Stormwater Fee Credit Manual

City of High Point
Public Services Department
Stormwater Services Division

I. INTRODUCTION

The City of High Point provides commercial and industrial customers with the opportunity to receive a stormwater fee credit. Authority for the stormwater fee credit is found in the City of High Point Code of Ordinances, reference Ordinance Number 6092/03-96. Parcels classified as commercial or industrial which have facilities that provide water quality or quantity benefit to the drainage system, are potentially eligible for a stormwater fee credit. *Applications for credit will not be allowed for properties classified as single family residential or multi-family residential.* Applicants should use this manual as a guide in submitting an application for the stormwater fee credit.

II. GENERAL POLICIES

- To be eligible for the stormwater fee credit, a property must have privately owned and maintained stormwater control devices that provide water quality or quantity benefit to the drainage system and meet the current criteria and standards set forth in the City of High Point Stormwater Best Management Practices Design Manual and the City of High Point Development Ordinance. The amount of credit granted will be determined by methodologies outlined in this manual.
- Stormwater fee credit applications may be submitted as part of required new construction documents or as a separate application packet in the case of existing or retrofit of existing controls.
- To be eligible for the stormwater fee credit, properties must maintain stormwater control devices in accordance with City of High Point Stormwater Best Management Practices Design Manual and/or NCDENR maintenance standards.
- The percentage of on-site impervious surface area being treated by a stormwater control will also be factored into the amount of credit that an applicant can receive.
- Applications for the stormwater fee credit must be completed by a professional engineer to ensure that the stormwater control device was properly designed and constructed.
- Appeals of credit decisions must be made in writing to the Director of the Public Services Department.

III. CREDIT STRUCTURE

A maximum credit of 40% of the stormwater services fee may be granted for any one site according to the following categories:

- Water Quantity or Discharge Rate Control- Up to **20%** maximum credit for reducing discharge to predevelopment conditions.

- Water Quality- Up to **20%** credit for compliance with the *City of High Point's Stormwater Best Management Practices Design Manual* and *Chapter 7 of the City of High Point's Development Ordinance*.

Credit Structure Cont.-

- Customers that have an NPDES Stormwater Permit, but do not qualify for any credit based on the credit requirements outlined above, may qualify for a **20%** credit.

    > In order to be considered for a NPDES Stormwater Permit credit, these customers must submit (1) copy of permit, (2) scale location plan of site showing facility treatment works and point of discharge, and (3) copy of annual compliance monitoring report (including any noncompliance reporting to the State).

IV.   WATER QUANTITY CREDITS

Water quantity credits are available to properties with onsite stormwater control devices, such as detention ponds, that reduce or control the peak stormwater runoff rate. The maximum water quantity credit is 20%.

Water Quantity Control Calculation:

(A) Water Quantity Control Adjustment Factor (WQCAF) = $(Q_{postB} - Q_{postA}) / (Q_{postB} - Q_{pre})$

Q_{pre} = pre-development peak runoff value
Q_{postA} = post-development runoff value with controls in place
Q_{postB} = post-development runoff value without any controls in place

(B) Water Quantity Control Credit = WQCAF X .20 (20%)

Steps for Calculating the Water Quantity Control Adjustment Factor:

1) Calculate the 10-year storm runoff peak for undeveloped conditions (Q_{pre}) as outlined in Chapter 7 of the City of High Point Development Ordinance.

2) Calculate the 10-year storm total runoff for fully developed conditions without any controls in place (Q_{postB}) as outlined in the City of High Point Development Ordinance.

3) Insert designed controls for the fully developed condition and route the storm through the controls. Controls must be based on as-built condition of the facility. Calculate the controlled runoff peak (Q_{postA}).

4) Calculate the Water Quantity Control Adjustment using the equation above. If the factor is greater than 1.0, use a factor of 1.0.

5) Multiply the Water Quantity Control Adjustment Factor by 0.20 (20%) to obtain the Water Quantity Control Credit. (20% is the maximum amount of credit allowed)

V. WATER QUALITY CREDITS

Water Quality Credits are offered to properties that discharge a portion of the runoff to approved best management practices (BMPs), which reduce pollutants in stormwater runoff. The amount of credit given to a property will be determined by the type of BMP that is installed, and the percentage of the site that drains to the BMP. The maximum water quality credit is 20%.

Water Quality Control Calculations:

- Any property that discharges into a stormwater BMP classified as an Engineered Stormwater Control in Chapter 7 of the *City of High Point Development Ordinance* will be eligible for up to **20% of credit**.   Examples of Engineered Stormwater Controls include: wet detention ponds, bioretention cells, constructed stormwater wetlands or other BMP that will control the first inch of rainfall and remove 85% total suspended solids.

  Water Quality Credit Calculation:

  Engineered Stormwater Control Credit = (20%) x (% site drainage area)

- Any property that discharges into a stormwater BMP classified as an Alternate Measure in Chapter 7 of the *City of High Point Development Ordinance* will be eligible for up to **10% of credit**.   Examples of Alternate Measures include: extended dry ponds, infiltration trenches, natural infiltration areas or other BMP that meets performance standards of control of the first one-half inch of rainfall.

  Water Quality Credit Calculation:

  Alternate Measure Credit = (10%) x (% site drainage area)

VI. PROCEDURE FOR DETERMINING CREDIT AMOUNT

Step 1- Calculate the Stormwater Utility Fee

Equivalent Residential Units (ERUs) = $\dfrac{\text{Total Impervious Surface Area on Property (sf)}}{2{,}588 \text{ sf (ERU)}}$

Stormwater Utility Fee = # of ERUs X $ Rate per ERU (Set by City Council)

Step 2- Calculate the Stormwater Fee Credit

Credit Adjustment = S x ((W1 + W2) X D)

S = Stormwater Utility Fee
W1= Amount of Discount Awarded for Quantity Control (up to 20 %)- expressed in decimals
W2= Amount of Discount Awarded for Water Quality (up to 20 %)- expressed in decimals
D= Percentage of Property Treated by the Stormwater Control Device- expressed in decimals

Step 3- Calculate the Final (Adjusted) Stormwater Fee

Final Stormwater Fee = Initial Stormwater Fee - Credit Adjustment

EXAMPLE OF CREDIT COMPUTATION FOR A COMMERCIAL PROPERTY

Site information:
Total size of parcel = 6.0 acres
Developed land use = 2.25 acres
Type of stormwater control device /BMP= wet detention pond
Percentage of on-site impervious surface area "treated" by wet detention pond= 100%

Step 1. Calculate the Stormwater Fee.

Impervious area on site= 2.25 (acres) x 43,560 sf
Impervious area on site= 98,010 sf

Stormwater fee = (98,010 sf / 2588 sf) x $3.00 (Current ERU Rate 2015)
= $113.61 per month

Step 2. Calculate the Water Quantity Control Adjustment Factor.

- Compute $Q_{pre,}$ $Q_{postA,}$ and Q_{postB} (see Section IV).
    - Q_{pre} = 6.0 cfs
    - Q_{postA} = 5.0 cfs
    - Q_{postB} = 18.0 cfs

- Calculate the adjustment factor
    - $(Q_{postB} - Q_{postA}) / (Q_{postB} - Q_{pre})$
    - (18.0 – 5.0) / (18.0 – 6.0)

Adjustment factor = 1.08 *(If factor is greater that 1.0, use a factor of 1.0)*

Step 3. Calculate the Water Quantity Control Credit

Water Quality Control Credit = .20 x 1.0 (adjustment factor)
= 20%

Step 4. Determine the Water Quality Credit.

A wet detention pond is classified as an engineered stormwater control in the City of High Point Development Ordinance and is eligible for up to 20% credit.

Step 5. Calculate the Stormwater Fee Credit.

Stormwater Fee Credit = S x ((W1 + W2) x D)
= $113.61 x ((.20 + .20) x 1.0)
= $45.44

Step 6. Calculate the Final (Adjusted) Stormwater Fee

Final Stormwater Fee = $113.61- $45.44
= $68.17