*s are not performing adequately or as intended or are not properly maintained, the (name of local government), in its sole discretion, may remedy the situation, and in such instances the (name of local government) shall be fully

[18] Adapted from Metro North Georgia Water Management District and Stormwater Center/EPA Model Ordinances. The requirement that owner maintain the BMP is adapted from the Town of Cary Watershed Protection Ordinance.

[19] Most of the following homeowners' association requirements are adapted from Neuse model program provisions as adopted in Wake County.

reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the *structural BMP*s, provided that the (name of local government) shall first consent to the expenditure.

(3) Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per cent of the initial construction cost of the *structural BMP*s. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first five (5) years and the full amount shall be deposited within ten (10) years following initial construction of the *structural BMP*s. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.

(4) The percent of developer contribution and lengths of time to fund the escrow account may be varied by the (name of local government) depending on the design and materials of the stormwater control and management facility.

(5) Granting to the (name of local government) a right of entry to inspect, monitor, maintain, repair, and reconstruct *structural BMP*s.

(6) Allowing the (name of local government) to recover from the association and its members any and all costs the (name of local government) expends to maintain or repair the *structural BMP*s or to correct any operational deficiencies. Failure to pay the (name of local government) all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. In case of a deficiency, the (name of local government) shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both.. Interest, collection costs, and attorney fees shall be added to the recovery.

(7) A statement that this agreement shall not obligate the (name of local government) to maintain or repair any *structural BMP*s, and the (name of local government) shall not be liable to any person for the condition or operation of *structural BMP*s.

(8) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the (name of local government) to enforce any of its ordinances as authorized by law.

(9) A provision indemnifying and holding harmless the (name of local government) for any costs and injuries arising from or related to the structural BMP, unless the (name of local government) has agreed in writing to assume the maintenance responsibility for the BMP and has

accepted dedication of any and all rights necessary to carry out that maintenance.

xx-403 INSPECTION PROGRAM

Inspections and inspection programs by (name of local government) may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs.[20]

If the *owner* or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

xx-404 PERFORMANCE SECURITY FOR INSTALLATION AND MAINTENANCE

(A) May Be Required[21]

The (name of local government) may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the *structural BMP*s are

(1) installed by the permit holder as required by the approved stormwater management plan**,** and/or

(2) maintained by the *owner* as required by the operation and maintenance agreement.

(B) Amount

(1) Installation

The amount of an installation performance security shall be the total estimated construction cost of the BMPs approved under the permit, plus 25%.

(2) Maintenance

The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual

[20] Adapted from Stormwater Center/EPA and Metro North Georgia Water Management District Model Ordinances.
[21] From Virginia Model Ordinance for Stormwater Management.

cost of inspection, operation and maintenance of the BMPs approved under the permit, at a discount rate that reflects the jurisdiction's cost of borrowing minus a reasonable estimate of long-term inflation.

Commentary: Use of this approach to maintenance security creates an incentive to choose the structural BMPs that are expected to have the least costly maintenance. An example for calculating the amount of maintenance performance security is as follows: suppose the expected annual cost of inspection, operation and maintenance of the BMPs covered by the permit is $500 in current dollars. The security amount is the present value of a perpetuity in the amount of $500, which is simply $500 divided by the real (inflation adjusted) discount rate. The real discount rate, for these purposes, is calculated by taking a reasonable estimate of the jurisdiction's expected return on moderately risky investments, such as the return on corporate bonds rated Aa by Moody's, and subtracting the expected rate of inflation. So if the jurisdiction's expected return on moderately risk investments is 7% and a reasonable estimate of long term inflation is 2%, then the maintenance security amount would be: $500/(.07-.02) = $500/.05 = $10,000.

Some annual maintenance cost estimates for BMPs in North Carolina are available in Wassick and Hunt, "An Evaluation of Costs and Benefits of Structural Stormwater Best Management Practices in North Carolina," N.C. Extension Service, available online as of 3/16/05 at http://www.bae.ncsu.edu/people/faculty/hunt/bmpcosts&benefits.pdf. The authors find a range from $4,411 annually for wet ponds to $583 for bioretention in clay or sandy soils for BMPs controlling a 10-acre watershed, presumably in 2003 dollars. The jurisdiction should evaluate whether it will have additional costs for inspection time and possible operation of the BMP should the owner fail to maintain the BMP.

(C) Uses of Performance Security

(1) Forfeiture Provisions

The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or *owner* in accordance with this ordinance, approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.

(2) Default

Upon default of the *owner* to construct, maintain, repair and, if necessary, reconstruct any *structural BMP* in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the *owner* to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the (name of local government) shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.[22]

(3) Costs in Excess of Performance Security

If (name of local government) takes action upon such failure by the applicant or *owner*, the (name of local government) may collect from the applicant or *owner*

[22] From Town of Cary Watershed Protection Ordinance.

the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

(4) Refund

Within sixty days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 25%) of landscaping installation and ongoing maintenance associated with the BMPs covered by the security. Any such landscaping shall be inspected one (1) year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.

xx-405 NOTICE TO *OWNER*S

(A) Deed Recordation and Indications On Plat

The applicable operations and maintenance agreement [, conservation easement, or dedication and acceptance into public maintenance (whichever is applicable)] pertaining to every *structural BMP* shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement[, conservation easement, or dedication and acceptance into public maintenance, whichever is applicable] shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

(B) Signage

Where appropriate in the determination of the Stormwater Administrator to assure compliance with this ordinance, *structural BMP*s shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

Commentary: The intent of discretionary provision (B) is to create actual notice whenever reasonable and useful, rather than relying solely on constructive or record notice.

xx-406 RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES

The *owner* of each *structural BMP* shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.[23]

xx-407 NUISANCE

The *owner* of each stormwater BMP, whether *structural* or non-*structural BMP*, shall maintain it so as not to create or result in a nuisance condition.

[23] Adapted from Metro North Georgia Water Management District Model Ordinance.

xx-408 [MAINTENANCE EASEMENT

Every *structural BMP* installed pursuant to this ordinance shall be made accessible for adequate maintenance and repair by a maintenance easement. The easement shall be recorded and its terms shall specify who may make use of the easement and for what purposes.]

Commentary: With regard to this optional provision for a maintenance easement, it is anticipated that few local governments will opt to maintain BMPs that serve private property. In the case of any communities that should wish to do so, those jurisdictions should carefully consider, in consultation with their attorney and engineer, public works director or other person familiar with drainage maintenance, whether they wish to have easements dedicated for the purpose of maintaining BMPs. While dedication in this manner facilitates maintenance by the jurisdiction, it also raises the risk of governmental liability for problems caused by flooding or other drainage issues, under North Carolina case law.

SECTION 5: ENFORCEMENT AND VIOLATIONS

xx-501 GENERAL

Commentary: Communities should consider whether a violation of the stormwater ordinance should also constitute a violation of the zoning or building regulations, and may wish to make amendments to those regulations accordingly. For example, the zoning code could specify that compliance with stormwater regulations is required for issuance of any approvals issued under the zoning code, so that any development not complying with the stormwater regulations is also prohibited under zoning.

(A) Authority to Enforce

The provisions of this ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of (name of local government). Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of (name of local government).

(B) Violation Unlawful

Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this ordinance, or the terms or conditions of any permit or other *development* or *redevelopment* approval or authorization granted pursuant to this ordinance, is unlawful and shall constitute a violation of this ordinance.[24]

(C) Each Day a Separate Offense

Each day that a violation continues shall constitute a separate and distinct violation or offense.[25]

(D) Responsible Persons/Entities

Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, BMP, practice, or condition in violation of this ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists; or an *owner*, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or *development* of the property on which the violation occurs.[26]

[24] From Town of Apex Unified Development Ordinance.
[25] Adapted from Town of Cary Land Development Ordinance.
[26] Adapted from Hall County, Georgia, Unified Development Ordinance.

For the purposes of this article, responsible person(s) shall include but not be limited to:[27]

(1) Person Maintaining Condition Resulting In or Constituting Violation

An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists.

(2) Responsibility For Land or Use of Land

The *owner* of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, *development* or *redevelopment* of the property.

xx-502 REMEDIES AND PENALTIES

The remedies and penalties provided for violations of this ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

(A) Remedies

(1) Withholding of Certificate of Occupancy

The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

(2) Disapproval of Subsequent Permits and Development Approvals

As long as a violation of this ordinance continues and remains uncorrected, the Stormwater Administrator or other authorized agent may withhold, and the (name of planning board, governing board, and/or other board(s) that review land *development* requests) may disapprove, any request for permit or *development* approval or authorization provided for by this ordinance or the (zoning, subdivision, and/or building regulations, as appropriate) for the land on which the violation occurs.

(3) Injunction, Abatements, etc.

The Stormwater Administrator, with the written authorization of the (insert title of municipal or county manager, or, if there is no municipal manager, of the

[27] An inclusive approach to "responsible persons" drawn from the Town of Apex UDO.

town clerk or the governing board), may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this ordinance. Any person violating this ordinance shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.

(4) Correction as Public Health Nuisance, Costs as Lien, etc.

If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Stormwater Administrator, with the written authorization of the (title of municipal or county manager, or, if there is no manager, of the town clerk or the governing board), may cause the violation to be corrected and the costs to be assessed as a lien against the property.

(5) [Stop Work Order

The Stormwater Administrator may issue a stop work order to the person(s) violating this ordinance. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.][28]

Commentary: A stop work order is an important tool where, as in the case of stormwater violations, the consequences of delay in halting illegal activity can result in significant harm to the environment and public health, safety or welfare. However, the enabling authority for use of a stop work order by local governments is unclear. As a practical matter, if a legal challenge is brought to a local government's use of a stop work order, it is unlikely to result in negative consequences for the local government, since the legal remedy would likely consist of the court's invalidation of the stop work order.

If a local government chooses to include this stop work provision, it should do so in consultation with legal counsel, and an accelerated appeal process pursuant to Section xx-205, Appeals, should be provided for situations where a stop work order is applied. One way to accelerate the appeal process is to shorten the timeframe for review of appeals. A special or emergency Board of Adjustment meeting could be called, so that a party seeking to challenge a stop work order would achieve a speedy resolution of the matter.

(B) Civil Penalties

Commented [BK20]: See Gaston County NC Code of Ordinances Section 5.5-38 for additional sample penalty language

Violation of this ordinance may subject the violator to a civil penalty to be recovered in a civil action in the nature of a debt if the violator does not pay the penalty within 30 days after notice of the violation is issued by the Stormwater Administrator. Civil penalties may be assessed up to the full amount of penalty to which (name of jurisdiction) is subject for violations of its Phase II Stormwater permit, or if no Phase II Stormwater permit exists for the jurisdiction, civil penalties may be assessed up to the full amount allowed by law.

Commentary: Based on experience with enforcement of locally delegated erosion and sediment control programs and other code enforcement experience, it would be a good practice for a jurisdiction to agree on

[28] Adapted from Metro North Georgia Water Management District Model Ordinance.

a set of normal civil penalties to be assessed for any commonly experienced violations. This assists the Stormwater Administrator and other officials in making reasonable and equitable penalty assessments.

(C) Criminal Penalties

Violation of this ordinance may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina law.

xx-503 PROCEDURES

(A) Initiation/Complaint

Whenever a violation of this ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.

(B) Inspection

Commented [BK21]: Required to have authority to inspect low-density projects. Can be interpreted under this section, or can change to "any land, building, structure, premises, or built-upon area"

The Stormwater Administrator shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this ordinance.[29]

(C) Notice of Violation and Order to Correct

When the Stormwater Administrator finds that any building, structure, or land is in violation of this ordinance, the Stormwater Administrator shall notify, in writing, the property *owner* or other person violating this ordinance. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of violation shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt.

The Stormwater Administrator may deliver the notice of violation and correction order personally, by the (name of law enforcement or code enforcement personnel), by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure.[30]

Note that if the administering unit is adopting this stormwater ordinance under its planning and zoning authority or is administering it as part of its building code enforcement program, it should consider whether it needs to follow the notice and opportunity to respond procedure set out in G.S. 160A-441 *et seq*. See *Newton v. Winston-Salem*, 92 N.C. App. 446 (1988).

If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this

[29] From Town of Cary Land Development Ordinance.
[30] From Town of Apex Unified Development Ordinance.

ordinance to correct and abate the violation and to ensure compliance with this ordinance.

(D) Extension of Time

A person who receives a notice of violation and correction order, or the *owner* of the land on which the violation occurs, may submit to the Stormwater Administrator a written request for an extension of time for correction of the violation. On determining that the request includes enough information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the Stormwater Administrator may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding _____ days. The Stormwater Administrator may grant _____-day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the person violating this ordinance. The Stormwater Administrator may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.[31]

(E) Enforcement After Time to Correct

After the time has expired to correct a violation, including any extension(s) if authorized by the Stormwater Administrator, the Stormwater Administrator shall determine if the violation is corrected. If the violation is not corrected, the Stormwater Administrator may act to impose one or more of the remedies and penalties authorized by this ordinance.[32]

(F) Emergency Enforcement

If delay in correcting a violation would seriously threaten the effective enforcement of this ordinance or pose an immediate danger to the public health, safety, or welfare, then the Stormwater Administrator may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The Stormwater Administrator may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this article.

[31] From Town of Apex Unified Development Ordinance.
[32] From Town of Apex Unified Development Ordinance.

SECTION 6: DEFINITIONS

Commentary: Session Law 2004-163 states in "SECTION 12. Definitions" that "The following definitions apply to this act and its implementation: (1) The definitions set out in 40 Code of Federal Regulations § 122.2 (Definitions) and § 122.26(b) (Storm Water Discharges) (1 July 2003 Edition). (2) The definitions set out in G.S. 143-212 and G.S. 143-213. (3) The definitions set out in 15A NCAC 2H .0103 (Definitions of Terms)."

xx-601 TERMS DEFINED

Commented [BK22]: Recommend moving this to the beginning and using the terms defined in 15A NCAC 02H .1002. Recommend updating the definitions in the WSW ordinance as well to avoid confusion.

When used in this Ordinance, the following words and terms shall have the meaning set forth in this section, unless other provisions of this Ordinance specifically indicate otherwise.

Built-Upon Area (BUA)

As defined in N.C.G.S.143-214.7(b2) - Impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. "Built-upon area" does not include:

1. A slatted deck;
2. The water area of a swimming pool;
3. A surface of number 57 stone, as designated by the American Society for Testing and Materials, laid at least four inches thick over a geotextile fabric;
4. A trail as defined in G.S. 113A-85 that is either unpaved or paved as long as the pavement is porous with a hydraulic conductivity greater than 0.001 centimeters per second (1.41 inches per hour); or
5. Landscaping material, including, but not limited to, gravel, mulch, sand, and vegetation, placed on areas that receive pedestrian or bicycle traffic or on portions of driveways and parking areas that will not be compacted by the weight of a vehicle, such as the area between sections of pavement that support the weight of a vehicle.

~~That portion of a development project that is covered by impervious or partially impervious surface including, but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. "Built-upon area" does not include a wooden slatted deck, the water area of a swimming pool, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.[33]~~

Department

The North Carolina Department of ~~Environment and Natural Resources.~~[34] Environmental Quality or subsequent revisions.

Commented [BK23]: No longer DENR, now DEQ

Design Manual

The stormwater design manual approved for use in Phase II jurisdictions by the *Department* [developed by (name of jurisdiction) and certified by this jurisdiction [approved by the *Division*] as at least as stringent as the stormwater design manual approved for use in Phase II

[33] ~~From S.B. 1210.~~
[34] ~~From temporary rule.~~

jurisdictions by the *Department*] for the proper implementation of the requirements of the federal Phase II stormwater program. All references herein to the *Design Manual* are to the latest published edition or revision.[35]

Design Volume
Means the amount of stormwater runoff that an SCM or series of SCMs is designed to treat.

Commentary: Phase II jurisdictions may develop their own Design Manual to more carefully tailor stormwater management practices to local condition, or to explain to developers and engineers in a practical way how to comply with a comprehensive local watershed plan. Jurisdictions wishing to pursue this route should consult with the *Division* on necessary elements of the manual and the state approval process. Jurisdictions should also consider and explain the process they will use to give notice and provide an opportunity to comment on the original manual and any changes in it.

Development
Any land-disturbing activity that increases the amount of *built-upon area* or that otherwise decreases the infiltration of precipitation into the soil.[36]

Existing/Pre-Development. Those projects that are built or those projects that have established a vested right under North Carolina law as of the effective date of the state stormwater program or applicable local government ordinance to which the project is subject.

Commented [BK24]: Existing conditions, pre-development, post-development, new development, and post-construction used in different sections – define all or pick one term for each and use throughout if not using definitions from 15A NCAC 02H .1002

Proposed/Post-Construction/Post-Development/New Development

Redevelopment
Any *development* on previously-developed land , other than a rebuilding activity that results in no net increase in *built-upon area* and provides equal or greater stormwater control than the previous *development*.

Commented [BK25]: Newer model ordinances have removed this definition.

Compare the definition of "development" in the Coastal Area Management Act, Gen. Stat. § 113A-103(5a), which only covers specified types of activities done in particular areas of environmental concern. Coastal communities who are used to the CAMA definition of "development" need to note the broader definition used here and in the Environmental Management Commission's surface water rules.

Division
The Division of Energy, Mineral, and Land Resources~~Division of Water Quality~~ in the *Department*.[37]

High-Density Project
Any project that exceeds the *low-density* threshold for dwelling units per acre or *built-upon area*.

Larger Common Plan of Development or Sale
Means a site where multiple separate and distinct development activities may be taking place at different times on different schedules but governed by a single development plan regardless of

[35] Adapted from North Georgia M.O.
[36] From North Carolina Model Ordinance for Water Supply Watershed Protection and 15A NCAC 2B.0202(23).
[37] From S.B. 1210.

ownership of the parcels. Information that may be used to determine a "common plan of development" include plats, blueprints, marketing plans, contracts, building permits, public notices or hearings, zoning requests, and infrastructure development plans. Any area where multiple separate and distinct construction or land-disturbing activities will occur under one plan. A plan is any announcement or piece of documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, permit application, zoning request, or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.[38]

Low-Density Project

A project shall be considered a low-density project if it meets the low-density criteria set forth in 15A NCAC 02H.1003(2) and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. For a project that is not located within one-half mile of and draining to *Shellfish Resource Waters*: the project is a low-density project if it has no more than two dwelling units per acre or twenty-four percent *built-upon area* (BUA) for all residential and non-residential *development*.

For a project that is located within one-half mile of and draining to *Shellfish Resource Waters*: the project is a low-density project only if it contains no more than twelve percent *built-upon area* (BUA).

A project with an overall density at or below the relevant low-density threshold, but containing areas with a density greater than the overall project density, may be considered low-density as long as the project meets or exceeds the post-construction model practices for low-density projects and locates the higher density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

Minimum Design Criteria (MDC)

Means the requirements set forth in this Section for siting, site preparation, design and construction, and post-construction monitoring and evaluation necessary for the Department to issue stormwater permits that comply with State water quality standards adopted pursuant to G.S. 143-214.1.

NPDES

Means National Pollutant Discharge Elimination System.

1-Year, 24-Hour Storm

Means the maximum amount of rainfall during a 24 consecutive hour period expected, on average, to occur once a year. One-year, 24-hour storm depths are estimated by the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Data Server (PFDS), which is hereby incorporated by reference, including subsequent amendments and editions. The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.[39]

Owner

The legal or beneficial owner of land, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other

[38] Definition adapted from EPA Storm Water Phase II Compliance Assistance Guide.
[39] From S.B. 1210.

person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property. A secured lender not in possession of the property does not constitute an owner, unless the secured lender is included within the meaning of "owner" under another description in this definition, such as a management entity.

~~***Shellfish Resource Waters***~~

~~Class SA waters that contain an average concentration of 500 parts per million of natural chloride ion. Average concentration is determined by averaging the chloride concentrations of five water samples taken one-half mile downstream from the project site that are taken on separate days, within one hour of high tide, and not within 48 hours following a rain event. The chloride ion concentrations are to be determined by a State-certified laboratory.~~[40]

Stormwater Control Measure (SCM)

Also known as "Best Management Practice" or "BMP," means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof.

Primary SCM

Means a wet pond, stormwater wetland, infiltration system, sand filter, bioretention cell, permeable pavement, green roof, rainwater harvesting, or an approved new stormwater technology that is designed, constructed and maintained in accordance with the MDC.

Secondary SCM

Means an SCM that does not achieve the annual reduction of Total Suspended Solids (TSS) of a "Primary SCM" but may be used in a treatment train with a primary SCM or other Secondary SCMs to provide pre-treatment, hydraulic benefits, or a portion of the required TSS removal.

~~***Structural BMP***~~

~~A physical device designed to trap, settle out, or filter pollutants from stormwater runoff; to alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; to approximate the pre *development* hydrology on a developed site; or to achieve any combination of these goals. Structural BMP includes physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property. "Structural BMP" is synonymous with "structural practice," "stormwater control facility," "stormwater control practice," "stormwater treatment practice," "stormwater management practice," "stormwater control measures," "structural stormwater treatment systems," and similar terms used in this ordinance.~~

Stormwater Management Plan/Stormwater Permit

Substantial Progress

For the purposes of determining whether sufficient progress has been made on an approved plan, one or more of the following construction activities toward the completion of a site or

Commented [BK26]: N/A

Commented [BK27]: Terminology now used in Permit is Stormwater Control Measure (SCM) and the definitions have changed to primary and secondary SCMs rather than 85% TSS removal

Commented [BK28]: Stormwater management plan, stormwater permit, and stormwater management permit are used throughout the ordinance. If the City would like the plan and permit to be separate requirements, define and revise. Select one term and revise throughout if not

~~[40] From SL 2006-246.~~

subdivision plan shall occur: obtaining a grading permit and conducting grading activity on a continuous basis and not discontinued for more than thirty (30) days; or installation and approval of on-site infrastructure; or obtaining a building permit for the construction and approval of a building foundation. "Substantial progress" for purposes of determining whether an approved plan is null and void is not necessarily the same as "substantial expenditures" used for determining vested rights pursuant to applicable law. [41]

[41] Adapted from Town of Cary Land Development Ordinance.

[SECTION 7: ILLICIT DISCHARGES

Commented [BK29]: Suggest moving before enforcement procedures to make clear that the penalties also apply to illicit discharges as well as post-construction permitting. Permit requires specified enforcement procedures and actions

xx-701 ILLICIT DISCHARGES AND CONNECTIONS[42]

Commentary: The federal Phase II rule specifies that local communities shall prohibit any discharge to a municipal separate storm sewer unless it:

-consists of a discharge pursuant to an NPDES permit; or

-consists of a discharge from fire fighting activities; or

-consists of a discharge in any of the following categories, *and* the operator of the small MS4 has not identified that category as a significant contributor of pollutants to its small MS4:

Water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)); uncontaminated pumped ground water; discharges from potable water sources; foundation drains; air conditioning condensation; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; and street wash water.

(A) Illicit Discharges

No person shall cause or allow the discharge, emission, disposal, pouring, or pumping directly or indirectly to any stormwater conveyance, the waters of the State, or upon the land in manner and amount that the substance is likely to reach a stormwater conveyance or the waters of the State, any liquid, solid, gas, or other substance, other than stormwater; provided that non-stormwater discharges associated with the following activities are allowed and provided that they do not significantly impact water quality:

(1) Water line flushing;

(2) Landscape irrigation;

(3) Diverted stream flows;

(4) Rising ground waters;

(5) Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));

(6) Uncontaminated pumped ground water;

(7) Discharges from potable water sources;

(8) Foundation drains;

(9) Air conditioning condensation;

(10) Irrigation water;

[42] Drawn from Raleigh and Greenville ordinances.

(11) Springs;

(12) Water from crawl space pumps;

(13) Footing drains;

(14) Lawn watering;

~~(15) Individual residential car washing;~~

(~~16~~15) Flows from riparian habitats and wetlands;

(~~17~~16) Dechlorinated swimming pool discharges;

~~(18) Street wash water; and~~

(~~19~~17) Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of North Carolina, and provided that any such discharges to the municipal separate storm sewer system shall be authorized by (name of Phase II jurisdiction).

Commented [BK30]: The SWMP has identified residential and charity car washing and street wash water as possible impacts to water quality. Addressed with public education and the pavement management program, but should not be listed as allowable

Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste, paints, garbage, and litter.

(B) Illicit Connections

(1) Connections to a stormwater conveyance or stormwater conveyance system that allow the discharge of non-stormwater, other than the exclusions described in subsection (A) above, are unlawful. Prohibited connections include, but are not limited to: floor drains, waste water from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and waste water from septic systems.

(2) Where such connections exist in violation of this section and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property *owner* or the person using said connection shall remove the connection within one year following the effective date of this ordinance. However, the one-year grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat.

(3) Where it is determined that said connection:

a. May result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat, or

b. Was made in violation of any applicable regulation or ordinance, other than this section;

the Stormwater Administrator shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the Stormwater Administrator shall take into consideration:

1. The quantity and complexity of the work,

2. The consequences of delay,

3. The potential harm to the environment, to the public health, and to public and private property, and

4. The cost of remedying the damage.

(C) Spills

Spills or leaks of polluting substances released, discharged to, or having the potential to released or discharged to the stormwater conveyance system, shall be contained, controlled, collected, and properly disposed. All affected areas shall be restored to their preexisting condition.

Persons in control of the polluting substances immediately prior to their release or discharge, and persons owning the property on which the substances were released or discharged, shall immediately notify the (title of the individual in charge of managing accidental hazardous material releases in the local jurisdiction, such as a city Fire Chief) of the release or discharge, as well as making any required notifications under state and federal law. Notification shall not relieve any person of any expenses related to the restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

(D) Improper Disposal of Waste

Commented [BK31]: Adding an improper disposal of waste section will meet the Permit requirement to control of waste from construction sites. Can also cross reference to Chapter 54.03 of the Code of Ordinance, which describes prohibited disposal of wastes. Check existing ordinances regarding trash pickup and dumping for continuity. "Disposal" is defined in Chapter 5.1.B of the LDC, but in relation to flood hazard reduction.

~~(D)~~(E) Nuisance

Illicit discharges and illicit connections which exist within the (city limits or planning jurisdiction of the city) (county) (insert whichever text is applicable) are hereby found, deemed, and declared to be dangerous or prejudiced to the public health or public safety and are found, deemed, and declared to be public nuisances. Such public nuisances shall be abated in accordance with the procedures set forth in section____ (insert cross-reference to nuisance abatement section of code, if applicable).]

Appendix: Sources consulted or from which provisions were drawn for this Model Ordinance

Model Ordinance for Post-Development Stormwater Management for New Development and Redevelopment (Metropolitan North Georgia Water Management District)

Model Ordinance for Water Supply Watershed (NC Division of Water Quality)

Neuse River Basin Model Stormwater Program for Nitrogen Control

Tar-Pamlico Basin Nutrient-Sensitive Waters Management Strategy

Model Stormwater Ordinance (Center for Watershed Protection, Inc. ["Stormwater Center"])

Model Stormwater Ordinance (US EPA)

Unified Development Ordinance (Hall County, Georgia)

Unified Development Ordinance (Town of Apex, NC)

Land Development Ordinance (Town of Cary, NC)

Watershed Protection Ordinance (Town of Cary, NC)

Stormwater Management Model Ordinance (State of Virginia)

Town Code of Wrightsville Beach, NC

Illicit discharge provisions: Raleigh, NC; Greenville, NC; Franklin, TN

Stormwater Management Ordinance (Wake County, NC)

End of Model Ordinance Text

SECTION X: STORMWATER UTILITY ESTABLISHMENT ORDINANCE EXAMPLES

Commented [BK32]: Recommend adding to stormwater ordinance or Code of Ordinance Chapter IV, Article C – Utility Regulations

City Of Salisbury, NC Code Of Ordinances Article IX – Stormwater Sections 25-270-274

X01 STORMWATER UTILITY

(A) Establishment of a Stormwater Management Utility and Stormwater Enterprise Fund

(1) There is hereby established a city stormwater management utility that shall be responsible for implementing, operating, and administering the city's stormwater management program as defined herein.
(2) There is hereby established a city stormwater management enterprise fund for the purpose of dedicating and protecting funding applicable to the responsibilities of the stormwater management utility, including, but not limited to, rents, rates, fees, charges, and penalties. Funding may also include other funds transferred or allocated to the stormwater management utility by the city council.
(3) All stormwater service charges, and interest generated by such charges, shall be accounted for separately from all other revenues and funds and shall be used by City of Salisbury solely for the operational costs, maintenance costs, management costs, indirect costs, capital improvements, debt principal and debt service, and establishment of a reserve fund for stormwater services.

(B) Impervious Surface Area and Equivalent Residential Unit

(1) Impervious surface area on a given zoning lot or tract directly relates to the volume, rate and pollutant loading of stormwater runoff discharged from that zoning lot or tract to the city's structural and natural drainage systems and facilities. Therefore, impervious surface area shall be the primary parameter for establishing a rate structure to distribute the cost of services associated with the operation, repair, improvement and maintenance of public drainage systems and facilities through a schedule of rates, fees, charges, and penalties related to the operation of a stormwater management utility and stormwater management enterprise fund as established in section X01(A).
(2) Based on an analysis by the city of impervious surface area on properties throughout the city, an impervious surface area of two thousand five hundred (2,500) square feet shall be designated as one (1) equivalent residential unit (ERU).

Commented [BK33]: Bessemer City 2022 residential average or ERU (Equivalent Residential Unit) is 3,286 square feet. Recommend rounding

(C) Schedule of Fees and Charges

(1) All developed land in the corporate limits of the City of Salisbury, whether public or private, shall be subject to a stormwater service charge.
(2) Stormwater service charges on developed land shall be based on a schedule of rates, charges, tiers and late fees fixed and established from time to time by the city council, adopted in the annual budget ordinance. Stormwater service charges will be determined and modified from time to time by the city council, so that the total revenues generated by said charges will be used to pay any expenses for stormwater purposes, and such expenses as are reasonably necessary for providing stormwater services within the City of Salisbury.

(D) Billing and Collection

(1) Stormwater service charges may be billed on a utility bill that may also contain charges for other city services. Stormwater service charges that are shown on a combined utility bill may be for a different service period than that used for the other city utility services.

(2) Stormwater service charges for a property that receives water service or combined sanitary sewer and water service will be sent to the customer receiving such service. However, where multiple water and sewer accounts exist for a single parcel, the bill for stormwater service charges may for good cause shown at the discretion of the city be sent to the property owner. The city will develop additional policies concerning billing.

(3) Property owners with outstanding stormwater service charges may not be entitled to receive other city utility service until outstanding stormwater service charges on that property are paid. Customers with a delinquent stormwater service account may not be eligible to open another city utility account at the same or different location until the delinquency has been satisfied.

(E) Credits and Exemptions

(1) Credits. All developed land in the city, whether public or private, shall be subject to a stormwater service charge. Credits shall not be allowed based on age, tax exemption, or other status of an individual or organization.

(2) Exemptions. The following exemptions from stormwater management service charges are allowed:

i. Undeveloped land.

ii. Improved public transportation ways, including public streets, roads, greenways and trails and internal roads within public facilities which have been conveyed to the North Carolina Department of Transportation or City of Salisbury and which are used by the general public for motor vehicle transportation.

iii. Railroad tracks. However, railroad stations, maintenance buildings or other developed land shall not be exempted from stormwater management service charges.

iv. Developed land with less than four hundred (400) square feet of impervious surface area.

City Of Raleigh, NC Ordinance No. (2003) - 537

X01 STORMWATER UTILITY

(A) An Ordinance to Create a Stormwater Services Advisory Commission and to Establish a Stormwater Management Utility

(1) Whereas, Chapter 160A, Article 16 of the General Statues authorizes the City of Raleigh to establish a stormwater management enterprise program, and

(2) Whereas, State and Federal laws, regulations, and rules require the City of Raleigh to limit pollutants in stormwater discharged into receiving waterways through various controls and management practices of stormwater quality, flow, and quantity, and

(3) Whereas, The North Carolina Department of Environment and Natural Resources has adopted, in NCAC title 15A Subchapter 2B, surface water and wetland standards for the Neuse River which requires the City of Raleigh to regulate stormwater runoff and reduce nitrogen loads from stormwater runoff, and

(4) Whereas, The City of Raleigh has certain obligations and responsibilities for the planning, designing, construction, operation and maintenance of the stormwater management system within its municipal borders, and

(5) Whereas, The Stormwater Utility Stakeholders Group established by the City Council recommended to the Council that annual funding for stormwater management programs be increased from 6 million dollars to 11.8 million dollars per year, and

(6) Whereas, Based on various completed drainage basin studies conducted on behalf of the City of Raleigh, it is estimated that the City of Raleigh has a backlog of approximately 100 million dollars of stormwater capital improvements required to meet basic flood control, stream stabilization and water quality objectives.

(B) Findings

(1) Stormwater poses a threat to the public health, safety, and welfare because if unmanaged it floods properties, erodes watercourses and channels, and pollutes streams and rivers.

(2) By mapping, planning, constructing, operating, cleaning, regulating and maintaining the natural and constructed stormwater management system, the City reduces the adverse effects of stormwater and improves the quality of groundwater, streams, rivers, and lakes in and around the City.

(3) Providing a stable source of funding for stormwater services, as hereafter defined, can best be accomplished through stormwater management utility funds. Such a utility will benefit owners and occupants of developed land in the City and other Raleigh citizens.

(4) The amount of impervious surface on a property is the single most important factor affecting the peak rate of runoff, the total volume 5 discharged, and pollutant

loadings of stormwater that flows from property. State law reference: Authority to adopt a stormwater management utility, Chapter 160A, Article 16

(C) Definitions

All definitions as used in this Chapter, unless the context clearly indicates otherwise, shall have the meaning given herein:

Customer or consumer means the person or entity to which a bill for stormwater service charges is sent. This may include the owner, occupant, or tenant of property, a homeowner's association with responsibility for property or for common areas associated with property, or a person or entity who has requested in writing to be billed for stormwater management service charges for a property.

Developed land means real property that contains impervious surfaces, and includes improved land without structures and land on which improvements are under construction.

Dwelling unit means one or more rooms physically arranged to create an housekeeping establishment with separate facilities for cooking, sleeping and toilet for occupancy by one or more persons. Impervious surface means any surface which because of its material composition or compacted nature impedes or prevents natural infiltration of stormwater into the soil.

Impervious surfaces include, but are not limited to, roofs, roof extensions, patios, balconies, decks, including wooden slatted decks, athletic courts, swimming pools, excluding the water area of swimming pools, streets, parking areas, driveways, sidewalks, and any concrete, stone, brick, asphalt, or compacted gravel surfaces. Ungraveled natural footpaths, water surfaces of lakes streams and swimming pools and drain fields are not impervious surfaces.

Other residential and nonresidential developed land means any individual lot or parcel of developed land that is not single-family developed land. It includes, but is not limited to, land upon which there are residential structures that contain more than one dwelling unit, such as multi-family dwellings (duplexes and greater), manufactured home park, as defined in Part 10, §10- 2002, condominiums, apartments, boarding houses, rooming houses, fraternity houses, sorority houses, dormitories, churches; institutional buildings, whether public or private; hospitals, rest homes, public and private schools, colleges, and universities, commercial, office, hotels and motels, industrial buildings, storage areas, parking lots and land containing improvements under construction or impervious surfaces.

Property owner or owner means the owner of a real property as shown on the tax records of Wake or Durham County.

Single-family Equivalent Unit (SFEU) is the median amount of impervious surface on a single-family (detached home) developed land in the City as established by City Council resolution.

Single-family developed land means an individual lot or parcel of developed land with only one single-family (attached [townhome] or detached) dwelling unit, one

manufactured home, or one mobile home, and the ownership interest of the land and of the dwelling unit are united and identical. Single-family developed land shall not include structures used primarily for nonresidential purposes or other residential and nonresidential developed property.

Stormwater management service charge is the charge to provide stormwater services to developed land. The charge is based upon the Single-family Equivalent Unit (SFEU) as calculated for that property.

Stormwater management system or system means the system of natural and constructed devices for collecting and transporting or treating stormwater. It includes, but is not limited to, structural drainage systems such as open swales and ditches, catch basins, pipes, inlets, storm sewers, drains, culverts, junction boxes, and other stormwater management facilities that affect the quality and quantity of stormwater located within dedicated open public street rights-of-way and City of Raleigh permanent drainage easements accepted by the City and all natural stormwater drainage systems.

Stormwater management utility funds mean the stormwater management service charges and the interest generated by those charges.

Stormwater services means City stormwater management programs designed to protect water quality by controlling the level of pollutants in, and the quantity and flow of, stormwater and City service of structural and natural stormwater and drainage systems of all types. Stormwater services include any cost necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and State laws, regulations and rules, and costs related to the construction, operation, maintenance, inspection, management and regulation of the stormwater management system.

(D) Creation of Stormwater Management Account

All stormwater management service charges and interest generated by such charges, the stormwater management utility funds, shall be placed in a separate City account and shall be used by the City of Raleigh solely for the operational costs, maintenance costs, and management costs, indirect costs, capital improvements, debt principal and debt service, and establishment of a reserve fund for stormwater services. The City may use funds that are not stormwater management utility funds to provide stormwater services.

(E) Stormwater Management Service Charges

(1) All developed land in the City, whether public or private, shall be subject to a stormwater management service charge. Exemptions shall not be allowed based on age, tax exemption, or other status of an individual or organization. Stormwater management service charges may be subject to a credit system as further provided herein.

(2) Stormwater management service charges on developed land shall be based on a schedule of rates, charges, tiers, and late fees fixed and established from time to time by the City Council and maintained on file in the offices of the Finance Director

and Chief Engineer. Stormwater management service charges will be determined and modified from time to time by the City Council, so that the total revenues generated by said charges will be used to pay the principal and the interest on the debt incurred for stormwater purposes, and such expenses as are reasonably necessary for providing stormwater services within the City of Raleigh.

Cross reference: Cross reference: The amount of impervious surface area for single-family equivalent units, the base rate, the tier structure for single family developed land and late charges are set forth in Resolution No. (2003) -888

(3) Computation of stormwater management service charges.

(a) For Other residential and nonresidential land, the monthly stormwater management service charges on developed land is calculated by dividing the total impervious surface area of the property divided by one single-family equivalent unit, rounded to the nearest tenth, multiplied by the established monthly single-family equivalent unit rate as fixed by City Council Resolution.

(b) For developments with common property containing impervious surfaces, such as townhouse developments, cluster unit developments, or condominiums, each dwelling unit shall be responsible for its equal pro rata share of the total impervious surfaces area of the common areas of the development unless other arrangements are made pursuant to Section X01(G).

(4) The following exemptions from stormwater management service charges are allowed:

(a) Undeveloped land.

(b) Improved public streets, not including internal roads within public facilities which have been conveyed to the North Carolina Department of Transportation or City of Raleigh and which are used by the general public for motor vehicle transportation, and private streets constructed in accordance with the Raleigh City Code and City of Raleigh Streets Sidewalks and Driveway Access Handbook.

(c) Developed land with less than four-hundred (400) square feet of impervious surface area.

(d) Railroad tracks. However, railroad stations, maintenance buildings or other developed land shall not be exempted from stormwater management service charges.

(e) Portions of developed land that directly drain outside the city limits

No exemption authorized under subsections (c) through (e) shall be made until a written request to the Chief Engineer of the City documenting the application of the exemption is approved. The Chief Engineer may approve or reject the request in whole or in part.

(F) Credits Applicable to Stormwater Management Service Charges

(1) The City may provide a system of credits to reduce stormwater management service charges for properties on which stormwater control measures substantially mitigates the peak discharge or runoff pollution flowing from such properties or substantially decreases the City's cost of maintaining the stormwater management system. The Central Engineering Department will develop written policies to implement the credit system. No credit will be authorized until the City Council approves written policies to implement the system of credits; a copy of the approved policies shall be on file with the City Clerk. The City's policies may make credits retroactive to the date stormwater management service charges were initiated. Any bill charges requiring adjustments must be applied through the utility billing system. But no credit will be granted for more than three past years. Nothing shall prevent the City Council from modifying the adopted system of credits, and such modifications may apply to holders of existing credits.

(2) Each credit allowed against the stormwater management service charge is conditioned on the continuing operation and functioning of the stormwater control measure as designed; credited stormwater control measures must comply with all applicable laws, ordinances and regulations, and credits may be rescinded for noncompliance with these standards.

(3) Each credit for which a customer applies shall be subject to review and approval by the Chief Engineer or his designee. The Chief Engineer may approve or reject any application for a credit in whole or in part.

(4) Credits shall only be applied to developed lands containing the credited stormwater control measure. For developments with common property containing credited stormwater control measures such as townhouse developments, cluster unit developments, or condominiums, each dwelling unit shall be eligible for its equal pro rata share of the credit unless other arrangements for billing the stormwater management service charge are made pursuant to Section X01(G).

(G) Billing Method, Responsible Parties

(1) Bills for stormwater service shall be sent at regular periodic intervals. Stormwater management service charges may be billed on a combined utility bill that also contains charges for sewer service or combined sewer and water service and/or solid/waste management service. Stormwater management service charges that are shown on a combined utility bill may be for a different service period than that used for sewer service or combined sewer and water service.

(2) Stormwater management service charges for a property that receives sewer service or combined sewer and water service will be sent to the customer receiving such service. However, where multiple water and sewer accounts exist for a single parcel, the bill for stormwater management service charges may for good cause shown at

the discretion of the City be sent to the property owner. Additional policies concerning billing will be developed by the City.

(3) The property owner is ultimately responsible for payment of the stormwater management service charge for property for which the party billed has not paid the stormwater management service charge.

(4) Owners of property may, with the consent of the City, designate each occupant of the property as the party to receive the bill for stormwater management service charge by completing and properly executing a form provided by the City. Such designation shall fairly allocate the impervious surfaces actually used by the billed party, and it shall be binding for the period of time specified by the City. No occupant may be designated as the party to receive the bill for stormwater management service charge unless the occupant is also receiving a City sewer service or combined sewer and water service bill. Such transfer does not relieve either the owner or occupant from liability for stormwater management service charges if they are not paid by the party billed.

(5) The residents of townhouse, cluster unit, and condominium developments and other similar properties containing impervious surface in common areas may in accordance with this subsection charge the total impervious surface of all commonly-owned or common areas to the homeowners association. The bill for stormwater management service charge will be sent to the homeowners' association upon official request of a majority of all lot or unit owners of the association; provided that

(a) The current adopted budget of the association includes this additional charge to the homeowners association;

(b) The association is receiving a City sewer service bill or combined sewer and water service bill; and

(c) A payment bond in the amount of six months estimated bill in favor of the City. Stormwater management service charges applied to all individually-owned property within the development may likewise be billed to the homeowners association Any request for homeowner association billing must contain all information required by the City and shall be binding for the period of time specified by the City.

(H) Payment Provisions; Utility Termination

(1) Where stormwater management service charges appear on a combined utility bill or a master summary bill, and a customer does not pay the service charges for all the utilities on the bill, the partial payment will be applied to the respective service charges in the following order: delinquent stormwater management service charges, delinquent recycling and/or solid waste management service charges, delinquent sewer service or combined sewer and water charges, current stormwater charges, current recycling and/or solid waste management service charges and current sewer service or combined sewer and water charges.

(2) Stormwater management service charges are due at the collection office in City hall within the time period stated on the bill. Bills not paid within this time shall

be charged a late fee as set forth in the City Council adopted schedule of charges.

(3) Where a property receives sewer service or combined sewer and water service, if stormwater management service charges for that property are not paid, sewer service or combined sewer and water service to that property may be terminated, whether or not the stormwater management service charges were included on a combined utility bill. Termination will be handled in accordance with standard operation provisions of the City. At least twenty-one days prior to termination of service, the City will post a sign or signs either upon the subject property or at convenient locations as it deems appropriate. Such posting shall advise that City sewer service or combined sewer and water service may be terminated and direct further inquiry to a listed telephone number. All postings are for the convenience of the public and any defective posting shall not invalidate the termination of City utility services.

(4) No property for which stormwater management service charges are outstanding is entitled to receive sewer service or combined sewer and water service until the outstanding stormwater management service charge on that property is paid. No customer with a delinquent stormwater management service account is entitled to open a sewer service or a combined sewer and water account at the same or different location until the delinquency has been satisfied.

(5) If property is underbilled, or not billed, or a bill is sent to the wrong party, the City may backbill up to a three-year period.

(6) Customers with complaints about the accuracy of stormwater management service charges are entitled to a review as provided in Section X01(I). No charge will be retroactively adjusted to resolve customer complaints for a period of more than three-year prior to the date the City received the complaint. Any bill charges requiring adjustment must be applied through the utility billing system.

(I) Appeal

Any customer who believes the provisions of this chapter have been applied in error may appeal in the following manner:

(1) An appeal must be filed in writing with the Chief Engineer. At the discretion of the Chief Engineer, the appeal may be required to include a survey prepared by a registered land surveyor and such other information that show the total property area, the impervious surface area, and any other features or conditions which influence the hydrologic response of the property to the stormwater events.

(2) Using the information provided, the Chief Engineer shall conduct a technical review pursuant to good engineering practices. The Chief Engineer may adjust the stormwater service management charge so long as the adjustment is in conformance with the general purpose and intent of this chapter. At the conclusion of the review, the Chief Engineer shall issue a written determination stating whether an adjustment to the stormwater service management charge is appropriate, and if so, the percentage of such adjustment. Any approved

adjustments must be communicated in writing to the appropriate utility billing staff.

(3) An appeal may be taken from any decision of the Chief Engineer which is adverse to the customer by giving notice of appeal to the City Manager within thirty (30) days after service of the Chief Engineer's written decision on the customer. Notice of appeal shall be given by the customer by delivery of a written statement to the City Manager stating the grounds for the appeal and providing the City Manager with a copy of the written decision of the Chief Engineer. The Chief Engineer shall transmit to the City Manager and the customer all documents constituting the record upon which the Chief Engineer's decision was made.

(4) All decisions of the Chief Engineer and City Manager shall be served on the customer personally or by registered or certified mail. Mailing shall be based upon the billing address of the customer.

(5) Following the decision of the City Manager, the customer may make an appeal to the City Council. The City Council shall fix a reasonable time for the hearing of an appeal, shall give due notice of such hearing to the customer and the manager, and shall render its decision within a reasonable time.

(6) When an appeal is from a decision authorizing an adjustment to the customer's bill, the Chief Engineer's decision shall remain in effect until and unless reversed or otherwise modified. No adjustment to a customer's bill shall be made which is for more than the three-year period immediately preceding the date that the customer's request is first received by the City.

(J) Limitations of Responsibility

(1) The City shall be responsible only for the portions of the drainage system which are in City maintained street rights-of-way and permanent storm drainage easements conveyed to and accepted by the City. Repairs and improvements to the drainage system shall be in accordance with established standards, policies, and schedules.

(2) The City's acquisition of permanent storm drainage easements and/or the construction or repair by the City of stormwater control measures and drainage facilities does not constitute a warranty against stormwater hazards, including, but not limited to, flooding, erosion, or standing water."

Commented [BK34]: Recommend including this in ordinance whether or not using the Raleigh example

(K) All laws and clauses of laws in conflict herewith are hereby repealed to the extent of said conflict.

(L) If this ordinance or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given separate effect and to this end the provisions of this ordinance are declared to be severable.

(M) This ordinance shall become effective five days following its adoption.

SECTION X: PEAK RUNOFF CONTROL ORDINANCE EXAMPLES

Town of Cary, NC Land Development Ordinance – Chapter 7

X01 STORMWATER RUNOFF CONTROL

(A) Peak Runoff Control

There shall be no net increase in peak stormwater run-off flow leaving a development from pre-development conditions for the one (1)-year design storm. New developments are required to minimize damage to subject streams caused by storm flows.

Commented [BK35]: Recommend the following language to allow some flexibility "Post-development peak discharge rates shall not exceed 1.0 cubic feet per second increase from pre-development peak discharge rates for the 1-year, 24-hour storm."

(B) Calculation of Peak Flow

Acceptable methodologies for computing pre- and post-development conditions for the one (1)-year design storm include:

(1) The Rational Method (used when the drainage area is two hundred (200) acres or less)

(2) The Peak Discharge Method as described in USDA Technical Release Number 55 (TR-55) (drainage area is two thousand (2,000) acres or less)

(3) The Putnam Method (drainage area is greater than two thousand (2,000) acres)

(4) USGS Regression Equations, where applicable

The same method must be used for both the pre- and post-development conditions.

(C) Exceptions to Peak Flow Control

Developments with less than ten (10) percent net increase in peak flow of the one (1)-year design storm are not required to control peak flow for the one (1)-year storm from the site. However, if the net increase in peak flow from the new development is greater than ten (10) percent, the entire net increase from pre-development one (1)-year design storm peak flow must be controlled.

Commented [BK36]: This refers to an increase without accounting for attenuation using stormwater control measures. If adopt a peak flow ordinance, recommend clarification

(D) Downstream Impact Analysis

Commented [BK37]: In general, developers will use stormwater control measures to attenuate the larger storms as well as the 1-year storm to meet the intent of these requirements

(1) A Downstream Impact Analysis shall be submitted at the time of development plan submission for all proposed development that requires development plan approval. Development plans that are not subject to the stormwater management regulations of Section X are exempt from this section.

(2) The Downstream Impact Analysis shall calculate the pre- and post-development discharges for each discharge point from the area subject to the development plan.

a. If the calculated post-development discharge is less than the calculated pre-development discharge for the two (2), five (5), ten (10) and one hundred (100)-year peak discharges at each discharge point, then no further analysis is needed.

b. If the calculated post-development discharge is greater than the calculated pre-development discharge for the two (2), five (5), ten (10) or one hundred (100)-year peak discharges at any discharge point, then one of the options below shall be required.

i. Provide onsite detention to fully mitigate each storm event to calculated pre-development discharge; or

ii. Provide an engineering model demonstrating no adverse impacts from the development on downstream properties and infrastructure.

~~i.~~v.

City of Raleigh, NC Unified Development Ordinance – Article 9.2E

X01 Stormwater Runoff Controls

(A) Runoff Limitation

(1) After May 1, 2001, the peak stormwater runoff leaving any site for the two-year and 10-year storms shall be no greater at every point of discharge for post-development conditions than pre-development conditions. The same methodologies used to calculate stormwater runoff must be used for both pre-development and post-development conditions.

(2) For any denuded area on sites between 5 and 15 acres in size the peak stormwater runoff leaving the site at each discharge point for the two-year storm and 10-year storm shall be no greater during construction than for pre-development conditions. For any land disturbing activity on sites, greater than 15 acres in size the peak stormwater runoff leaving the site at each discharge point for the two-year storm, 10-year storm and 25-year storm shall be no greater during construction than for pre development conditions. However, this regulation shall not be applicable when the development site conforms to all of the following:

a. The disturbed acreage is less than 5 acres; and

b. The two-year peak discharge for the disturbed condition, for all points of discharge, is less than 10% of the peak discharge from the contributing watershed as measured at the nearest receiving watercourse.

(B) Exemptions

The stormwater runoff control requirements do not apply to sites with any of the following conditions.

(1) The development complies with the stormwater control master plan approved for its drainage basin.

(2) The increase in peak stormwater runoff between pre-development and post-development conditions for the two-year and 10-year and 25-year storms is 10% or less at each point of discharge.

(3) The maximum impervious surface coverage of the lot, including any existing impervious surfaces, is no more than 10% and the remaining pervious portions of the lot are utilized to convey and control the stormwater runoff of the lot to the maximum extent practical. In the event that the site is subsequently subdivided, reduced by recombination or the impervious surface is equal to or exceeds 15% the site may no longer be exempt.

(4) Compliance with Section X01(A). above, would result in greater adverse downstream impact, such as local flooding, as determined by City approved engineering studies.

(5) Compliance with the 10-year storm and 25-year storm runoff limitations in Section X01(A) above results in no benefit to current and future downstream development, as determined by City-approved engineering studies.

(C) Additional Runoff Controls

The City may require the installation of stormwater runoff control measures for projects without any stormwater measures present when the benchmarks contained in the subsections a. through d. below are applicable. The City reserves the right to require additional stormwater runoff control measures for projects which are compliant with Section 105(B) or Section X01(A) above, if stormwater runoff from the site could cause adverse effects on other properties including, without limitation, public streets, greenways, and utility easements.

(1) As part of an application for rezoning, subdivision or site plan for sites at or upstream of documented structural flooding cases, the applicant shall submit a stormwater impact analysis to the Engineering Services Director.

(2) This requirement does not extend to sites initially zoned and added to the territorial coverage of as a result of annexation, extraterritorial jurisdictional expansion or otherwise or application of any overlay district.

(3) The stormwater impact analysis shall look at the flood level differences between pre-development and post-development conditions for the 25-, 50- and 100-year storm events. If the analysis shows an increase greater than 0.04 feet between pre-development and post-development flood levels at the site of structural flooding then mitigation to pre development flood conditions will be required to prevent further damage to the affected property.

(4) In the case where the area of the subject property is less than 5% of the drainage area, measured to the location of the documented structural flooding, then this analysis shall not be required.

(5) In the event flood levels are increased, then the affected property owners will be notified in writing of any increase by the applicant.

Draft Model Water Supply Watershed Protection Ordinance

DRAFT MODEL WATER SUPPLY WATERSHED PROTECTION ORDINANCE
Note: Citations shown in [] indicate references for counties followed by those for towns [county][town]

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SUMMARY OF CHANGES FROM 1995 TO 2020 ORDINANCE

Organizational Changes
Definitions section moved from the end to the beginning of the document
Footnotes moved to the end of the document

Content Changes
Some definitions changed to improve clarity and SCM added as definition
Articles 200 and 300 some minor changes to improve clarity
Article 400
- Allowed Not Allowed Use table improvement over existing regulations and ordinance
- Density and Built Upon area table taken almost directly from regs, some changes is much easier to read/understand than previous presentation of this info
- Density Averaging section added to incorporate 2012 NCGS change

Articles 500 and 600 some minor changes to improve clarity

ARTICLE 100: DEFINITIONS

Section 101. General Definitions.

Agricultural Use. The use of waters for stock watering, irrigation, and other farm purposes.

Balance of Watershed (BW). The area adjoining and upstream of the critical area in a WS-II and WS-III water supply watershed. The "balance of watershed" is comprised of the entire land area contributing surface drainage to the stream, river, or reservoir where a water supply intake is located.

Best Management Practices (BMP). A structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

Buffer. An area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded

structures and from the bank of each side of streams or rivers.

Building. Any structure having a roof supported by columns or by walls, and intended for shelter, housing or enclosure of persons, animals or property. The connection of two buildings by means of an open porch, breezeway, passageway, carport or other such open structure, with or without a roof, shall not be deemed to make them one building.

Built-upon area. Built-upon areas shall include that portion of a development project that is covered by impervious or partially impervious (does not allow water to infiltrate from surface to subsurface) cover including buildings, pavement, gravel areas (e.g. roads, parking lots, paths), recreation facilities (e.g. tennis courts), etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious.)

Cluster Development. Cluster development means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single-family residential and multi-family developments. For the purpose of this ordinance, planned unit developments and mixed use development are considered as cluster development.

Common Plan of Development – site where multiple separate and distinct development activities may be taking place at different times or different schdules but governed by a single development plan regardless of ownership of parcels.

Critical Area. The area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed. The critical area is defined as extending either one-half mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or one-half mile upstream from the intake located directly in the stream or river (run-of-the-river), or the ridge line of the watershed (whichever comes first). Local governments may extend the critical area as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area if these landmarks are immediately adjacent to the appropriate outer boundary of one-half mile.

Customary Home Occupations. Any use conducted entirely within a dwelling and carried on by the occupants thereof, which use is clearly incidental and secondary to the use of the dwelling for residential purposes and does not change the character thereof. Provided further that no mechanical equipment is installed or used except as is normally used for domestic or professional purposes, and that not over twenty-five percent (25%) of the total floor space of any structure is used for the occupation. No home occupation shall be conducted in any accessory building except for the storage and service of a vehicle that is driven off site, such as a service repair truck, delivery truck, etc.

Development. Any land disturbing activity which adds to or changes the amount of impervious or partially impervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil.

Dwelling Unit. A building, or portion thereof, providing complete and permanent living facilities for one or more persons.

Existing Development. Those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of this ordinance based on at least one of the following criteria:

(1) substantial expenditures of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or

(2) having an outstanding valid building permit as authorized by the General Statutes (160D-102), or

(3) having an approved site specific or phased development plan as authorized by the General Statutes (G.S. 160D-102).

Existing Lot (Lot of Record). A lot which is part of a subdivision, a plat of which has been recorded in the Office of the Register of Deeds prior to the adoption of this ordinance, or a lot described by metes and bounds, the description of which has been so recorded prior to the adoption of this ordinance.

Family. One or more persons occupying a single dwelling unit, provided that unless all members are related by blood or marriage or adoption, no such family shall contain over five persons, but further provided that domestic servants employed or living on the premises may be housed on the premises without being counted as a family or families.

Family Subdivision. Family subdivision means a division of a tract of land: (a) to convey the resulting parcels, with the exception of parcels retained by the grantor, to a relative or relatives as a gift or for nominal consideration, but only if no more than one parcel is conveyed by the grantor from the tract to any one relative; or (b) to divide land from a common ancestor among tenants in common, all of whom inherited by intestacy or by will.

Industrial Development. Any non-residential development that requires an NPDES permit for an industrial discharge and/or requires the use or storage of any hazardous material for the purpose of manufacturing, assembling, finishing, cleaning or developing any product or commodity.

Landfill. A facility for the disposal of solid waste on land in a sanitary manner in accordance with Chapter 130A Article 9 of the N.C. General Statutes. For the purpose of this ordinance this term does not include composting facilities.

Lot. A parcel of land occupied or capable of being occupied by a building or group of buildings devoted to a common use, together with the customary accessories and open spaces belonging to the same.

Major Variance. A variance that is not a Minor Variance as defined in this ordinance .

Minor Variance. A variance from the minimum statewide watershed protection rules that results in a relaxation, by a factor of up to five (5) percent of any buffer, density or built-upon area requirement under the high density option; or that results in a relaxation, by a factor of up to ten (10) percent, of any management requirement under the low density option. For vaiances to a vegetated setback requirement, the percent variation shall be calculated using the foot print of built-upon area proposed to encroach with the vegetated setback divided by the total area of vegetated setback within the project.

Nonconforming Lot of Record. A lot described by a plat or a deed that was recorded prior to the effective date of local watershed protection regulations (or their amendments) that does not meet the minimum lot size or other development requirements of the statewide watershed protection rules.

Non-residential Development. All development other than residential development, agriculture and silviculture.

Plat. A map or plan of a parcel of land which is to be, or has been subdivided.

Protected Area. The area adjoining and upstream of the critical area of WS-IV watersheds. The boundaries of the protected area are defined as within five miles of and draining to the normal pool elevation of the reservoir or to the ridgeline of the watershed; or within 10 miles upstream and draining to the intake located directly in the stream or river or to the ridgeline of the watershed.

Qualified Individual. A person certified to perform stream determinations by completing and passing he Surface Water Identification Training and Certification (SWITC) course offered by the N.C. Div. of Water Resources at N.C. State University.

Residential Development. Buildings for residence such as attached and detached single-family dwellings, apartment complexes, condominiums, townhouses, cottages, etc. and their associated outbuildings such as garages, storage buildings, gazebos, etc. and customary home occupations.

Residuals. Any solid or semi-solid waste generated from a wastewater treatment plant, water treatment plant or air pollution control facility permitted under the authority of the Environmental Management Commission.

Single Family Residential. Any development where: 1) no building contains more that one dwelling unit, 2) every dwelling unit is on a separate lot, and 3) where no lot contains more than one dwelling unit.

Stormwater Control Measure (SCM). means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater or a combination therefof.

Street (Road). A right-of-way for vehicular traffic which affords the principal means of access to abutting properties.

Structure. Anything constructed or erected, including but not limited to buildings, which requires location on the land or attachment to something having permanent location on the land.

Subdivider. Any person, firm corporation, or official who subdivides or develops any land deemed to be a subdivision as herein defined.

Subdivision. All divisions of a tract or parcel of land into two or more lots, building sites, or other divisions for the purpose of sale or building development (whether immediate or future) and shall include all division of land involving the dedication of a new street or a change in existing streets; but the following shall not be included within this definition nor be subject to the regulations authorized by this ordinance:

(1) The combination or recombination of portions of previously subdivided and recorded lots where the total number of lots is not increased and the resultant lots are equal to or exceed the standards of this ordinance;

(2) The division of land into parcels greater than 10 acres where no street right-of-way dedication is involved;

(3) The public acquisition by purchase of strips of land for the widening or opening of streets;

(4) The division of a tract in single ownership whose entire area is no greater than two acres into not more than three lots, where no street right-of-way dedication is involved and where the resultant lots are equal to or exceed the standards of the this ordinance;

(5) The division of a tract into plots or lots used as a cemetery.

(6) The division of a tract into parcels in accordance with the terms of a probated will or in accordance with intestate succession under Chapter 29 of the General Statutes.

Surface Waters: All waters of the State as defined in NCGS 143-212 except underground waters.

Toxic Substance. Any substance or combination of substances (including disease causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth) or physical deformities in such organisms or their off spring or other adverse health effects.

Variance. A permission to develop or use property granted by the Watershed Review Board relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that is incorporated into this ordinance.

Vested Right – The right to undertake and complete the development and use of property under the terms and conditions of an approved site-specific development plan or an approved phased development plan. Refer to the North Carolina General Statutes Section 160D- 108 for more information.

Water Dependent Structure. Any structure for which the use requires access to or proximity to or citing within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.

Watershed. The entire land area contributing surface drainage to a specific point (e.g. the water supply intake.) or alternatively, the geographic region within which water drains to a particular river, stream or body of water.

Watershed Administrator. An official or designated person of [county][town] responsible for administration and enforcement of this ordinance.

Section 102. Word Interpretation.

For the purpose of this ordinance, certain words shall be interpreted as follows:

Words in the present tense include the future tense.

Words used in the singular number include the plural, and words used in the plural number include the singular, unless the natural construction of the wording indicates otherwise.

The word "person" includes a firm, association, corporation, trust, and company as well as an individual.

The word "structure" shall include the word "building."

The word "lot" shall include the words, "plot," "parcel," or "tract."

The word "shall" is always mandatory and not merely directory.

The word "will" is always mandatory and not merely directory.

ARTICLE 200: AUTHORITY AND GENERAL REGULATIONS

Section 201. Authority and Enactment.

The Legislature of the State of North Carolina has, in Chapter [153A][160A], Article [6][8], Section [121][174], General Ordinance Making Power; and in Chapter 143, Article 21, Water and Air Resources, delegated the responsibility or directed local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. In addition, GS 160D-926 refers specifically to water supply watershed management. The Governing Board of [county][town] hereby ordains and enacts into law the following articles as the Water Supply Watershed Protection Ordinance of [county][town].[1]

Section 202. Jurisdiction.

The provisions of this Ordinance shall apply within the areas designated as a Water Supply Watershed by the N.C. Environmental Management Commission and shall be defined and established on a water supply watershed protection map of [county][town], North Carolina which is adopted simultaneously herewith. The watershed map and all explanatory matter contained thereon accompanies and is hereby made a part of this Ordinance. This Ordinance shall be permanently kept on file in the of the [county][town].[2]

Section 203. Exceptions to Applicability.

(A) Nothing contained herein shall repeal, modify, or amend any Federal or State law or regulation, or any ordinance or regulation pertaining thereto except any ordinance which these regulations specifically replace; nor shall any provision of this Ordinance amend, modify, or restrict any provisions of the Code of Ordinances of [county][town]; however, the adoption of this Ordinance shall and does amend any and all ordinances, resolutions, and regulations in effect in the [county][town] at the time of the adoption of this Ordinance that may be construed to impair or reduce the effectiveness of this Ordinance or to conflict with any of its provisions.

(B) It is not intended that these regulations interfere with any easement, covenants or other agreements between parties. However, if the provisions of these regulations impose greater restrictions or higher standards for the use of a building or land, then the provisions of these regulations shall control.

(C) Existing Development, as defined in this ordinance, is not subject to the requirements of this ordinance.

(D) Expansions to existing development must meet the requirements of this ordinance, except single family residential development unless expansion is part of common plan of development. In an expansion, the built-upon area of the existing development is not required to be included in the density calculations. Where there is a net increase of built upon area, only the area of net increase is subject to this ordinance. Where existing development is being replaced with new built upon area, and there is net increase of built upon area, only areas of net increase shall be subject to this ordinance.

(E) If a Non-Conforming Lot of Record is not contiguous to any other lot owned by the same party, then that lot of record shall not be subject to the development restrictions of this ordinance if it is developed for single-family residential purposes. Local governments may require the combination of contiguous

nonconforming lots of record owned by same party to establish a lot or lots that meet requirements in Article 300 of this ordinance.
(F) Any lot or parcel created as part of a family subdivision after the effective date of these rules shall be exempt from these rules if it is developed for one single-family detached residence and if it is exempt from local subdivision regulation. If a local government does not enforce subdivision regulations, then that local government may or may not allow the exemption for family subdivisions.

(G) Any lot or parcel created as part of any other type of subdivision that is exempt from a local subdivision ordinance shall be subject to the land use requirements (including impervious surface requirements) of these rules, except that such a lot or parcel must meet the minimum buffer requirements to the maximum extent practicable.[3]

Section 204. Repeal of Existing Watershed Ordinance. (Optional)

This ordinance in part carries forward by re-enactment, some of the **Watershed Ordinance of the [county][town], North Carolina** (adopted by the [Board of Commissioners][Town Board] on [date] as amended), and it is not the intention to repeal but rather to re-enact and continue in force such existing provisions so that all rights and liabilities that have accrued thereunder are preserved and may be enforced. All provisions of the Watershed Ordinance which are not re-enacted herein are hereby repealed. All suits at law or in equity and/or all prosecutions resulting from the violation of any ordinance provisions heretofore in effect, which are now pending in any court of this state or of the United States, shall not be abated or abandoned by reason of the adoption of this ordinance, but shall be prosecuted to their finality the same as if this ordinance had not been adopted; and any and all violations of the existing Watershed Protection Ordinance, prosecutions for which have not yet been instituted, may be hereafter filed and prosecuted; and nothing in this ordinance shall be so construed as to abandon, abate or dismiss any litigation or prosecution now pending and/or which may heretofore have been instituted or prosecuted.

Section 205. Criminal Penalties.

Any person violating any provisions of this Ordinance shall be guilty of a misdemeanor and, upon conviction, shall be punished in accordance with NCGS 14-4. The maximum fine for each offense shall not exceed $500.00. Each day that the violation continues shall constitute a separate offense.

Section 206. Remedies.

(A) If any subdivision, development and/or land use is found to be in violation of this Ordinance, the [county][town] Governing Board may, in addition to all other remedies available either in law or in equity, institute a civil penalty in the amount of $_____, action or proceedings to restrain, correct, or abate the violation; to prevent occupancy of the building, structure, or land; or to prevent any illegal act, conduct, business, or use in or about the premises. In addition, the N.C. Environmental Management Commission may assess civil penalties in accordance with G.S. 143-215.6(a). Each day that the violation continues shall constitute a separate offense.

(B) If the Watershed Administrator finds that any of the provisions of this ordinance are being violated, he shall notify in writing the person responsible for such violation, indicating the nature of the violation, and ordering the action necessary to correct it. He shall order discontinuance of the illegal use of land, buildings or structures; removal of illegal buildings or structures, or of additions, alterations or structural changes thereto; discontinuance of any illegal work being done; or shall take any action authorized by this ordinance to ensure compliance with or to prevent violation of its provisions. If a ruling of the Watershed Administrator is questioned, the aggrieved party or parties may appeal such ruling to the Watershed Review Board.

Section 207. Severability.

Should any section or provision of this Ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, the declaration shall not affect the validity of this Ordinance as a whole or any part thereof that is not specifically declared to be invalid or unconstitutional.

Section 208. Effective Date.

This Ordinance shall take effect and be in force on (month, day and year).[4]

ARTICLE 300: SUBDIVISION REGULATIONS.

Section 301. General Provisions.

(A) No subdivision plat of land within the Water Supply Watershed shall be filed or recorded by the Register of Deeds until it has been approved in accordance with the provisions of this Article. Likewise, the Clerk of Superior Court shall not order or direct the recording of a plat if the recording of such plat would conflict with this Article.

(B) The approval of a plat does not constitute or effect the acceptance by the [county][town] or the public of the dedication of any street or other ground, easement, right-of-way, public utility line, or other public facility shown on the plat and shall not be construed to do so.

(C) All subdivisions shall conform with the mapping requirements contained in G.S.47-30.

(D) All subdivisions of land within the jurisdiction of [county][town] after the effective date of this ordinance shall require a plat to be prepared, approved, and recorded pursuant to this ordinance.[5]

Section 302. Subdivision Application and Review Procedures.

(A) All proposed subdivisions shall be reviewed prior to recording with the Register of Deeds by submitting a vicinity map to the Watershed Administrator to determine whether or not the property is located within the designated Water Supply Watershed. Subdivisions that are not within the designated watershed area shall not be subject to the provisions of this ordinance and may be recorded provided the Watershed Administrator initials the vicinity map. Subdivisions within a WS-IV watershed are subject to the provisions of this ordinance only when an erosion and sedimentation plan is required under the provisions of State law or approved local program, unless another stormwater program applies. Local government should always be aware that other post construction requirements may apply even when water supply watershed protection requirements do not. Subdivisions within the designated watershed area shall comply with the provisions of this Article and all other state and local requirements that may apply.

(B) Subdivision applications shall be filed with the Watershed Administrator. The application shall include a completed application form, two (2) copies of the plat, a description of the proposed method of providing storm water drainage, and supporting documentation deemed necessary by the Watershed Administrator or the Watershed Review Board (see appendix A).

(C) The Watershed Administrator shall review the completed application and shall either approve, approve conditionally or disapprove each application. The Watershed Administrator shall take final action within forty-five (45) days of submission of the application. The Watershed Administrator or the Board may provide public agencies an opportunity to review and make recommendations. However, failure of the agencies to submit their comments and recommendations shall not delay action within the prescribed time limit. Said public agencies may include, but are not limited to, the following:

(1) The NCDOT district highway engineer with regard to proposed streets and highways.

(2) The director of the Health Department with regard to proposed private water system or sewer systems normally approved by the Health Department.

(3) The state Division of Water Resources with regard to proposed sewer systems normally approved by the Division.

(4) The state Division of Energy, Mineral and Land Resources with regard to engineered storm water controls or storm water management in general.

(5) The county for subdivisions located in Extraterritorial Jurisdiction (ETJ) of a municipality.

(6) Local government entities responsible for proposed sewer and/or water systems

(7) Any other agency or official designated by the Watershed Administrator or Watershed Review Board.

(D) If the Watershed Administrator approves the application, such approval shall be indicated on both copies of the plat by the following certificate and signed by the Watershed Administrator:

Certificate of Approval for Recording

I certify that the plat shown hereon complies with the Watershed Protection Ordinance and is approved by the Watershed Review Board for recording in the Register of Deeds office.

_____ _____
Date Watershed Administrator

NOTICE: This property is located within a Water Supply Watershed - development restrictions may apply.

(E) If the Watershed Administrator disapproves or approves conditionally the application, the reasons for such action shall be stated in writing for the applicant and may be entered in the minutes. The subdivider may make changes and submit a revised plan which shall constitute a separate request for the purpose of review.

(F) As a condition for approval, all subdivision plats shall comply with the requirements for recording of the County Register of Deeds.

(G) The plat shall be recorded within ___ days of approval. The Subdivider shall provide the Watershed Administrator with evidence the plat has been recorded with the Register of Deeds within five (5) working days.

Section 303. Subdivision Standards and Required Improvements.

(A) All lots shall provide adequate building space in accordance with the development standards contained in Article 400. Lots smaller than the minimum required for residential lots may be developed using built-upon area criteria in accordance with Article 400.

(B) For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.

(C) Storm Water Drainage Facilities: The application shall be accompanied by a description of the proposed method of providing storm water drainage. The subdivider shall provide a drainage system that diverts stormwater runoff away from surface waters, incorporates Storm water Control Measures to minimize water quality impacts, and meets any local requirements.

(D) Erosion and Sedimentation Control: The application shall, where required, be accompanied by the Sedimentation and Erosion Control Plan approval by the [local agency administering a Sedimentation and Erosion Control Ordinance approved by the N.C. Division of Land Quality] [N.C. Division of Land Quality].

(E) Roads constructed in critical areas and watershed vegetated conveyance areas: Where possible, roads should be located outside of critical areas and watershed vegetated conveyance areas. Roads constructed within these areas shall be designed and constructed to minimize their impact on water quality.

Section 304. Construction Procedures.

(A) No construction or installation of improvements shall commence in a proposed subdivision until a subdivision plat has been approved.

(B) No building or other permits shall be issued for erection of a structure on any lot not on record at the time of adoption of this Ordinance until all requirements of this Ordinance have been met. The subdivider, prior to commencing any work within the subdivision, shall make arrangements with the Watershed Administrator to provide for adequate inspection.

Section 305. Penalties for Transferring Lots in Unapproved Subdivisions.

Any person who, being the owner or agent of the owner of any land located within the jurisdiction of [county][town], thereafter subdivides his land in violation of this ordinance or transfers or sells land by reference to, exhibition of, or any other use of a plat showing a subdivision of the land before the plat has been properly approved under this ordinance and recorded in the office of the register of deeds, shall be guilty of a misdemeanor. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring land shall not exempt the transaction from this penalty. The [county][town] may bring an action for injunction of any illegal subdivision, transfer, conveyance, or sale of land, and the court shall, upon appropriate findings, issue an injunction and order requiring the offending party to comply with this ordinance.

ARTICLE 400: DEVELOPMENT REGULATIONS

Section 401. Establishment of Watershed Areas.

The purpose of this Article is to list and describe the watershed areas herein adopted.6

For purposes of this ordinance the [county is] [town is] [town and its one-mile extraterritorial jurisdiction are] hereby divided into the following area[s], as appropriate:

WS-I	
WS-II-CA	(Critical Area)
WS-II-BW	(Balance of Watershed)
WS-III-CA	(Critical Area)
WS-III-BW	(Balance of Watershed)
WS-IV-CA	(Critical Area)
WS-IV-PA	(Protected Area)

Section 402. Watershed Areas - Allowed and Not Allowed Uses

Note: Citations shown in [] indicate references for counties followed by those for towns [county][town]

Activity/Use	Water Supply Watershed Classification[1]							
	WS-I	WS-II CA	WS-II BW	WS-III CA	WS-III BW	WS-IV CA	WS-IV PA	WS-V
New landfills	No	No	Yes	No	Yes	No	Yes	Yes
New permitted residual land application	No	No	Yes	No	Yes	No	Yes	Yes
New permitted petroleum contaminated soils sites	No	No	Yes	No	Yes	No	Yes	Yes
NPDES General or Individual Stormwater discharges	Yes[a]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPDES General Permit Wastewater Discharges pursuant to 15A NCAC 02H .0127	Yes[a]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPDES Individual Permit trout farm discharges	Yes[a]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
New NPDES Individual Permit domestic treated wastewater discharge	No	No	No	No	Yes	Yes	Yes	Yes
New NPDES Individual Permit industrial treated wastewater discharge	No	No	No	No[b]	No[b]	Yes	Yes	Yes
Non-process industrial waste	No	No	No	Yes	Yes	Yes	Yes	Yes
New industrial connections and expansions to existing municipal discharge with pretreatment program pursuant to 15A NCAC 02H .0904	No	No	No	No	No	Yes	Yes	Yes
Sewage	No	No[c]	No[c]	No[c]	No[c]	No[c]	No[c]	Yes[d]
Industrial Waste	No	No[c]	No[c]	No[c]	No[c]	No[c]	No[c]	Yes[d]
Other wastes	No	No[c]	No[c]	No[c]	No[c]	No[c]	No[c]	Yes[d]
Groundwater remediation project discharges[e]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agriculture[f]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Silviculture[g]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Residential Development[h]	No[j]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Non-residential Development[hi]	No[j]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nonpoint Source Pollution[k]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Animal Operations[l]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
[a] Permitted pursuant to 15A NCAC 02B .0104
[b] Except non-process industrial discharges are allowed
[c] Only allowed if specified in 15A NCAC 02B .0104
[d] Not allowed if activity(ies) has/have adverse impact on human health
[e] Where no other practical alternative exists
[f] In WS-I watersheds and Critical Areas of WS-II, WS-III, and WS-IV watersheds, agricultural activities conducted after 1/1/1993 shall maintain a minimum 10 foot vegetated setback or equivalent control as determined by SWCC along all perennial waters indicated on most recent version of USGS 1:24000 scale (7.5 minute) topographic mpas or as determined by local government studies
[g] Subject to Forest Practice Guidelines Related to Water Quality (02 NCAC 60C .0100 to .0209) Effective 4/1/2018
[h] See density requirements in 15A NCAC 02B .0624
[i] See different allowed and not allowed in this table
[j] See following WS-I note
[k] NPS pollution shall not have adverse impact, as defined in 15A NCAC 02H .1002, on use as water supply or any other designated use
[l] Deemed permitted, as defined in 15A NCAC 02T .0103 and permitted under 15A NCAC 2H .0217

Section 403. Watershed Areas – Density and Built-Upon Limits.

(A) PROJECT DENSITY. The following maximum allowable project densities and minimum lot sizes shall apply to a project according to the classification of the water supply watershed where it is located, its relative location in the watershed, its project density, and the type of development:

Note: Citations shown in [] indicate references for counties followed by those for towns [county][town]

Water Supply Classification	Location in the Watershed	Maximum Allowable Project Density or Minimum Lot Size		
		Low Density Development		High Density Development
		Single-family detached residential	Non-residential and all other residential	All types
WS-I	Not Applicable: Watershed shall remain undeveloped except for the following uses when they cannot be avoided: power transmission lines, restricted access roads, and structures associated with water withdrawal, treatment, and distribution of the WS-I water. Built-upon area shall be designed and located to minimize stormwater runoff impact to receiving waters.			
WS-II	Critical Area	1 dwelling unit (du) per 2 acres or 1 du per 80,000 square foot lot excluding roadway right-of-way or 6% built-upon area	6% built-upon area	6 to 24% built-upon area
	Balance of Watershed	1 du per 1 acre or 1 du per 40,000 square foot lot excluding roadway right-of-way or 12% built-upon area	12% built-upon area	12 to 30% built-upon area
WS-III	Critical Area	1 du per 1 acre or 1 du per 40,000 square foot lot excluding roadway right-of-way or 12% built-upon area	12% built-upon area	12 to 30% built-upon area
	Balance of Watershed	1 du per one-half acre or 1 du per 20,000 square foot lot excluding roadway right-of-way or 24% built-upon area	24% built-upon area	24 to 50% built-upon area
WS-IV	Critical Area	1 du per one-half acre or 1 du per 20,000 square foot lot excluding roadway right-of-way or 24% built-upon area	24% built-upon area	24 to 50% built-upon area
	Protected Area	1 du per one-half acre or 1 du per 20,000 square foot lot excluding roadway right-of-way or 24% built-	24% built-upon area; or 36% built-upon area without curb	24 to 70% built-upon area

		upon; or 3 dus per acre or 36% built-upon area without curb and gutter street system	and gutter street system	
WS-V	Not Applicable			

(B) CALCULATION OF PROJECT DENSITY. The following requirements shall apply to the calculation of project density:

(1) Project density shall be calculated as the total built-upon area divided by the total project area;

(2) A project with "existing development," as that term is defined in 15A NCAC 02B .0621, may use the calculation method in Sub-Item (1) of this Item or may calculate project density as the difference of total built-upon area minus existing built-upon area divided by the difference of total project area minus existing built-upon area.

(3) Expansions to existing development shall be subject to 15A NCAC 02B .0624 except as excluded in Rule 15A NCAC 02B .0622 (1)(d).

(4) Where there is a net increase of built-upon area, only the area of net increase shall be subject to 15A NCAC 02B. .0624.

(5) Where existing development is being replaced with new built-upon area, and there is a net increase of built-upon area, only the area of net increase shall be subject to 15A NCAC 02B .0624;

(6) Total project area shall exclude the following:
   (a) areas below the Normal High Water Line (NHWL); and
   (b) areas defined as "coastal wetlands" pursuant to 15A NCAC 07H .0205, herein incorporated by reference, including subsequent amendments and editions, and available at no cost at http://reports.oah.state.nc.us/ncac.asp, as measured landward from the NHWL; and

(7) Projects under a common plan of development shall be considered as a single project for purposes of density calculation except that on a case-by-case basis, local governments may allow projects to be considered to have both high and low density areas based on one or more of the following criteria:
   (a) natural drainage area boundaries;
   (b) variations in land use throughout the project; or
   (c) construction phasing.

(C) LOW DENSITY PROJECTS. In addition to complying with the project density requirements of Item (A) of this Rule, low density projects shall comply with the following:

(1) VEGETATED CONVEYANCES. Stormwater runoff from the project shall be released to vegetated areas as dispersed flow or transported by vegetated conveyances to the maximum extent practicable. In determining whether this criteria has been met, the local government shall take into account site-specific factors such as topography and site layout as well as protection of water quality. Vegetated conveyances shall be maintained in perpetuity to ensure that they function as designed. Vegetated conveyances that meet the following criteria shall be deemed to satisfy the requirements of this Sub-Item:
   (a) Side slopes shall be no steeper than 3:1 (horizontal to vertical) unless it is demonstrated to the local government that the soils and vegetation will remain stable in perpetuity based on engineering calculations and on-site soil investigation; and

(b) The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm event as demonstrated by engineering calculations.

(2) CURB OUTLET SYSTEMS. In lieu of vegetated conveyances, low density projects shall have the option to use curb and gutter with outlets to convey stormwater to grassed swales or vegetated areas. Requirements for these curb outlet systems shall be as follows:

(a) The curb outlets shall be located such that the swale or vegetated area can carry the peak flow from the 10-year storm and at a non-erosive velocity;

(b) The longitudinal slope of the swale or vegetated area shall not exceed five percent except where not practical due to physical constraints. In these cases, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;

(c) The swale's cross section shall be trapezoidal with a minimum bottom width of two feet;

(d) The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical);

(e) The minimum length of the swale or vegetated area shall be 100 feet; and

(f) Low density projects may use treatment swales designed in accordance with 15A NCAC 02H .1061 in lieu of the requirements specified in Sub-Items (a) through (e) of this Sub-Item.

(D) HIGH DENSITY PROJECTS. In addition to complying with the project density requirements of Item (A) of this Rule, high density projects shall comply with the following:

(1) Stormwater Control Measures (SCMs) shall be designed, constructed, and maintained so that the project achieves either "runoff treatment" or "runoff volume match" as those terms are defined in 15A NCAC 02B .0621;

(2) For high density projects designed to achieve runoff treatment, the required storm depth shall be one inch. Applicants shall have the option to design projects to achieve runoff volume match in lieu of runoff treatment;

(3) Stormwater runoff from off-site areas and "existing development," as that term is defined in 15A NCAC 02B .0621, shall not be required to be treated in the SCM. Runoff from off-site areas or existing development that is not bypassed shall be included in sizing of on-site SCMs;

(4) SCMs shall meet the relevant MDC set forth in 15A NCAC 02H .1050 through .1062; and

(5) Stormwater outlets shall be designed so that they do not cause erosion downslope of the discharge point during the peak flow from the 10-year storm event as shown by engineering calculations.

(E) OPTIONS FOR IMPLEMENTING PROJECT DENSITY. Local governments shall have the following options in place of or in addition to the requirements of Item (A) above, as appropriate:

(1) Local governments may allow only low density development in their water supply watershed areas in accordance with this Section.

(2) Local governments may regulate low density single-family detached residential development using the minimum lot size requirements, dwelling unit per acre requirements, built-upon area percentages, or some combination of these.

(3) 10/70 OPTION. Outside of WS-I watersheds and the critical areas of WS-II, WS-III, and WS-IV watersheds, local governments may regulate new development under the "10/70 option" in accordance with the following requirements:

(a) A maximum of 10 percent of the land area of a water supply watershed outside of the critical area and within a local government's planning jurisdiction may be developed with new development projects and expansions of existing development of up to 70 percent built-upon area.

(b) In water supply watersheds classified on or before August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as delineated on July 1, 1993. In water

supply watersheds classified after August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as delineated on the date the water supply watershed classification became effective. The acreage within the critical area shall not be counted towards the allowable 10/70 option acreage;

(c) Projects that are covered under the 10/70 option shall comply with the low density requirements set forth in Item (C) above unless the local government allows high density development, in which case the local government may require these projects to comply with the high density requirements set forth in Item (D);

(d) The maximum built-upon area allowed on any given new development project shall be 70 percent;

(e) A local government having jurisdiction within a designated water supply watershed may transfer, in whole or in part, its right to the 10/70 land area to another local government within the same water supply watershed upon submittal of a joint resolution and approval by the Commission; and

(f) When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision.

(4) New development shall meet the development requirements on a project-by-project basis except local governments may submit ordinances that use density or built-upon area criteria averaged throughout the local government's watershed jurisdiction instead of on a project-by-project basis within the watershed. Prior to approval of the ordinance, the local government shall demonstrate to the Commission that the provisions as averaged meet or exceed the statewide minimum requirements and that a mechanism exists to ensure the planned distribution of development potential throughout the local government's jurisdiction within the watershed.

(5) Local governments may administer oversight of future development activities in single-family detached residential developments that exceed the applicable low density requirements by tracking dwelling units rather than percentage built-upon area, as long as the SCM is sized to capture and treat runoff from 1) all pervious and built-upon surfaces shown on the development plan and 2) any off-site drainage from pervious and built-upon surfaces, and when an additional safety factor of 15 percent of built-upon area of the project site is figured in.

Section 404. Density Averaging

(A) An applicant may average development density on up to two noncontiguous properties for purposes of achieving compliance with the water supply watershed development standards if all of the following circumstances exist:

(1) The properties are within the same water supply watershed. If one of the properties is located in the critical area of the watershed, the critical area property shall not be developed beyond the applicable density requirements for its classification.

(2) Overall project density meets applicable density or stormwater control requirements under 15A NCAC 2B .0200.

(3) Vegetated setbacks on both properties meet the minimum statewide water supply watershed protection requirements.

(4) Built upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.

(5) Areas of concentrated density development are located in upland areas and, to the maximum extent practicable, away from surface waters and drainageways.

(6) The property or portions of the properties that are not being developed will remain in a vegetated or natural state and will be managed by a homeowners' association as common area, conveyed to a local government as a park or greenway, or placed under a permanent conservation or farmland preservation easement unless it can be demonstrated that the local government can ensure long-term compliance through deed restrictions and an electronic permitting mechanism. A metes and bounds description of the areas to remain vegetated and limits on use shall be recorded on the subdivision plat, in homeowners' covenants, and on individual deed and shall be irrevocable.

(7) Development permitted under density averaging and meeting applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.

(8) A special use permit or other such permit or certificate shall be obtained from the local Watershed Review Board or Board of Adjustment to ensure that both properties considered together meet the standards of the watershed ordinance and that potential owners have record of how the watershed regulations were applied to the properties.

Section 405. Cluster Development

Cluster development is allowed in all Watershed Areas [except WS-I] under the following conditions:

(A) Minimum lot sizes are not applicable to single family cluster development projects; however, the total number of lots shall not exceed the number of lots allowed for single family detached developments in Section 303. Density or built-upon area for the project shall not exceed that allowed for the critical area, balance of watershed or protected area, whichever applies.

(B) All built-upon area shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.

(C) Areas of concentrated density development shall be located in upland area and away, to the maximum extent practicable, from surface waters and drainageways.

(D) The remainder of the tract shall remain in a vegetated or natural state. The title to the open space area shall be conveyed to an incorporated homeowners association for management; to a local government for preservation as a park or open space; or to a conservation organization for preservation in a permanent easement. Where a property association is not incorporated, a maintenance agreement shall be filed with the property deeds.

(E) Cluster developments that meet the applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.

Section 406. Vegetated Setbacks Required

(A) A minimum one hundred (100) foot vegetative setback is required for all new development activities that exceed the low density option; otherwise, a minimum thirty (30) foot vegetative setback for development activities is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies. Desirable artificial streambank or shoreline stabilization is permitted.

(B) Where USGS topographic maps do not distinguish between perennial and intermittent streams, an on-site stream determination may be performed by an individual qualified to perform such stream determinations.

(C) No new development is allowed in the buffer except for water dependent structures, other structures such as flag poles, signs and security lights which result in only diminutive increases in impervious area and public projects such as road crossings and greenways where no practical alternative exists. These activities should minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of stormwater Best Management Practices.

Section 407. Application of Regulations.

(A) No building or land shall hereafter be used and no development shall take place except in conformity with the regulations herein specified for the watershed area in which it is located.

(B) No area required for the purpose of complying with the provisions of this ordinance shall be included in the area required for another building.

(C) Every residential building hereafter erected, moved or structurally altered shall be located on a lot which conforms to the regulations herein specified, except as permitted in Section 306

(D) If a use or class of use is not specifically indicated as being allowed in a watershed area, such use or class of use is prohibited.

Section 408. Rules Governing the Interpretation of Watershed Area Boundaries

Where uncertainty exists as to the boundaries of the watershed areas, as shown on the Watershed Map, the following rules shall apply:

(A) Where area boundaries are indicated as approximately following either street, alley, railroad or highway lines or centerlines thereof, such lines shall be construed to be said boundaries.

(B) Where area boundaries are indicated as approximately following lot lines, such lot lines shall be construed to be said boundaries. However, a surveyed plat prepared by a registered land surveyor may be submitted to the [county][town] as evidence that one or more properties along these boundaries do not lie within the watershed area.

(C) Where the watershed area boundaries lie at a scaled distance more than twenty-five (25) feet from any parallel lot line, the location of watershed area boundaries shall be determined by use of the scale appearing on the watershed map. The Environmental Management Commission adopted this provision with intention of locating built-upon surface area in the least environmentally sensitive area of the project.

(D) Where the watershed area boundaries lie at a scaled distance of twenty-five (25) feet or less from any parallel lot line, the location of watershed area boundaries shall be construed to be the lot line.

(E) Where other uncertainty exists, the Watershed Administrator shall interpret the Watershed Map as to location of such boundaries. This decision may be appealed to the Watershed Review Board.

Section 409. Existing Development

Existing development as defined in this ordinance, may be continued and maintained subject to the provisions provided herein. Expansions to structures classified as existing development must meet the requirements of this ordinance, however, the built-upon area of the existing development is not required

to be included in the built-upon area calculations. Please see Section 303 (B) Calculation of Project Density. This section deals with all existing development as defined in the EMC rules. All existing development, whether or not it meets the statewide minimum standards, is exempt from the provisions of this ordinance.

(A) Uses of Land. This category consists of uses existing at the time of adoption of this ordinance where such use of the land is not permitted to be established hereafter in the watershed area in which it is located. Such uses may be continued except as follows:

(1) When such use of land has been changed to an allowed use, it shall not thereafter revert to any prohibited use.

(2) Such use of land shall be changed only to an allowed use.

(3) When such use ceases for a period of at least one year, it shall not be reestablished.

(B) Reconstruction of Buildings or Built-upon Areas. Any existing building or built-upon area not in conformance with the restrictions of this ordinance that has been damaged or removed may be repaired and/or reconstructed, except that there are no restrictions on single family residential development, provided:

(1) Repair or reconstruction is initiated within twelve (12) months and completed within two (2) years of such damage.

(2) The total amount of space devoted to built-upon area may not be increased unless stormwater control that equals or exceeds the previous development is provided.

Section 410. Watershed Protection Permit

(A) Except for single family residential development, no building or built-upon area shall be erected, moved, enlarged or structurally altered, nor shall any building permit be issued nor shall any change in the use of any building or land be made until a Watershed Protection Permit has been issued by the Watershed Administrator. No Watershed Protection Permit shall be issued except in conformity with the provisions of this ordinance.

(B) Watershed Protection Permit applications shall be filed with the Watershed Administrator. The application shall include a completed application form (see Appendix A) and supporting documentation deemed necessary by the Watershed Administrator.

(C) Prior to issuance of a Watershed Protection Permit, the Watershed Administrator may consult with qualified personnel for assistance to determine if the application meets the requirements of this ordinance.

(D) A Watershed Protection Permit shall expire if a Building Permit or Watershed Occupancy Permit for such use is not obtained by the applicant within twelve (12) months from the date of issuance.

Section 411. Building Permit Required

No permit required under the North Carolina State Building Code shall be issued for any activity for which a Watershed Protection Permit is required until that permit has been issued.

Section 412. Watershed Protection Occupancy Permit

(A) The Watershed Administrator shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this ordinance have been met prior to the occupancy or use of a building hereafter erected, altered or moved and/or prior to the change of use of any building or land.

(B) A Watershed Protection Occupancy Permit, either for the whole or part of a building, shall be applied for coincident with the application for a Watershed Protection Permit and shall be issued or denied within ten 10 business days after the erection or structural alterations of the building. The applicant should notify the Watershed Administrator and request the issued WSPOP when building is complete.

(C) When only a change in use of land or existing building occurs, the Watershed Administrator shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this ordinance have been met coincident with the Watershed Protection Permit.

(D) If the Watershed Protection Occupancy Permit is denied, the Watershed Administrator shall notify the applicant in writing stating the reasons for denial.

(E) No building or structure which has been erected, moved, or structurally altered may be occupied until the Watershed Administrator has approved and issued a Watershed Protection Occupancy Permit.

START HERE ARTICLE 500: PUBLIC HEALTH REGULATIONS

Section 501. Public Health, in general.

No activity, situation, structure or land use shall be allowed within the watershed which poses a threat to water quality and the public health, safety and welfare.

Section 502. Abatement.

(A) The Watershed Administrator shall monitor land use activities within the watershed areas to identify situations that may pose a threat to water quality.

(B) The Watershed Administrator shall report all findings to the Watershed Review Board. The Watershed Administrator may consult with any public agency or official and request recommendations.

(C) Where the Watershed Review Board finds a threat to water quality and the public health, safety and welfare, the Board shall institute any appropriate action or proceeding to restrain, correct or abate the condition and/or violation.

ARTICLE 600: ADMINISTRATION, ENFORCEMENT AND APPEALS[7]

This article outlines a suggested procedure for the administration and enforcement of the ordinance. It provides for the appointment of a Watershed Administrator and a Watershed Review Board. An individual already employed by the County or Municipality may also assume the duties of the Watershed Administrator, just as an existing board may assume the duties of the Watershed Review Board. A local government may use other procedures; however, such procedures should be of sufficient detail to ensure adequate enforcement of the ordinance.

Section 501. Watershed Administrator and Duties thereof.

The [county][town] shall appoint a Watershed Administrator, who shall be duly sworn in. It shall be the duty of the Watershed Administrator to administer and enforce the provisions of this ordinance as follows:

(A) The Watershed Administrator shall issue Watershed Protection Permits and Watershed Protection Occupancy Permits as prescribed herein. A record of all permits shall be kept on file and shall be available for public inspection during regular office hours of the Administrator.

(B) The Watershed Administrator shall serve as clerk to the Watershed Review Board.

(C) The Watershed Administrator is granted the authority to administer and enforce the provisions of this Ordinance, exercising in the fulfillment of his responsibility the full police power of the [county][town]. The Watershed Administrator, or his duly authorized representative, may enter any building, structure, or premises, as provided by law, to perform any duty imposed upon him by this Ordinance.

(D The Watershed Administrator shall keep records of all amendments to the local Water Supply Watershed Protection Ordinance and shall provide copies of all amendments upon adoption to the Stormwater Branch of the Division of Energy, Mineral, and Land Resources. For additional information, refer to commentary under Article 300

(E) The Watershed Administrator shall keep records of the jurisdiction's use of the provision that a maximum of ten percent (10%) of the non-critical area of WS-II, WS-III, and, WS-IV watersheds may be developed with new development at a maximum of seventy percent (70%) built-upon surface area. Records for each watershed shall include the total acres of non-critical watershed area, total acres eligible to be developed under this option, total acres approved for this development option, and individual records for each project with the following information: location, number of developed acres, type of land use and stormwater management plan (if applicable).

(F) The Watershed Administrator shall keep a record of variances to the local Water Supply Watershed Protection Ordinance. This record shall be submitted for each calendar year to the Water Quality Section of the Division of Environmental Management on or before January 1st of the following year and shall provide a description of each project receiving a variance and the reasons for granting the variance.

(G) The Watershed Administrator is responsible for ensuring that Stormwater Control Measures are inspected at least once a year and shall keep a record of SCM inspections.

Section 502. Appeal from the Watershed Administrator

Any+ order, requirement, decision or determination made by the Watershed Administrator may be appealed to and decided by the Watershed Review Board.

An appeal from a decision of the Watershed Administrator must be submitted to the Watershed Review Board within thirty 30 calendar days from the date the order, interpretation, decision or determination is made. All appeals must be made in writing stating the reasons for appeal. Following submission of an appeal, the Watershed Administrator shall transmit to the Board all papers constituting the record upon which the action appealed from was taken.

An appeal stays all proceedings in furtherance of the action appealed, unless the officer from whom the appeal is taken certifies to the Board after the notice of appeal has been filed with him, that by reason of facts stated in the certificate of approval for recording, a stay would in his opinion cause imminent peril to life or property. In such case, proceedings shall not be stayed otherwise than by a restraining order which may be granted by the Board or by a court of record on application of notice of the officer from whom the appeal is taken and upon due cause shown.

The Board shall set a reasonable time for hearing the appeal and give notice thereof to the parties and shall decide the same within a reasonable time. At the hearing, any party may appear in person, by agent or by attorney.

Section 503. Changes and Amendments to the Watershed Protection Ordinance.

(A) The [county][town] Governing Board may, on its own motion or on petition, after public notice and hearing, amend, supplement, change or modify the watershed regulations and restrictions as described herein.

(B) No action shall be taken until the proposal has been submitted to the Watershed Review Board for review and recommendations. If no recommendation has been received from the Watershed Review Board within forty-five (45) days after submission of the proposal to the Chairman of the Watershed Review Board, the [county][town] Governing Board may proceed as though a favorable report had been received.

(C) Under no circumstances shall the [county][town] Board adopt such amendments, supplements or changes that would cause this ordinance to violate the watershed protection rules as adopted by the N.C. Environmental Management Commission. All amendments must be filed with the N.C. Division of Energy, Mineral and Land Resources.

Section 504. Public Notice and Hearing Required.

Before adopting or amending this ordinance, the [county][town] Governing Board shall hold a public hearing on the proposed changes. A notice of the public hearing shall be given once a week for two successive calendar weeks in a newspaper having general circulation in the area. The notice shall be published for the first time not less than ten (10) nor more than twenty-five (25) days before the date for the hearing.

Section 505. Establishment of Watershed Review Board.

(A) There shall be and hereby is created the Watershed Review Board (or equivalent quasi-

judicial body) consisting of five (5) members appointed by the [county][town] Governing Board.

(Option 1) [town] Three (3) residents of [town] shall be appointed for three year terms. Two (2) residents of [town] shall be appointed for two (2) year terms. Thereafter, all new terms shall be for three (3) years, and members may be reappointed.

(Option 2) [county] Three (3) residents of [county] shall be appointed for three year terms. Two (2) residents of [county] shall be appointed for two (2) year terms. Thereafter, all new terms shall be for three (3) years, and members may be reappointed.

(Option 3) [joint town and county] Three (3) members shall reside within the town. Two (2) of the town members shall be appointed for a two (2) year term and one (1) shall be appointed for a three (3) year term. Two (2) members shall reside within the county and shall be appointed for three (3) year terms. Thereafter, all new terms shall be for three (3) years, and members may be reappointed.

(B) Two (2) alternate members shall be appointed to serve on the Watershed Review Board in the absence of any regular member and shall be appointed for three (3) year terms. While attending in the capacity of a regular member, the alternate shall have and exercise all the powers and duties of the absent regular member.

(Option 1) [town] The town shall appoint two (2) alternate members.

(Option 2) [county] The county shall appoint two (2) alternate members.

(Option 3) [joint town and county] The county shall appoint one (1) alternate member from the county and the town shall appoint one (1) alternate member from the town limits.

Section 506. Rules of Conduct for Watershed Review Board Members.

Members of the Board may be removed by the [county][town] Governing Board for cause, including violation of the rules stated below:

(A) Faithful attendance at meetings of the Board and conscientious performance of the duties required of members of the Board shall be considered a prerequisite to continuing membership on the Board.

(B) No Board member shall take part in the hearing, consideration, or determination of any case in which he is personally or financially interested. A Board member shall have a "financial interest" in a case when a decision in the case will: 1) cause him or his spouse to experience a direct financial benefit or loss, or 2) will cause a business in which he or his spouse owns a 10 per cent or greater interest, or is involved in a decision-making role, to experience a direct financial benefit or loss. A Board member shall have a "personal interest" in a case when it involves a member of his immediate family (i.e., parent, spouse, or child). The intent is to prohibit members of the Board from acting in situations where they have a conflict of interest in a manner similar to the prohibition in NCGS 14-234(c)(1).

(C) No Board member shall discuss any case with any parties thereto prior to the public hearing on that case; provided, however, that members may receive and/or seek information pertaining to the case from the Watershed Administrator or any other member of the Board, or its secretary prior to the hearing.

(D) Members of the Board shall not express individual opinions on the proper judgement of any case prior to its determination on that case.

(E) Members of the Board shall give notice to the chairman at least forty-eight (48) hours prior to the hearing of any potential conflict of interest which he has in a particular case before the Board.

(F) No Board member shall vote on any matter that decides an application or appeal unless he had attended the public hearing on that application or appeal.

Section 507. Powers and Duties of the Watershed Review Board.

(A) Administrative Review. The Watershed Review Board shall hear and decide appeals from any decision or determination made by the Watershed Administrator in the enforcement of this ordinance.

(B) Variances. This section outlines the procedures for local governments to use in approving minor variances. Major variances may be granted for certain projects; however, the major variance must be reviewed by and receive approval from the Environmental Management Commission prior to the local government issuing the watershed protection permit. Procedures for local government review of major variance requests and submission of a recommendation to the Commission are also included. The Watershed Review Board shall have the power to authorize, in specific cases, minor variances from the terms of this Ordinance as will not be contrary to the public interests where, owing to special conditions, a literal enforcement of this Ordinance will result in practical difficulties or unnecessary hardship, so that the spirit of this Ordinance shall be observed, public safety and welfare secured, and substantial justice done. In addition, the [county][town] shall notify and allow a reasonable comment period for all other local governments having jurisdiction in the designated watershed where the variance is being considered.

(1) Applications for a variance shall be made on the proper form obtainable from the Watershed Administrator and shall include the following information:

(a) A site plan, drawn to a scale of at least one (1) inch to forty (40) feet, indicating the property lines of the parcel upon which the use is proposed; any existing or proposed structures; parking areas and other built-upon areas; surface water drainage. The site plan shall be neatly drawn and indicate north point, name and address of person who prepared the plan, date of the original drawing, and an accurate record of any later revisions.

(b) A complete and detailed description of the proposed variance, together with any other pertinent information which the applicant feels would be helpful to the Watershed Review Board in considering the application.

(c) The Watershed Administrator shall notify in writing each local government having jurisdiction in the watershed and the entity using the water supply for consumption. Such notice shall include a description of the variance being requested. Local governments receiving notice of the variance request may submit comments to the Watershed Administrator prior to a decision by the Watershed Review Board. Such comments shall become a part of the record of proceedings of the Watershed Review Board.

(2) Before the Watershed Review Board may grant a variance, it shall make the following three findings, which shall be recorded in the permanent record of the case, and shall

include the factual reasons on which they are based:

(a) There are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the Ordinance. In order to determine that there are practical difficulties or unnecessary hardships, the Board must find that the five following conditions exist:

(1) If he complies with the provisions of the Ordinance, the applicant can secure no reasonable return from, nor make reasonable use of, his property. Merely proving that the variance would permit a greater profit to be made from the property will not be considered adequate to justify the Board in granting an variance. Moreover, the Board shall consider whether the variance is the minimum possible deviation from the terms of the Ordinance that will make possible the reasonable use of his property.

(2) The hardship results from the application of the Ordinance to the property rather than from other factors such as deed restrictions or other hardship.

(3) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(4) The hardship is not the result of the actions of an applicant who knowingly or unknowingly violates the Ordinance, or who purchases the property after the effective date of the Ordinance, and then comes to the Board for relief.

(5) The hardship is peculiar to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.

(b) The variance is in harmony with the general purpose and intent of the Ordinance and preserves its spirit.

(c) In the granting of the variance, the public safety and welfare have been assured and substantial justice has been done. The Board shall not grant a variance if it finds that doing so would in any respect impair the public health, safety, or general welfare.

(3) In granting the variance, the Board may attach thereto such conditions regarding the location, character, and other features of the proposed building, structure, or use as it may deem advisable in furtherance of the purpose of this ordinance. If a variance for the construction, alteration or use of property is granted, such construction, alteration or use shall be in accordance with the approved site plan.

(4) The Watershed Review Board shall refuse to hear an appeal or an application for a variance previously denied if it finds that there have been no substantial changes in conditions or circumstances bearing on the appeal or application.

(5) A variance issued in accordance with this Section shall be considered a Watershed Protection Permit and shall expire if a Building Permit or Watershed Occupancy Permit for such use is not obtained by the applicant within six (6) months from the date of the decision.

(6) If the application calls for the granting of a major variance, and if the Watershed Review Board decides in favor of granting the variance, the Board shall prepare a preliminary record of the hearing with all deliberate speed. The preliminary record of the hearing shall include:

(a) The variance application;
(b) The hearing notices;
(c) The evidence presented;
(d) Motions, offers of proof, objections to evidence, and rulings on them;
(e) Proposed findings and exceptions;
(f) The proposed decision, including all conditions proposed to be added to the permit.

The preliminary record shall be sent to the Environmental Management Commission for its review as follows:

(a) If the Commission concludes from the preliminary record that the variance qualifies as a major variance and that (1) the property owner can secure no reasonable return from, nor make any practical use of the property unless the proposed variance is granted, and (2) the variance, if granted, will not result in a serious threat to the water supply, then the Commission shall approve the variance as proposed or approve the proposed variance with conditions and stipulations. The Commission shall prepare a Commission decision and send it to the Watershed Review Board. If the Commission approves the variance as proposed, the Board shall prepare a final decision granting the proposed variance. If the Commission approves the variance with conditions and stipulations, the Board shall prepare a final decision, including such conditions and stipulations, granting the proposed variance.

(b) If the Commission concludes from the preliminary record that the variance qualifies as a major variance and that (1) the property owner can secure a reasonable return from or make a practical use of the property without the variance or (2) the variance, if granted, will result in a serious threat to the water supply, then the Commission shall deny approval of the variance as proposed. The Commission shall prepare a Commission decision and send it to the Watershed Review Board. The Board shall prepare a final decision denying the variance as proposed.

(C) Subdivision approval. See Article 200.

(D) Public Health. See Article 400.

(E) Approval of all development greater than the low density option. See Appendix C.

Section 508. Appeals from the Watershed Review Board.

Appeals from the Watershed Review Board must be filed with the Superior Court within 30 days from the date of the decision. Decisions by the Superior Court will be in the manner of certiorari.

FOOTNOTES PAGE

[1]House Bill 124, enacted in 1991, provides that watershed regulations may be adopted by a local government pursuant to its "general police power," to its power to adopt a land subdivision ordinance, to its zoning power, or to some combination of these powers. The model ordinance, since it has been established as a free-standing ordinance, cites the general police power statutes as its authority along with the watershed statutes. Local governments must choose which authority they wish to use and should not cite all legislative authorities because each authority has its own corresponding jurisdictional implications. Local governments should decide whether or not they intend to adopt a free-standing ordinance, or as an alternative, separate (or amendments to) zoning and subdivision ordinances. Whichever method is chosen, the appropriate authorities should be cited in this section and elsewhere in the ordinance whenever needed.

Coordination between the jurisdictions is very important. A county may enforce the watershed protection regulations for a municipality within that county if a resolution is passed by both the county and municipal governing boards.

[2] Statutory authority for this section is derived from N.C. General Statutes Chapter [153A][160A], Article [6][8], Section [121][174], Section [140][193] and Chapter 143-214.5.

[3] This section states the watershed protection ordinance will not affect existing ordinances or agreements between parties unless those ordinances or agreements are less restrictive than the watershed protection ordinance. In those situations the watershed protection ordinance will take precedence.

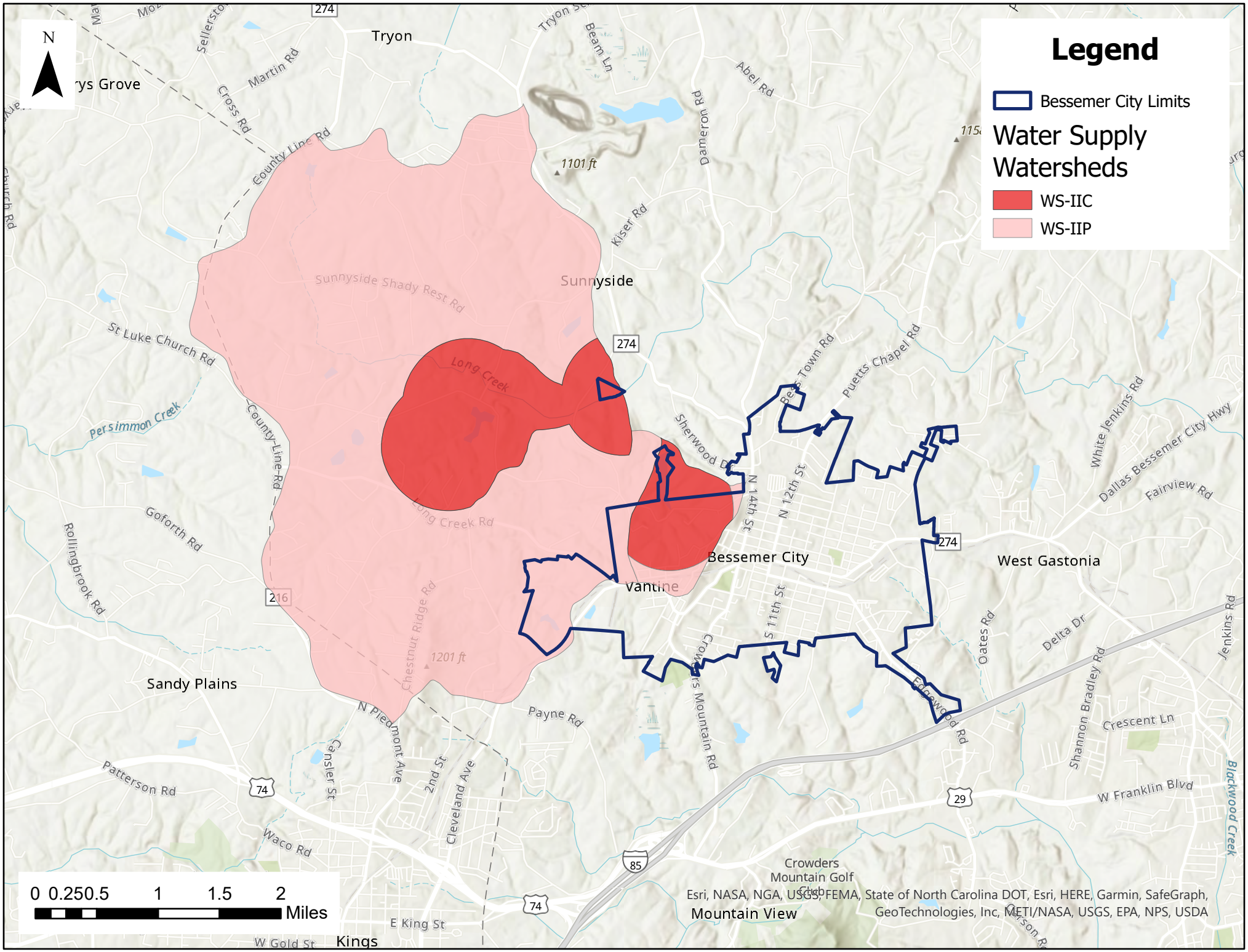
[4] The latest date on which an ordinance shall become effective is as follows:

- by July 1, 1993: Affected municipalities with a population of 5,000 or greater
- by October 1, 1993: Affected municipalities with a population less than 5,000
- by January 1, 1994: Affected counties.

[5] Statutory authority for this section is derived from N.C. General Statutes Chapter [153A][160A], Article [6][8], Section [121][174], Section [140][193] and Chapter 143-214.5

[6] Statutory authority for this section is derived from N.C. General Statutes Chapter [153A][160A], Article [6][8], Section [121][174], Section [140][193] and Chapter 143-214.5. This article contains development regulations for each of the watershed classifications. Watersheds designated WS-V require no local government regulatory program. Local governments will only need to include the regulations corresponding to the classifications assigned to watersheds in their jurisdiction. For WS-II, WS-III and WS-IV watershed areas, the EMC rules provide for single family residential development to be controlled either by limiting built-upon area or by limiting density (dwelling units per acre). Those involved in drafting the model ordinance felt that most local units of government would find it easier to enforce single family residential requirements through density controls rather than limiting built-upon area. All other residential and non-residential development is controlled by regulating the amount of built-upon area as required by the EMC rules.

Water Supply Watershed Map


N
Legend
Bessemer City Limits
Water Supply Watersheds
WS-IIC
WS-IIP
Tryon
Sunnyside
Bessemer City
West Gastonia
Vantine
Sandy Plains
Mountain View
Crowders Mountain Golf Club
Long Creek
Persimmon Creek
Blackwood Creek
Sunnyside Shady Rest Rd
St Luke Church Rd
County Line Rd
Long Creek Rd
Chestnut Ridge Rd
Goforth Rd
Rollingbrook Rd
Patterson Rd
Waco Rd
Payne Rd
E King St
W Gold St
Kings
Martin Rd
Cross Rd
Beam Ln
Abel Rd
Dameron Rd
Kiser Rd
Sherwood Dr
Beam Town Rd
Puetts Chapel Rd
N 14th St
N 12th St
S 11th St
Crowders Mountain Rd
Edgewood Rd
Oates Rd
Delta Dr
Shannon Bradley Rd
Crescent Ln
W Franklin Blvd
Jenkins Rd
White Jenkins Rd
Dallas Bessemer City Hwy
Fairview Rd
N Piedmont Ave
2nd St
Cleveland Ave
Cansler St
1101 ft
1201 ft
274
216
74
85
29
0 0.250.5 1 1.5 2 Miles
Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Salisbury, NC Code of Ordinance Article IX – Sections 25-270-274

If the violation has not been corrected pursuant to the requirements set forth in the notice of violation, or, in the event of an appeal, within fifteen (15) days of the decision of the authority upholding the decision of the city, then representatives of the city shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

(Ord. No. 2007-01, § 16, 2-6-07)

Sec. 25-267. - Cost of abatement of the violation.

After abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within fifteen (15) days. If the amount due is not paid within a timely manner as determined by the decision of the municipal authority or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

Any person violating any of the provisions of this article shall become liable to the city by reason of such violation.

(Ord. No. 2007-01, § 17, 2-6-07)

Sec. 25-268. - Violations deemed a public nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this article is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

(Ord. No. 2007-01, § 18, 2-6-07)

Sec. 25-269. - Remedies not exclusive.

The remedies listed in this article are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the city to seek cumulative remedies.

The city may recover all attorney's fees, court costs and other expenses associated with enforcement of this article, including sampling and monitoring expenses.

(Ord. No. 2007-01, § 19, 2-6-07)

Sec. 25-270. - Establishment of a stormwater management utility and stormwater enterprise fund.

(a) There is hereby established a city stormwater management utility that shall be responsible for implementing, operating, and administering the city's stormwater management program as defined herein.

(b) There is hereby established a city stormwater management enterprise fund for the purpose of dedicating and protecting funding applicable to the responsibilities of the stormwater management utility, including, but not limited to, rents, rates, fees, charges, and penalties. Funding may also include other funds transferred or

allocated to the stormwater management utility by the city council.

(c) All stormwater service charges and interest generated by such charges shall be accounted for separately from all other revenues and funds and shall be used by City of Salisbury solely for the operational costs, maintenance costs, management costs, indirect costs, capital improvements, debt principal and debt service, and establishment of a reserve fund for stormwater services.

(Ord. No. 2012-27, § 1, 7-17-12)

Sec. 25-271. - Impervious surface area and equivalent residential unit.

(a) Impervious surface area on a given zoning lot or tract directly relates to the volume, rate and pollutant loading of stormwater runoff discharged from that zoning lot or tract to the city's structural and natural drainage systems and facilities. Therefore, impervious surface area shall be the primary parameter for establishing a rate structure to distribute the cost of services associated with the operation, repair, improvement and maintenance of public drainage systems and facilities through a schedule of rates, fees, charges, and penalties related to the operation of a stormwater management utility and stormwater management enterprise fund as established in section 25-270.

(b) Based on an analysis by the city of impervious surface area on properties throughout the city, an impervious surface area of two thousand five hundred (2,500) square feet shall be designated as one (1) equivalent residential unit (ERU).

(Ord. No. 2012-27, § 1, 7-17-12)

Sec. 25-272. - Schedule of fees and charges.

(a) All developed land in the corporate limits of the City of Salisbury, whether public or private, shall be subject to a stormwater service charge.

(b) Stormwater service charges on developed land shall be based on a schedule of rates, charges, tiers and late fees fixed and established from time to time by the city council, adopted in the annual budget ordinance. Stormwater service charges will be determined and modified from time to time by the city council, so that the total revenues generated by said charges will be used to pay any expenses for stormwater purposes, and such expenses as are reasonably necessary for providing stormwater services within the City of Salisbury.

(Ord. No. 2012-27, § 1, 7-17-12)

Sec. 25-273. - Billing and collection.

(a) Stormwater service charges may be billed on a utility bill that may also contain charges for other city services. Stormwater service charges that are shown on a combined utility bill may be for a different service period than that used for the other city utility services.

(b) Stormwater service charges for a property that receives water service or combined sanitary sewer and water service will be sent to the customer receiving such service. However, where multiple water and sewer accounts exist for a single parcel, the bill for stormwater service charges may for good cause shown at the discretion of the city be sent to the property owner. The city will develop additional policies concerning billing.

(c) Property owners with outstanding stormwater service charges may not be entitled to receive other city utility se until outstanding stormwater service charges on that property are paid. Customers with a delinquent stormwat service account may not be eligible to open another city utility account at the same or different location until th delinquency has been satisfied.

(Ord. No. 2012-27, § 1, 7-17-12)

Sec. 25-274. - Credits and exemptions.

(a) *Credits.* All developed land in the city, whether public or private, shall be subject to a stormwater service charge. Credits shall not be allowed based on age, tax exemption, or other status of an individual or organization.

(b) *Exemptions.* The following exemptions from stormwater management service charges are allowed:

(1) Undeveloped land.

(2) Improved public transportation ways, including public streets, roads, greenways and trails and internal roads within public facilities which have been conveyed to the North Carolina Department of Transportation or City of Salisbury and which are used by the general public for motor vehicle transportation.

(3) Railroad tracks. However, railroad stations, maintenance buildings or other developed land shall not be exempted from stormwater management service charges.

(4) Developed land with less than four hundred (400) square feet of impervious surface area.

(Ord. No. 2012-27, § 1, 7-17-12)

Secs. 25-275—25-299. - Reserved.

City Of Raleigh, NC Ordinance No. (2003) – 537

corrected

ORDINANCE NO. (2003) - 537

AN ORDINANCE TO CREATE A STORMWATER SERVICES ADVISORY COMMISSION AND TO ESTABLISH A STORMWATER MANAGEMENT UTILITY.

Whereas, Chapter 160A, Article 16 of the General Statues authorizes the City of Raleigh to establish a stormwater management enterprise program, and

Whereas, State and Federal laws, regulations, and rules require the City of Raleigh to limit pollutants in stormwater discharged into receiving waterways through various controls and management practices of stormwater quality, flow, and quantity, and

Whereas, The North Carolina Department of Environment and Natural Resources has adopted, in NCAC title 15A Subchapter 2B, surface water and wetland standards for the Neuse River which requires the City of Raleigh to regulate stormwater runoff and reduce nitrogen loads from stormwater runoff, and

Whereas, The City of Raleigh has certain obligations and responsibilities for the planning, designing, construction, operation and maintenance of the stormwater management system within its municipal borders, and

Whereas, The Stormwater Utility Stakeholders Group established by the City Council recommended to the Council that annual funding for stormwater management programs be increased from 6 million dollars to 11.8 million dollars per year, and

Whereas, Based on various completed drainage basin studies conducted on behalf of the City of Raleigh, it is estimated that the City of Raleigh has a backlog of approximately 100 million dollars of stormwater capital improvements required to meet basic flood control, stream stabilization and water quality objectives.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RALEIGH, NORTH CAROLINA that:

Section 1. Section 6-1002(b) of the Raleigh City Code is amended to replace the words “storm drainage system and structures” in subsection (5) with the words “stormwater management system” and to delete subsection (6) in its entirety, and in lieu thereof insert the following:

"(6) Manage the stormwater services of the City."

Said section is further amended to insert at the end of subsection (8) the following language: ", and the construction, reconstruction, extending and otherwise building or improving storm sewer and drainage systems." Section 6-1002(b) is amended yet further to delete subsection (11) in its entirety and in lieu thereof insert the following:

"(11) Enforce the following: soil erosion and sedimentation control (Part 10 Chapter 5), floodprone area regulations (Part 10 Chapter 4), sidewalks, and driveways (Part 10 Chapter 7) and stormwater control and watercourse buffer regulations (Part 10 Chapter 9). ".

Section 2. Chapter one of Part 6 of the Raleigh City Code is to create two articles. Article A shall appear before section 6-1001 and it shall read"

"ARTICLE A.
DEPARTMENT OF CENTRAL ENGINEERING"

Article B shall follow section 6-1002 and it shall read:

"

Secs. 6-1003 – 6010.
RESERVED.

ARTICLE B.
STORMWATER MANAGEMENT ADVISORY COMMISSION

Sec. 6011.
ESTABLISHMENT, COMPOSITON, DUTIES AND PROCEDURES.

(a) Establishment and Composition:

The Raleigh Stormwater Management Advisory Commission *shall* be composed of ten (10) members who *shall* reside within the *City* limits. The membership of the Commission *shall* be appointed by the *Council*. Each member *shall* be appointed for a period of two years except that the *Council* in appointing the original membership of the Commission *may* prescribe terms of fewer years to the end that the terms of the various

members of Stormwater Management Advisory Commission *shall* be staggered.

(b) Duties:

The Stormwater Management Advisory Commission *shall* have the following charge and duties:

(1) The Commission *shall* review and recommend to the *Council* stormwater management policies, policy changes, long range plans and their budgetary and rate impacts.

(2) The Commission *shall* review and comment to the *Council* on the annual stormwater management capital improvements program.

(3) The Commission *shall* respond to the City Council and city staff requests for advice on matters related to stormwater services and the stormwater management utility.

(4) The Commission *shall* present the *Council* with an annual report of key actions and issues and its annual work program.

(c) Procedure:

The Stormwater Management Advisory Commission is directed to adopt rules of procedure necessary to the conduct of its affairs and in keeping with the provision of this *Code*, all policies of the *City* Council, and applicable State laws. Such rules of procedure, and any modifications to same, *shall* be submitted to the *City* Council for review and approval. Except as provided in this *Code*, the rules of procedure adopted by the Commission *shall* at least provide for: selection of the *officers* of the Commission; the time and place of its regular meetings, which *shall* at least be held bi-annually, and the calling of special meetings; the procedures of the conduct of public hearings and voting. The Commission *shall* elect from its membership at least a chair*person* and vice chair*person*, who *shall* serve for terms of one (1) *year*, who *shall* be eligible for reelection, and who *shall* have the right to vote. The chair*person shall* preside over the Stormwater Management Advisory Commission. In the absence or disability of the chair*person*, the vice-chair*person shall* perform the duties of the chair*person*. All meetings of the Stormwater Management Advisory Commission *shall* be open to the public, in accordance with the North Carolina Open Meetings Law, G.S. 143-318.10 et seq*.,* and a public record *shall* be kept of the Commission's resolutions, proceedings, and actions. The rules of procedure and minutes of the Commission are maintained as separate documents in the nature of a public record at the *City* Clerk's Office. The

Central Engineering Department *shall* provide such technical, administrative, and clerical assistance as required by the Commission.

Section 3. Part 6 of the Raleigh City Code is amended to add a new chapter related to stormwater water services, including provisions for a stormwater management utility, and the new chapter shall read as follows:

" CHAPTER 4.
STORMWATER SERVICES

Sec. 6-4001	Findings.
Sec. 6-4002	Definitions.
Sec. 6-4003	Creation of stormwater management account.
Sec. 6-4004	Stormwater management service charges.
Sec. 6-4005	credits applicable to stormwater management service charges.
Sec. 6-4006	Billing method, responsible parties.
Sec. 6-4007	Payment provisions; utility termination.
Sec. 6-4008	Appeal.
Sec. 6-4009	Limitation of responsibility.

Sec. 6- 4001.
Findings.

(a) Stormwater poses a threat to the public health, safety, and welfare because if unmanaged it floods properties, erodes watercourses and channels, and pollutes streams and rivers.

(b) By mapping, planning, constructing, operating, cleaning, regulating and maintaining the natural and constructed stormwater management system, the *City* reduces the adverse effects of stormwater and improves the quality of groundwater, streams, rivers, and lakes in and around the *City*.

(c) Providing a stable source of funding for stormwater services, as hereafter defined, can best be accomplished through stormwater management utility funds. Such a utility will benefit owners and occupants of developed land in the *City* and other *Raleigh* citizens.

(d) The amount of impervious surface on a property is the single most important factor affecting the peak rate of runoff, the total volume

discharged, and pollutant loadings of stormwater that flows from property.

State law reference: Authority to adopt a stormwater management utility, Chapter 160A, Article 16

Sec. 6- 4002.

Definitions.

All definitions as used in this Chapter, unless the context clearly indicates otherwise, shall have the meaning given herein:

Customer or consumer means the *person* or entity to which a bill for stormwater service charges is sent. This *may* include the owner, occupant, or tenant of property, a homeowner's association with responsibility for property or for common areas associated with property, or a person or entity who has requested in writing to be billed for stormwater management service charges for a property.

Developed land means real property that contains *impervious surfaces*, and includes improved land without structures and land on which improvements are under construction.

Dwelling unit means one or more rooms physically arranged to create an housekeeping establishment with separate facilities for cooking, sleeping and toilet for occupancy by one or more *persons.*

Impervious surface means any surface which because of its material composition or compacted nature impedes or prevents natural infiltration of stormwater into the soil. Impervious surfaces include, but are not limited to, roofs, roof extensions, patios, balconies, decks, including wooden slatted decks, athletic courts, swimming pools, excluding the water area of swimming pools, streets, parking areas, driveways, sidewalks, and any concrete, stone, brick, asphalt, or compacted gravel surfaces. Ungraveled natural footpaths, water surfaces of lakes streams and swimming pools and drain fields are not *impervious surfaces*.

Other residential and nonresidential developed land means any individual lot or parcel of *developed land* that is not *single-family developed land.* It includes, but is not limited to, land upon which there are residential structures

that contain more than one dwelling unit, such as multi-family dwellings (duplexes and greater), manufactured home park, as defined in Part 10, §10-2002, condominiums, apartments, boarding houses, rooming houses, fraternity houses, sorority houses, dormitories, churches; institutional buildings, whether public or private; hospitals, rest homes, public and private schools, colleges, and universities, commercial, office, hotels and motels, industrial buildings, storage areas, parking lots and land containing improvements under construction or *impervious surfaces*.

Property owner or owner means the owner of a real property as shown on the tax records of Wake or Durham County.

Single-family Equivalent Unit (SFEU) is the median amount of impervious surface on a *single-family (*detached home) *developed land* in the *City* as established by City Council resolution.

Single-family developed land means an individual lot or parcel of *developed land* with only one single-family (attached [townhome] or detached) *dwelling* unit, one manufactured home, or one mobile home, and the ownership interest of the land and of the *dwelling unit* are united and identical. *Single-family developed land shall* not include structures used primarily for nonresidential purposes or *other residential and nonresidential developed property*.

Stormwater management service charge is the charge to provide *stormwater services* to *developed land.* The charge is based upon the *Single-family Equivalent Unit (SFEU)* as calcualated for that property.

Stormwater management system or system means the system of natural and constructed devices for collecting and transporting or treating stormwater. It includes, but is not limited to, structural drainage systems such as open swales and ditches, catch basins, pipes, inlets, storm sewers, drains, culverts, junction boxes, and other stormwater management facilities that affect the quality and quantity of stormwater located within dedicated open public street rights-of-way and City of Raleigh permanent drainage easements accepted by the *City* and all natural stormwater drainage systems.

Stormwater management utility funds mean the stormwater management service charges and the interest generated by those charges.

Stormwater services means *City* stormwater management programs designed to protect water quality by controlling the level of pollutants in, and

the quantity and flow of, stormwater and *City* service of structural and natural stormwater and drainage systems of all types. Stormwater services include any cost necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and State laws, regulations and rules, and costs related to the construction, operation, maintenance, inspection, management and regulation of the *stormwater management system.*

Sec. 6- 4003.
Creation of stormwater management account.

All *stormwater management service charges* and interest generated by such charges, the *stormwater management utility funds*, *shall* be placed in a separate *City* account and *shall* be used by the City of Raleigh solely for the operational costs, maintenance costs, and management costs, indirect costs, capital improvements, debt principal and debt service, and establishment of a reserve fund for *stormwater services*. The City *may* use funds that are not *stormwater management utility funds* to provide *stormwater services.*

Sec. 6- 4004.
Stormwater management service charges.

(a) All *developed land* in the *City*, whether public or private, *shall* be subject to a *stormwater management service charge*. Exemptions *shall* not be allowed based on age, tax exemption, or other status of an individual or organization. *Stormwater management service charges may* be subject to a credit system as further provided herein.

(b) *Stormwater management service charges* on *developed land shall* be based on a schedule of rates, charges, tiers, and late fees fixed and established from time to time by the City Council and maintained on file in the offices of the Finance Director and Chief Engineer. *Stormwater management service charges* will be determined and modified from time to time by the City Council, so that the total revenues generated by said charges will be used to pay the principal and the interest on the debt incurred for stormwater purposes, and such expenses as are reasonably necessary for providing *stormwater services* within the City of Raleigh.

Cross reference: Cross reference: The amount of *impervious surface* area for *single-family equivalent units*, the base rate, the tier structure for *single-family developed land* and late charges are set forth in Resolution No. (2003) -888

_____.

(c) Computation of *stormwater management service charges.*

For *Other residential and nonresidential land*, the monthly *stormwater management service charges* on *developed land* is calculated by dividing the total *impervious surface* area of the property divided by one *single-family equivalent unit* , rounded to the nearest tenth, multiplied by the established monthly single-family equivalent unit rate as fixed by City Council Resolution.

For developments with common property containing *impervious surfaces,* such as townhouse developments, cluster unit developments, or condominiums, each *dwelling unit shall* be responsible for its equal pro rata share of the total *impervious surfaces* area of the common areas of the development unless other arrangements are made pursuant to section 6-4006(e).

(d) The following exemptions from s*tormwater management service charges* are allowed:

(1) Undeveloped land.

(2) Improved public streets, not including internal roads within public facilities which have been conveyed to the North Carolina Department of Transportation or City of Raleigh and which are used by the general public for motor vehicle transportation, and private streets constructed in accordance with the Raleigh City Code and City of Raleigh Streets Sidewalks and Driveway Access Handbook.

(3) *Developed land* with less than four-hundred (400) square feet of *impervious surface* area.

(4) Railroad tracks. However, railroad stations, maintenance buildings or other *developed land shall* not be exempted from *stormwater management service charges*.

(5) Portions of *developed land* that directly drain outside the city limits

No exemption authorized under subsections (3) through (5) *shall* be made until a written request to the Chief Engineer of the *City* documenting the application of the exemption is approved. The Chief Engineer *may* approve or reject the request in whole or in part.

Sec. 6- 4005.

Credits applicable to stormwater management service charges.

(a) The *City may* provide a system of credits to reduce *stormwater management service charges* for properties on which stormwater control measures substantially mitigates the peak discharge or runoff pollution flowing from such properties or substantially decreases the *City*'s cost of maintaining the s*tormwater management system*. The Central Engineering Department will develop written policies to implement the credit system. No credit will be authorized until the City Council approves written policies to implement the system of credits; a copy of the approved policies *shall* be on file with the City Clerk. The *City*'s policies *may* make credits retroactive to the date *stormwater management service charges* were initiated. Any bill charges requiring adjustments must be applied through the utility billing system. But no credit will be granted for more than three past years. Nothing *shall* prevent the City Council from modifying the adopted system of credits, and such modifications *may* apply to holders of existing credits.

(b) Each credit allowed against the *stormwater management service charge* is conditioned on the continuing operation and functioning of the stormwater control measure as designed; credited stormwater control measures must comply with all applicable laws, ordinances and regulations, and credits *may* be rescinded for noncompliance with these standards.

(c) Each credit for which a *customer* applies *shall* be subject to review and approval by the Chief Engineer or his designee. The Chief Engineer *may* approve or reject any application for a credit in whole or in part.

(d) Credits *shall* only be applied to *developed lands* containing the credited stormwater control measure. For developments with common property containing credited stormwater control measures such as townhouse developments, cluster unit developments, or condominiums, each *dwelling unit shall* be eligible for its equal pro rata share of the credit unless other arrangements for billing the *stormwater management service charge* are made pursuant to section 6-4006(e).

Sec. 6- 4006.
Billing method, responsible parties.

(a) Bills for *stormwater service shall* be sent at regular periodic intervals. *Stormwater*

management service charges may be billed on a combined utility bill that also contains charges for sewer service or combined sewer and water service and/or solid/waste management service. *Stormwater management service charges* that are shown on a combined utility bill *may* be for a different service period than that used for sewer service or combined sewer and water service.

(b) *Stormwater management service charges* for a property that receives sewer service or combined sewer and water service will be sent to the *customer* receiving such service. However, where multiple water and sewer accounts exist for a single parcel, the bill for *stormwater management service charges may* for good cause shown at the discretion of the *City* be sent to the *property owner*. Additional policies concerning billing will be developed by the *City*.

(c) The *property owner* is ultimately responsible for payment of the *stormwater management service charge* for property for which the party billed has not paid the stormwater management service charge.

(d) *Owners* of property *may,* with the consent of the *City*, designate each occupant of the property as the party to receive the bill for *stormwater management service charge* by completing and properly executing a form provided by the *City*. Such designation *shall* fairly allocate the *impervious surfaces* actually used by the billed party, and it *shall* be binding for the period of time specified by the *City*. No occupant *may* be designated as the party to receive the bill for *stormwater management service charge* unless the occupant is also receiving a *City sewer service or combined sewer and water service* bill. Such transfer does not relieve either the *owner* or occupant from liability for *stormwater management service charges* if they are not paid by the party billed.

(e) The residents of townhouse, cluster unit, and condominium developments and other similar properties containing *impervious surface* in common areas *may* in accordance with this subsection charge the total impervious surface of all commonly-owned or common areas to the homeowners association. The bill for *stormwater management service charge* will be sent to the homeowners' association upon official request of a majority of all lot or unit owners of the association; provided that (1) the current adopted budget of the association includes this additional charge to the homeowners association, (2) the association is receiving a City sewer service bill or combined sewer and water service bill and (3) a payment bond in the amount of six months estimated bill in favor of the *City*. *Stormwater management service charges* applied to all individually-owned property within the development *may* likewise be billed to the homeowners association Any request for homeowner association billing must contain all information required by the *City* and *shall* be binding for the period of time specified by the *City*.

Sec. 6- 4007.
Payment provisions; utility termination.

(a) Where *stormwater management service charges* appear on a combined utility bill or a master summary bill, and a *customer* does not pay the service charges for all the utilities on the bill, the partial payment will be applied to the respective service charges in the following order: delinquent *stormwater management service charges*, delinquent recycling and/or solid waste management service charges, delinquent sewer service or combined sewer and water charges, current stormwater charges, current recycling and/or solid waste management service charges and current sewer service or combined sewer and water charges.

(b) *Stormwater management service charges* are due at the collection office in *City* hall within the time period stated on the bill. Bills not paid within this time *shall* be charged a late fee as set forth in the City Council adopted schedule of charges.

(c) Where a property receives sewer service or combined sewer and water service, if stormwater management service charges for that property are not paid, sewer service or combined sewer and water service to that property *may* be terminated, whether or not the *stormwater management service charges* were included on a combined utility bill. Termination will be handled in accordance with standard operation provisions of the *City*. At least twenty-one days prior to termination of service, the *City* will post a sign or signs either upon the subject property or at convenient locations as it deems appropriate. Such posting *shall* advise that *City* sewer service or combined sewer and water service *may* be terminated and direct further inquiry to a listed telephone number. All postings are for the convenience of the public and any defective posting *shall* not invalidate the termination of *City* utility services.

(d) No property for which *stormwater management service charges* are outstanding is entitled to receive sewer service or combined sewer and water service until the outstanding *stormwater management service charge* on that property is paid. No *customer* with a delinquent stormwater management service account is entitled to open a sewer service or a combined sewer and water account at the same or different location until the delinquency has been satisfied.

(e) If property is underbilled, or not billed, or a bill is sent to the wrong party, the *City* may backbill up to a three-year period.

(f) *Customers* with complaints about the accuracy of *stormwater management service charges* are entitled to a review as provided in section 6-4008. No charge will be retroactively adjusted to resolve *customer* complaints for a period of

more than three-year prior to the date the *City* received the complaint. Any bill charges requiring adjustment must be applied through the utility billing system.

Sec. 6- 4008.
Appeal.

Any *customer* who believes the provisions of this chapter have been applied in error *may* appeal in the following manner:

(1) An appeal must be filed in writing with the Chief Engineer. At the discretion of the Chief Engineer, the appeal *may* be required to include a survey prepared by a registered land surveyor and such other information that show the total property area, the *impervious surface* area, and any other features or conditions which influence the hydrologic response of the property to the stormwater events.

(2) Using the information provided, the Chief Engineer *shall* conduct a technical review pursuant to good engineering practices. The Chief Engineer *may* adjust the *stormwater service management charge* so long as the adjustment is in conformance with the general purpose and intent of this chapter. At the conclusion of the review, the Chief Engineer *shall* issue a written determination stating whether an adjustment to the *stormwater service management charge* is appropriate, and if so, the percentage of such adjustment. Any approved adjustments must be communicated in writing to the appropriate utility billing staff.

(3) An appeal *may* be taken from any decision of the Chief Engineer which is adverse to the *customer* by giving notice of appeal to the City Manager within thirty (30) days after service of the Chief Engineer's written decision on the *customer*. Notice of appeal *shall* be given by the *customer* by delivery of a written statement to the City Manager stating the grounds for the appeal and providing the City Manager with a copy of the written decision of the Chief Engineer. The Chief Engineer *shall* transmit to the City Manager and the *customer* all documents constituting the record upon which the Chief Engineer's decision was made.

(4) All decisions of the Chief Engineer and City Manager *shall* be served on the *customer* personally or by registered or certified mail. Mailing *shall* be based upon the billing address of the *customer*.

(5) Following the decision of the City Manager, the *customer may* make an appeal to the City Council. The City Council *shall* fix a reasonable time for the hearing of an appeal, *shall* give due notice of such hearing to the *customer* and the manager, and *shall* render its decision within a reasonable time.

(6) When an appeal is from a decision authorizing an adjustment to the *customer's* bill, the Chief Engineer's decision *shall* remain in effect until and unless reversed or otherwise modified.

No adjustment to a *customer's* bill *shall* be made which is for more than the three-year period immediately preceding the date that the *customer's* request is first received by the *City.*

Sec. 6-4009.
Limitations of responsibility.

(a) The *City shall* be responsible only for the portions of the drainage system which are in City maintained street rights-of-way and permanent storm drainage easements conveyed to and accepted by the City. Repairs and improvements to the drainage system *shall* be in accordance with established standards, policies, and schedules.

(b) The *City's* acquisition of permanent storm drainage easements and/or the construction or repair by the *City* of stormwater control measures and drainage facilities does not constitute a warranty against stormwater hazards, including, but not limited to, flooding, erosion, or standing water.".

Section 4. All laws and clauses of laws in conflict herewith are hereby repealed to the extent of said conflict.

Section 5. If this ordinance or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given separate effect and to this end the provisions of this ordinance are declared to be severable.

Section 6. This ordinance shall become effective five days following its adoption.

ADOPTED: 11/5/03
EFFECTIVE: See section 6

This ordinance prepared by the Raleigh City Attorney's Office

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Town of Cary, NC Land Development Ordinance – Chapter 7

7.3.3 Peak Runoff Control

There shall be no net increase in peak stormwater run-off flow leaving a development from pre-development conditions for the one (1)-year design storm. New developments are required to minimize damage to subject streams caused by storm flows.

(A) Calculation of Peak Flow

Acceptable methodologies for computing pre- and post-development conditions for the one (1)-year design storm include:

(1) The Rational Method (used when the drainage area is two hundred (200) acres or less)

(2) The Peak Discharge Method as described in USDA Technical Release Number 55 (TR-55) (drainage area is two thousand (2,000) acres or less)

(3) The Putnam Method (drainage area is greater than two thousand (2,000) acres)

(4) USGS Regression Equations, where applicable

The same method must be used for both the pre- and post-development conditions.

(B) Exceptions to Peak Flow Control

Developments with less than ten (10) percent net increase in peak flow of the one (1)-year design storm are not required to control peak flow for the one (1)-year storm from the site. However, if the net increase in peak flow from the new development is greater than ten (10) percent, the entire net increase from pre-development one (1)-year design storm peak flow must be controlled.

7.5.9 Downstream Impact Analysis

(A) A Downstream Impact Analysis shall be submitted at the time of development plan submission for all proposed development that requires development plan approval. Development plans that are not subject to the stormwater management regulations of LDO Section 7.3 are exempt from this section 7.5.9.

(B) The Downstream Impact Analysis shall calculate the pre- and post-development discharges for each discharge point from the area subject to the development plan.

(1) If the calculated post-development discharge is less than the calculated pre- development discharge for the two (2), five (5), ten (10) and one hundred (100)-year peak discharges at each discharge point, then no further analysis is needed.

(2) If the calculated post-development discharge is greater than the calculated pre-development discharge for the two (2), five (5), ten (10) or one hundred (100)-year peak discharges at any discharge point, then one of the options below shall be required.

(a) Provide onsite detention to fully mitigate each storm event to calculated pre-development discharge; or

(b) Provide an engineering model demonstrating no adverse impacts from the development on downstream properties and infrastructure.

(Ord. No. 06-009, adopted 4-27-06; eff. 4-27-06; Ord. No. 2007-04, 3-22-07; Ord. No. 2007-21, 12-13-07; Ord. No. 2008-LDO-01, 9-25-08; Ord. No. 2010-LDO-01, 1-14-10; Ord. No. 2013-LDO-02, 6-13-13; Ord. No. 2014-LDO-03, 8-14-14; Ord. No. 2019-LDO-03, 10-10-19; Ord. No. 2019-LDO-02, 11-21-19; Ord. No. 2021-LDO-01, 6-24-21)

City of Raleigh, NC Unified Development Ordinance – Article 9.2E

compliance with the Stormwater Management Design Manual and the City-approved or modified stormwater control plan. No certificate of compliance or occupancy may be issued by the Developmental Services without approved as-built plans. At a minimum, the as-built plans must contain the following information:

a. The name and address of the land owner;

b. The recorded book and page number of the lot of each required stormwater control facility and required open space area;

c. A statement that all inspected stormwater control facilities and open space areas are in compliance with the approved stormwater control plan, the applicable maintenance manual required and the Raleigh Stormwater Management Design Manual; and

d. The original signature and seal of the engineer, surveyor or landscape architect.

E. Stormwater Runoff Controls

1. Runoff Limitation

a. After May 1, 2001, the peak stormwater runoff leaving any site for the two-year and 10-year storms shall be no greater at every point of discharge for post-development conditions than pre-development conditions. The same methodologies used to calculate stormwater runoff must be used for both pre-development and post-development conditions.

b. For any denuded area on sites between 5 and 15 acres in size the peak stormwater runoff leaving the site at each discharge point for the two-year storm and 10-year storm shall be no greater during construction than for pre-development conditions. For any land disturbing activity on sites, greater than 15 acres in size the peak stormwater runoff leaving the site at each discharge point for the two-year storm, 10-year storm and 25-year storm shall be no greater during construction than for pre-development conditions. However, this regulation shall not be applicable when the development site conforms to all of the following:

i. The disturbed acreage is less than 5 acres; and

ii. The two-year peak discharge for the disturbed condition, for all points of discharge, is less than 10% of the peak discharge from the contributing watershed as measured at the nearest receiving watercourse.

2. Exemptions

The stormwater runoff control requirements do not apply to sites with any of the following conditions.

a. The development complies with the stormwater control master plan approved for its drainage basin.

b. The increase in peak stormwater runoff between pre-development and post-development conditions for the two-year and 10-year and 25-year storms is 10% or less at each point of discharge.

c. The maximum impervious surface coverage of the lot, including any existing impervious surfaces, is no more than 10% and the remaining pervious portions of the lot are utilized to convey and control the stormwater runoff of the lot to the maximum extent practical. In the event that the site is subsequently subdivided, reduced by recombination or the impervious surface is equal to or exceeds 15% the site may no longer be exempt.

d. Compliance with *Sec. 9.2.2.E.1.* above, would result in greater adverse downstream impact, such as local flooding, as determined by City-approved engineering studies.

e. Compliance with the 10-year storm and 25-year storm runoff limitations in *Sec. 9.2.2.E.1.* above results in no benefit to current and future downstream development, as determined by City-approved engineering studies.

3. Additional Runoff Controls

The City may require the installation of stormwater runoff control measures for projects without any stormwater measures present when the benchmarks contained in the *subsections a.* through *d.* below are applicable. The City reserves the right to require additional stormwater runoff control measures for projects which are compliant with *Sec. 9.2.2.A* or *Sec. 9.2.2.E.1.* above, if stormwater runoff from the site could cause adverse effects on other properties including, without limitation, public streets, greenways and utility easements.

a. As part of an application for rezoning, subdivision or site plan for sites at or upstream of documented structural flooding cases, the applicant shall submit a stormwater impact analysis to the Engineering Services Director.

b. This requirement does not extend to sites initially zoned and added to the territorial coverage of as a result of annexation, extraterritorial jurisdictional expansion or otherwise or application of any overlay district.

c. The stormwater impact analysis shall look at the flood level differences between pre-development and post-development conditions for the 25-, 50- and 100-year storm events. If the analysis shows an increase greater than 0.04 feet between pre-development and post-development flood levels at the site of structural flooding then mitigation to pre-development flood conditions will be required to prevent further damage to the affected property.

d. In the case where the area of the subject property is less than 5% of the drainage area, measured to the location of the documented structural flooding, then this analysis shall not be required.

e. In the event flood levels are increased, then the affected property owners will be notified in writing of any increase by the applicant.

F. Preservation of Open Space Areas

1. Open Space Areas Preserved

a. Areas designated on approved stormwater control plans as open space to be used for complying with this Article shall be preserved and protected.

b. The only activities allowed in designated open space areas are those activities allowed by the approved stormwater control plan or allowed in riparian surface water buffers under Title 15A North Carolina Administrative Code Article 2B, section .0233, as amended from time to time. Determinations required by the North Carolina Administrative Code shall be made by the City.

c. No work in open space areas shall proceed without a written protected watercourse buffer permit from the City.

d. Permanently protected undisturbed open space areas identified on stormwater control plans shall be recorded on plats recorded with the County Register of Deeds and clearly delineated with a fence.

2. Exchange of Open Space Areas

Open space areas may not be subdivided or conveyed by the owner. However, nothing in this section shall prevent the mortgaging and hypothecating of open space areas; provided the mortgage applies to all portions of the tract and not just the open space areas, the mortgagee is informed that the open space areas are used for complying with the requirements of the Article and the rights of the mortgagee are subordinated to the rights of any property owner association and its members. Furthermore, nothing shall prevent the exchanging of open space areas for other properties when all of the following are met:

a. If the open space area is owned by a homeowners' association, written notice of the exchange is given to each member of the association except in cases where the exchange is done to eliminate an encroachment;

b. After the notice is given, if required, the owner of the open space area approves the exchange;

c. The exchanged properties and other considerations are of like value and utility;

d. The acreage and configuration of the remaining open space area including real property to be received in such exchange equal or exceeds the requirements of the City Code; and

e. The exchange is approved by the Engineering Services Director.

G. Maintenance of Stormwater Control Measures and Devices

1. General Requirements

a. The land owner or person in possession or control of the land shall maintain all on-site stormwater control facilities and all open space areas required by the approved stormwater control plan unless those facilities and open space areas are accepted for maintenance by a governmental agency.

b. The land owner entitled to the exclusive use of an off-site drainage easement for one or more stormwater control facilities not accepted for

Applicable Programs

NPDES Phase II MS4 Permit No. NCS000412

STATE of NORTH CAROLINA
DEPARTMENT of ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

PERMIT NO. NCS000412
TO DISCHARGE STORMWATER UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

City of Bessemer City

is hereby authorized to discharge stormwater from their municipal separate storm sewer system located:

within the City of Bessemer City corporate limits
Gaston County

to receiving waters; unnamed tributaries to Abernethy Creek, Crowders Creek (Bessemer Branch), Long Creek, Arrowood Lake, Oates Creek, and Oates Creek within the Catawba River Basin in accordance with the discharge limitations, monitoring requirements, and other conditions set forth in Parts 1 through 8, hereof.

This permit shall become effective November 1, 2021.

This permit and the authorization to discharge shall expire at midnight on June 30, 2026.

Signed this day October 20, 2021.

Jeanette Powell, MS4 Program Coordinator

for Brian Wrenn, Director
Division of Energy, Mineral, and Land Natural Resources
By the Authority of the Environmental Management Commission

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PART 1: PERMIT COVERAGE

1.1 Authorized Discharges

1.1.1 During the period beginning on the effective date of the permit and lasting until expiration, the permittee is authorized to discharge stormwater from the municipal separate storm sewer system (MS4) to receiving waters; Abernethy Creek (unnamed tributary), Crowders Creek (unnamed tributary, Bessemer Branch), Long Creek (unnamed tributary), Arrowood Lake, Oates Creek and unnamed tributary within the Catawba River Basin.

1.1.2 All discharges authorized herein shall be managed in accordance with the terms and conditions of this permit. Any other point source discharge to surface waters of the state is prohibited unless it is an allowable non-stormwater discharge or is covered by another permit, authorization, or approval.

1.1.3 Authorized discharges shall be controlled, limited and monitored in accordance with the permittee's approved Stormwater Management Plan (SWMP).

1.1.4 All provisions contained and referenced in the approved SWMP, along with all provisions and approved modifications of the SWMP, are incorporated by reference and are enforceable parts of this permit.

1.1.5 The permit authorizes the point source discharge of stormwater runoff from the MS4. In addition, non-stormwater discharges are also authorized through the MS4 if such discharges are:

a) Permitted by and in compliance with another authorization or approval, including discharges of process and non-process wastewater, and stormwater associated with industrial activity; or

b) Determined by the permittee to be incidental non-stormwater flows that do not significantly impact water quality and may include:

- water line and fire hydrant flushing;
- landscape irrigation;
- diverted stream flows;
- rising groundwater;
- uncontaminated groundwater infiltration;
- uncontaminated pumped groundwater;
- discharges from uncontaminated potable water sources;
- foundation drains;
- air conditioning condensate (commercial/residential);
- irrigation waters;
- springs;
- water from crawl space pumps;
- footing drains;
- lawn watering;
- residential and charity car washing;

- flows from riparian habitats and wetlands;
- dechlorinated swimming pool discharges;
- street wash water;
- flows from firefighting activities.

c) The Division of Energy, Mineral and Land Resources, herein referred to as the Division, may require that non-stormwater flows of this type be controlled by the permittee's Stormwater Management Plan.

1.2 Permitted MS4 Area

This permit covers activities associated with the discharge of stormwater from the MS4 owned and operated by the permittee within the corporate limits of the permittee. The permit also applies to areas that seek coverage under this permit through inter-local or other similar agreements with the permittee.

1.3 Co-Permittees

1.3.1 Agreements for co-permittee coverage under this permit shall be approved by the Division.

1.3.2 The Division may deny or revoke coverage under this permit for separate entities and require independent permit coverage as deemed necessary. In addition, the permittee may petition the Division to revoke or deny coverage under this permit for specific entities.

1.4 Shared Responsibility

1.4.1 Pursuant to 40 CFR 122.35, an operator of a regulated MS4 may share the responsibility to implement the minimum control measures with other entities provided:

a) The other entity, in fact, implements the control measure;

b) The particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and

c) There is a legal agreement for the other entity to implement the control measure(s) on behalf of the MS4.

1.4.2 Unless implemented by the State, the permittee remains responsible for compliance if the other entity fails to perform the permit obligation and may be subject to enforcement action if neither the permittee nor the other entity fully performs the permit obligation.

1.5 Annual Administering and Compliance Monitoring Fee

The permittee shall pay the administering and compliance monitoring fee within 30 (thirty) days after being billed by the Division. Failure to pay the fee in a timely manner in accordance with 15A NCAC 2H .0105(b)(4) may cause the Division to initiate action to revoke this permit and/or deny permit renewal.

1.6 Duty to Reapply

The permittee is not authorized to discharge after the expiration date. In order to receive automatic authorization to discharge beyond the expiration date, the permittee shall submit a permit renewal application and fees, as are required, no later than 180 days prior to the expiration date of this permit.

Any permittee that has not requested renewal at least 180 days prior to expiration, or any discharge that does not have a permit after the expiration and has not requested renewal at least 180 days prior to expiration, shall be subject to enforcement procedures as provided in NCGS 143-215.6 and 33 USC 1251 et seq.

The renewal application shall include: a review of the Stormwater Management Program development and implementation over the life of this permit, the status of compliance, programs, and a description of further program development to be implemented over the future permitting time period.

1.7 Permit Actions and Limitations

1.7.1 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 Title 40, Code of Federal Regulations, Parts 122 and 123; Title 15A of the North Carolina Administrative Code, Subchapter 2H .0100; and North Carolina General Statute 143-215.1 et. al

1.7.2 The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

1.7.3 This permit does not relieve the permittee from responsibility for compliance with any applicable federal, state, or local law, rule, standard, ordinance, order, judgment, or decree.

PART 2: STORMWATER MANAGEMENT PROGRAM

2.1 Program Implementation

The permittee shall implement, manage and oversee all provisions of its approved SWMP to control, to the maximum extent practical, the discharge of pollutants associated with stormwater runoff and illicit discharges, including spills and illegal dumping, from its MS4. This includes, but is not limited to, the following areas:

2.1.1 The permittee shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and meet all requirements of this permit.

2.1.2 The permittee shall evaluate the performance and effectiveness of the program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program.

2.1.3 If discharges are determined to cause or contribute to non-attainment of an applicable water quality standard, the permittee shall expand or better tailor its BMPs within the scope of the six minimum control measures to address the discharges.

2.1.4 The permittee shall notify the Division of any planned modifications to the SWMP. All changes must be approved in writing by the Division prior to implementation.

2.1.5 The permittee shall make its SWMP available to the Division upon request.

2.1.6 In order to properly characterize the permittee's MS4 discharges or to assess compliance with this permit, the Division may request reporting and monitoring information on a more frequent basis as deemed necessary either for specific portions of the permittee's SWMP, or for the entire Stormwater Program.

2.1.7 The permittee shall keep an up-to-date version of its permit and SWMP available to the Division and the public online. Ordinances or other regulatory mechanisms (or a list thereof) providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP shall also be posted online.

2.2 Minimum Control Measures

2.2.1 Compliance with the six minimum control measures (MCMs) in 40 CFR §122.34(b) and the requirements of this permit constitute compliance with the Clean Water Act to reduce the discharge of pollutants from the MS4, to the maximum extent practicable, to protect water quality, and to satisfy the applicable water quality requirements of the Clean Water Act. Implementation of best management practices consistent with the provisions of the approved SWMP constitutes compliance with the standard of reducing pollutants to the maximum extent practicable.

2.2.2 The Permittee shall maintain, and make available to the Division upon request, written procedures for implementing the six minimum control measures. Written procedures shall identify specific action steps, schedules, resources, and responsibilities for implementing the MCMs. Written procedures can be free standing or, where appropriate, integrated into the Stormwater Management Plan.

2.3 Reliance on Qualifying Alternative Programs to Meet Permit Requirements

2.3.1 The permittee shall clearly identify in the SWMP the qualifying alternative program components that will be utilized to meet specific permit requirements.

2.3.2 Any qualifying alternative program components utilized to meet the requirements of this permit shall become an enforceable part of this permit.

2.3.3 Qualifying alternative programs include those programs that comply with the North Carolina Sediment Pollution Control Act of 1973, Chapter 4 of Title 15A of the North Carolina Administrative Code, Title 15A NCAC 02H .1017 of the North Carolina Administrative Code.

2.4 Notification to Modify Program

2.4.1 When changes to the program are required, the permittee shall provide certification in writing to the Division that the changes have been made.

2.4.2 The Division may notify the permittee when the SWMP does not meet one or more of the requirements of the permit. Within ninety (90) days of such notice, the permittee shall submit a plan and time schedule to the Division for modifying the SWMP to meet the requirements. The Division may approve the plan, approve a plan with modifications, or reject the proposed plan. Nothing in this paragraph shall be construed to limit the Division's ability to conduct enforcement actions for violations of this permit.

PART 3: STORMWATER MANAGEMENT PLAN (SWMP)

This permit requires the full and proper implementation of the approved SWMP detailing the MS4s compliant stormwater management program. To the extent allowable under State and local law, the permittee must develop and implement a SWMP in accordance with Section 402(p)(3)(B)(iii) of the Clean Water Act. The purpose of the SWMP is to establish and define the means by which the permittee will comply with the MS4 permit and with the applicable provisions of the Clean Water Act.

3.1 General Requirements

3.1.1 The SWMP shall include, at a minimum, specific and measurable goals that define program elements to fully implement each of the six minimum control measures (MCMs) defined in 40 CFR §122.34(b): public education and outreach on stormwater impacts, public involvement and participation, illicit discharge detection and elimination, construction site runoff control, post-construction stormwater management, and pollution prevention/good housekeeping for municipal operations, as well as any required Total Maximum Daily Load (TMDL) requirements.

3.1.2 The SWMP shall identify specific position(s) and responsibilities for the implementation of each MCM and any TMDL requirements, as well as overall coordination and management of the SWMP.

3.1.3 The SWMP shall detail the permittee's Stormwater Management Program for the five-year term of the stormwater permit. Each MCM shall have: a narrative description of the program, a table that identifies each best management practice (BMP) used, the frequency of the BMP, the measurable goals for each BMP, the implementation schedule, funding, and the responsible person or position for implementation.

3.1.4 The SWMP shall be documented utilizing the Division's standard Phase II MS4 SWMP Template and shall be submitted to the Division for review and approval.

3.1.5 The approved SWMP shall become an enforceable part of this permit.

3.2 Public Education and Outreach Program

The SWMP shall identify the specific elements and implementation of a Public Education and Outreach Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff. The permittee shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement and, at a minimum, shall:

3.2.1 Evaluate the target pollutants, likely sources, and associated target audiences likely to have significant stormwater impacts and why they were selected. Schools, homeowners, and businesses shall be included as target audiences.

3.2.2 Provide educational information to identified target audiences.

3.2.3 Provide and maintain a website designed to convey the program's message.

3.2.4 Provide educational information to municipal employees, businesses and the public of hazards associated with illicit discharges, illegal dumping, and improper disposal of waste.

3.2.5 Provide a stormwater hotline/helpline for public education and outreach.

3.3 Public Involvement and Participation Program

The SWMP shall identify the specific elements for implementing, documenting and tracking a Public Involvement and Participation Program that complies with State and local public notice requirements and, at a minimum, shall:

3.3.1 Provide mechanisms for public input on stormwater issues and the stormwater program.

3.3.2 Provide volunteer opportunities to ongoing citizen participation.

3.4 Illicit Discharge Detection and Elimination Program

The SWMP shall identify the specific elements to develop, implement, and enforce an Illicit Discharge Detection and Elimination (IDDE) Program in accordance with 40 CFR §122.34(b)(3). At a minimum, the IDDE Program shall:

3.4.1 Develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.

3.4.2 Provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.

3.4.3 Maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping, spills and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to:

a) Locate priority areas likely to have illicit discharges,

b) Conduct routine dry weather inspections of all major outfalls,

c) Identify illicit discharges and trace sources,

d) Eliminate the source(s) of an illicit discharge, and

e) Evaluate and assess the IDDE Program.

3.4.4 Provide a mechanism for tracking and documenting each illicit discharge, illicit connection or illegal dumping event including date(s) reported and/or observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.

3.4.5 Train municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.

3.4.6 Provide a mechanism for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.

3.5 Construction Site Runoff Control Program (Construction Program)

The SWMP shall identify the specific elements to develop, implement, and enforce a Construction Program to reduce pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre, and any construction activity that is part of a larger common plan of development or sale that would disturb one acre or more.

Reliance upon a North Carolina Sediment Pollution Control Act of 1973 (SPCA) program as defined in 15A NCAC Chapter 04 may be used to meet requirements 3.5.1 through 3.5.4 below. At a minimum, the Construction Program shall:

3.5.1 Provide an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal or local law.

3.5.2 Require construction site operators to implement appropriate erosion and sediment control BMPs.

3.5.3 Provide procedures for site plan review which incorporate consideration of potential water quality impacts.

3.5.4 Provide procedures for site inspection and enforcement of control measures.

3.5.5 Require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.

3.5.6 Provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.

3.6 Post-Construction Site Runoff Control Program (Post-Construction Program)

The SWMP shall identify the specific elements to develop, implement, and enforce a Post-Construction Program to address stormwater runoff from development projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. At a minimum, the Post-Construction Program shall comply with 15A NCAC 02H .1017 and shall provide:

3.6.1 Legal Authority

The permittee shall maintain adequate legal authorities through ordinance or other regulatory mechanism to:

a) Review designs and proposals for development projects to determine whether adequate stormwater control measures will be installed, implemented, and maintained.

b) Request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Program.

c) Enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine compliance with the Post-Construction Program.

3.6.2 Plan Review and Approval

The permittee shall maintain plan review and approval authority, standards, and procedures to:

a) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire MS4 permitted area, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program.

b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction.

c) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(11).

d) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(12).

e) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans.

f) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10).

3.6.3 Inspections and Enforcement

The permittee shall maintain inspection and enforcement authority, standards, and procedures to:

a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s).

b) Ensure that the project has been constructed in accordance with the approved plan(s).

c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement.

d) Ensure inspection of low density projects at least once during the permit term.

e) Require that inspections be conducted by a qualified professional.

3.6.4 Documentation

The permittee shall maintain adequate documentation and standardized inspection and tracking mechanisms to:

a) Maintain an inventory of post-construction SCMs and low density projects.

b) Document, track and maintain records of inspections and enforcement actions. Tracking shall include the ability to identify chronic violators.

c) Make available to developers all relevant ordinances, post-construction requirements, design standards, checklists, and/or other materials.

3.6.5 Fecal Coliform Reduction Program

The permittee shall control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include:

a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and

b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.

3.7 Pollution Prevention and Good Housekeeping Programs

The SWMP shall identify the specific elements for development and implementation of a comprehensive suite of operation and maintenance programs to prevent and minimize pollutants in runoff from municipal facilities and operations. At a minimum, pollution prevention and good housekeeping for municipal operations shall include the following programs:

3.7.1 Municipal Facilities Operation and Maintenance Program to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices.

3.7.2 Spill Response Program for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.

3.7.3 MS4 Operation and Maintenance Program to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.

3.7.4 Municipal SCM Operation and Maintenance Program to manage municipally-owned, operated, and/or maintained structural SCMs that are installed for compliance with the permittee's post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.

3.7.5 Pesticide, Herbicide and Fertilizer Management Program for municipal staff to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.

3.7.6 Vehicle and Equipment Maintenance Program to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.

3.7.7 Pavement Management Program to reduce pollutants in stormwater runoff from municipally-owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.

3.8 Total Maximum Daily Load (TMDL)

3.8.1 The permittee shall comply with the requirements of an approved TMDL stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4.

3.8.2 If no stormwater WLA exists for an approved TMDL, the permittee shall evaluate strategies and tailor and/or expand BMPs within the scope of the six MCMs to enhance water quality recovery strategies and reduce pollutants of concern in the watershed(s) to which the TMDL applies. The permittee shall describe the strategies and tailored and/or expanded BMPs in their Stormwater Management Plan and annual reports.

3.8.3 Upon the date of EPA's final approval of a TMDL, the following shall apply:

a) Within 12 months, the permittee's annual reports shall include a description of, and a brief explanation as to how existing programs, controls, partnerships, projects, and strategies address impaired waters.

b) Within 24 months, the permittee's annual reports shall include an assessment of whether additional structural and/or non-structural BMPs are necessary to address impaired waters.

c) Within 36 months, the permittee's SWMP shall be updated to include appropriate BMPs to address impaired waters.

PART 4: ANNUAL SELF-ASSESSMENTS

Implementation of the Stormwater Management Plan shall include an annual assessment of program compliance and documentation of all program components.

4.1 SWMP Assessment

4.1.1 The permittee shall review and update the Stormwater Management Plan as necessary, but at least on an annual basis, to identify compliance issues, necessary modifications and improvements needed to maximize SWMP effectiveness.

4.1.2 The permittee shall document the self-assessment using the Division's standard Phase II MS4 Annual Self-Assessment Template and shall submit to the Division for review.

4.1.3 The self-assessment shall document activities over the course of the fiscal year (July 1 – June 30) and include appropriate information to accurately describe the progress, status, and results of the permittee's Stormwater Management Plan and, at a minimum, shall:

a) Assess compliance with the permit.

b) Provide information on the establishment of appropriate legal authorities, inspections, and enforcement actions.

c) Summarize past year activities, including specific annual reporting metrics identified in the SWMP.

d) Describe the effectiveness of each program component.

e) Provide an evaluation of the program budget, including a summary of program costs, funding sources, and gap analysis.

4.2 Program Modifications

4.2.1 The permittee shall describe and justify any proposed changes to the approved SWMP in the annual self-assessment. The annual self-assessment shall include descriptions and supporting information for the proposed changes and how these changes will impact the approved SWMP (results, effectiveness, implementation schedule, fiscal analysis, etc.).

4.2.2 The permittee shall submit proposed SWMP changes to the Division for review and approval.

4.2.3 The permittee shall not implement proposed changes prior to receiving written approval from the Division.

4.3 Submittal Schedule

4.3.1 The permittee shall submit an annual self-assessment of the previous fiscal year activities to the Division no later than August 31 of each year. A permit renewal application may be submitted in lieu of the annual self-assessment.

4.3.2 The Division may request additional reporting and/or monitoring information as necessary to evaluate the progress and results of the permittee's SWMP.

PART 5: DOCUMENTATION STANDARDS

5.1 Electronic Submittals

Beginning on December 21, 2020, and in accordance with federal reporting requirements established in the final NPDES Electronic Reporting Rule adopted and effective December 21, 2015, the permittee shall electronically submit any required annual reports and monitoring data. All required electronic submittals shall be made in accordance with Division guidance.

5.2 Non-Electronic Submittals

All reports required herein, not submitted electronically, shall be submitted to the following address:

Department of Environmental Quality
Division of Energy, Mineral, and Land Resources - Stormwater Program
1612 Mail Service Center
Raleigh, North Carolina 27699-1612

5.3 Signatory Authority

All applications, reports, or information, other than those submitted electronically, shall be signed by a principal executive officer, ranking elected official, or duly authorized representative. A person is a duly authorized representative only if:

a. The authorization is made in writing by a principal executive officer or ranking elected official;

b. The authorization specified either an individual or a position having responsibility for the overall operation of a regulated facility or activity or an individual or position having overall responsibility for environmental/stormwater matters; and

c. The written authorization is submitted to the Division.

5.4 Signatory Certification

Any person signing a document under these permit requirements shall, at a minimum, make the following certification:

> "I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

5.5 Record Keeping Requirements

5.5.1 Documentation shall be kept on-file by the permittee for a period of five years from the date of expiration of this permit and made available to the Division or authorized representative upon request.

5.5.2 The permittee shall retain records of all monitoring information, including all calibration and maintenance records and copies of all reports required by this permit, for a period of at least five years from the date of expiration of this permit. This period may be extended by request of the Division.

5.6 Supplemental or Corrected Information

Where the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or in any report to the Division, it shall promptly submit such facts or information.

PART 6: COMPLIANCE AND LIABILITY

6.1 Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of permit coverage upon renewal application.

a. The permittee shall comply with standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

b. The Clean Water Act provides that any person who violates a permit condition is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $37,500 per day for each violation). Any person who negligently violates any permit condition is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. Also, any person who violates a permit condition may be assessed an administrative penalty not to exceed $16,000 per violation with the maximum amount not to exceed $177,500. [Ref: Section 309 of the Federal Act 33 USC 1319 and 40 CFR 122.41(a).]

c. Under state law, a daily civil penalty of not more than twenty-five thousand dollars ($25,000) per violation may be assessed against any person who violates or fails to act in accordance with the terms, conditions, or requirements of a permit. [Ref: North Carolina General Statutes 143-215.6A]

d. Any person may be assessed an administrative penalty by the Administrator for violating sections 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $27,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $137,500).

6.2 Duty to Mitigate

The permittee shall take reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

6.3 Twenty-four Hour Noncompliance Reporting

The permittee shall report to the Division any noncompliance that may constitute an imminent threat to health or the environment. Any information shall be provided orally within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances.

The written submission shall contain a description of the noncompliance, and its causes, the period of noncompliance and if the noncompliance has not been corrected, the anticipated time compliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

6.4 Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS l43-2l5.3, l43-2l5.6A, 143-215.6B, 143-215.6C or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

6.5 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under NCGS l43-2l5.75 et seq. or Section 311 of the Federal Act, 33 USC 1321.

6.6 Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

6.7 Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

6.8 Duty to Provide Information

The permittee shall furnish to the Division, within a reasonable time, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the coverage issued pursuant to this permit or to determine compliance with this permit. The permittee shall also furnish to the Division upon request, copies of records required by this permit.

6.9 Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $l0,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

6.10 Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $l0,000 per violation, or by imprisonment for not more than two years per violation, or by both.

6.11 Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this permit.

6.12 Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are owned and/or operated by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures as necessary. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

PART 7: INSPECTION, ENTRY AND AVAILABILITY OF REPORTS

7.1 Inspection and Entry

The permittee shall allow the Division, or an authorized representative (including an authorized contractor acting as a representative of the Division), or in the case of a facility which discharges through a municipal separate storm sewer system, an authorized representative of a municipal operator or the separate storm sewer system receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to;

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records of the permittee that shall be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations of the permittee regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location under the control of the permittee.

7.2 Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3(a)(2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Energy, Mineral, and Land Resources. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.6B or in Section 309 of the Federal Act.

PART 8: DEFINITIONS

1. Act: See Clean Water Act.

2. Annual Self-Assessment (ASA): The standard document submitted by the permittee on an annual basis that summarizes the SWMP implementation and activities conducted during the previous fiscal year.

3. Best Management Practice (BMP): Measures or practices used to reduce the amount of pollution entering surface waters. BMPs can be structural or non-structural and may take the form of a process, activity, physical structure or planning (see non-structural BMP). See also SCM.

4. Clean Water Act (CWA or Act): The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC 1251, et. seq.

5. Common Plan of Development: A construction or land disturbing activity is part of a larger common plan of development if it is completed in one or more of the following ways: in separate stages, in separate phases, or in combination with other construction activities. It is identified by the documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, plats, blueprints, marketing plans, contracts, permit application, zoning request, or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot. It can include one operator or many operators.

6. Construction Activity: The disturbance of soils associated with clearing, grading, excavating, filling of land, or other similar activities which may result in soil erosion.

7. Department (DEQ): The North Carolina Department of Environmental Quality.

8. Division (DEMLR): The Division of Energy, Mineral, and Land Resources in the Department of Environmental Quality.

9. Illicit Discharge: Any discharge to a MS4 that is not composed entirely of stormwater except discharges pursuant to an NPDES permit (other than the NPDES MS4 permit), allowable non-stormwater discharges, and discharges resulting from fire-fighting activities.

10. Industrial Activity: For the purposes of this permit, industrial activities shall mean all industrial activities as defined in 40 CFR 122.26.

11. Major Municipal Separate Storm Sewer Outfall (or "Major Outfall"): Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe that is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

12. Maximum Extent Practicable (MEP): MEP is defined in the *Federal Register* (U.S. EPA, 1999, p. 68754). This document says that "Compliance with the conditions of the general permit and the series of steps associated with identification and implementation of the minimum control measures will satisfy the MEP standard." Minimum control measures are defined in the *Federal Register* as (1) public education and outreach, (2) public participation/involvement, (3) illicit discharge detection and elimination, (4) construction site runoff control, (5) post-construction runoff control, and (6) pollution prevention/good housekeeping. MEP are the controls necessary for the reduction of pollutants discharged from a MS4, which consist of a combination of BMPs, control techniques, system design and such other provisions as described in the SWMP. Implementation of BMPs consistent with the provisions of the stormwater management program required pursuant to this permit constitutes compliance with the standard of reducing pollutants to the MEP. Stormwater management programs must be assessed and adjusted, as part of an iterative process, to maximize their efficiency and make reasonable progress toward as ultimate goal of reducing the discharge of pollutants to the MEP.

13. Municipal Separate Storm Sewer System (MS4): Pursuant to 40 CFR 122.26(b)(8) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned or operated by the United States, a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act (CWA) that discharges to waters of the United States or waters of the State that is designed or used for collecting or conveying stormwater; that is not a combined sewer; and which is not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR 122.2.

14. Non-structural BMP: Non-structural BMPs are preventive actions that involve management and source controls such as: (1) Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space, provide buffers along sensitive water bodies, minimize impervious surfaces, and/or minimize disturbance of soils and vegetation; (2) policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure; (3) education programs for developers and the public about minimizing water quality impacts; (4) other measures such as minimizing the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.

15. Outfall: Outfall means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

16. Permittee: The owner or operator issued this permit.

17. Point Source Discharge of Stormwater: Any discernible, confined and discrete conveyance including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, or discrete fissure from which stormwater is or may be discharged to waters of the state.

18. Redevelopment: "Redevelopment" has the same meaning as in G.S. 143-214.7.

19. Storm Sewer System: Is a conveyance or system of conveyances which are designed or used to collect or convey stormwater runoff that is not part of a combined sewer system or treatment works. This can include, but is not limited to, streets, catch basins, pipes, curbs, gutters, ditches, man-made channels or storm drains that convey stormwater runoff.

20. Stormwater Associated with Industrial Activity: The discharge from any point source which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw material storage areas at an industrial site. Facilities considered to be engaged in "industrial activities" include those activities defined in 40 CFR 122.26(b)(14). The term does not include discharges from facilities or activities excluded from the NPDES program.

21. Stormwater Control Measures (SCM): "Stormwater Control Measure" or "SCM," also known as a structural "Best Management Practice" or "BMP," means a permanent device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration; or to mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof.

22. Stormwater Management Program: The term Stormwater Management Program refers to the comprehensive stormwater management program that is required to be developed and implemented by MS4 permittees.

23. Stormwater Management Plan (SWMP): The Stormwater Management Plan is the written plan that is used to describe and define the various control measures and activities the permittee will undertake to implement the stormwater management program to meet the MEP standard.

24. Stormwater Runoff: The flow of water which results from precipitation and which occurs immediately following rainfall or as a result of snowmelt.

25. Total Maximum Daily Load (TMDL): A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL is a detailed water quality assessment that provides the scientific foundation for an implementation plan. The implementation plan outlines the steps necessary to reduce pollutant loads in a certain body of water to restore and maintain water quality standards in all seasons. The Clean Water Act, Section 303, establishes the water quality standards and TMDL programs.

26. Waste Load Allocation (WLA): A WLA is a TMDL pollutant reduction target allocating a specific load reduction to specific point source discharge(s) of the pollutant. Some stormwater point source discharges are assigned a WLA.

Bessemer City SWMP

Stormwater Management Plan
City of Bessemer City
September 2021









Prepared for:

Greg Thompson
Stormwater Administrator
Publics Works Division
City of Bessemer City

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Mattern & Craig
ENGINEERS • SURVEYORS

Bessemer City
NORTH CAROLINA
City with a Heart

Stormwater Management Plan
City of Bessemer City
NCS000412

September 20, 2021

Bessemer City
NORTH CAROLINA EST.1893 *City with a Heart*

For Watersheds Located in Upper Catawba River Basin

City of Bessemer City
Catawba County, North Carolina

September 20, 2021

Prepared for: Greg Thompson
Stormwater Administrator
Publics Works Division
City of Bessemer City

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DEQ NORTH CAROLINA Department of Environmental Quality

APPROVED

Jeanette Powell
MS4 Program Coordinator
10/18/2021

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Figure 5: Bessemer City MS4 Program Organizational Chart

PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which the City of Bessemer City will comply with its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit and the applicable provisions of the Clean Water Act to meet the federal standard of reducing pollutants in stormwater runoff to the maximum extent practicable.

This SWMP identifies the specific elements and minimum measures that the City of Bessemer City will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR) in order to comply with the MS4 Permit number NCS000412, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by the City of Bessemer City and located within the corporate limits of the City of Bessemer City.

In preparing this SWMP, the City of Bessemer City has evaluated its MS4 and the permit requirements to develop a comprehensive 5-year SWMP that will meet the community's needs, address local water quality issues and provide the minimum measures necessary to comply with the permit. The SWMP will be evaluated and updated annually to ensure that the elements and minimum measures it contains continue to adequately provide for permit compliance and the community's needs.

Once the SWMP is approved by NCDEQ, all provisions contained and referenced in this SWMP, along with any approved modifications of the SWMP, are incorporated by reference into the permit and become enforceable parts of the permit. Any major changes to the approved SWMP will require resubmittal, review and approval by NCDEQ, and may require a new public comment period depending on the nature of the changes.

PART 2: CERTIFICATION

By my signature below I hereby certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

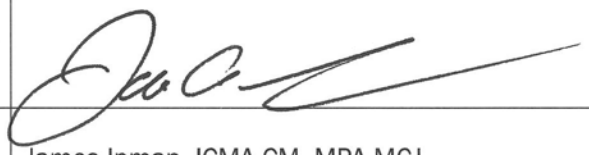
I am also aware that the contents of this document shall become an enforceable part of the NPDES MS4 Permit, and that both the Division and the Environmental Protection Agency have NPDES MS4 Permit compliance and enforcement authority.

☐ I am a ranking elected official.

☒ I am a principal executive officer for the permitted MS4.

☐ I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):

- ☐ A specific individual having overall responsibility for stormwater matters.
- ☐ A specific position having overall responsibility for stormwater matters.

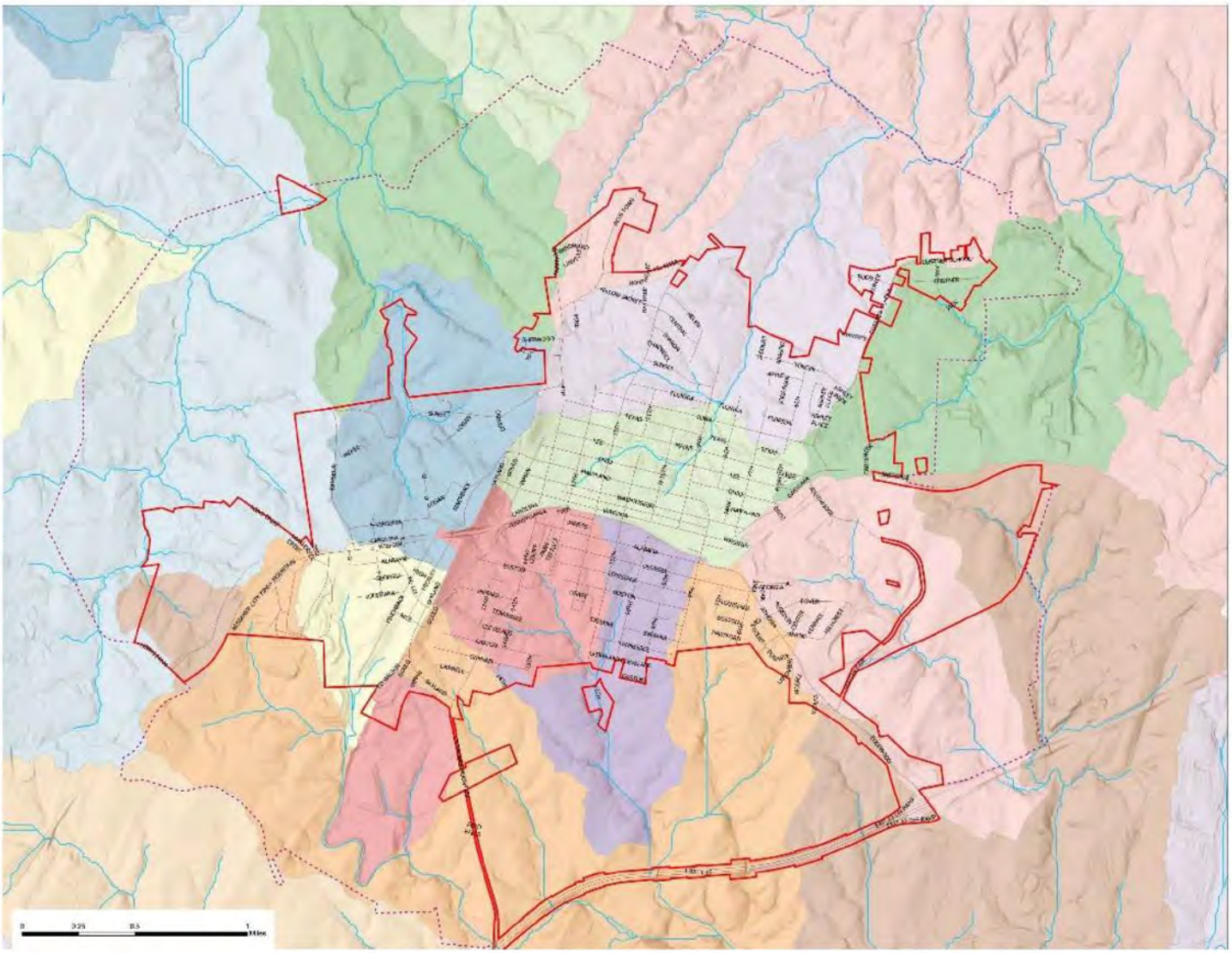
Signature:	
Print Name:	James Inman, ICMA-CM, MPA MCJ
Title:	City Manager
Signed this 24 day of September, 2021.	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

This SWMP applies throughout the corporate limits of the City of Bessemer City, including all regulated activities associated with the discharge of stormwater from the MS4. The map below shows the corporate limits of City of Bessemer City as of the date of this document.

See Figure 1: Corporate Limits of the City of Bessemer City



3.2 Existing MS4 Mapping

The current MS4 mapping includes the existing potential outfalls conducted by desktop review. The field mapping program is scheduled to begin in February to identify and record specific location by northing and easting for input in the City's GIS mapping system as well pipe size, material, condition, flow direction, inverts, ditches, inlets, catch basins, manholes, and any critical outfall scour or adverse conditions

See Figure 2: Existing MS4 Stormwater Mapping

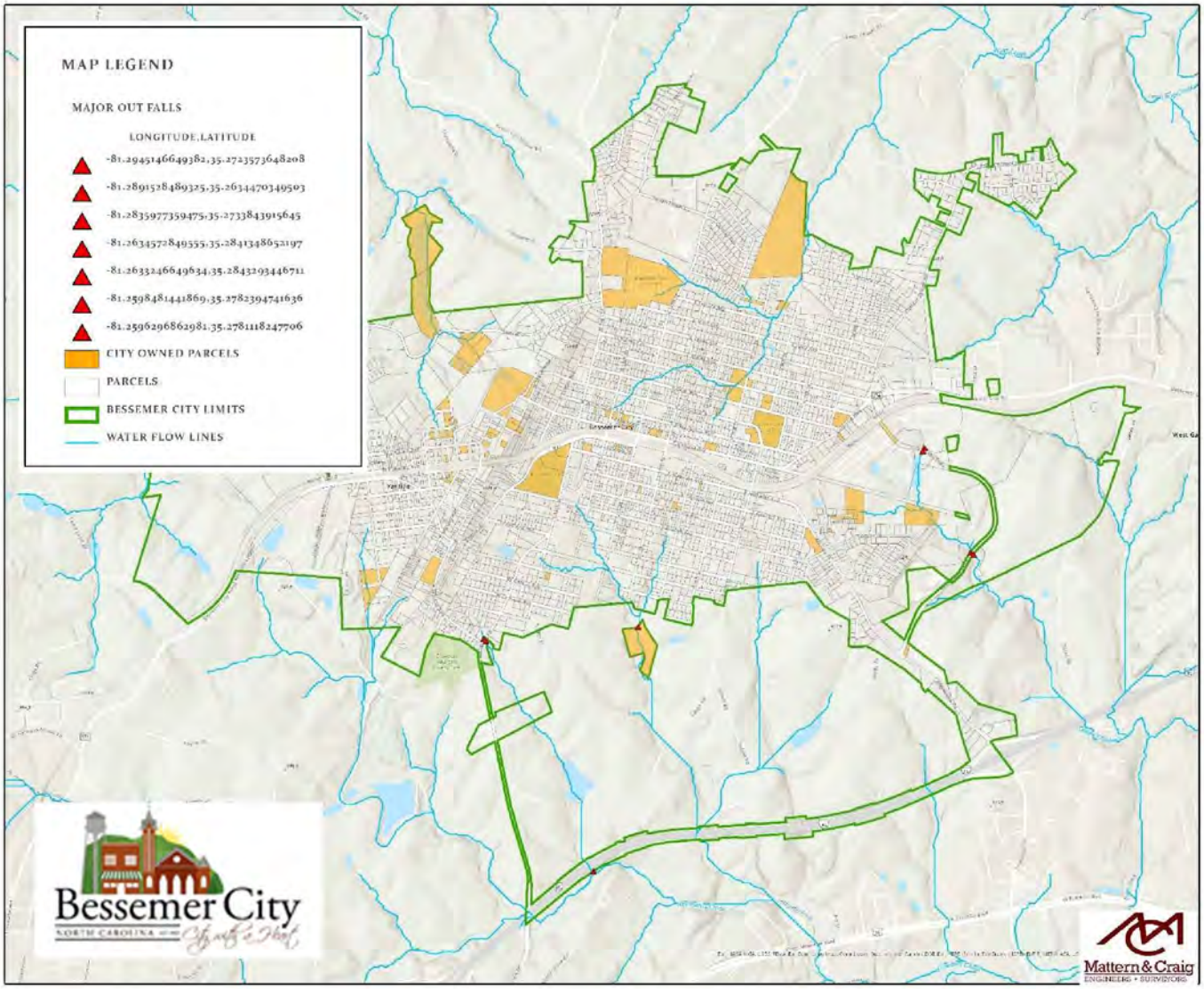


Table 1: Summary of MS4 Mapping

Percent of MS4 Area Mapped	TBD	% of limits
No. of Major Outfalls* Mapped	8	Total outfalls (est.)
UTs to Abernethy Creek	3	outfalls
UTs to Crowders Creek (Bessemer Branch)	1	outfalls
UTs to Long Creek	0	outfalls
Oates Creek and UTs	4	outfalls

**An outfall is a point where the MS4 discharges from a pipe or other conveyance (e.g. a ditch) directly into surface waters. Major outfalls are required to be mapped to meet permit requirements. A major outfall is a 36-inch diameter pipe or discharge from a drainage area > 50-acres; and for industrial zoned areas a 12-inch diameter pipe or a drainage area ≥ 2-acres.*

3.3 Receiving Waters

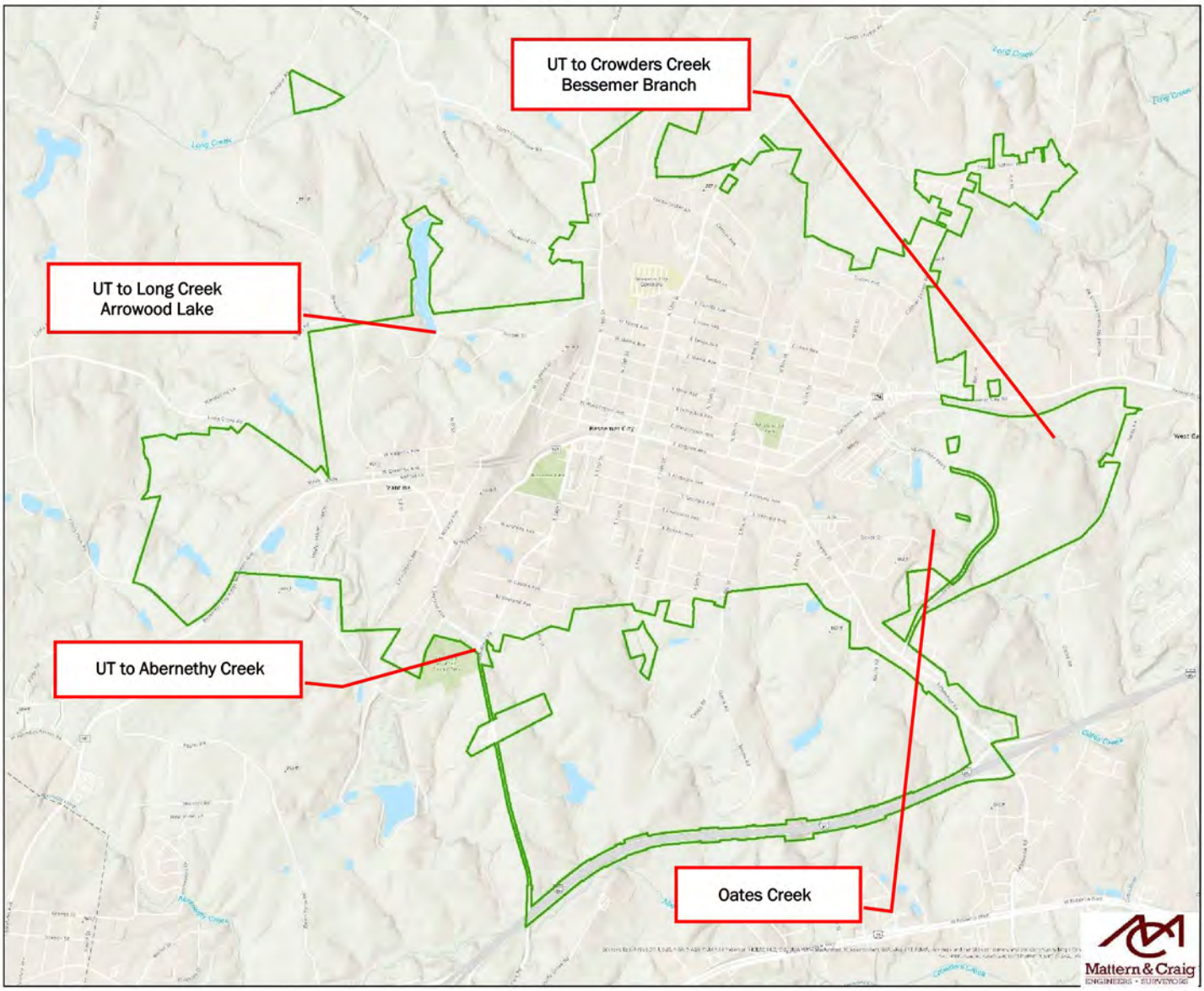
The City of Bessemer City MS4 is located within the **Catawba** River Basin and discharges directly into receiving waters as listed in Table 2 below. Applicable water quality standards listed below are compiled from the following NCDEQ sources:

- Waterbody Classification Map
- Impaired Waters and TMDL Map
- Most recent NCDEQ Final 303(d) List

Table 2: Summary of MS4 Receiving Waters

Receiving Water Name	Stream Index / AU Number	Water Quality Classification	303(d) Listed Parameter(s) of Interest
UT to Abernethy Creek	N/A	C	Not listed
UT to Crowders Creek (Bessemer Branch)	11-135	C	Not Listed
UT to Long Creek (including Arrowood Lake)	11-129-16-4.5-(1)	WS-II; HWQ, CA	Fish Community (Nar, AL, FW)
Oates Creek and unnamed tributary	N/A	N/A	Not listed

See Figure 3: MS4 Receiving Waters Mapping



3.4 MS4 Interconnection

The MS4 does interconnect with the statewide NCDOT MS4 and includes:

a. The interconnection is receiving stormwater from the NCDOT MS4. The number of interconnections is unknown. Quantity: N/A
b. The interconnection is discharging stormwater into the NCDOT MS4. The number of interconnections is unknown. Quantity: N/A.
c. The City of Bessemer City MS4 mapping does not yet identify interconnections with the NCDOT MS4.
d. The City of Bessemer City MS4 mapping does not include NCDOT MS4 outfalls.

3.5 Total Maximum Daily Loads (TMDLs)

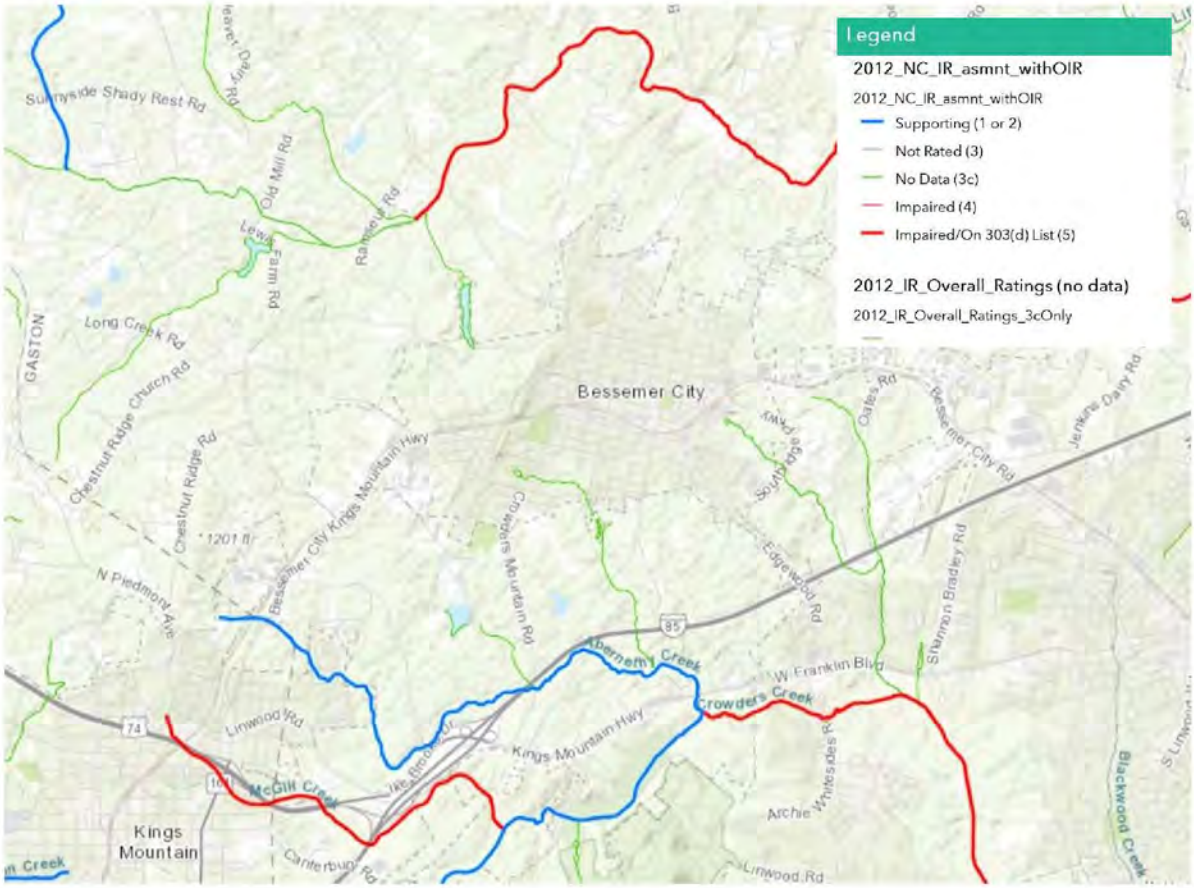
The TMDL(s) listed in Table 3 below have been approved within the MS4 area, as determined by the map and list provided on the NCDEQ Modeling & Assessment Unit web page.

The table also indicates whether the approved TMDL has a specific stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4, and whether a Water Quality Recovery Program has been implemented to address the WLA.

Table 3: Summary of Approved TMDLs

Water Body Name **Catawba River Basin**	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Crowders Creek (1996)	Nutrients	Y	Y
Crowders Creek (2004)	Fecal Coliform	Y	Y
Long Creek (2005)	Turbidity	Y	Y

See Figure 4: MS4 2018 Final Water Quality Assessment Mapping



3.6 Endangered and Threatened Species and Critical Habitat

Significant populations of threatened or endangered species and/or critical habitat are identified within the regulated MS4 urbanized area. Based upon a review of:

1. The Endangered and Threatened Species and Species of Concern by County for North Carolina Map and,
2. Listed species believe to or known to occur in North Carolina map as provided by the U.S. Fish and Wildlife Service, the species listed in Table 4 have the potential to occur within the regulated MS4 urbanized area.

Of those species listed, Table 4 summarizes the species that may be significantly impacted by the quality of surface waters within their habitat.

Table 4: Potential Federally Listed Species/Habitat Impacted by Surface Water Quality

Scientific Name	Common name	Species Group	Federal Listing Status
Haliaeetus leucocephalus	Bald Eagle	Vertebrate	BGPA
Glyptemys muhlenbergii	Bog Turtle	Vertebrate	T (S/A)
Myotis septentrionalis	Northern long-eared bat	Vertebrate	T
Hexastylis naniflora	Dwarf-flowered heartleaf	Vascular Plant	T
Symphyotrichum georgianum	Georgia aster	Vascular Plant	C
Helianthus schweinitzii	Schweinitz's sunflower	Vascular Plant	E
Pycnanthemum torreyi	Torrery's Mountain Mint	Vascular Plant	FSC

3.7 Industrial Facility Discharges

The City of Bessemer City MS4 jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the NCDEQ Maps & Permit Data web page.

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
	Tosaf, USA
	Advanced Drainage Systems
NCG060375	Dole Fresh Vegetables
	FMC Lithium, Inc.
NCGNE0221	Hunter Douglas Designer Shade
	Manufacturing Services, Inc. (MSI)

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by the City of Bessemer City as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality. The City of Bessemer City has evaluated residential and charity car washing and street washing for possible significant water quality impacts.

Street washing discharges are addressed under the Pavement Management Program in Part 10 of this SWMP. The Division has not required that other non-stormwater flows be specifically controlled by the City of Bessemer City

Wash water associated with car washing that does not contain detergents or does not discharge directly into the MS4 is considered incidental. However, these types of non-stormwater discharges that do contain detergents have been evaluated by the City of Bessemer City to determine whether they may significantly impact water quality

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental
Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	**Possible**
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	**Possible**
Flows from firefighting activities	Incidental

3.9 Target Pollutants and Sources

In addition to those target pollutants identified above, the City of Bessemer City is not aware of other significant water quality issues within the permitted MS4 area.

Table 7 below summarizes the water quality pollutants identified throughout Part 3 of this SWMP, the likely activities/sources/targeted audiences attributed to each pollutant, and identifies the associated SWMP program(s) that address each. In addition, the City of Bessemer City has evaluated schools, homeowners and businesses as target audiences that are likely to have significant stormwater impacts.

Table 7: Summary of Target Pollutants and Sources

Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Litter	Residential, commercial, schools	Public Education & Outreach, Public Involvement & Participation
Yard Waste (leaves and grass clippings)	Residential, commercial	Public Education & Outreach, Pollution Prevention & Good Housekeeping
Sediment	Construction	Construction Site Runoff Control
Nutrients	Sewer overflows, failing septic systems, urbanization, schools	Public Education & Outreach, Illicit Discharge Detection & Elimination, Construction Site Runoff Control, Post-Construction Site Runoff Control, Pollution Prevention & Good Housekeeping
Fecal coliform	Sewer overflows, failing septic systems, wildlife, illicit discharges	Public Education & Outreach, Illicit Discharge Detection & Elimination
Mercury/statewide TMDL	Atmospheric deposition	Public Education & Outreach (fish consumption advisory)
Illicit discharges	Residential, commercial, industrial, municipal staff	Public Education & Outreach, Illicit Discharge Detection & Elimination
Illegal dumping	Residential, commercial, industrial, municipal staff	Public Education & Outreach, Pollution Prevention & Good Housekeeping
Improper disposal of waste	Residential, commercial, industrial, municipal staff	Public Education & Outreach, Public Involvement & Participation, Pollution Prevention & Good Housekeeping
General non-point source pollution	Residential, commercial, industrial, municipal staff	Public Education & Outreach,

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

See Figure 5: Bessemer City MS4 Program Organizational Chart

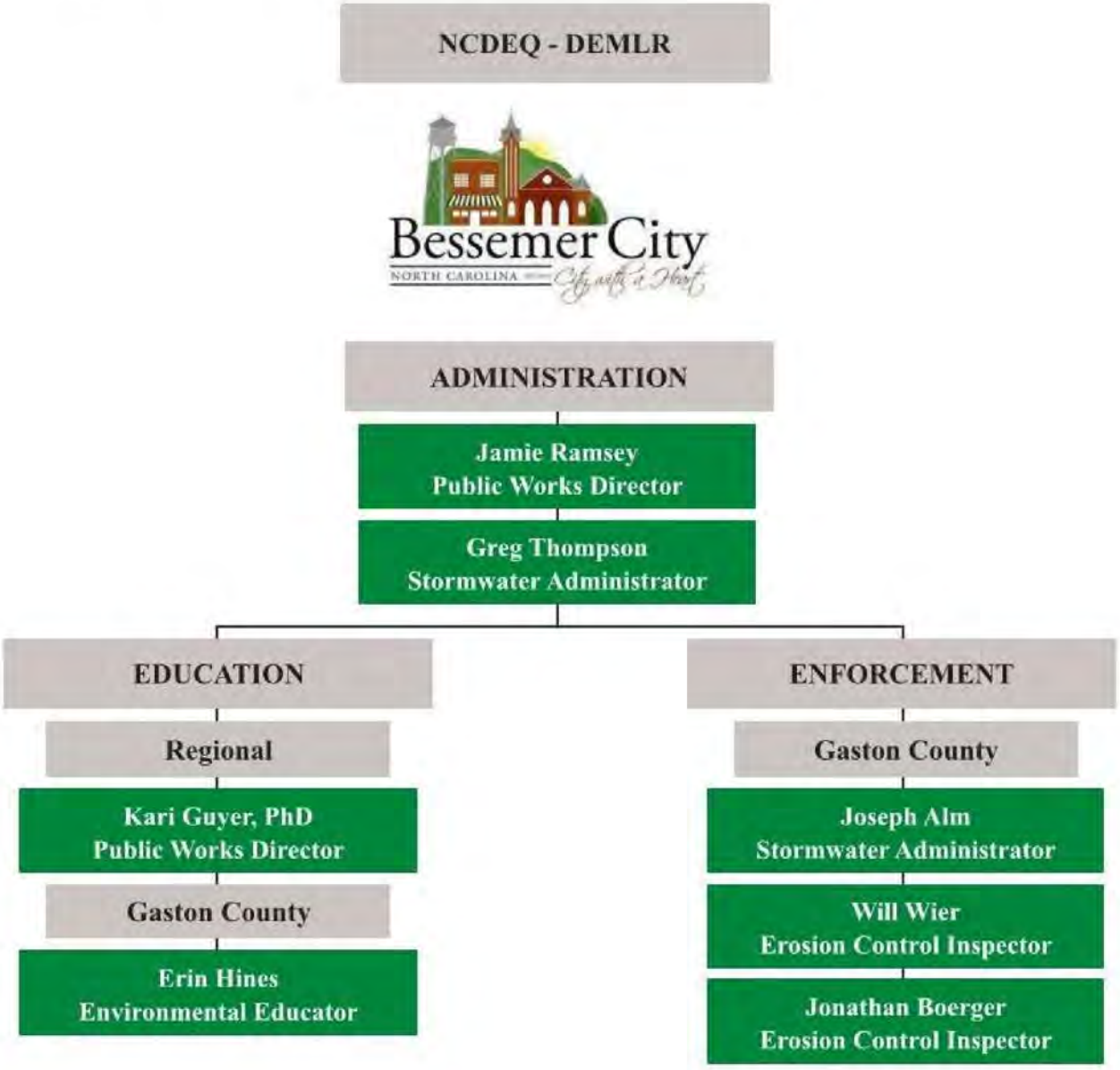


Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Stormwater Administrator	Greg Thompson	Public Works
SWMP Management	Stormwater Engineer	Brian Newman, PE	Consultant
Public Education & Outreach	Partnership Manager	Kari Guyer, PhD	Regional SW Partnership
Public Involvement & Participation	Partnership Manager	Kari Guyer, PhD	Regional SW Partnership
Illicit Discharge Detection &	Stormwater Inspector	Greg Thompson	Public Works
Construction Site Runoff Control	Erosion Control Inspector	Jonathan Boerger Will Wier	Gaston County
Post-Construction Stormwater	Stormwater Inspector	Joseph Alm Jonathan Boerger	Gaston County
Pollution Prevention/Good	Stormwater Inspector	Greg Thompson	Public Works
Municipal Facilities Operation &	Stormwater Inspector	Greg Thompson	Public Works
Spill Response Program	Stormwater Inspector	Greg Thompson	Public Works
MS4 Operation & Maintenance Program	Stormwater Inspector	Greg Thompson	Public Works
Municipal SCM Operation &	Stormwater Inspector	Greg Thompson	Public Works
Pesticide, Herbicide & Fertilizer Management	Chemical Application Inspector	Dusty Carpenter	Parks & Recreation
Vehicle & Equipment Cleaning Program	Director	Jamie Ramsey	Public Works
Pavement Management Program	Director	Jamie Ramsey	Public Works
Total Maximum Daily Load (TMDL)	Stormwater Inspector	Greg Thompson	Public Works

4.2 Program Funding and Budget

In accordance with the issued permit, the City of Bessemer City shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit. The budget includes the permit administering and compliance fee, which is billed by the Division annually.

The City's estimated revenues available from the Stormwater Utility Funding for the Fiscal Year 2018-2019 total $86,000 derived directly from stormwater charges assessed. The fee structure for Stormwater Management is collected as an addition to the user's utility bill as follows: Residential: $3.07/month, Commercial: $6.00/month, Industrial: $12.00/month.

An appropriated $35,600 was allocated to debt service for associated culvert projects and the remaining $50,400 fund balance was allocated for other Program expenses, including the administration of this Program. Although the Program is funded through the existing utility fees, the City plans to implement a new rate study to determine if the assessed fees are in line with other adjacent municipalities or, if they need to be adjusted to provide additional funding.

The program is currently under-funded to conduct all the proactive elements of the permit. Further fiscal analysis and investigation of funding options (such as additional general fund allocation or a stormwater fee) will be conducted as indicated in BMP No. 3 in order to fully fund the program by Permit year three.

4.3 Shared Responsibility

The City of Bessemer City shares the responsibility to implement the following minimum control measures, which are at least as stringent as the corresponding NPDES MS4 Permit requirement. The City of Bessemer City remains responsible for compliance if the other entity fails to perform the permit obligation, and may be subject to enforcement action if neither the City of Bessemer City nor the other entity fully performs the permit obligation. Table 9 below summarizes who will be implementing the component, what the component program is called, the specific SWMP BMP or permit requirement that is being met by the shared responsibility, and whether or not a legal agreement to share responsibility is in place.

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
MCM #1	Regional Stormwater Partnership of the Carolinas – Partnership Program	N
MCM #1	Gaston Co. Natural Resources Dept. - Environmental Education Program	N
MCM #2	Regional Stormwater Partnership of the Carolinas – Partnership Program	N
MCM #2	Gaston Co. Natural Resources Dept. - Environmental Education Program	N
MCM #4	Gaston Co. Natural Resources Dept. - Construction Site Runoff	Y
MCM #5	Gaston Co. Natural Resources Dept. - Post-Construction Program	Y

4.4 Co-Permittees

The are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000412 for the City of Bessemer City. Table 10 summarizes contact information for each co-permittee.

Table 10: Co-Permittee Contact Information – *Not Used*

4.5 Measurable Goals for Program Administration

The City of Bessemer City will manage and report the following Best Management Practices (BMPs) for the administration of the Stormwater Management Program.

Table 11: Program Administration BMPs				
Permit Ref.	2.1.2 and Part 4: Annual Self-Assessment Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program. The self-assessment reporting period is the fiscal year (July 1 – June 30).			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
1.	Annual Self-Assessment			
	Annually evaluate SWMP implementation and revise if required.	1. Prepare, certify and submit Self-Assessment to NCDEQ prior to 8/31	1. Annually Permit Years 1 – 4	1. Yes/No
Permit Ref.	1.6: Permit Renewal Application Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
2.	Permit Renewal Application			
	Audit implementation for compliance and approved SWMP. Prepare and submit a permit renewal application package based on results.	1. Participate in an NPDES MS4 Permit Compliance Audit performed by EPA or NCDEQ.	1. TBD – Typically Permit Year 4	1. Yes/No

Table 11: Program Administration BMPs				
		2. Self-audit and document any stormwater program components not audited by EPA or NCDEQ. Submit Self-Audit to DEMLR (required component of permit renewal application package).	2. Permit Year 5	2. Yes/No/Partial
		3. Certify the stormwater permit renewal application (Permit renewal application form, Self-Audit, and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	3. Permit Year 5	3. Date of permit renewal application submittal
Permit Ref.	2.1.1: Adequate Funding and Staffing The permittee shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and meet all requirements of this permit			
BMP No.	A Description of BMP	B Measurable Goal(s)	C Schedule for Implementation	D Annual Reporting Metric
3.	Adequate Funding			
	Perform a fiscal analysis and explore adequate program funding options to meet all requirements of the permit. Select and implement a funding strategy for the Phase II Stormwater Program.	1. Complete a fiscal gap analysis	1. Permit year 1	1. Report monetary value of gap
		2. Determine available funding mechanisms and evaluate options	2. Permit year 1	2. Completed? – yes/no/status
		3. Select a funding mechanism	3. Permit years 1-2	3. Report funding mechanism selected
		4. Implement funding mechanism	4. Permit years 2-3	4. Implemented? yes/no/status

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

The City of Bessemer City will continue participation in the Regional Stormwater Partnership of the Carolinas (RSPC) and the Gaston County Natural Resources Department to implement their Public Education and Outreach Program that distributes educational materials to the community and conducts many outreach activities focused on improving public education about the impacts of stormwater discharges into water bodies and steps the public can take to reduce pollutants in stormwater runoff.

The Regional Stormwater Partnership of the Carolinas seeks to educate and bring awareness to the public, local businesses and education centers of our region about stormwater issues and their impact on water quality and our environment. We further aim to unite local stormwater programs by sharing information and ideas in order to discuss and address similar stormwater issues on a regional level. It was developed as a forum for stormwater professionals to work collaboratively on local stormwater issues.
Formed in 2006 and originally comprised of professionals from six municipalities in the Charlotte metropolitan area, the RSPC has expanded to include over eighteen municipality partners. The RSPC provides an opportunity to leverage limited resources to fulfill common needs of the partners. As an example, the RSPC conducts public education and outreach efforts about stormwater issues, to meet some of the requirements in all of the partners' Clean Water Act stormwater permits.

The target audiences and identified pollutants listed in Part 3.9 of this SWMP, which will be addressed by the Public Education and Outreach Program, are summarized in Table 12 below. In addition, the Program will continue to inform businesses and the general public of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)
Litter	General Public
Illicit Discharges	General Public, Businesses, Municipal Employees, Contractors
Illegal Dumping	General Public, Businesses, Municipal Employees, Contractors
Improper Disposal of Waste	General Public, Businesses, Municipal Employees, Contractors

The City of Bessemer City and Gaston County Natural Resources Department will manage, implement and report the following public education and outreach BMPs.

Table 13: Public Education and Outreach BMPs				
Permit Ref.	3.2.2 and 3.2.4: Outreach to Targeted Audiences Measures to identify the specific elements and implementation of a Public Education and Outreach Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff. The permittee shall provide educational information to identified target audiences on pollutants/sources identified in table 12 above, and shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
4.	Partnership with Regional Stormwater Partnership of the Carolinas			
	Develop Education and Outreach Initiatives. Initiatives will focus on target audiences within MS4 Area.	1. Arrange partnership and legal agreement.	1. Permit Year 1	1. Report date established and terms of legal agreement
		2. Submit plan detailing specific commitments to NCDEQ.	2. Permit Year 1	2. Report Date approved. Include as amendment to SWMP.
		3. Monitor activities	3. Annually	3. Yes/no/status
5.	City Sponsored Event or Festival			
	The City will distribute information on stormwater during at least one City sponsored event such as the Sounds of Summer Concert Series	1. Develop one informational handout for distribution that covers pollutant sources	1. Permit year 2	1. Is handout developed? Yes/no/status
		2. Train staff to man stormwater booth at event to distribute handouts and additional information on pollutant sources	2. Permit year 2	2. Report number of trained staff
		3.Man booth at event chosen	3. Permit year 2. Annually thereafter	3. Report event chosen and number of handouts distributed
6.	Social Media Coverage			
	The City's existing Facebook account and webpage will be used to reach target audiences and share information about stormwater.	1. Post about keeping yard waste and litter out of storm drains	1. Permit year 1	1. Report the date of post
		2. Post about reducing fertilizer runoff	2. Permit year 2	2. Report the date of post
		3. Post about car washing	3. Permit year 3	3. Report the date of post
		4. Post about illegal discharge/illegal dumping	4. Permit year 4	4. Report the date of post
		5. Post about vehicle leaks	5. Permit year 5	5. Report the date of post

Table 13: Public Education and Outreach BMPs				
7.	Litter Management			
	Develop and implement strategies to reduce volume of trash and control litter pollution entering waterways.	1. Organize cleanup campaigns to remove trash from conveyance systems and receiving waters	1. Permit Year 1	1.Yes/no/status
		2. Install structural trash controls	2. Annually	2.Yes/no/status
		3. Monitor floatables in receiving waters	3. Annually	3.Yes/no/status
		4. Track number of additional trash bins installed and signage posted	4. Annually	4.Yes/no/status
		5. Review and revise solid waste collection and litter ordinance	5. Permit Year 1	5.Yes/no/status
Permit Ref.	2.1.7, 3.2.3 and 3.6.5(c): Web Site Measures to provide a web site designed to convey the program's message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
8.	Stormwater Page on City Website			
	Webpage will provide information on stormwater program, permit, SWMP, applicable ordinances, and reports. Webpage will include issue reporting mechanism/hotline, educational materials, and links to resources.	1. Establish webpage	1. Permit year 1	1. Report date available
		2. Maintain webpage	2. Annually	2. Report date reviewed and any updates
		3. Monitor engagement	3. Annually	3. Report number of hits

Permit Ref.	3.2.5: Stormwater Hotline Measures for a stormwater hotline/helpline for the purpose of public education and outreach.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
9.	Stormwater Hotline			
	Maintain Hotline for citizens to ask questions and report issues.	1. Establish and maintain hotline	1. Permit year 1-5	1. Report date established and if maintained in years 2-5
		2. Establish and train staff to answer hotline and reporting mechanism	2. Permit year 1	2. Report dates of training
		3. Train staff in general knowledge, appropriate contacts, and citizen opportunities	3. Permit year 1	3. Report dates of training
		4. Publicize hotline in developed materials and webpage	4. Permit year 1	4. Yes/no/status
		5. Establish tracking mechanism to document number and type of calls	5. Permit year 1	5. Report number and type of calls

PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

This SWMP identifies the minimum elements and implementation of a Public Involvement and Participation Program that complies with applicable State, Tribal and local public notice requirements. The City of Bessemer City will manage, implement and report the following public involvement and participation BMPs.

Table 14: Public Involvement and Participation BMPs

Permit Ref.	3.3.1: Public Input Mechanisms for public involvement that provide for input on stormwater issues and the stormwater program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
10.	Planning Commission			
	City staff will bring issues before the planning commission for citizen input	1. Include bi-annual agenda item	1. Bi-annually	1. Date of meetings and topics discussed
11.	Stormwater Hotline			
	Maintain Hotline for citizens to ask questions and report issues.	1. See BMP No. 8	1. See BMP No. 8	1. See BMP No. 8
12.	Stormwater Page of City Website			
	Webpage will provide information on stormwater program, permit, SWMP, applicable ordinances, and reports. Webpage will include issue reporting mechanism/hotline, educational materials, and links to resources.	1 See BMP No. 7	1. See BMP No. 7	1. See BMP No. 7
Permit Ref.	3.3.2: Volunteer Opportunities Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
13.	Annual City-Wide Clean-Up Event			
	Organize event to pick up trash or litter from public areas	1. Identify public areas	1. Permit year 2	1. Areas identified? Yes/no/status
		2. Coordinate clean-up	2. Annually after year 3	2. Report number of volunteers/bags filled
14.	Partnership with Regional Stormwater Partnership of the Carolinas			
	City to engage with partnership to develop opportunities that focus on target audiences	1. Arrange partnership	1. See BMP No. 4	1. See BMP No. 4
		2. Monitor activities	2. See BMP No. 4	2. See BMP No. 4

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The City of Bessemer City will develop, manage, implement, document, report and enforce an Illicit Discharge Detection and Elimination Program which shall, at a minimum, include the following illicit discharge detection and elimination BMPs.

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	**3.4.1: MS4 Map** Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
15.	Addition of Major Outfalls to MS4 Map			
	The MS4 map will be completed through GIS analysis of existing data. Major outfalls will be identified and numbered, and flow directions and receiving waters will be added.	1. Add layer identifying major outfalls	1. Permit year 1	1. Report number or major outfalls
		2. Add flow directions	2. Permit year 1	2. Report when map complete
		3. Add receiving waters	3. Permit year 1	3. Report when map complete
16.	Continual Updates to MS4 Map			
	The MS4 map will be continuously updated.	1. Add new conveyances and outfalls to map	1. Annually, after BMP No. 14 is complete	1. Report new outfalls
Permit Ref.	**3.4.2: Regulatory Mechanism** Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
17.	Maintain Legal Authority			
	Review existing ordinance (Code of Ordinances, Chapter XX,) in order to maintain legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions. Update is required.	1. Review ordinance and update required	1. Permit year 1	1. Report if revision required

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	3.4.3: IDDE Plan Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to: a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
18.	Outfall Inspections			
	Perform regular dry weather (no rainfall within 72 hours prior) outfall inspections to proactively identify illicit discharges and connections	1. Train staff to preform inspections and investigations	1. See BMP No. 21	1. See BMP No. 21
		2. Split major outfalls into five equal groups.	2. Permit year 1 w/ MS4 map	2. yes/no/status
		3. Inspect one group per year (Ref. BMP No. 20)	3. Annually beginning in permit year 2	3. Number of outfalls inspected and potential illicit discharges identified
19.	Illicit Discharge Identification Procedure			
	Revise and maintain a standard operating procedure (SOP) for investigation or potential illicit discharges and connections and illegal dumping	1. Revise the IDDE program from previous SWMP	1. Permit year 2	1. yes/no/status
		2. Maintain written IDDE program	2. Continuously	2. yes/no/status
20.	IDDE Program Evaluation			
	Yearly evaluation of IDDE program to promote continuance of effective components and improvement in areas that are lacking, as well as, identification of potential "hot-spot" areas.	1. Evaluation meeting with IDDE program stakeholders; include at least Stormwater Admin and Utilities Director	1. Annually	1. Report proposed changes
		2. Review IDDE reports	2. Annually	2. Report number of potential illicit discharges found, verified, and resolved.

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	3.4.4: IDDE Tracking Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping was observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
21.	Database Tracking System			
	A tracking system for observed IDDE violations and follow-on actions will be developed and implemented in order to identify " hot-spot" areas, chronic violators, and recurring issues.	1. Develop a "Potential Illicit Discharge Report" form to include observed illicit discharge indicators, date, location, and contacts made	1. Permit year 2	1. yes/no/status
		2. Develop a tracking spreadsheet to collect data from " Potential Illicit Discharge Report" as well as the results of the investigation, any follow-up, date of closure, and enforcement actions taken	2. Permit year 2	2. yes/no/status
Permit Ref.	3.4.5: Staff IDDE Training Measures to provide training for municipal staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
22.	Staff Training			
	Develop a program to educate City staff of indicators of potential illicit discharges/ connections and illegal dumping and the appropriate avenues through which to report suspected illicit discharge.	1. Develop staff training program	1. Permit year 2	1. yes/no/status
		2.Train staff with illicit discharge & detection responsibilities or the potential to discover an illicit discharge during routine work activities	2. Permit year 2	2. Report topics, training dates, and number trained

Table 15: Illicit Discharge Detection and Elimination BMPs				
		3. Train new staff	3. Annually beginning year 3	3. Report topics, training dates, and number trained
23.	Fact Sheets			
	Hang fact sheets in employee common areas to serve as reminders of the basics of identifying and reporting	1. Develop fact sheets	1. Permit year 2	1. yes/no/status
		2. Display fact sheets	2. Annually beginning year 2	2. Number of sheets displayed
Permit Ref.	3.4.6: IDDE Reporting Measures for the public and staff to report illicit discharges, illegal dumping and spills. The mechanism shall be publicized to facilitate reporting and shall be managed to provide rapid response by appropriately trained personnel.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
24.	Stormwater Hotline			
	Maintain Hotline for citizens to ask questions and report issues.	1. See BMP No. 8	1. See BMP No. 8	1. See BMP No. 8
25.	Stormwater Page on City website			
	Webpage will provide information on stormwater program, permit, SWMP, applicable ordinances, and reports. Webpage will include issue reporting mechanism/hotline, educational materials, and links to resources.	1 See BMP No. 7	1. See BMP No. 7	1. See BMP No. 7

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, the City of Bessemer City relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 as a qualifying alternative program to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre, and includes any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

Table 16: Qualifying Alternative Program Components for Construction Site Runoff Control Program

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity	Meets Whole or Part of Requirement
3.5.1 - 3.5.4	Gaston County Delegated SPCA Program*	15A NCAC Chapter 04	**Gaston County Natural Resources Department**	Whole
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ	Whole

* The local delegated SPCA Program ordinance(s)/regulatory mechanism(s) can be found at: https://library.municode.com/nc/gaston_county/codes/code_of_ordinances?nodeId=COOR_CH4BUCOREAC_ARTIIISOERSECO

The City of Bessemer City also implements the following BMPs to meet NPDES MS4 Permit requirements.

Table 17: Construction Site Runoff Control BMPs

Permit Ref.	3.5.6: Public Input Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
26.	**Municipal Staff Training**			
	Train municipal staff who receive calls from the public on the protocols for referral and tracking of construction site runoff control complaints.	1. Train municipal staff on proper handling of construction site runoff control complaints.	1. Annually Permit Year 1-5	1. Number of staff trained
27.	**Stormwater Hotline**			
	Maintain Hotline for citizens to ask questions and report issues.	1. See BMP No. 8	1. See BMP No. 8	1. See BMP No. 8

Table 17: Construction Site Runoff Control BMPs				
Permit Ref.	3.5.5: Waste Management Measures to require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
28.	Establish and Maintain Legal Authority			
	Develop and implement an ordinance to require construction site operators to control waste.	1. Pass code	1. Permit year 1	1. yes/no/status
		2. Maintain legal authority	2. Continuously, after ordinance adopted	2. yes/no/status
29.	Contractor Education			
	Communicate new waste management requirements to construction site operators	1. Develop fact sheet at pre-construction meetings	1. Permit year 2, after ordinance is adopted	1. yes/no/status
		2. Add fact sheet to website	2. Permit year 2, after ordinance is adopted	2.yes/no/status
		3.Distribute fact sheet at meetings	3. Permit year 2, after ordinance is adopted	3. Number Distributed

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

This SWMP identifies the minimum elements to develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that are located within the City of Bessemer City and discharge into the MS4. These elements are designed to minimize water quality impacts utilizing a combination of structural Stormwater Control Measures (SCMs) and/or non-structural BMPs appropriate for the community, and ensure adequate long-term operation and maintenance of SCMs.

In accordance with 15A NCAC 02H .0153 and .1017, the City of Bessemer City implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Water Supply Watershed (WS-II)	15A NCAC 2B .0620 - .0624	**Code Title XV - Chapter 153.01; UDO Section 13.20**
Universal Stormwater Management Program	15A NCAC 2H .1020	**Code Title XV- Chapter 152 Gaston County Code Chapter 5.5 Article 2**

http://library.amlegal.com/nxt/gateway.dll/North%20Carolina/bessemercity_udo_nc/bessemercityunifieddevelopmentordinance?f=templates$fn=default.htm$3.0$vid=amlegal:bessemercity_udo_nc

https://library.municode.com/nc/gaston_county/codes/code_of_ordinances?nodeId=COOR_CH5.5EN_ARTIISTMA

http://cms3.revize.com/revize/gastoncounty/Documents/natural-resources/2011-03-16/gaston-stormwater-ordinance.pdf

The City of Bessemer City has existing requirements other than Qualifying Alternative Program(s) for implementation of the NPDES Phase II MS4 post-construction program requirements. These existing requirements are codified in local ordinance(s), and implementation is further defined in guidance, manuals and/or standard operating procedure(s) as summarized in Table 19 below.

Table 19: Summary of Existing Post-Construction Program Elements

Permit Requirements for **Plan Review and Approval**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	Bessemer City Code of Ordinances- Chapter 152 Sec 152.04 Stormwater Interlocal Agreement	1-13-1986
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	Gaston County Code of Ordinances – Chapter 5.5 Sec. 33 (a)	7-26-2007
3.6.3(b) Plan Review	Gaston County Code of Ordinances – Chapter 5.5 Sec. 36	7-26-2007
3.6.3(c) O&M Agreement	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48	7-26-2007
3.6.3(d) O&M Plan	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48	7-26-2007
3.6.3(e) Deed Restrictions/Covenants	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48 (5)	7-26-2007
3.6.3(f) Access Easements	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48 (7)	7-26-2007
Permit Requirements for **Inspections and Enforcement**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48 (4)	7-26-2007
3.6.2(c) Right of Entry	Gaston County Code of Ordinances – Chapter 4 Sec. 71 (b)	7-26-2007
3.6.4(a) Pre-CO Inspections	Gaston County Code of Ordinances – Chapter 5.5 Sec. 41 (a)	7-26-2007
3.6.4(b) Compliance with Plans	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48	7-26-2007
3.6.4(c) Annual SCM Inspections	Gaston County Code of Ordinances – Chapter 5.5 Sec. 37 (h)	7-26-2007
3.6.4(d) Low Density Inspections		
3.6.4(e) Qualified Professional	Gaston County Code of Ordinances – Chapter 5.5 Sec. 48 (4)	7-26-2007
Permit Requirements for **Fecal Coliform Reduction**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	Gaston County Code of Ordinances – Chapter 3 – Sec. 3-5 (c)	2-23-2008
3.6.6(b) On-Site Domestic Wastewater treatment	Gaston County Code of Ordinances – Chapter 17 Article II	10-11-2001

The annual reporting metrics for the post construction program are provided in Table 20: Post Construction Site Runoff Control BMPs below.

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
30.	Standard Reporting			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/ Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	1. Track number of low density and high density plan reviews performed.	1. Continuously Permit years 1-5	1. Number of plan reviews performed for low density and high density.
		2. Track number of low density and high density plans approved.	2. Continuously Permit years 1-5	2. Number of plan approvals issued for low density and high density.
		3. Maintain a current inventory of low density projects and constructed SCMs including SCM type or low density acreage, location and last inspection date.	3. Continuously Permit years 1-5	3. Summary of number and type of SCMs added to the inventory; and number and acreage of low density projects constructed.
		4. Track number of SCM inspections performed.	4. Continuously Permit years 1-5	4. Number of SCM inspections.
		5. Track number of low density inspections performed.	5. Continuously Permit years 1-5	5. Number of low density projects inspected.
		6. Track number and type of enforcement actions taken.	6. Continuously Permit years 1-5	6. Number of enforcement actions issued.
Permit Ref.	2.3 and 3.6: Qualifying Alternative Program(s) Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
	This permit requirement is fully met by the existing post-construction program, see references provided in Table 19			

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.2: Legal Authority Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
31.	Revisions to Code of Ordinances			
	Revise existing ordinance to specifically require compliance by Federal, State, and Local government projects and revise reference to stormwater design manual to specify NCDEQ Stormwater Design manual.	1. Revise code to require Federal, State, and local government projects to comply with post construction requirements unless subject to its own NPDES MS4 permit or qualifying alternative program	1. Permit Year 1	1. Report code reference and date adopted
		2. Revise code to specify NCDEQ Stormwater Design Manual as the reference stormwater design manual	2. Permit Year 1	2. Report code reference and date adopted
32.	O&M Plan			
	Add an ordinance to the City code requiring each stormwater control measure to have an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13)	1. Establish legal authority through code revision	1. Permit Year 1	1. Report code reference and date adopted
		2. Enforcement of new code by requiring approval of O&M Plan by Stormwater Administrator prior to plan approval	2. Continuously, after ordinance is adopted.	2. Number of O&M plans approved

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	3.6.4: Inspections and Enforcement Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low density projects at least once during the permit term, and (e) Require that inspections be conducted by a qualified professional.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
33.	Inspection of low-density projects			
	Establish the legal authority for inspection of low-density projects at least once during the permit term; and carry out the inspections.	1. Establish legal authority through code revision	1. Permit Year 1	1. Report code reference and date adopted
		2. Conduct inspection of 20% of low-density projects each year	2. See BMP No. 29.5	2. See BMP No. 29.5
Permit Ref.	3.6.5: Documentation Measures to maintain adequate documentation and standardized inspection and tracking mechanisms to: (a) Maintain an inventory of post-construction SCMs and low-density projects, (b) Document, track and maintain records of inspections and enforcement actions. Tracking shall include the ability to identify chronic violators, and (c) Make available to developers all relevant ordinances, post-construction requirements, design standards, checklists, and/or other materials.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
34.	Inventory of post-construction SCMs and low-density Projects			
	Develop a comprehensive inventory of post-construction SCMs and low density projects to be utilized for inspections and tracking	1. Establish list of existing structural SCMS and low-density projects	1. Permit year 1-2	1. Number of SCMs and projects inventoried
		2. Issue letter of notification to owners making them aware of upcoming inspections	2. Permit year 3	2. Number of letters sent
		3.Add SCMs and low-density projects to inventory list when project as-builts are approved	3. See BMP 29.3	3. See SMP 29.3
35.	Inspection Tracking			
	Track the results of regular post-construction SCM and low-density inspection to provide	1. Establish inspection tracking mechanism to meet all requirements of BMP No. 29	1. Permit year 1	1. yes/no/status

Table 20: Post Construction Site Runoff Control BMPs				
	documentation and the ability to identify chronic violators	2. Continuously update	2. Continuously, beginning permit year 2	2. yes/no/status
36.	Developer Resources			
	Establish a developer stormwater resources section on the city website so relevant materials are easily accessible	1. Upload links to ordinances, post construction requirements, link to design standards, and other relevant material website	1. Permit year 1, w/ stormwater website development	1. yes/no/status, link to webpage
		2. Update when changes occur	2. Continuously	2. Report date of updates and changes made
Permit Ref.	3.6.6: Fecal Coliform Reduction Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
	This permit requirement is fully met by the existing post-construction program, see references provided in Table 19			

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the City of Bessemer City municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

Pollution prevention and good housekeeping for municipal operations includes the following programs:

1. Municipal Facilities Operation and Maintenance Program
2. Spill Response Program
3. MS4 Operation and Maintenance Program
4. Municipal SCM Operation and Maintenance Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The City of Bessemer City will manage, implement and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program.

Table 21: Pollution Prevention and Good Housekeeping BMPs

Permit Ref.	3.7.1: Municipal Facilities Operation and Maintenance Program Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
37.	Inventory of Municipal Facilities			
	Develop and maintain an up-to-date inventory of municipal facilities with potential to generate polluted runoff.	1. Compile list of existing City-owned facilities	1. Permit Year 1	1. Number of facilities inventoried; date list is completed

Table 21: Pollution Prevention and Good Housekeeping BMPs				
		2. Perform initial inspection of facilities for potential to generate polluted runoff or requiring spill response procedures. Classify facilities as having high or low potential for stormwater pollution	2. Permit year 2	2. Number of inspections performed and number of facilities classified as high potential and low potential
		3. Determine which facilities require a SPCC	3. Permit year 3	3. Number of SPCC Plans required
		4. Determine which facilities require a NPDES Industrial permit	4. See BMP No. 46	4. See BMP No. 46
		5. Update inventory as needed when facilities are added or closed	5. As required	5. Number of facilities added/revisions made
38.	Facility Inspections			
	Inspection of City facilities to confirm good housekeeping practices are being followed, including vehicle and equipment cleaning (See BMP No. 47) and that the City Public Works Complex is in compliance with the associated Industrial Stormwater Permit	1. Establish a SOP for city facility inspections, including an inspection schedule, inspection report documentation, and tracking system	1. Permit Year 3	1. yes/no/status
		2. Implement annual facility inspections for high stormwater pollution potential facilities and once per permit term inspections for low potential facilities, following SOP established in BMP No. 37.1	2. Annually conduct inspections, beginning in permit year 3	2. Number of inspections of high potential and low potential facilities performed
39.	Staff Training			
	Develop or identify a staff training program for general stormwater pollution prevention and provide to public works department employees See BMP No. 41).	1. See BMP No. 43	1. See BMP No. 43	1. See BMP No. 43

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.2: Spill Response Program Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
40.	Inventory of facilities with Spill potential			
	Maintain a list of city facilities and operations storing materials that would be a pollutant if spilled and introduced to the stormwater system and classify by hazard and quantity See BMP No. 36.2).	1. Update list of city facilities and operations with spill potential when facilities or operations are changed	1. When necessitated by changes in facilities or operations	1. Number of additions or revisions
41.	Spill Response Procedures			
	Maintain spill response procedures and continue training of appropriate staff.	1. Review general spill response procedures	1. Permit year 1	1. Are procedures adequate? – yes/no/status
		2. Review specific spill response procedures for City facilities and operations with potential to produce high hazard spills	2. Permit year 2	2. Are procedures adequate? – yes/no/status
		3. Update as facilities and operations are revised	3. As required	3. Number of additions or revisions made
		4. Train new fire department staff in spill response procedures	4. As required	4. Number of new staff trained
		5. Train staff at facilities with potential for high hazard spills in first response actions and reporting procedures	5. Annually	5. Number of staff trained

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.3: MS4 Operation and Maintenance Program Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
42.	Staff Training			
	Develop or identify a staff training program for general stormwater pollution prevention and provide to public works department employees	1. Develop or identify appropriate training program	1. Permit year 3	1. Yes/no/status
		2. Provide initial training for all employees	2. Annually, beginning in permit year 4	2. Number of staff members trained and topics from training
		3. Provide training for new hires	3. Annually, beginning in permit year 4, as necessitated by staffing changes	3. Number of new hires trained and topics from training
43.	MS4 System Inspections and Maintenance			
	A proactive plan for MS4 system maintenance, requiring regular inspections and maintenance.	1. Develop a SOP that includes proactive inspection schedules, standard documentation, staff responsibilities, and proper maintenance training	1. Permit year 3	1. Yes/no/status
		2. Perform regular inspections in accordance with the SOP	2. Following schedule established in SOP, once SOP and tracking system (See BMPs No. 42.1 and 42.4) are established	2. Number of inspections documented
		3. Verify, document, and prioritize maintenance activities identified by inspections or citizen reports	3. Continuously, as potential maintenance activities are identified	3. Number of maintenance activities performed
		4. Develop an inspection and maintenance tracking system to be used in accordance with the SOP and to identify "hot spot" locations for system maintenance	4. Permit year 4	4. Yes/no/status

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.4: Municipal SCM Operation and Maintenance Program Measures to manage municipally-owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee's post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
44	Inventory of Municipal structural SCMs			
	Development and maintenance of a current inventory of municipally owned structural SCMs.	1. Create an inventory of existing City-owned SCMs with information including type, year built, date of last inspection, and maintenance actions	1. Permit year 1	1. Number of municipal structural SCMs
		2. Compile, and develop as needed, Operation and Maintenance Plans for all City-owned SCMs	2. Permit year 2	2. Yes/no/status
		3. Update as necessitated by new City development	3. As required	3. Number of updates to list
45.	SCM Inspections and Maintenance			
	Performance and documentation of regular inspection and maintenance of municipally owned structural SCMs. Addition of municipally owned SCMs to MS4 map.	1. Locate City-owned SCMs and add them to the MS4 Map with type of SCM indicated	1. Permit year 1	1. Report the number and type of SCMs added to the map
		2. Update the map when new City-owned SCMs are constructed	2. Annually, once BMPs No. 45.1 and 46.1 are completed	2. Note annually whether new City-owned SCMs were added. If any are added, note number and type added as well as number and type of SCMs mapped to date
		3. Maintain NC SCM Inspections and Maintenance Certification for appropriate personnel	3. Continuously, beginning in permit year 2	3. Number of staff members with active certification
		4. Develop SCM inspection form	4. Permit year 2	4. Yes/no/status
		5. Inspect each device using SCM inspection form	5. Annually, beginning in permit year 3	5. Number of SCMs inspected, number passing inspection, number requiring maintenance

Table 21: Pollution Prevention and Good Housekeeping BMPs				
		6. Perform maintenance tasks identified in inspections	6. As required	6. Number of SCMs maintained
		7. Develop a tracking document (See BMP No. 43)	7. Permit year 2	7. Yes/no/status
Permit Ref.	3.7.5: Pesticide, Herbicide and Fertilizer Management Program Measures to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
46.	Pesticide, Herbicide, Fertilizer Applicator Training			
	Training of City staff who apply landscape chemicals in order to minimize water quality impacts from pesticides, herbicides, and fertilizers.	1. Maintain Right-of-Way Pest Control, Public Health Control, and Ornamental & Turf Pest Control applicator certifications for appropriate personnel	1. Continuously	1. Yes/no/status
		2. Develop or identify pollution prevention and chemical use, storage and handling training program	2. Permit year 2	2. Yes/no/status
		3. Provide staff training in pollution prevention and chemical use, storage and handling training	3. Annually, beginning in permit year 3	3. Number of staff trained and topics covered

Table 21: Pollution Prevention and Good Housekeeping BMPs				
Permit Ref.	3.7.6: Vehicle and Equipment Maintenance Program Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
47.	NPDES Industrial Permit Compliance			
	Ensure that NPDES industrial permit compliance occurs at all applicable municipally owned sites.	1. Review municipal facilities inventory to determine which facilities require a NPDES permit	1. Permit year 1	1. Number of facilities determined to require a NPDES Industrial Permit
		2. Permitting of municipally owned facilities; apply for new permits and confirm that all existing permits are valid. Renew permits as required	2. Permit year 1, following review of facilities, and continuously thereafter	2. Report number of new permits received or renewed as well as number of active permits.
		3. Develop a municipal industrial facility inspection form	3. Permit year 2	3. Yes/no/status
		4. Perform facility inspections for compliance with permit	4. Annually, after NPDES permits acquired	4. Number of inspections performed
		5. Establish NPDES Industrial Permit tracking mechanism to document list of municipally owned facilities with permit, permit expiration dates, and inspections	5. Permit year 2	5. Yes/no/status
48.	Vehicle and Equipment Cleaning and Maintenance Facility Inspection			
	Routine inspections as part of general facility inspections (See BMP No. 37) to ensure that vehicle and equipment facilities are following proper procedures to minimize water quality impacts from vehicle and equipment cleaning and maintenance	1. Develop an inspection checklist	1. Permit year 2	1.
		2. Perform inspections using inspection checklist and notify facility manager of any corrective actions required	2. Bi-annually, beginning in permit year 3	2. Number of inspections
		3. Perform re-inspections of any facility that required corrective action	3. As required by corrective actions issued	3. Number of facilities requiring corrective action, number of resolutions

Table 21: Pollution Prevention and Good Housekeeping BMPs				
49.	Staff Training			
	Provide general stormwater awareness training and pollution prevention training to employees working in vehicle maintenance and cleaning areas (See BMP No. 41).	1. See BMP No. 41	1. See BMP No. 41	1. See BMP No. 41
Permit Ref.	3.7.7: Pavement Management Program Measures to reduce pollutants in stormwater runoff from municipally-owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
BMP No.	A	B	C	D
	Description of BMP	Measurable Goal(s)	Schedule for Implementation	Annual Reporting Metric
50.	Street Sweeping			
	Street sweeping following a regular schedule in order to reduce pollutants from City owned and maintained streets	1. Develop a SOP, including a schedule and plan to document	1. Permit year 2	1. Yes/no/status
		2. Implement SOP and documentation	2. Annually, beginning in permit year 3	2. Total number of miles swept
51.	Leaf Collection			
	Periodic collection of leaves from residential and public areas to reduce pollutants and clogging of storm system inlets.	1. Develop a SOP, including a schedule and plan to document	1. Permit year 3	1. Yes/no/status
		2. Implement SOP and documentation	2. Regularly, beginning in permit year 4	2. Volume of leaves collected (tons)
52.	Vehicle Spill Cleanup			
	An organized vehicle spill cleanup response to prevent pollutants from vehicular accidents from entering the storm drain system.	1. Maintain spill response procedures (See BMP No. 40)	1. See BMP No. 40	1. See BMP No. 40
		2. Provide public education about stopping vehicle leaks (See BMP No. 7	2. See BMP No. 7	2. See BMP No. 7

15A NCAC 02H .1017 – NPDES MS4 and Urbanizing Areas: Post-Construction Requirements

15A NCAC 02H .1017 NPDES MS4 AND URBANIZING AREAS: POST-CONSTRUCTION REQUIREMENTS

The purpose of this Rule is to minimize the impact of stormwater runoff from new development on the water quality of surface waters and to protect their best usages.

(1) IMPLEMENTING AUTHORITY. The requirements of this Rule shall be implemented by permittees, delegated programs, and regulated entities in accordance with Rule .0151 of this Subchapter and Rule .1016 of this Section.

(2) APPLICABILITY. This Rule shall apply to all development subject to Rule .1016 of this Section or that disturbs one acre or more of land, including a development that disturbs less than one acre of land that is part of a larger common plan of development or sale, and is subject to a local NPDES post-construction stormwater program pursuant to Rule .0153 of this Subchapter. Where this Rule is administered by the Division, it shall not apply to projects that are subject to any of the following rules:

(a) Water Supply Watershed I (WS-I) – 15A NCAC 02B .0212;
(b) Water Supply Watershed II (WS-II) – 15A NCAC 02B .0214;
(c) Water Supply Watershed III (WS-III) – 15A NCAC 02B .0215;
(d) Water Supply Watershed IV (WS-IV) – 15A NCAC 02B .0216;
(e) High Quality Waters (HQW) in Non-Coastal Counties – 15A NCAC 02H .1021;
(f) Outstanding Resource Waters (ORW) in Non-Coastal Counties – 15A NCAC 02H .1021;
(g) Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy – 15A NCAC 02B .0235;
(h) Tar-Pamlico River Basin Nutrient Sensitive Waters (NSW) Management Strategy – 15A NCAC 02B .0258;
(i) Randleman Lake Water Supply Watershed Nutrient Management Strategy – 15A NCAC 02B .0251;
(j) Jordan Water Supply Nutrient Strategy: Stormwater Management for New Development – 15A NCAC 02B .0265;
(k) Falls Reservoir Water Supply Nutrient Strategy: Stormwater Management for New Development – 15A NCAC 02B .0277;
(l) Coastal Counties: Stormwater Management Requirements – 15A NCAC 02H .1019;
(m) Goose Creek Watershed: Stormwater Control Requirements – 15A NCAC 02B .0602; or
(n) Universal Stormwater Management Program – 15A NCAC 02H .1020.

(3) GENERAL REQUIREMENTS FOR DEVELOPMENT. In addition to the requirements of this Rule, development shall comply with Rule .1003 of this Section.

(4) PROJECT DENSITY. A project shall be considered a low density project if it meets the low density criteria set forth in Rule .1003(2) of this Section and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. Low density projects shall comply with the requirements set forth in Rule .1003(2) of this Section. High density projects shall comply with the requirements set forth in Rule .1003(3) of this Section.

(5) REQUIRED STORM DEPTH. For high density projects designed to achieve runoff treatment, the required storm depth shall be one inch. Applicants shall have the option to design projects to achieve "runoff volume match" in lieu of "runoff treatment" as those terms are defined in Rule .1002 of this Section.

(6) OPERATION AND MAINTENANCE PLANS. Permittees and regulated entities shall implement and delegated programs shall require an operation and maintenance plan for SCMs in accordance with Rule .1050 of this Section. In addition, the operation and maintenance plan shall require the owner of each SCM to annually submit a maintenance inspection report on each SCM to the local program or regulated entity.

(7) FECAL COLIFORM REDUCTION. Regulated entities and delegated programs shall implement a fecal coliform reduction program that controls, to the maximum extent practicable, sources of fecal coliform. At a minimum, the program shall include a pet waste management component, which may be achieved by revising an existing litter ordinance, and an on-site domestic wastewater treatment system component to ensure proper operation and maintenance of such systems, which may be coordinated with local county health departments.

(8) DEED RESTRICTIONS AND PROTECTIVE COVENANTS. Restrictions and protective covenants shall be recorded by permittees or regulated entities on the property in the Office of the Register of Deeds in the county where the property is located prior to the issuance of a certificate of occupancy and in accordance with Rule .1003(7) of this Section.

(9) PROJECTS IN AREAS DRAINING TO SENSITIVE RECEIVING WATERS. Additional requirements shall apply to projects located in areas draining to certain sensitive receiving waters as follows:

(a) projects subject to the Class SA waters requirements of Rule .1019 of this Section shall meet those requirements and shall use SCMs that result in the highest degree of fecal coliform die-off and control sources of fecal coliform to the maximum extent practicable;

(b) projects located in areas draining to Trout waters shall use SCMs that avoid a sustained increase in the receiving water temperature; and

(c) projects located in areas draining to Nutrient Sensitive Waters shall use SCMs that reduce nutrient loading, while still incorporating the stormwater controls required for the project's density level. Delegated programs and regulated entities may implement a nutrient application management program for inorganic fertilizer and organic nutrients to reduce nutrients entering waters of the State. In areas subject to a Nutrient Sensitive Water Stormwater Management Program, the provisions of that program fulfill the nutrient loading reduction requirement. Nutrient Sensitive Water Stormwater Management Program requirements are set forth in 15A NCAC 02B .0200.

(10) VEGETATED SETBACKS. Vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be required in accordance with Rule .1003 of this Section and shall be at least 30 feet in width. Vegetated setbacks from such waters shall be required if the water is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture which is herein incorporated by reference, including subsequent amendments and editions, and may be accessed at no cost at http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/ or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS) which is herein incorporated by reference, including subsequent amendments and editions, and may be accessed at no cost at http://www.usgs.gov/pubprod/. Relief from this requirement may be allowed when surface waters are not present in accordance with 15A NCAC 02B .0233(3)(a). In addition, an exception to this requirement may be pursued in accordance with Item (12) of this Rule.

(11) EXCLUSIONS. Development shall not be subject to this Rule if it is conducted pursuant to one of the following authorizations, provided that the authorization was obtained prior to the effective date of the post-construction stormwater control requirements in the area in which the development is located, and the authorization is valid, unexpired, unrevoked, and not otherwise terminated:

(a) a building permit pursuant to G.S. 153A-357 or G.S. 160A-417;

(b) a "site specific development plan" as defined by G.S. 153A-344.1(b)(5) and G.S. 160A-385.1(b)(5);

(c) a "phased development plan" as defined by G.S. 153A-344.1 for a project located in the unincorporated area of a county that is subject to this Rule, if the Commission is responsible for implementation of the requirements of this Rule, that shows:

(i) for the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. 153A-330 through G.S. 153A-335; and

(ii) for any subsequent phase of development, sufficient detail that demonstrates to the permitting authority that implementation of the requirements of this Rule to that phase of development would require a material change in that phase of development as contemplated in the phased development plan. Sufficient detail may include documentation of financial expenditures and contractual obligations, a copy of an approved site-specific development plan, and a narrative of how the new rules will require a material change to the subsequent phase or phases of development;

(d) a vested right to the development pursuant to G.S. 153A-344(b), G.S. 153A-344.1, G.S. 160A-385(b), or G.S. 160A-385.1 issued by a local government that implements this Rule; or

(e) a vested right to the development pursuant to common law.

(12) EXCEPTIONS. The Department or an appropriate local authority, pursuant to Article 18 of G.S. 153A or Article 19 of G.S. 160A, may grant exceptions from the 30-foot landward location of built-upon area requirement of Item (10) of this Rule as well as the deed restrictions and protective covenants requirement of Item (8) of this Rule as follows:

(a) An exception shall be granted if the application meets all of the following criteria:

(i) unnecessary hardships would result from strict application of the requirement, and these hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property, and not as a result from actions taken by the petitioner; and

(ii) the requested exception is consistent with the spirit, purpose, and intent of this Rule; will protect water quality; will secure public safety and welfare; and will preserve substantial justice. Merely proving that the exception would permit a greater profit from the property shall not be considered adequate justification for an exception.

(b) Notwithstanding Sub-Item (a) of this Item, exceptions shall be granted in any of the following instances:

(i) when there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance; provide maximum nutrient removal; protect against erosion and sedimentation; have the least adverse effects on aquatic life and habitat; and protect water quality to the maximum extent practicable through the use of SCMs; or

(ii) when there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including water, sewer, or gas construction and maintenance corridor; as long as it is located 15 feet landward of all perennial waterbodies, perennial streams, and intermittent streams and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of SCMs.

A lack of practical alternatives may be shown by demonstrating that, considering the potential for an alternative configuration, or a reduction in size or density of the proposed activity, the basic project purpose may not be practically accomplished in a manner that would avoid or result in less adverse impact to surface waters.

(c) Conditions and safeguards may be imposed upon any exception granted in accordance with G.S. 143-215.1(b).

(d) Delegated programs and regulated entities shall document the exception procedure and submit an annual report to the Department on all exception proceedings.

(e) Appeals of the Department's exception decisions shall be filed with the Office of Administrative Hearings, under G.S. 150B-23. Appeals of a local authority's exception decisions shall be made to the appropriate Board of Adjustment or other appropriate local governing body, pursuant to G.S. 160A-388 or G.S. 153A-345.1.

(13) In order to fulfill the post-construction minimum control measure program requirement, a permittee, delegated program, or regulated entity may use the Department's model ordinance, design its own post-construction practices based on the Department's guidance on scientific and engineering standards for SCMs, incorporate the post-construction model practices described in this Section, or develop its own comprehensive watershed plan that meets the post-construction stormwater management measure required by 40 CFR 122.34(b)(5) (1 July 2015 Edition), which is incorporated by reference, not including subsequent amendments and editions. A copy of the reference material may be accessed at no cost at http://www.gpo.gov/fdsys/.

(14) Nothing in this Rule shall alter the requirement that a discharge fully comply with all applicable State or federal water quality standards.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246; S.L. 2008-198;*
Eff. July 3, 2012;
Readopted Eff. January 1, 2017.

15A NCAC 2B .0620 - .0624 – WS Watershed Protection Program

15A NCAC 02B .0620 WATER SUPPLY WATERSHED PROTECTION PROGRAM: PURPOSE

Rules .0620 through .0624 of this Section set forth the minimum statewide water supply watershed protection requirements applicable to each Water Supply classification, as provided in 15A NCAC 02B .0212 through .0218.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. March 1, 2019.

15A NCAC 02B .0621 WATER SUPPLY WATERSHED PROTECTION PROGRAM: DEFINITIONS

In addition to the definitions set forth in G.S. 143-214.7, the following definitions shall apply to Rules .0622 - .0624.

(1) "Balance of Watershed" or "-BW" means the area adjoining and upstream of the critical area in a WS-II and WS-III water supply watershed. The "balance of watershed" is comprised of the entire land area contributing surface drainage to the stream, river, or reservoir where a water supply intake is located.

(2) "Cluster development" means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single family residential and multi family developments. Planned unit development and mixed use development shall be considered as cluster development.

(3) "Commission" has the same meaning as in 15A NCAC 02H .1002.

(4) "Common plan of development" has the same meaning as in 15A NCAC 02H .1002.

(5) "Critical area" has the same meaning as in 15A NCAC 02B .0202.

(6) "Curb Outlet System" has the same meaning as in 15A NCAC 02H .1002.

(7) "Dispersed flow" has the same meaning as in 15A NCAC 02H .1002.

(8) "Division" has the same meaning as in 15A NCAC 02H .1002.

(9) "Erosion and Sedimentation Control Plan" has the same meaning as in 15A NCAC 02H .1002.

(10) "Existing development" has the same meaning as in 15A NCAC 02H .1002.

(11) "Family subdivision" means a division of a tract of land:

(a) to convey the resulting parcels, with the exception of parcels retained by the grantor, to a relative or relatives as a gift for nominal consideration, but only if no more than one parcel is conveyed by the grantor from the tract to any one relative; or

(b) to divide land from a common ancestor among tenants in common, all of whom inherited by intestacy or by will.

(12) "Geotextile fabric" has the same meaning as in 15A NCAC 02H .1002.

(13) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the perched or seasonal high water table. The flow may be supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

(14) "Major variance" means a variance that is not a "minor variance" as that term is defined in this Rule.

(15) "Minimum Design Criteria" or "MDC" has the same meaning as in 15A NCAC 02H .1002.

(16) "Minor variance" means a variance from the minimum statewide watershed protection rules that results in the relaxation of up to 10 percent of any vegetated setback, density, or minimum lot size requirement applicable to low density development, or the relaxation of up to five percent of any vegetated setback, density, or minimum lot size requirement applicable to high density development. For variances to a vegetated setback requirement, the percent variation shall be calculated using the foot print of built-upon area proposed to encroach within the vegetated setback divided by the total area of vegetated setback within the project.

(17) "Nonconforming lot of record" means a lot described by a plat or a deed that was recorded prior to the effective date of local watershed ordinance (or its amendments) that does not meet the minimum lot size or other development requirements of Rule .0624 of this Section.

(18) "NPDES" has the same meaning as in 15A NCAC 02H .1002.

(19) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the perched or seasonal high water table for most of the year. Groundwater is the primary source of water for a perennial steam, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(20) "Perennial waterbody" means a natural or man-made watershed that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean.

(21) "Primary SCM" has the same meaning as in 15A NCAC 02H .1002.

(22) "Project" has the same meaning as in 15A NCAC 02H .1002.

(23) "Protected area" has the same meaning as in 15A NCAC 02B .0202.

(24) "Required storm depth" has the same meaning as in 15A NCAC 02H .1002.
(25) "Runoff treatment" has the same meaning as in 15A NCAC 02H .1002.
(26) "Runoff volume match" has the same meaning as in 15A NCAC 02H .1002.
(27) "Secondary SCM" has the same meaning as in 15A NCAC 02H .1002.
(28) "Stormwater Control Measure" or "SCM" has the same meaning as in 15A NCAC 02H .1002.
(29) "Vegetated setback" has the same meaning as in 15A NCAC 02H .1002.
(30) "Vegetated conveyance" has the same meaning as in 15A NCAC 02H .1002.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. March 1, 2019 (Portions of this Rule were previously codified in 15A NCAC 02B .0202);
Amended Eff. September 1, 2019.

15A NCAC 02B .0622 WATER SUPPLY WATERSHED PROTECTION PROGRAM: EXCLUSIONS AND SPECIAL CASES

This Rule describes exclusions from the water supply watershed program and special case projects in the water supply watershed program.

(1) EXCLUSIONS. The following project types shall be excluded from the requirements of Rules .0620-.0624 of this Section:
  (a) existing development;
  (b) redevelopment;
  (c) single-family residential redevelopment, even if there is a net increase in built-upon area or if stormwater controls are not equal to that of the previous single-family residential development;
  (d) expansions to single-family residential existing development, unless the expansion is part of a larger common plan of development that is subject to this Rule;
  (e) nonconforming lot of record that is not contiguous to any other lot owned by the same party and if it is to be developed for single-family residential purposes. However, local governments may require the combination of contiguous nonconforming lots of record owned by the same party in order to establish a lot or lots that meet the development restrictions of Rule .0624 of this Section;
  (f) any lot or parcel created as part of a family subdivision after the effective date of the local watershed ordinance if it is to be developed for one single-family detached residence and if it is exempt from a local subdivision ordinance;
  (g) activities of the North Carolina Department of Transportation (NCDOT) that are regulated in accordance with the provisions of NPDES Permit Number NCS000250;
  (h) linear transportation projects undertaken by an entity other than NCDOT when:
    (i) the project is constructed to NCDOT standards and is in accordance with the NCDOT Stormwater Best Management Practices Toolbox (Version 2, April 2014 Edition) which is here in incorporated by reference, including any subsequent amendments and editions, and may be accessed at no cost at https://connect.ncdot.gov/resources/hydro/HSPDocuments/2014_BMP_Toolbox.pdf;
    (ii) upon completion, the project will be conveyed either to the NCDOT or another public entity and will be regulated in accordance with that entity's NPDES MS4 stormwater permit; and
    (iii) the project is not part of a common plan of development.
  (i) airport facilities that are deemed permitted in accordance with G.S. 143.214.7(c4).

(2) SPECIAL CASES. In lieu of the requirements set forth in Rules .0620-.0624 of this Section, the following shall apply:
  (a) Siliviculture activities shall comply with the provisions of the Forest Practices Guidelines Related to Water Quality (02 NCAC 60C, herein incorporated by reference with subsequent amendments and editions and available at no cost at http://www.ncoah.com/rules/) and other applicable forestry water quality standards as determined by the North Carolina Forest Service.
  (b) Agricultural activities within WS-I watersheds and the critical areas of WS-II, WS-III, and WS-IV watersheds shall be subject to the vegetated setback requirements set forth in Rule .0624(11) of this Section.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. March 1, 2019 (Portions of this Rule were previously codified in 15A NCAC 02B .0104).

15A NCAC 02B .0624 WATER SUPPLY WATERSHED PROTECTION PROGRAM: NONPOINT SOURCE AND STORMWATER POLLUTION CONTROL

This Rule sets forth requirements for projects that are subject to water supply watershed regulations.

(1) IMPLEMENTING AUTHORITY. The requirements of this Rule shall be implemented by local governments with land use authority in one or more designated water supply watersheds. State agencies shall also comply with this Rule insofar as required by G.S. 143-214.5 and in accordance with Rule .0622 of this Section.

(2) APPLICABILITY. This Rule shall apply to all new development projects, including state owned projects, that lie within a designated water supply watershed, except in a Class WS-IV watershed where this Rule applies only to new development projects that require an Erosion and Sedimentation Control Plan. Rule .0622 of this Section includes project types to which rules do not apply.

(3) PROJECT DENSITY. The following maximum allowable project densities and minimum lot sizes shall apply to a project according to the classification of the water supply watershed where it is located, its relative location in the watershed, its project density, and the type of development:

Water Supply Classification	Location in the Watershed	Maximum Allowable Project Density or Minimum Lot Size		
		Low Density Development		High Density Development
		Single-family detached residential	Non-residential and all other residential	All types
WS-I	Not Applicable: Watershed shall remain undeveloped except for the following uses when they cannot be avoided: power transmission lines, restricted access roads, and structures associated with water withdrawal, treatment, and distribution of the WS-I water. Built-upon area shall be designed and located to minimize stormwater runoff impact to receiving waters.			
WS-II	Critical Area	1 dwelling unit per 2 acres or 80,000 square foot lot excluding roadway right-of-way or 6% built-upon area	6% built-upon area	6 to 24% built-upon area
	Balance of Watershed	1 dwelling unit per 1 acre or 40,000 square foot lot excluding roadway right-of-way or 12% built-upon area	12% built-upon area	12 to 30% built-upon area
WS-III	Critical Area	1 dwelling unit per 1 acre or 40,000 square foot lot excluding roadway right-of-way or 12% built-upon area	12% built-upon area	12 to 30% built-upon area
	Balance of Watershed	1 dwelling unit per one-half acre or 20,000 square foot lot excluding roadway right-of-way or 24% built-upon area	24% built-upon area	24 to 50% built-upon area
WS-IV	Critical Area	2 dwelling units per acre or 20,000	24% built-upon area	24 to 50% built-upon area

		square foot lot excluding roadway right-of-way or 24% built-upon area		
	Protected Area	2 dwelling units per acre or 20,000 square foot lot excluding roadway right-of-way or 24% built-upon; or 3 dwelling units per acre or 36% built-upon area without curb and gutter street system	24% built-upon area; or 36% built-upon area without curb and gutter street system	24 to 70% built-upon area
WS-V	Not Applicable			

(4) CALCULATION OF PROJECT DENSITY. The following requirements shall apply to the calculation of project density:

(a) Project density shall be calculated as the total built-upon area divided by the total project area;

(b) A project with "existing development," as that term is defined in Rule .0621 of this Section, may use the calculation method in Sub-Item (a) of this Item or may calculate project density as the difference of total built-upon area minus existing built-upon area divided by the difference of total project area minus existing built-upon area. Expansions to existing development shall be subject to this Rule except as excluded in Rule .0622(1)(d) of this Section. Where there is a net increase of built-upon area, only the area of net increase shall be subject to this Rule. Where existing development is being replaced with new built-upon area, and there is a net increase of built-upon area, only the area of net increase shall be subject to this Rule;

(c) Total project area shall exclude the following:

(i) areas below the Normal High Water Line (NHWL); and

(ii) areas defined as "coastal wetlands" pursuant to 15A NCAC 07H .0205, herein incorporated by reference, including subsequent amendments and editions, and available at no cost at http://reports.oah.state.nc.us/ncac.asp, as measured landward from the NHWL; and

(d) Projects under a common plan of development shall be considered as a single project for purposes of density calculation except that on a case-by-case basis, local governments may allow projects to be considered to have both high and low density areas based on one or more of the following criteria:

(i) natural drainage area boundaries;

(ii) variations in land use throughout the project; or

(iii) construction phasing.

(5) LOW DENSITY PROJECTS. In addition to complying with the project density requirements of Item (3) of this Rule, low density projects shall comply with the following:

(a) VEGETATED CONVEYANCES. Stormwater runoff from the project shall be released to vegetated areas as dispersed flow or transported by vegetated conveyances to the maximum extent practicable. In determining whether this criteria has been met, the local government shall take into account site-specific factors such as topography and site layout as well as protection of water quality. Vegetated conveyances shall be maintained in perpetuity to ensure that they function as designed. Vegetated conveyances that meet the following criteria shall be deemed to satisfy the requirements of this Sub-Item:

(i) Side slopes shall be no steeper than 3:1 (horizontal to vertical) unless it is demonstrated to the local government that the soils and vegetation will remain stable in perpetuity based on engineering calculations and on-site soil investigation; and

(ii) The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm event as demonstrated by engineering calculations.

(b) CURB OUTLET SYSTEMS. In lieu of vegetated conveyances, low density projects shall have the option to use curb and gutter with outlets to convey stormwater to grassed swales or vegetated areas. Requirements for these curb outlet systems shall be as follows:

(i) The curb outlets shall be located such that the swale or vegetated area can carry the peak flow from the 10-year storm and at a non-erosive velocity;

(ii) The longitudinal slope of the swale or vegetated area shall not exceed five percent except where not practical due to physical constraints. In these cases, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;

(iii) The swale's cross section shall be trapezoidal with a minimum bottom width of two feet;

(iv) The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical);

(v) The minimum length of the swale or vegetated area shall be 100 feet; and

(vi) Low density projects may use treatment swales designed in accordance with 15A NCAC 02H .1061 in lieu of the requirements specified in Sub-Items (i) through (v) of this Sub-Item.

(6) HIGH DENSITY PROJECTS. In addition to complying with the project density requirements of Item (3) of this Rule, high density projects shall comply with the following:

(a) SCMs shall be designed, constructed, and maintained so that the project achieves either "runoff treatment" or "runoff volume match" as those terms are defined in Rule .0621 of this Section;

(b) For high density projects designed to achieve runoff treatment, the required storm depth shall be one inch. Applicants shall have the option to design projects to achieve runoff volume match in lieu of runoff treatment;

(c) Stormwater runoff from off-site areas and "existing development," as that term is defined in Rule .0621 of this Section, shall not be required to be treated in the SCM. Runoff from off-site areas or existing development that is not bypassed shall be included in sizing of on-site SCMs;

(d) SCMs shall meet the relevant MDC set forth in 15A NCAC 02H .1050 through .1062; and

(e) Stormwater outlets shall be designed so that they do not cause erosion downslope of the discharge point during the peak flow from the 10-year storm event as shown by engineering calculations.

(7) OPTIONS FOR IMPLEMENTING PROJECT DENSITY. Local governments shall have the following options when developing or revising their ordinances in place of or in addition to the requirements of Item (3) of this Rule, as appropriate:

(a) Local governments may allow only low density development in their water supply watershed areas in accordance with this Section.

(b) Local governments may regulate low density single-family detached residential development using the minimum lot size requirements, dwelling unit per acre requirements, built-upon area percentages, or some combination of these.

(c) 10/70 OPTION. Outside of WS-I watersheds and the critical areas of WS-II, WS-III, and WS-IV watersheds, local governments may regulate new development under the "10/70 option" in accordance with the following requirements:

(i) A maximum of 10 percent of the land area of a water supply watershed outside of the critical area and within a local government's planning jurisdiction may be developed with new development projects and expansions of existing development of up to 70 percent built-upon area.

(ii) In water supply watersheds classified on or before August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as delineated on July 1, 1993. In water supply watersheds classified after August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as

delineated on the date the water supply watershed classification became effective. The acreage within the critical area shall not be counted towards the allowable 10/70 option acreage;

(iii) Projects that are covered under the 10/70 option shall comply with the low density requirements set forth in Item (5) of this Rule unless the local government allows high density development, in which case the local government may require these projects to comply with the high density requirements set forth in Item (6) of this Rule;

(iv) The maximum built-upon area allowed on any given new development project shall be 70 percent;

(v) A local government having jurisdiction within a designated water supply watershed may transfer, in whole or in part, its right to the 10/70 land area to another local government within the same water supply watershed upon submittal of a joint resolution and approval by the Commission; and

(vi) When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision.

(d) New development shall meet the development requirements on a project-by-project basis except local governments may submit ordinances that use density or built-upon area criteria averaged throughout the local government's watershed jurisdiction instead of on a project-by-project basis within the watershed. Prior to approval of the ordinance, the local government shall demonstrate to the Commission that the provisions as averaged meet or exceed the statewide minimum requirements and that a mechanism exists to ensure the planned distribution of development potential throughout the local government's jurisdiction within the watershed.

(e) Local governments may administer oversight of future development activities in single-family detached residential developments that exceed the applicable low density requirements by tracking dwelling units rather than percentage built-upon area, as long as the SCM is sized to capture and treat runoff from all pervious and built-upon surfaces shown on the development plan and any off-site drainage from pervious and built-upon surfaces, and when an additional safety factor of 15 percent of built-upon area of the project site is figured in.

(8) CLUSTER DEVELOPMENT. Cluster development shall be allowed on a project-by-project basis as follows:

(a) Overall density of the project shall meet the requirements of Item (3) of this Rule;

(b) Vegetated setbacks shall meet the requirements of Item (11) of this Rule;

(c) Built-upon areas are designed and located to minimize stormwater runoff impact to receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(d) Areas of concentrated development shall be located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways. In determining whether these criteria have been met, the local government shall take into account site-specific factors such as topography and site layout as well as protection of water quality;

(e) The remainder of tract shall remain in a vegetated or natural state;

(f) The area in the vegetated or natural state may be conveyed to a property owners association, a local government for preservation as a park or greenway, a conservation organization, or placed in a permanent conservation or farmland preservation easement;

(g) A maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(h) Cluster development that meets the applicable low density requirements shall comply with Item (5) of this Rule.

(9) DENSITY AVERAGING OF NONCONTIGUOUS PARCELS. Density averaging of two noncontiguous parcels for purposes of complying with this Rule shall be allowed in accordance with G.S. 143-214.5 (d2).

(10) RESPONSIBILITY FOR SCM OPERATION & MAINTENANCE. Operation and maintenance agreements and plans are required for SCMs in accordance with 15A NCAC 02H .1050. Local governments that allow high density development shall assume responsibility for operation and maintenance of the SCMs that they approve.

(11) VEGETATED SETBACKS. Vegetated setbacks shall be required along perennial waterbodies and perennial streams that are indicated on the most recent versions of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps, which are herein incorporated by reference and are available at no cost at http://www.usgs.gov/pubprod/, or other maps developed by the Department or a local government and approved by the Commission. Where USGS topographic maps do not distinguish between perennial and intermittent streams, an on-site stream determination may be performed by an individual qualified to perform such stream determinations. A qualified individual is one who has been certified to perform stream determinations by completing and passing the Surface Water Identification Training and Certification (SWITC) Course offered by the North Carolina Division of Water Resources and North Carolina State University. Vegetated setbacks shall also be in accordance with the following:

(a) MINIMUM VEGETATION WIDTHS. The following minimum widths shall apply:
  (i) low density projects – 30 feet;
  (ii) high density projects – 100 feet;
  (iii) projects covered under the 10/70 option – 100 feet; and
  (iv) agricultural activities – 10 feet, or equivalent control as determined by the designated agency as set forth in Rule .0622 of this Section; and

(b) The width of a vegetated setback shall be measured horizontally from the normal pool elevation of impounded structures, from the top of bank of each side of streams or rivers, and from the mean high waterline of tidal waters, perpendicular to the shoreline;

(c) Vegetated setbacks may be cleared or graded, but shall be replanted and maintained in grass or other vegetation;

(d) No new built-upon area shall be allowed in the vegetated setback except for the following uses where it is not practical to locate the built-upon area elsewhere:
  (i) publicly-funded linear projects such as roads, greenways, and sidewalks;
  (ii) water dependent structures such as docks; and
  (iii) minimal footprint uses such as poles, signs, utility appurtenances, and security lights.

Built-upon area associated with these uses shall be minimized and the channelization of stormwater runoff shall be avoided; and

(e) Artificial streambank and shoreline stabilization shall not be subject to the requirements of this Item.

(f) For minor variances to a vegetated setback requirement, the percent variation shall be calculated using the footprint of built upon area proposed to encroach within the vegetated setback divided by the total area of vegetated setback within the project.

(g) Non-family subdivisions that are exempt from local subdivision ordinances shall implement the requirements of this Item to the maximum extent practicable considering site-specific factors including technical and cost consideration as well as protection of water quality.

(12) VARIANCES. Variances to this Rule may be considered in accordance with Rule .0623 of this Section.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. March 1, 2019 (Portions of this Rule were previously codified in 15A NCAC 02B .0104 and 02B .0212 through .0218);
Amended Eff. September 1, 2019.

Bessemer City Land Development Code Chapter 5 – 5.2-5.4

5.1.1 STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AO)

Located within the Special Flood Hazard Areas established in Subsection (C)(2) herein, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Subsection (E)(1), all new construction and substantial improvements shall meet the following requirements:

1. The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of two (2) feet, above the highest adjacent grade; or at least two (2) feet above the highest adjacent grade plus a freeboard of four (4) feet if no depth number is specified.
2. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Subsection (H)(1) so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required as per Subsection (D)(1)(c) and (E)(2) herein.
3. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

5.2 WATER SUPPLY WATERSHED PROTECTION OVERLAY

Following provisions set forth in NCGS 143-214.5(d), Bessemer City and Gaston County have entered into an agreement for the County to enforce the provisions of the Water Supply Watershed Overlay district within the corporate limits and extraterritorial jurisdiction of the City. District delineation and requirements may be found in Chapter 15 of the Gaston County Unified Development Ordinance.

5.3 EROSION AND SEDIMENTATION CONTROL

For the purpose of regulating certain land-disturbing activities, the provisions of the Gaston County Soil and Erosion Control Code found in Chapter 4, Article III of the Gaston County Unified Development Ordinance shall be administered and enforced by Gaston County.

5.4 STORMWATER MANAGEMENT

Administration and enforcement of stormwater runoff shall be administered as provided in Chapter 152 of the Bessemer City Code of Ordinances.

Bessemer City Code Of Ordinances – Chapter IV, Article C

and Zoning Commission (commonly referred to as the “Planning Board”) for its recommendation shall hold a public hearing in accordance with the applicable ordinance.

ARTICLE C. UTILITY REGULATIONS

SECTION 4.30. OPERATION OF WATER, SEWER, AND GAS SYSTEMS AND OTHER UTILITIES.

(a) *Authority Granted*. Subject to the General Statutes, Federal Law and Regulations, and applicable general law, the City Council may:

(1) Provide for the construction or acquisi- tion and operation of utilities and utility systems;

(2) Acquire any real or personal property necessary or incidental thereto, including equipment machinery, and all manner of rights or interests in or relating to land and water, and appurtenances thereto;

(3) Establish rates of charge for utility services and the use of utility facilities;

(4) Adopt rules and regulations concerning the management of utilities and utility systems, with regard to such matters as maintenance, operation and improvement thereof, or require the pretreatment of waste;

(5) Adopt rules and regulations concerning charges for utility services.

(b) *Definition of the Term “Utility.”* As used in this Charter, unless the context otherwise requires, the term “utility” includes water supply, water distribution, sewerage, waste disposal, electric power, natural or manufactured gas, and public transportation.

SECTION 4.32. CONNECTION BY ABUTTING PROPERTY OWNERS.

The Council may require that within 30 days after a water main or sewer line is completed and made ready for use, the owner of every abutting lot whereon such utility is supplied for any human use shall cause the lot to be connected thereto.

SECTION 4.34. UTILITY CHARGES.

In the event any charge for utility service or for the use of utility facilities is not paid within 10 days after it becomes due, the same shall be delinquent and if authorized by the General Statutes become a lien upon such real property served or in connection with which the service or facility is used or upon all personal property situated upon such real property for both. The charge may at any time after becoming delinquent be collected either by suit or by the City tax collector.

SECTION 4.36. DEPOSITS.

A deposit by an owner or tenant of the premises to be served by a utility service or the use of utility facilities may be levied as per adopted ordinances and regulations of the City and held by the City for the duration of the service without interest. If a utility charge is not paid in a timely manner, the same may be deducted from the deposit and utility service may be cut off and not be turned on again until the balance of the deposit is increased to the original amount. An owner or tenant of property being serviced should give notice that the property is going to be vacated, in order to receive a refund of the deposit amount remaining subject to offset for charges due. In the event the owner or tenant shall vacate the premises without notifying the City and having utility cut off, the owner or tenant shall be liable to the City for any utility charges which accrue after the owner or tenant vacated the premises and shall forfeit to the City any balance of such deposit remaining after the utility service charge due has been deducted.

SECTION 4.38. WATER AND SEWER CONNECTION.

Before any person, firm, or corporation shall connect in any manner, except a sewer or water lateral from the meter to the premises, any privately owned water or sewer line or lines with any water or sewer line or lines of the City, such person, firm, or corporation shall, by proper instrument, in considera- tion of making such connection and the benefits to be derived therefrom, dedicate, give, grant, and convey such water or sewer line or lines to the City whether such connection and line or lines be within or without the City limits. No connection to any water or sewer line or lines or any other local public utility shall be made without the express approval of the City, nor shall such connection be effected except by the forces or employees of the City, for which a reasonable charge may be made. Should any person, firm, or corporation connect any privately owned water or sewer line or lines with any City water or sewer line or lines without first dedicating, giving, granting and conveying same to the City, the act of connecting such water or sewer line or lines to the water or sewer line or lines for the City shall be conclusively deemed and held to be a dedication, gift, grant, and conveyance of such water or sewer line or lines to the City; provided, that the City may enter into contracts, with any person, firm or corporation whereby sewer or water lines may be laid within or without the City limits and connected to the systems of the City under such terms as may be agreed upon, notwithstanding any provisions of this section.

SECTION 4.40. NATURAL GAS.

The City shall be authorized to purchase such quantities of natural or manufactured gas as necessary to effectively service the utility needs of the City and its inhabitants and obtain the most reasonable price from the provider. Such purchases by the City may be made through informal filing and bidding pro-cedures and do not require the approval of the City Council if in excess of $10,000.

SECTION 4.42. PUBLIC UTILITY FRANCHISES.

The Council may grant franchises for any public utility or cablevision company in the manner provided by law, and, in its discretion, may hold a referendum at the expenses of the applicant on the question of granting a franchise.

ARTICLE D. VEHICLES AND TRAFFIC

SECTION 4.50. COUNCIL TO ADOPT REGULATIONS.

(a) *Authority to Adopt Traffic Ordinances*. The Council may adopt ordinances regulating the speeds of vehicles upon any City streets and may establish truck routes (or other required routes for limited classes of vehicles or traffic) applicable to any City street. As used in this section, the term “city streets” includes all public highways, roads and streets within the City limits, including numbered State highways, and highways, roads and streets maintained, repaired, constructed, reconstructed or widened in whole or in part with State funds.

(b) *State Numbered Highways*. An ordinance concerning vehicle speeds, truck routes, or other required routes that applies to numbered State highways shall be subject to approval by the North Carolina State Highway Commission.

ARTICLE E. ROADS AND STREETS

SECTION 4.60. GENERAL AUTHORITY.

The Council shall have general authority and control over all public streets, sidewalks, alleys, bridges, and other ways of public passage as provided in the General Statutes.

SECTION 4.62. POWER TO CLASSIFY STREETS AND ESTABLISH BUILDING SETBACK LINES.

The Council not only within the corporate limits of the City but also within the territory beyond the corporate limits as now or hereafter fixed for a distance of one mile in all directions may:

(1) Classify all or a portion of any existing or proposed street according to its size, present and anticipated traffic load, and other characteristics relevant to the achievement of the purposes of this Article;

(2) Establish by ordinance minimum distances that buildings constructed along each class or type of street shall be set back from the right-of-way line or the center line of the street. The Council may classify portions of any street in a

Bessemer City Code Of Ordinances – Chapter 54

(A) All gas tap fees, or charges will be set forth as adopted in the city's annual budget ordinance. This change shall not modify the current extension policy and it shall remain in effect.

(B) (1) The natural gas tap fee will be waived for residential customers with a minimum of gas hot water heater or gas furnace for a period of two years.

(2) The waiver is available only for standard AC250 and AL425 meters and excess flow valve fees will still be applicable.

(Ord. 93-9-2, passed 9- -93; Am. Ord. passed 2-9-04; Am. Res. passed 12-12-11)

§ 53.04 CONSTRUCTION OF NEW TAPS.

The city will no longer make natural gas taps for residential or commercial customers until there is evidence submitted to the Gas Superintendent's satisfaction that the applicant intends to immediately connect to the gas system and become an active customer. The City Manager and the Gas Superintendent shall develop procedures for the implementation of this policy.

(Ord. passed 8-8-94)

CHAPTER 54: SOLID WASTE

Section

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GENERAL PROVISIONS

§ 54.01 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ANIMAL and ***AGRICULTURAL WASTES.*** Principally, the manure and crop residue from various agricultural pursuits including dairying and raising of livestock and poultry. Animal waste also includes, in addition to items mentioned above, wastes from stables, kennels, pet pens, chicken coops, veterinary establishments, and the like.

ASHES. The residue from the burning of wood, coal, coke, and other combustible material in homes, stores, institutions, and small industrial establishments for the purposes of heating, cooking, and disposing of combustible waste material. Ashes are usually com- posed of a mixture of fine powdery residue, cinders, clinkers, and small portions of unburned or partially burned fuel or other materials. Ashes shall contain no live embers or other burning materials.

BUILDING RUBBISH. Any materials or other substances accumulated as a result of repairs or additions to existing buildings, construction of new buildings, demolition of existing buildings, or moving of buildings, including but not limited to bricks, stone, concrete, wood, lumber, siding, shingles of any type, and the like.

CONTRACTED SERVICES (BRUSH). Any tree or shrubbery trimming resulting from work performed by landscaping or tree service contractors or other commercial workers, including, but not limited to land clearing work. This shall also apply to any job performed by anyone, including the owner or resident of the property, that is of such scale that heavy equipment as used by contractors is needed to complete the work.

DECLARED NUISANCE. Anything that causes injury or damage to the health or life of any person or that causes an offensive odor.

DEAD ANIMALS. Those animals that die naturally or from disease or are killed accidentally. Condemned animals or parts from slaughterhouses or similar places are not included in this item.

(1) ***SMALL DEAD ANIMALS.*** Dogs, cats, rabbits, squirrels, chickens, rats, and other similar animals.

(2) ***LARGE DEAD ANIMALS.*** Horses, cows, goats, sheep, hogs, and other similar animals.

GARBAGE. The byproduct of animal or vegetable foodstuffs, resulting from the handling, preparation, cooking, and serving of food, or other matter which is subject to decomposition, decay, putrefaction, or the generation of noxious or offensive gases or odors, or which during or after decay may serve as breeding or feeding material for flies, other insects, or animals.

HAZARDOUS REFUSE. Materials such as paint, poison, acids, caustics, chemicals, infected materials, offal, fecal matter, and explosives and any other material declared hazardous by the U.S. EPA or any other responsible agency.

HOUSEHOLD TRASH. Any waste accumulation of paper, sweepings, dust, rags, bottles, cans, or other matter of any kind, other than garbage, which is usually attendant to housekeeping.

INDUSTRIAL WASTE. All waste, including solids, semi-solids, sludges and liquids, created by factories, processing plants, or manufacturing enterprises.

JUNK. Any item, including but not limited to, dilapidated furniture, appliances, machinery, equipment, building materials, automobile parts, tires, or other items which are either in a wholly or partially rusted, wrecked, junked, dismantled, or inoperative condition.

LITTER. Any garbage, rubbish, trash, refuse, can, bottle, box, container, wrapper, paper, paper product, tire, appliance, mechanical equipment or part, building or construction material, tool, machinery, wood, motor vehicle or equipment, sludge from a waste treatment facility, water supply treatment plant, or air pollution control facility, from domestic, industrial, commercial, mining, agricultural, or governmental operations. ***LITTER*** does not include political pamphlets, handbills, religious tracts, newspapers, and other such printed materials the unsolicited distribution of which is protected by the Constitution of the United States or the Constitution of North Carolina.

MULTI-RESIDENTIAL UNIT. Any duplex, apartment, group of apartments or condominiums, or housing units designed for or occupied by more than one family.

NORMAL USE (ROLL OUT CONTAINER), RESIDENTIAL. Placement of any variety of both combustible and noncombustible solid waste materials from households, including such items as plastic, waste paper, rags, sweepings, and similar waste materials ordinarily accumulated around a house.

NORMAL USE (ROLL OUT CONTAINER), BUSINESS. Placement of any variety of both combustible and noncombustible solid waste materials from businesses, including such items as plastic, waste paper, rags, sweepings, and similar waste materials ordinarily accumulated in general business operations. This list shall not include oil, oil cans, paint/paint thinners, and the like.

PRIVATE PROPERTY. Property owned by any person, not a political entity, including but not limited to, yards, grounds, driveways, entrances of passage- ways, parking areas, storage areas, vacant land, bodies of water and including sidewalks, grass strips, one-half of alleys, curbs, or right-of-ways up to the edge of the pavement of any public street.

RECYCLABLE MATERIAL. Newspapers, magazines, glass bottles, steel and aluminum cans and plastic drink bottles or other such material as designated by the state Public Works Director.

REFUSE. Solid waste consisting of garbage, household trash, or business trash.

ROLLCART. A plastic, mobile, top-loading, residential refuse container of 90-gallon capacity compatible to the city collection equipment.

SINGLE RESIDENTIAL UNIT. Any dwelling place designed for or occupied by one family.

WEEDS AND GRASS. Weeds and grass in excess of 12 inches in height. Weeds and grass on heavily wooded lots where equipment cannot maneuver on the lot because of the density are not included in this definition.

YARD TRASH. Accumulation of lawn, grass, or shrubbery cuttings or clippings, bushes, limbs, and dry leaf rakings free of dirt, rocks, large branches, and bulky or noncombustible material.

(Ord. passed 2-10-92)

§ 54.02 DISPOSAL OF REFUSE IN CITY LIMITS BY NONRESIDENTS PROHIBITED.

(A) It shall be unlawful for any person, firm, or corporation not a resident of the city to bring trash, refuse, rubbish, or other forms of waste into the city and to discard it or to deposit it for collection by the city. An example of a violation of this section is a person who owns or is employed by a business within the city limits, but who lives outside the city limits, bringing his household garbage into the city and depositing it or otherwise leaving it for collection by the city.

(B) Ownership of trash, refuse, rubbish, or other forms of waste, including designated recyclable materials, set out or placed in receptacles for collection by the city shall be vested in the city.

(C) Violation of subsection (A) of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

(Ord. 88-1, passed 12-12-88)

§ 54.03 PROHIBITED DISPOSAL OF WASTES.

(A) *Prohibited disposal of wastes generally.*

(1) It shall be unlawful for any person to dump, throw, or otherwise deposit upon any city street or sidewalk, or in any public place not designated for such purpose, any scrap paper, bottles, cans, glass, rags, feathers, building material scraps, tree and shrubbery trimmings, liquid wastes, lubricating or fuel oil, flammable or combustible wastes or any other trash, refuse, or debris.

(2) It shall be unlawful for any person to obstruct or cause to be obstructed the free flow of water in, over, along, upon, or through any drainage way in any public street or other public way, or in any creek, stream, or other natural drainage course within the city limits by depositing any trash, refuse, tree or shrubbery trimmings, building material scraps, or other matter therein.

(3) It shall be unlawful for any person to dump, deposit, or cause any gasoline, fuel oil, Nephro, or other flammable liquid, or any wastes containing a toxic or poisonous substance, or any lubricating oil, grease or detergent, to drain into any drainage ditch, street gutter, culvert, or other drainage way in any public street or other public way or in any creek, stream, or other natural drainage course within the city limits. It shall also be illegal to place any type of lubricating oil, or other above- named materials in any container provided by the city for garbage pick up. All lubricating oils should be taken to recycling centers.

(4) No person, including but not limited to, any firm, organization, private corporation, or governing body, agents or employees of any municipal corporation shall intentionally or recklessly throw, scatter, spill or place or intentionally or recklessly throw, scatter, spill or placed or otherwise dispose of any litter upon any public property or private property not owned by him within this State or in any waters under the jurisdiction of city, including, but not limited to, any public street, highway, public park, lake, river, campground, forest land, recreational area, trailer park, highway, road, street or alley except as the same shall be deposited into a litter receptacle in such a manner that the litter will be prevented from being carried away or deposited by the elements upon any part of such private or public property or waters. When litter is blown, scattered, spilled, thrown or placed from a vehicle or water craft, the operator thereof shall be presumed to have committed such offense. This presumption, however does not apply to a vehicle transporting agricultural products or supplies when the litter from that vehicle is a nontoxic, biodegradable agricultural product or supply.

(B) *Waste matter subject to scattering.* Except as provided in §§ 54.20 through 54.28 of this chapter, it shall be unlawful for any person to deposit or permit to accumulate any waste matter or refuse of any description which is subject to scattering by animals or the elements of nature on that part of any property which is adjacent to a street or public place. This section shall not prohibit the burning of yard trash on one's own property when approved and permits issued as per § 91.40 of this code. Any burning other than that permitted in § 91.40 shall be prohibited.
(Ord. passed 2-10-92)

(C) Violations of this section are punishable by civil penalty as set forth in § 54.99. Violation of any provision of this section is also punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

§ 54.04 TRANSPORTATION OF REFUSE.

No swill, slops, garbage, bones, offal, kitchen waste, or refuse shall be transported through the city streets except in watertight metal containers with tight-fitting covers.
(Ord. passed 2-10-92) Penalty, see § 54.99

§ 54.05 DEPOSITING DEBRIS IN CATCH BASINS, MANHOLES, OR DRAINS.

No person shall throw, drop, or deposit leaves, shrubs, or any other debris into any catch basin, manhole, or drainage ditch or structure in the city.
(Ord. passed 2-10-92) Penalty, see § 54.99

§ 54.06 MAINTENANCE OF PREMISES; DUTY OF OCCUPANT.

(A) It shall be the duty of every owner, occupant, and persons in charge of any premises within the city to maintain such premises free of any accumulation of garbage, rubbish, appliances, discarded household items and other similar items. The unscreened storage of materials not customarily stored outdoors in residential neighborhoods is prohibited, including but not limited to: tires, construction materials, household items, broken toys and other miscellaneous house/yard debris.

(B) It shall be the duty of every owner, occupant, and person in charge of any premises within the city to maintain such premises free of noxious weeds and grass, undergrowth, and other vegetation which affords a harboring or breeding place for vermin, insects, rodents, or reptiles, and grass which is 12 inches or more in height, not grown for agricultural purposes, shall be deemed undergrowth within the meaning of this section.

(C) The existence of any of the following conditions on any vacant or occupied parcel of land within the corporate limits of the city is hereby declared to be dangerous or prejudicial to the public health or safety and to constitute a public nuisance:

(1) The uncontrolled growth of weeds or grass to a height of 18 inches or more within 100 feet of any residential structure or any occupied nonresidential structure except in the downtown business district in which all weeds or grass must be maintained. This division shall not apply to areas that are not accessible or controllable by reasonable means, or to natural areas which customarily exist in a natural condition as determined by the Code Enforcement Officer.

(2) Any accumulation of animal or vegetable matter that is offensive by virtue of odors or vapors or which is inhabited by rats, mice, snakes, or vermin of any kind which may be dangerous to public health.

(3) Any accumulation of solid wastes not in compliance with this chapter including litter, garbage, trash and other refuse.

(4) Open wells.

(5) An accumulation of stagnant water causing or threatening to cause the inhabitation thereof by mosquitos.

(6) Any automobile part, including but not limited to tires, motors, batteries, and the like.

(7) Any piles of wood, furniture, clothes, building materials, and the like.

(8) Any other condition detrimental to the public health which violates the rules and regulations of the Gaston County Health Department.

(9) Junk, trash and litter. It shall be unlawful for any person to have on their premises materials that would create a littered condition, such as dilapidated and/or broken furniture, appliances, machinery, building materials, automobile parts, tires or any other items which are in a wholly or partially rusted, wrecked, junked, dismantled or inoperative condition. Such items may be stored on the premises when they are placed in a completely enclosed building or dwelling.

(D) Keeping upholstered furniture which is not manufactured for outdoor use in outdoor areas where such furniture is visible to neighbors and passersby in the public right-of-way is hereby declared to be a nuisance. Accordingly, no person shall place, use, keep, store or maintain any upholstered furniture not manufactured for outdoor use, including, without limitation, upholstered chairs, upholstered couches and mattresses, in or on any porch, patio or other unenclosed structure where such furniture is visible from a public right-of-way or from the ground level of adjacent property, and no property owner or property manager shall knowingly permit any such activity to occur on property owned or managed by such person.

(E) Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

(Ord. passed 2-10-92; Am. Ord. passed 11-8-10; Am. Res. passed 4-11-11; Am. Res. passed 7-9-12)

§ 54.07 NOTICE TO ABATE VIOLATION.

Upon investigation and finding by any city officer that there exists on any city property conditions constituting a public nuisance as described in this subchapter, the Code Enforcement Officer shall notify the respondent of such conditions. The respondent is the person in possession of the property where a public nuisance is located, as well as the owner of such property, if different from the former. The notice shall be by first class mail and certified mail or by first class mail and in person by a sworn officer of the city or county. Service shall be deemed sufficient if the certified mail is unclaimed or refused, but the regular mail is not returned by the post office within ten days after mailing. The notice shall order the abatement of the premises within 15 days of the receipt of such notice except for the public nuisance described in § 54.06(B). The notice of such conditions as described in § 54.06(B) shall order the abatement of the premises within ten days of receipt of such notice.

(Ord. passed 2-10-92; Am. Res. passed 4-11-11)

§ 54.08 APPEAL OF ORDER OF ABATEMENT.

At any time before the expiration of the 15-day abatement period specified in § 54.07 of this chapter, the respondent may request a hearing before the City Council to appeal the finding of the Code Enforcement Officer that a public nuisance exists on the premises. The request for hearing must be in writing and must be filed in the office of the City Manager. The City Manager shall set a time for the hearing, being the next scheduled Council meeting. The initial abatement order shall be temporarily suspended pending such hearing. At the hearing, the individual shall be given the opportunity to present evidence to refute the findings which supported the abatement order. Upon completion of the hearing, the Council shall consider the evidence before it and shall either revoke the initial order, issue a final order which differs from the initial order, or reinstate the initial order as a final abatement order. No delay or postponement of decision will be made concerning matters that have been deemed public nuisances. (Ord. passed 2-10-92)

§ 54.09 ABATEMENT OF NUISANCE BY CITY.

Upon the occurrence of either of the following conditions the Code Enforcement Officer shall cause the condition to be removed or otherwise remedied by having employees of the city and/or private contractors go upon the premises and remove or otherwise abate such nuisance under the supervision of an officer or employee designated by the Code Enforcement Officer when:

(A) A hearing is requested and held under § 54.08 of this chapter resulting in either a final order with modifications or the reinstatement of the initial order as a final order, and such order is not complied with within five days from adjournment of the hearing.

(B) No hearing is requested or held, and the respondent, having been ordered to abate such public nuisance fails, neglects, or refuses to abate or remove the condition constituting the nuisance within 15 days from receipt of the order. (Ord. passed 2-10-92)

§ 54.10 REQUEST BY OWNER FOR ABATEMENT BY CITY; CHARGES; LIENS.

(A) The owner of property where a public nuisance has been found to exist may request the city, in writing, to remove such condition, and the city may remove the offending condition pursuant to such request. The full cost of said removal shall be borne by the requesting owner.

(B) (1) The actual cost incurred by the city in removing or otherwise remedying a public nuisance pursuant to this section shall be charged to the owner of the offending property, and the owner shall pay these charges within 30 days after receiving from the city a statement of charges.

(2) In the event charges for the removal or abatement of a public nuisance are not paid within 30 days after receipt of a statement of charges under

division (B)(1) of this section, such charges shall become a lien upon the land where the public nuisance existed and shall be collected as unpaid taxes, as provided in G.S. § 160A-193.
(Ord. passed 2-10-92)

§ 54.11 GASTON COUNTY LANDFILL FEES.

The City Council may establish and fix from time to time such landfill charges and other fees as necessary.

REFUSE COLLECTION SERVICE

§ 54.20 PERMIT REQUIRED TO ENGAGE IN BUSINESS OF WASTE COLLECTION OR BRUSH CLEARING.

(A) *Waste collection business.* No person shall engage in the business of collecting, hauling, or transporting in the city, any waste without first obtaining a permit from the City Manager.

(B) *Brush/land clearing.* A permit will be required for land clearing or brush clearing that meets the definition of contracted services as defined in § 54.01 of this chapter.

Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.
(Ord. passed 2-10-92)

§ 54.21 COLLECTION PRACTICES.

(A) Except as otherwise provided in this subchapter, and except in the case of emergency arising from an act of God or under circumstances over which the Public Works Department has no control, the Public Works Department or its agents shall collect, remove, and dispose of certain refuse in residential and general business sections of the city once per week. In business districts, twice per week collection may be offered when deemed necessary by the city.

(B) Industrial waste shall be collected, removed, and disposed of by the operator of the factory, plant, or enterprise creating or causing the same in accordance with the provisions of this code.

(C) *Construction debris.* The city does not collect construction debris. Landfill regulations pertaining to construction materials prohibit the city from picking up any type of construction debris. Disposal of all debris from do-it-yourself homeowner projects and

independent contractor work shall be the responsibility of the person doing the work. This includes, but is not limited to, lumber, shingles, roofing, ceilings, flooring, brick, and other construction materials. Fines and other charges may be levied for collection of unauthorized debris.

(D) No refuse shall be collected where refuse receptacles cannot be serviced by sanitation personnel without unlocking, opening, or reaching over a door, gate, or similar obstacle, encountering a porch, carport or garage, encountering a dog, or otherwise being denied reasonable access by parked vehicles, yard tools, equipment, or similar objects.

(E) Once an established collection route is established, any changes shall be advertised in the local newspaper once at least 15 days before such changes become effective; provided, that such notice may be given by other means and within a lesser period of time in cases of emergency.

(Ord. passed 2-10-92; Am. Res. passed 9-12-11)

§ 54.22 CONTAINERS FOR REFUSE; REGULATIONS.

(A) Every person owning or occupying a single- and/or multi-family residential unit shall store all garbage and refuse in containers, as specified herein, so as to eliminate wind driven debris and unsightly litter in and about their premises.

(B) (1) Each residential unit, not using dumpster service, shall use at least one 96-gallon roll- out container provided by the city or the city's agent. Additional containers, if needed, may be obtained for additional fees. Containers remain the property of the city or its agent. Solid waste containers shall not be removed from the residence where assigned. The maximum number or roll-out containers allowed per residence shall be two.

(2) Each residential unit, not using dumpster service, shall have at least one recycling container provided by the city or the city's agent. Additional containers, if needed, may be obtained for additional fees. Containers remain the property of the city or its agent. Recycling containers shall not be removed from the residence where assigned. The maximum number of recycling containers allowed shall be two.

(C) All persons doing business within the city limits shall use containers as outlined in this section if dumpster service is not utilized. A 96-gallon container may be provided, when feasible and in accordance with city code regulations. The maximum number of containers will be determined by staff.

(D) Containers shall be used for the purpose of holding regular household refuse. No items such as sticks, yard clippings, leaves, and the like may be placed in roll-out containers.

(E) Stones, bricks, iron items, and the like shall not be placed in the containers.

(F) Damaged or missing containers shall be reported to the city. If a container is stolen, a police report shall be filed by the resident. Malicious damage may be assessed against property owners and/or tenants of the property.

(G) Residents are required to clean roll-out containers when needed to keep down odor and insects.

(H) The city may refuse to collect the following types of solid wastes and it shall be unlawful for any person to place any of the following in any container or receptacle for collection by the city:

(1) Hazardous refuse and industrial waste. All such refuse shall be stored in suitable leakproof containers that will ensure that no such refuse or wastes leak or spill onto any public or private property. It shall be the responsibility of the person in possession of the premises to see that it is disposed of properly.

(2) Oils, lubricants or any other type matter that may damage the container, cause it to leak, or erode wheel parts.

(3) Contagious disease refuse. The removal of clothing, bedding, or other refuse from homes or the places where highly infectious diseases have occurred shall be performed under the supervision and direction of the County Health Department.

(4) Human tissues or wastes resulting from operation, autopsy, or obstetrical procedures or any other material of similar nature.

(5) Materials of any kind or nature, including ashes, which may contain any hot or live coals or fire.

(6) Raw or uncooked seafood waste (fish heads, and the like).

(7) Dead animals of any sort.

(8) Hypodermic needles and/or any other sharp object.

(9) Any other items that are prohibited from disposal in the Gaston County Landfill.

(I) Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

(Ord. passed 2-10-92; Am. Res. passed 9-12-11)

§ 54.23 [RESERVED].

§ 54.24 PRE-COLLECTION PRACTICES.

The occupant, whether owner or tenant of single- and multi-family residential units requiring a roll-out cart to store refuse shall adhere to the following pre- collection practices:

(A) Garbage and general rubbish shall be stored only in receptacles approved by § 54.22 of this chapter and such receptacles shall be covered at all times.

(B) All dangerous items, such as broken glass, and the like, shall be securely wrapped to avoid injury to collection crews.

(C) Any refuse shall have liquid drained from it prior to being placed in the container for collection.

Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.
(Ord. passed 2-10-92; Am. Res. passed 9-12-11)

§ 54.25 POINT OF COLLECTION.

(A) *Time of collection.* All solid waste and recycling containers shall be placed at a location designated by the city not more than 24 hours before the time set for collection. Containers shall be removed from the street and stored away from the front of the property prior to 9:00 p.m. on the day of collection. Civil penalty for noncompliance with this provision will be assessed as provided in § 54.99.

(B) *Handicapped provisions.* In the event a resident is physically unable to place the cart at the curbside and there is no one living in the household that will place it at curbside for him or her, the resident may request special pick-up consideration. All requests are to be made to the city and will require a doctor's certification prior to approval.

(C) *Receptacles.* Receptacles or containers other than those allowed in § 54.22 of this chapter may be considered solid waste and may be disposed of by the city or its agent.

(D) *Business building collection.* Business building collection areas shall be from the rear, side, or in certain cases, front. Where front collection points are used, empty containers shall not be left on the street after sundown of collection day. The best collection location for businesses shall be determined by the city.

(E) *Street litter containers.* Businesses shall not use street litter containers for the disposal of business- generated trash.

(F) *Bulk collection.* The city may collect minimal bulk items, such as furniture and the like. Items for bulk collection shall be placed at curbside. This service shall be available to residential units only. This does not include construction or building materials. Fines and other charges may be levied for collection of unauthorized debris.

(G) *Appliances.* Appliances will be picked up on a bi-monthly schedule.

(H) *Yard waste.* Yard clippings, leaves, and the like shall be placed in plastic bags at curbside for pickup. These shall not be placed in roll-out containers. The city will remove leaves using a leaf vacuum machine between the dates of October 1 and April 1.

(I) The owner or owner's agent for multi-family units shall provide a central location area for placement of roll-out containers for pick-up. This location shall be one that meets the standards set forth in this chapter and it will be subject to approval of the city.

Violation of any provision of this section other than § 54.25(A) shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

(Ord. passed 2-10-92; Am. Ord. 94-9-3, passed 9-12-94; Am. Ord. 97-4-1, passed 4--97; Am. Res. passed 9-12-11)

§ 54.26 MULTI-FAMILY SANITATION SERVICES.

(A) The city, either itself or through its agents, will provide residential garbage collection services on the same basis as single-family residences to any multi-family complex that the service was being provided to prior to the adoption of this section (all except Park Terrace and Baytree Apartments).

(B) For all multi-family facilities built or brought into the city after the effective date of this section containing five or more units on a single site, the owner shall provide tenants with garbage and trash collection service at his or her expense.

(C) All multi-family facilities at which the city provides garbage collection service under this section shall also participate in the city's recycling program, if an when offered to multi-family sites, and shall pay the required fees for recycling on the same basis that the water and landfill fees are charged, such fees to be adjusted by City Council from time to time.

(Ord. 93-10-1, passed 10-11-93; Am. Res. passed 9-12-11)

§ 54.27 YARD WASTE AND LEAF COLLECTION PRACTICES.

Tree, hedge, and shrubbery trimmings shall be placed at the curb for collection in accordance with the following guidelines:

(A) No tree trunks, branches, limbs, and the like, larger than six inches in diameter, longer than five feet in length, shall be collected by the city.

(B) Tree and shrubbery limbs shall have protruding branches or limbs of a size not to be blown about and scattered by the elements, they shall be effectively tied so as to avoid wind driven debris and unsightly litter conditions. Thorny vegetation shall be placed near the curb in small, neat piles.

(C) Collection of tree and shrubbery trimmings shall be limited to six yards, uncompacted per week, per residence, but additional service may be approved by the Public Works Director upon request.

(D) Tree limbs shall be separated from smaller shrubbery trimmings to allow for chipping. All brush shall be put in separate piles from other general debris.

(E) Limbs and cuttings must be placed with butt or cut end toward the street or public alley and must be of the size that can be handled by one person.

(F) The city shall not collect tree and shrubbery trimmings resulting from contracted work, as defined in § 54.01 of this chapter, nor shall the city collect, remove, or assist in the removal of tree stumps, small rocks, tree trunks, heavy grass, or dirt resulting from the clearing of any property of any kind. It shall be unlawful for any person to place or deposit any such item at curbside at any time.

(G) The city shall remove leaves through the use of a leaf vacuum machine beginning October 1 until March 1. Please rake early and frequently. Leaves should be

raked to the edge of the road, not into the street or onto the sidewalk. Leaf pickup is for leaves only. Do not mix other debris such as trash, limbs, brush, rocks, flowers, roots or garbage in the leaf pile. Do not allow children or animals to play in the leaf pile. Leaves should be bagged for pickup at times not covered above.

Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.

(Ord. passed 2-10-92; Am. Ord. passed 7-8-02; Am. Res. passed 9-12-11)

§ 54.28 WASTES THE CITY WILL NOT COLLECT.

(A) The city will not collect the following types of solid and/or liquid wastes and it shall be illegal for any person to place any of the following in any container or receptacle or along the city right-of-way or curbside for collection:

(1) Hazardous refuse and industrial wastes.

(2) Contagious disease refuse.

(3) Building materials (incidental amounts not associated with repairs, alterations, construction, or demolition may be picked up).

(4) Any materials, including ashes, containing hot or live coals.

(5) Large dead animals.

(6) Barrels and/or drums with any liquid substance in same.

(7) Motor oils, lubricants, anti-freeze, and the like.

(B) It shall be the responsibility of the property owner to legally and properly dispose of these items.

Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.
(Ord. passed 2-10-92; Am. Res. passed 9-12-11)

HAZARDOUS AND INDUSTRIAL WASTES

§ 54.35 HAZARDOUS MATERIALS.

(A) It shall be unlawful to place any hazardous refuse, as defined in § 54.01 of this chapter, in any receptacle used for collection by the city.

(B) It shall be unlawful to place in any container, at curbside, or in any catch basin, manhole, or drainage ditch, or structure, any materials considered to be hazardous refuse by the U.S. EPA or any other responsible agency.

Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.
(Ord. passed 2-10-92)

§ 54.36 INDUSTRIAL WASTES.

The city shall not collect any type industrial wastes, solid, liquid, hazardous, or highly combustible. It shall be unlawful to place industrial waste in any container or receptacle for collection by the city. Industrial waste shall be collected, removed, and disposed of by the operator of the factory or industry creating the same. Violation of any provision of this section shall be punishable as a misdemeanor, punishable upon conviction by a fine not exceeding $500, or imprisonment not exceeding 30 days, as provided by G.S. § 14-4, and § 10.99 of this code.
(Ord. passed 2-10-92)

RECYCLING

§ 54.50 ESTABLISHMENT OF PROGRAM.

The city hereby establishes the voluntary separation of selected recyclable solid waste materials from garbage, rubbish and other trash, by the residential solid waste collection customers of the city, and the collection of those selected recyclable solid waste materials at the customer's curbside by the city or its agents.
(Ord. passed - -)

§ 54.51 FEES.

The City Council may establish and fix from time to time such fees to provide recycling collection service and add said fees to customer utility bill as provided by G.S. § 160A-317.
(Ord. passed - -)

§ 54.52 AVAILABILITY AND EXTENT OF SERVICE.

The city shall collect, remove and dispose of the designated recyclable solid waste materials within the city limits, except in case of emergency arising from an act of God or under circumstances over which the city has or had no control, as set forth in this subchapter or in the city solid waste collection policy. Service shall consist of curbside collection of recyclable solid waste materials once each week, as set forth in

the city solid waste collection policy, except during weeks when holidays are authorized and during which special schedules will be established.
(Ord. passed - -)

§ 54.53 LIMITATIONS ON SERVICE.

(A) Curbside recyclable solid waste material collection service shall be provided only to residential solid waste customers of the city. This service will not be provided to institutional, business or commercial or industrial solid waste collection customers. Furthermore, this service includes only those recyclable solid waste materials set forth in the city's contract with its waste management service provider ("WMSP"). Items that are acceptable by the city include newspapers and their inserts, computer paper, white office paper and junk mail, magazines, envelopes, cereal boxes and boxes for crackers, cookies and other similar foods, plastic soft drink bottles, plastic water and milk jugs, aluminum food cans, bi-metal and steel food cans, clean aluminum foil, old corrugated cardboard boxes that are flattened and/or crushed and other recyclables acceptable for processing by the WMSP as mutually agreed by the city and the WMSP, however, the following items are not acceptable for recycling and are not allowed in the city's collection program including: construction and demolition waste, garbage, hazardous waste, industrial waste, medical waste, except those items within the MSW definition allowed above, plastic bags, refuse, septage, solid waste, special waste, white goods, and yard waste, as those capitalized terms are defined in the city's contract with the WMSP, to which reference is hereby made.

(B) All recyclable solid waste materials not prepared and handled in accordance with the provisions of this subchapter and the city solid waste collection policy shall not be collected by the city or its agents.
(Ord. passed - -)

§ 54.54 OWNERSHIP OF RECYCLABLE SOLID WASTE MATERIALS.

Upon placement of recyclable solid waste materials at curbside for collection by the city or its agents in accordance with this article and the city solid waste collection policy, such recyclable solid waste materials shall become the property of the city, except those recyclable materials not prepared and handled in accordance with the city solid waste collection policy and any materials not included in the list of recyclable solid waste materials in the city solid waste collection policy but placed at curbside for collection. It shall be a violation of this subchapter for any person, other than authorized agents of the city acting in the course of their employment, to collect or pick up any recyclable solid waste materials so placed.
(Ord. passed - -)

§ 54.55 RECYCLING CONTAINERS.

The city shall furnish each solid waste collection customer with a special container which is specifically designed for the collection of recyclable solid waste materials. This container shall be used by each residential solid waste collection customer to store recyclable solid waste materials. It shall be the responsibility of each customer to maintain that container in a functional state of repair and to report any damage to or loss of that container immediately to the department of public works and utilities. Each container is and shall remain the property of the city and shall remain at a customers' residence after that customer has moved or otherwise vacated the dwelling.
(Ord. passed - -)

§ 54.56 COLLECTION PRACTICES.

(A) *Precollection practice.* After the recyclable solid waste materials have been properly prepared, those recyclable materials can be stored in the recycling container until the designated collection day, at which time the container and its contents shall be placed at curbside in front of the customer's residence not later than 7:00 a.m., nor earlier than dusk of the day prior to collection.

(B) *Post-collection practice.* After the recyclable materials have been collected by the city or its agents, each solid waste collection customer who has placed his recyclable materials collection container at curbside shall retrieve his container from curbside and return the container to its storage location in or at his residence, not later than 6:00 a.m. on the day following the collection day.
(Ord. passed - -)

§ 54.99 PENALTY.

(A) A civil penalty in the amount of $10 may be assessed for the violations of § 54.25(A) and collected as provided in § 10.99 of this code.

(B) Any person who violates § 54.03(A) is guilty of a misdemeanor punishable by a fine of not less than $50 nor more than $100 for the first offense is punishable by a fine of not less than $100. In addition, the court may require the violator to pick up litter or perform other labor commensurate with the offense committed.

(C) *Civil remedy for violation.* If the city or any person sustains damages arising out of a violation of § 54.03, a court in a civil action may order the person to pay the city or the injured party up to three times the actual damages or $100, whichever is greater. In addition, the court shall order the person to pay the city's or the injured party's court costs and attorney's fees.
(Ord. 94-9-3, passed 9-12-94 Am. Ord. passed 9-14-98)

CHAPTER 55: STREETS; SIDEWALKS; PUBLIC PLACES

Section

Bessemer City Code Of Ordinances – Chapter 152-153

(A) Any license issued by the Zoning Admini- strator shall expire on June 30 of each year but may be renewed under the provisions of this chapter for additional periods of one year. ('75 Code, § 9.1-12)

(B) The annual license fee or renewal thereof for any mobile home park shall be $5 for each mobile home space improved and available for occupancy within the corporate limits of the city.
('75 Code, § 9.1-13) (Ord. passed 11-12-72)

§ 151.26 REVOCATION.

The Zoning Administrator is hereby authorized to revoke any license issued pursuant to the terms of this chapter if after due investigation he determines that the holder thereof has violated any of the provisions of this chapter or that any mobile home park is being maintained in an unsanitary manner, or is a nuisance.
('75 Code, § 9.1-14) (Ord. passed 11-12-72)

§ 151.27 APPEALS; HEARINGS.

(A) Any person aggrieved by an order of the Zoning Administrator granting, denying, renewing, or revoking a license for a mobile home park under this chapter may appeal to the City Council within ten days after the issuance of such order by the Zoning Administrator. The City Council shall fix a reasonable time for the hearing of an appeal and give due notice to the appellant. Any appeal shall have the effect of suspending the requirement of the Zoning Administrator until the hearing by the City Council.
('75 Code, § 9.1-15) (Ord. passed 11-12-72)

§ 151.99 PENALTY.

Any person who violates the provisions of this chapter shall, upon conviction, be guilty of a mis- demeanor and may be punished by a fine of not more than $50 or imprisoned not more than 30 days, or punished by both fine and imprisonment in the discre-tion of the court. Each day that a violation continues to exist shall be considered a separate offense.
('75 Code, 9.1-4) (Ord. passed 11-12-72)

CHAPTER 152: DRAINAGE REGULATIONS

Section

152.01 Definitions
152.02 Drainage devices; installation, maintenance; permit required
152.03 Approval of permit

152.04 Construction and alteration of land surfaces
152.05 Drainage piping
152.06 Roadway crossings
152.07 Natural channel maintenance on private property
152.08 Storm drain crossing
152.09 Storm drainage plan required
152.10 Streets without curbs or gutters
152.11 Ditch lines; rights-of-way
152.12 Storm drainage systems

Cross-reference:

Subdivision regulations, see Chapter 154
Building regulations, see Chapter 150
Streets and sidewalks, see Chapter 96

§ 152.01 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

DRAINAGE DEVICE. Any culvert, pipe, ditch, swale, or other device used to channelize, collect, divert, or in any way modify the natural flow of surface water over property.

DRAINAGE POLICY. The set of policies and regulations as modified from time to time, drawn by the City Manager, approved by the City Council, and made available to the public. The City Manager shall present to the Council a proposed set of policies and regulations together with such amendments as become necessary from time to time.

(Ord. passed 1-13-86)

§ 152.02 DRAINAGE DEVICES; INSTALLATION, MAINTENANCE; PERMIT REQUIRED.

(A) From and after the effective date of this chapter, no drainage device other than drain pipes from down spouts from residences shall be placed, installed, or maintained in any manner contrary to the drainage policies of the city.

(B) No drainage device may be installed or maintained within the city, without the owner of the property on which the proposed installation is to take place, first obtaining a permit from the City Manager issued pursuant to the drainage policy.

(C) The city shall issue a permit for the installa- tion and maintenance of a drainage device only after a determination that the proposed installation meets the requirements of and conforms to the drainage policies.

(Ord. passed 1-13-86) Penalty, see § 10.99

§ 152.03 APPROVAL OF PERMIT.

No plat, plan of subdivision, or building permit shall be approved or issued by the city without the property owner first submitting for review and approval, a plan and map or plat showing the flow and discharge of surface water from the site or subdivision, which plan shall be filed with the City Manager. The City Manager may waive all or any portion of this requirement if the proposed work to be performed will not, in his opinion, substantially affect the flow of surface water from the property.
(Ord. passed 1-13-86)

Cross-reference:

Subdivision regulations, see Chapter 154
Building regulations, see Chapter 150

§ 152.04 CONSTRUCTION AND ALTERATION OF LAND SURFACES.

All construction, excavation, and alteration of land surfaces within the jurisdiction of the city shall be done in accordance with the drainage policies of the city as modified from time to time.
(Ord. passed 1-13-86) Penalty, see § 10.99

§ 152.05 DRAINAGE PIPING.

All streams or natural waterways having a water- shed greater than ten acres shall not be piped except at road crossing by any party with the exception that such a stream may be piped for a 25-year storm and that such piping system must be designed by a licensed engineer.
(Ord. passed 1-13-86)

§ 152.06 ROADWAY CROSSINGS.

The city shall be responsible for all roadway crossings on city streets and other storm drain systems located in city street right-of-ways in existence as of the first adoption of these regulations. This responsibility shall exist only as to the width of the street right-of-way.
(Ord. passed 1-13-86)

§ 152.07 NATURAL CHANNEL MAINTENANCE ON PRIVATE PROPERTY.

(A) Except as noted in § 152.08 of this chapter, the city will not be responsible for natural waterway channel maintenance on private property. It shall be incumbent on the property owners to clear and leave open all natural drainage waterways on his property and he shall not place any restrictions in the water- way that would hamper the natural flow.

(B) In cases existing where private drainage systems presently connect to city system piping, either up stream or down stream, the city shall not be responsible for operation or maintenance of any off right-of-way piping or assume any liability for such except as noted in § 152.08 of this chapter.
(Ord. passed 1-13-86)

§ 152.08 STORM DRAIN CROSSING.

In cases where a storm drain crossing is made, the city, upon recommendation of the Public Works Director, approved by the City Manager, and accepted by City Council, may assume maintenance responsibilities across private property if a drainage easement is granted for such drainage for the property effected at no cost to the city save legal and recording costs.
(Ord. passed 1-13-86)

§ 152.09 STORM DRAINAGE PLAN REQUIRED.

All proposed subdivision plats or individual building plats (except single-family residences) shall have a storm drainage plan to show natural drainage over the property and the proposed method of collecting storm water prior to its release to adjacent properties. The plats shall be made part of the zoning permit application and shall be approved by the city. Permanent drainage easements may be required and these shall be obtained or granted at no expense to the city.
(Ord. passed 1-13-86)

§ 152.10 STREETS WITHOUT CURBS OR GUTTERS.

In presently existing streets without curbs and gutters, the following regulations shall apply:

(A) No single driveway entrance shall exceed 24 feet in width, and at a ditch crossing, no pipe shall be smaller than 15 inches, and larger pipe may be required. In cases where smaller driveway pipes presently exist they may continue except at the discretion of the city they may be ordered to be removed or enlarged at no expense to the city. The sheet flow of one driveway may be drained upon the street but any additional driveways shall be designed to drain onto the side ditch on the same side as the drive. Driveways shall not be constructed lower than the street grade, present or future, except at the risk or liability of the driveway owner. The city shall assume no liability for sheet flow into a driveway constructed lower than street grade. It is suggested as a design standard that a minimum elevation of 6 inches be required for all such driveways as they cross the ditch line or right-of-way.

(B) The front ditch line may be piped, by permit issued by the city and at no expense to the city. Such piping shall not be smaller than 15 inches, and larger pipe may be required. A ditch line or swale shall still be required to have the effect to drain

the street and to prevent sheet flow drainage from the property from coming into the street. A drop inlet and/or catch basin shall be required at every property line or 150 feet, whichever is smaller. All piping, basins, and the like shall be at the sole expense of the requesting property owner. Labor rates shall be charged as per charges adopted by Council. All such piping shall be subject to removal by the city at any time it is in the best interest of the city. The city will assume maintenance responsibility for such systems properly constructed and approved by the city.
(Ord. passed 1-13-86) Penalty, see § 10.99

§ 152.11 DITCH LINES; RIGHTS-OF-WAY.

(A) The city hereby reemphasizes its right to re- establish any ditch lines or drainage situations in its rights-of-way at its discretion. In cases where down stream adjacent property owners object to such action, the city shall not assume any liability for its not taking any action.

(B) The city shall not be responsible nor shall it take any action to modify any sheet flow type drainage or any unopened right-of-way, present or future, or any other city-owned property not in use.
(Ord. passed 1-13-86)

§ 152.12 STORM DRAINAGE SYSTEMS.

All storm drainage systems shall be designed for a ten-year storm and all cross drainage in natural water courses shall be designed for a 25-year storm. The city shall endeavor to inventory its cross street drainage over the next two years with regards to condition and adequacy, and shall develop a five-year plan to upgrade any shortcomings found.
(Ord. passed 1-13-86)

CHAPTER 153: WATERSHED PROTECTION

Section

153.01 Adoption of the Unified Development Ordinance (UDO) by reference

§ 153.01 ADOPTION OF THE UNIFIED DEVELOPMENT ORDINANCE (UDO) BY REFERENCE.

The watershed protection regulations are now included in the Unified Development Ordinance (UDO), which is hereby adopted by reference as if set forth in full. Copies of the UDO are available for public review during regular office hours in the

Office of the City Planner. Questions concerning the UDO should be directed to the City Planner.
(Ord. passed 8-13-07)

CHAPTER 154: SUBDIVISION REGULATIONS

Section

154.01 Adoption of the Unified Development Ordinance (UDO) by reference

§ 154.01 ADOPTION OF THE UNIFIED DEVELOPMENT ORDINANCE (UDO) BY REFERENCE.

The subdivision regulations are now included in the Unified Development Ordinance (UDO), which is hereby adopted by reference as if set forth in full. Copies of the UDO are available for public review during regular office hours in the Office of the City Planner. Questions concerning the UDO should be directed to the City Planner.
(Ord. passed 8-13-07)

CHAPTER 155: ZONING CODE

Section

155.001 Adoption of the Unified Development Code (UDO) by reference.

§ 155.001 ADOPTION OF THE UNIFIED DEVELOPMENT ORDINANCE (UDO) BY REFERENCE.

The Zoning Code is now included in the Unified Development Ordinance (UDO), which is hereby adopted by reference as if set forth in full. Copies of the UDO are available for public review during regular office hours in the Office of the City Planner. Questions concerning the UDO should be directed to the City Planner.
(Ord. passed 8-13-07)