

# **STORM WATER CREDIT MANUAL**

**CITY OF ROCK ISLAND  
DEPARTMENT OF PUBLIC WORKS**

**Original Adoption...April 14, 2003  
Amendment #1...October 13, 2003  
Amendment #2...November 3, 2006**

## TABLE OF CONTENTS

<b>PREFACE</b> .....	1
<b>Chapter 1: INTRODUCTION</b> .....	2
<b>Chapter 2: CREDIT POLICIES</b> .....	3
<b>Chapter 3: DIRECT DISCHARGE CREDITS</b> .....	5
□ <b>(DDC) 100%</b> Direct Discharge Credit for properties which discharge all or a portion of their runoff directly to the Rock or Mississippi River.	
<b>Chapter 4: QUANTITY REDUCTION CREDITS</b> .....	6
□ <b>(RRC) 25%</b> Rate Reduction Credit for properties that control post-developed runoff rates for the two (2), ten (10), and one-hundred (100) year design storms to pre-development levels.	
□ <b>(ARC) 10%</b> Additional Rate Reduction Credit for properties which achieve further reduction of post-developed runoff rates for said design storms at least 20% below pre-development levels	
□ <b>(AVC) 5%</b> Additional Volume Credit for those properties which provide at least 20% additional storage beyond what is required for the one-hundred (100) year design storm	
<b>Chapter 5: QUALITY CREDIT</b> .....	8
□ <b>(QLC) 10%</b> maximum Quality Credit, to be granted at a rate of 5% per use of approved Best Management Practices (BMPs). Acceptable use of 2 or more approved BMPs will receive the maximum credit of 10%	
□ <b>(NPC) \$200</b> annual credit for properties which obtain/maintain a National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit. Proof of compliance is required.	
<b>Chapter 6: APPLICATION FORMS</b> .....	10
<b>Chapter 7: EXAMPLE CREDIT APPLICATIONS</b> .....	12

## **PREFACE**

### **Send Application Forms to:**

City of Rock Island  
Department of Public Works  
Attn: Storm Water Utility Credit  
1309 Mill Street  
Rock Island, IL 61201

**Make Checks Payable to:** City of Rock Island

### **For Questions Regarding the Credit Application, Contact:**

City Stormwater Engineer  
Department of Public Works  
(309) 732-2200

### **Application Procedure:**

Initial review of Storm Water Utility Credit Applications will be completed within 60 days of receipt of the application form and fee payment. Application fees are one-time and non-refundable. Reviewers will check application forms for completeness and accuracy. If the application is found to be complete and accurate, a letter will be sent to the applicant notifying approval of the credit. Application for any credit is an acknowledgement of the indemnification statement in Chapter 2 of this document (Section G), and the City of Rock Island's (City) right-of-entry to inspect and verify the information submitted on said application. If deficiencies are found during the review, a deficiency letter will be sent to the applicant's contact person. Upon receipt of additional information from applicant, the review will resume and be completed within 60 days of receipt of the additional information. Billing adjustments required to implement credits shall be applied retroactively to the date of the customer's completed application. If an application is denied, a letter explaining the reasons for the denial will be provided to the applicant. The applicant has the right to appeal this decision, in accordance with the procedures outlined in Section 16.901 and 16.909 of the Rock Island Code of Ordinances.

## CHAPTER 1: INTRODUCTION

The City Council of the City of Rock Island, Illinois passed General Ordinance No. 74-2002, which created a citywide Storm Water Utility to provide storm water management activities including the operation and maintenance of the Mississippi River flood protection system.

The primary revenue source for the Storm Water Utility is Storm Water Service Charges to all developed property in the City. Storm Water Service Charges to a property are related to the amount of storm water runoff from the property. Since it is not feasible to directly measure this runoff, the actual charge is based upon the area of impervious area on each property. In general terms, the impervious areas are the portions of the property that shed water during a storm. Typical impervious areas include sidewalks, driveways, roofs, awnings, patios, parking lots and compacted aggregate.

A statistical sampling of residential properties within the City determined that an average developed single-family residential property has 2,800 square feet of impervious area. As a result, 2,800 square feet is used as the base billing unit or IAU (impervious area unit).

Each detached, single-family residential property smaller than 2.0 acres in gross area is billed according to a flat rate schedule contained in the Municipal Code. The Storm Water Service Charge for detached, single-family residential properties over 2.0 acres and all other properties is determined on a case-by-case basis according to the amount of impervious area on the property. The amount of impervious area is measured in square feet and divided by 2,800. The result of that division is rounded up to the next whole number and becomes the number of IAU's assigned to the property. That number multiplied by the unit-billing rate contained in the Municipal Code yields the storm water service charge for that particular property.

The number of IAUs assigned to properties will remain constant unless physical changes are made that alter the amount of its impervious surface area. In these cases, billing changes will be made automatically at the completion of construction. Typically, these changes will be triggered through the building permit process.

The City of Rock Island has developed a system of credits for storm water service customers who:

- (1) Discharge all or a portion of the storm water directly into the Mississippi or Rock Rivers without sending it through the public drainage system or across property owned by another person or entity or...
- (2) Have facilities or controls in place to temporarily store or treat storm water runoff, thereby reducing the impact on the drainage system. This manual details the policies and procedures applicable to the storm water service charge credit program.

## CHAPTER 2: CREDIT POLICIES

It is the City's intent to encourage sound technical design practices that reduce the negative impact of development on the drainage system through a simple but effective credit system. Certain policies have been developed to maintain a balance between simplicity and effectiveness. Properties whose impact on the storm water drainage system is significantly limited or has been effectively reduced through specific controls shall be entitled to a credit adjustment that will be applied to its storm water service charge.

**A. APPLICATION FEE AND DETERMINATION** - A credit application will not be considered complete and will not be processed unless accompanied by the application fee and all appropriate forms and information as required in this manual. The credit application fee is \$20.00 for Direct Discharge (DDC) and Quality Credits (QLC & NPC), and \$100.00 for Quantity Reduction Credits (RRC, ARC, and AVC). It is the intent of the Department to process applications within sixty (60) days of submittal of the complete and correct application package. Billing adjustments required to implement credits shall be applied retroactively to the date the customer submitted a complete application. Adjustments shall be made by crediting the customer's storm water service charge until any overpayment has been fully repaid. A pending application for credit shall not constitute a valid reason for non-payment of the current Storm Water Service Charges. In the case of new development, Storm Water Service Charges and the associated credits detailed herein do not apply until construction is complete or upon granting of conditional occupancy, whichever is earlier.

**B. DIRECT DISCHARGE CREDIT (DDC)** is available to properties that discharge storm water directly into the Rock or Mississippi River. Qualification requirements and application procedures for this credit are outlined in Chapter 3.

**C. QUANTITY REDUCTION CREDITS** are offered to customers that maintain runoff facilities or controls, such as detention or retention facilities, which significantly restrict storm water runoff rates released from their property. Quantity Reduction Credits shall be conditioned on continuing compliance with the design, operation and maintenance requirements of all the applicable ordinances and codes of the City of Rock Island, State or Federal Permitting, and this Storm Water Credit Manual.

- The **Rate Reduction Credit (RRC)** is available for storm water facilities that control the post-development peak rate of storm water runoff at the pre-development rates for the two (2), ten (10), and one hundred (100) year design storms
- The **Additional Rate Reduction Credit (ARC)** is available for storm water facilities that reduce the peak flow rates of storm water runoff in the post-developed condition at least 20% below the pre-development runoff rates. This additional reduction in runoff rates is beneficial to the City because it provides additional benefit to downstream properties from even larger storm events
- The **Additional Volume Credit (AVC)** is offered to customers that provide at least 20% additional volume in their detention facilities beyond City requirements. This additional volume is beneficial to the City because it provides storage to protect downstream properties from even larger storm events and/or from neighboring upstream properties that drain through the customer's property.

Qualification requirements and application procedures for these credits are outlined in Chapter 4.

**D. QUALITY CREDITS (QLC)** are offered to properties that discharge a portion of the runoff to structural or non-structural best management practices (BMPs) which significantly reduce pollutants in storm water runoff. A QLC is available for structural BMPs that are designed to remove 80 percent or more total suspended solids. A QLC is also available for non-structural BMPs such as a filter strip or natural preservation area, which provides water quality benefits and/or the possibility of groundwater recharge, thus removing water from the storm water system and improving water quality. Other BMPs can be submitted by the applicant for consideration to receive the QLC.

- **The NPDES Credit (NPC)** is a specific, once-per-year, whole-dollar, Quality Credit that will apply to property owners who maintain individual NPDES Storm Water Discharge Permits issued by the Illinois Environmental Protection Agency. NPDES permit holders provide runoff quality controls and spill protection in order to comply with their permit.

Qualification requirements and application procedures for these credits are outlined in Chapter 5.

**E. UNIQUE AND SPECIAL CASES** - Where a property owner or customer can unequivocally document and demonstrate through appropriate engineering studies that their property's storm water runoff impact on the storm water drainage system is significantly less than suggested by its assigned (gross) IAUs, the City Council, upon recommendation of the staff, may make adjustments consistent with the intent of the ordinance establishing charges for storm water services.

**F. INDEMNIFICATION** – In consideration for permission to construct or install a storm water improvement/BMP, and by nature of applying for a storm water user fee credit, the applicant is hereby legally acknowledging and agreeing to the following:

- 1) After completion of the construction or installation by Owners and approval by the City, the construction or installation of a storm water improvement/BMP shall remain a privately owned and maintained storm water improvement/BMP, shall not be accepted by the City, and shall not become a part of the maintenance program of the Rock Island Storm Water Utility or the Department of Public Works (DPW). All maintenance responsibility and liability shall be and remain with Owners, their personal representatives, heirs, grantees, successors, and assigns.
- 2) Owners, their personal representatives, heirs, grantees, successors, and assigns shall indemnify and hold harmless the City of Rock Island, its officers, agents, and employees from any and all claims, actions, causes of action, judgments, damages, losses, costs, and expenses (including attorney's fees) arising out of or resulting from the construction, installation, maintenance, or operation of the storm water improvement/BMP.
- 3) This Agreement shall run with the real estate upon which the storm water improvement/BMP has been constructed and shall be binding upon Owners, their personal representatives, heirs, grantees, successors, and assigns so long as the drainage facility and/or improvement or any part of it shall be used by them. This Agreement shall be disclosed upon transfer of real estate. At such time as the storm water improvement/ BMP shall cease to be so used, this Agreement shall immediately terminate.

## **CHAPTER 3: DIRECT DISCHARGE CREDIT**

The Direct Discharge Credit is available to properties that are contiguous to the Rock or Mississippi River. Runoff that passes through a public or private drainageway prior to outfalling to the Rock or Mississippi River is not considered direct discharge. Proportionate DDC may be granted for that portion of the property's impervious surface area that discharges directly into the **Rock or Mississippi River**.

This credit need only be applied for once, but will be reviewed if the property is redeveloped or re-graded.

### **DDC APPLICATION**

The completed Direct Discharge Credit application must include a \$20.00 application fee and the following information:

- 1) Plat of survey certified by an Illinois-Registered Land Surveyor, or site construction plan certified by an Illinois Professional Engineer, indicating the following:
  - a. The location of the Rock or Mississippi River
  - b. Watershed breaks across the property
  - c. Layout of impervious surface areas on the property
  - d. Layout of the drainage system on the property, including location and elevations of natural and man-made features
  - e. Sufficient topographic data or elevations to verify general drainage patterns across the property.

See Chapter 6 for an example application for the Direct Discharge Credit.

## **CHAPTER 4: QUANTITY REDUCTION CREDITS – 40% MAXIMUM**

Quantity Reduction Credits will be available to properties whose peak storm water runoff rate is restricted and controlled through onsite facilities or controls, such as detention and retention ponds, which are privately designed, constructed, and maintained according to City standards and requirements.

### **LEVELS OF CREDIT**

As explained in Chapter 2, property owners of private storm water facilities, such as retention/detention facilities, eligible for credit under this chapter may, at their option, apply for the ARC and AVC in addition to the RRC as described below. One must qualify for an RRC to be able to qualify for the ARC and/or AVC.

#### **1. Rate Reduction Credit (RRC) – 25% Credit**

Storm water facilities that control the post-development peak rate of storm water runoff at the pre-development rates for the two (2), ten (10), and one hundred (100) year design storms.

#### **2. Additional Rate Reduction Credit (ARC) – 10% Credit**

Storm water facilities that qualify for a RRC can also qualify for the ARC if they reduce post-development peak rates in all three design storms by at least 20% of the pre-development flow rates.

#### **3. Additional Volume Credit (AVC) – 5% Credit**

Storm water facilities that qualify for a RRC can also qualify for an AVC if they provide 20% more storage volume than required for the 100-year design storm. This does not include required freeboard above the emergency spillway.

If a private storm water management system on a property qualifies, it can receive all 3 credits for a total of 40% credit.

### **APPLICATION REQUIREMENTS**

1. Application fee: \$100.00

2. *The owner shall supply maintenance information along with their application. Any association agreements or contracts for inspection and/or maintenance are required to be disclosed as part of the application. Indicate the schedule for major maintenance that will be performed and how many times per year basic maintenance (such as erosion control and/or mowing) activities are performed. Inspection reports shall be filed with the City every subsequent year, as calculated from the original application date, in order to maintain any level of Quantity credit. If a property owner fails to file required inspection reports or if a random City inspection results in failure, the City will send a letter informing the property owner of the required action to avoid revocation of the Quantity credits. If the property owner fails to take the required action, the quantity credits will be revoked until the situation is corrected. No retroactive credits will be given during said lapse period. Credits will be restored on the effective date of the submittal of the property owner's acceptable response.*

3. *The owner shall supply the following technical information along with their application.*

- Conceptual site plan and structural control location diagram
- Locations, dimensions and characteristics of all proposed and existing drainage patterns and facilities
- Existing and proposed grading and location of all structures, parking, driveways, and other impervious areas
- Detailed engineering calculations providing the results of routing the storm runoff for the two (2), ten (10), and one-hundred (100) year storm events through the basin or control, along with comparison to pre-development runoff rates. Total storage volume calculations and emergency spillway configuration are also required. An Illinois Professional Engineer must certify these calculations.
  - ❖ The sum-total of pre-developed and post-developed runoff rates and volumes from all watersheds *within the property* must be calculated and compared, regardless of the number of natural or constructed watersheds in the property. Control of runoff in only one of the property's watersheds, ignoring all others, will not receive credit. Control of runoff in only one watershed, *which takes into account the runoff from all others*, could receive credit.
- Upon completion of construction, as-built data certified by an Illinois Professional Engineer shall be submitted in order to complete the application. The as-built data must verify the capacity of the detention facilities and outlet structures for which the credit has been applied.

NOTE: Developers are encouraged to apply for all levels of quantity credits on new developments as part of the normal development plan review procedures. The credits, as well as the Storm Water Service Charges, do not go into effect until the construction is complete or upon granting of conditional occupation.

**Credits will not begin until as-built data has been submitted.**

4. *Existing facilities will be eligible for credit as long as they meet the requirements of the City of Rock Island Storm Water Ordinance and Construction Standards. In this case, the information required in Nos. 2 & 3 above and any other supporting material shall be submitted for review. Retrofitting of existing structures is also allowed to provide or increase the amount of credit for a property. The process for retrofitting existing structures is similar to that for new developments. As-built data shall be submitted for the existing or retrofitted structure before the credit will be applied.*

5. The owner shall be required to sign a statement certifying that information is correct and acknowledging that the credit determination will be based on information provided. A later determination that the information was inaccurate may result in loss of credit.

See Chapter 6 for an example application for the Quantity Reduction Credits.

## **CHAPTER 5: QUALITY CREDIT – 10% MAXIMUM (NOT INCLUDING THE NPC)**

Quality Credits (QLC) will be available to properties where structural or non-structural storm water best management practices (BMPs) are located and which are used to treat storm water runoff, specifically total suspended solid (TSS) loads. Non-structural BMPs include filter strips and natural preservation areas that are properly designed, constructed and maintained according to City requirements. Other professional techniques such as those published by U.S. EPA, National Resource Conservation Service, American Society of Civil Engineers, and other professional organizations will be considered. A QLC can also be applied in addition to any approved Quantity Reduction Credits, such as a wet detention pond that is designed to remove at least 80 percent total suspended solids (TSS).

Property owners of private, non-structural storm water BMPs including filter strips and natural preservation areas may be eligible for credit, provided that the BMP used is constructed according to accepted practices or that the owner's engineer can provide calculations showing removal of 80 percent TSS. To receive credit, it must be shown that each type of BMP will be applied in all feasible locations and situations that the site topography will allow, maximizing the amount of impervious area that will benefit from the BMP.

**Quality Credit amount: 5% per approved BMP type used, to a maximum total of 10%.**

NOTE: A detention pond that is being used for a Quantity Reduction Credit can also be approved as one of the BMPs for receiving a QLC, if properly designed. Calculations or professional certifications showing 80% removal of TSS in the pond must accompany the application for the QLC and RRC. This type of QLC will be tied to the associated RRC, which means that termination of the RRC for any reason will also terminate the QLC for that structure.

### **The NPDES Credit (NPC) – \$200 per year Credit**

This credit will be given once per year, in addition to other credits, for those property owners who maintain individual NPDES Industrial Storm Water Discharge Permits. NPDES permit holders provide runoff quality controls and spill protection in order to comply with their permit and therefore can apply to receive this once per year credit. The NPC can be received even if the property is already receiving the maximum 50% credit to their Storm Water Service Charges. The credit will be given on the next available billing as a whole amount.

## **APPLICATION REQUIREMENTS**

1. Application fee: \$20. Multiple BMPs can be listed on one QLC application, but the NPC must be applied for separately. **Those applying only for an NPC can skip to Item 4.**
2. Plat of survey certified by an Illinois-Registered Land Surveyor, or site construction plan certified by an Illinois Professional Engineer, indicating the following:
  - a. Location and dimensions of the BMPs on the property
  - b. Watershed breaks across the property
  - c. Layout of impervious surface areas on the property
  - d. Layout of the drainage system on the property, including location and elevations of natural and man-made features
  - e. Sufficient topographic data or elevations to verify general drainage patterns across the property.

3. Specific BMPs:

- A. If a **filter strip** is to receive credit, the following criteria must be met:
  - 1. The minimum length of the filter strip shall be 50 feet.
  - 2. The minimum undisturbed width shall be 50 feet.
  - 3. The maximum contributing length to the filter strip shall be 150 feet for residential properties and 75 feet for commercial properties.
  - 4. The average contributing overland slope shall be less than or equal to 5 percent.
  - 5. The filter strip shall be preserved in a conservation easement or similar protective mechanism that ensures protection of the area for the duration of the credit.
- B. **Natural areas** include forested retention areas, wetlands and associated buffers, and other lands in protective easement such as floodplains or open space. If a natural area is to receive credit, the following criteria must be met:
  - 1. The minimum natural area must be greater than or equal to 20 percent of the gross area.
  - 2. The area must be protected by limits of construction shown on all construction drawings and shall not be disturbed during any construction process.
  - 3. The applicant must be able to ensure protection of the area beyond the construction period, for the duration of the credit.
  - 4. The area must be upgradient or updrain to the existing or proposed storm water treatment practice.
- C. If a **structural BMP** is used for a QLC, supporting plans, calculations and reference information must be provided to demonstrate that the BMP can achieve TSS removal of at least 80 percent. The most common BMP capable of meeting this removal rate is a wet detention pond designed to settle suspended solids. BMP design guidelines are presented in the City of Rock Island's Storm Water Ordinance. Other passive or active BMPs such as sand filters, inline swirl concentrators and commercially available catch basin inserts will also be considered for a QLC, provided that they meet the other criteria of this Chapter, and that all such structures on the site receive the same treatment when feasible (installing a filter in one catch basin will not qualify for a QLC, but installing a filter in ALL catch basins on a property would).

4. **Requirements for the NPC:** In order to qualify for the NPC, the property owner must provide a copy of the NPDES Industrial Storm Water Discharge Permit and required reporting information along with their application. Past Visual Inspection Reports are required to receive the credit. The property owner must reapply every year and provide the most current Visual Inspection Report in order to maintain it.

Quality controls and spill protection implemented as part of the property owner's Storm Water Pollution Prevention Plan (SWPPP) can also be approved for a QLC as defined in this Chapter, but they must be applied for separately. If a property owner wishes to apply for a QLC for any of these controls, 2 applications and associated fees will be required; one for the NPC and one for the QLC. It is not guaranteed that a property owner who is receiving a NPC will also receive a QLC. Each QLC will be reviewed on its own merits.

See Chapter 6 for an example application for the Quality Reduction Credits.

**City of Rock Island, Illinois, Public Works Department**

**FORM 1 – STORM WATER SERVICE CHARGE CREDIT APPLICATION**

Credits Applied for:  Direct Discharge (DDC)  Quality (QLC)  NPDES (NPC)  
(check all that apply)  Rate Reduction (RRC)  Add. Rate (ARC)  Add. Volume(AVC)

Applicant Information (Financially Responsible Entity): (Please print or type)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone: (\_\_\_\_\_) \_\_\_\_\_

Property Owner Information (If Different from Above):

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Property Information:

Property Location/Address: \_\_\_\_\_

Is this property a single-family detached (SFD) home?  Yes  No

Parcel Identification Number (PIN): \_\_\_\_\_ Property Size (SF/Acre): \_\_\_\_\_

Receiving Water's Name (if applicable): \_\_\_\_\_ Impervious Area (SF): \_\_\_\_\_

Brief Description of Storm Water Facilities at Location (if applicable): \_\_\_\_\_

Plan Review Information:

Has this project and its storm water calculations been approved by the City?  Yes  No

If Yes, date of final approval of plan and calculations: \_\_\_\_\_

*(If no copy is on file, City will notify Applicant to request a copy.)*

If No, provide copies of as-built plans and calculations showing the project meets minimum City requirements.

Please indicate the review information that you are attaching to this application:

Sketch Plans/Narratives  Survey Plat  Construction Plans  As-Built Plans  
 Construction Specifications  Runoff Calculations  Routing Calculations  TSS Calcs

Certifications:

The above information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual, by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

\_\_\_\_\_  
Type or print name

\_\_\_\_\_  
Title or Authority

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**The following certification is required for approval of all credits for which a certified technical submission was required:**

The above information and the information on Form 2 was prepared either by or under the supervision of myself as the qualified professional and is true and correct to the best of my knowledge and belief.

\_\_\_\_\_  
Type or print name

\_\_\_\_\_  
Professional License Type and Number

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

(\_\_\_\_\_) \_\_\_\_\_  
Phone

**City of Rock Island, Illinois, Public Works Department**

**FORM 2 – STORM WATER SERVICE CHARGE CREDIT APPLICATION**  
*(Form 1 must accompany this application form)*

Direct Discharge Credit (DDC)

Total Gross Impervious Area (sf): \_\_\_\_\_ Impervious Area Discharging Direct (sf): \_\_\_\_\_

Percent of Direct Discharge (%): \_\_\_\_\_ Percentage of Credit (%): \_\_\_\_\_

Quality Credits (QLC)

BMP #1: Description of BMP \_\_\_\_\_

BMP #2: Description of BMP \_\_\_\_\_

Check Here  if you attach additional BMPs for consideration.

(Plans, specifications, calculations, or other supporting data should be supplied for each BMP)

NPDES Permit Credit (NPC)

NPDES Permit Type and Number: \_\_\_\_\_

(Copy of NPDES Permit must be attached)

Past Visual Inspection Reports attached?  Yes  No

If No, Explain why: \_\_\_\_\_

(Inquire if you are required to submit a copy of your SWPPP in this case)

Quantity Reduction Credits (RRC, ARC, AVC)

Pre-Developed **2-year** flow (cfs): \_\_\_\_\_ Designed **2-year** flow (cfs): \_\_\_\_\_

*Reduction of Flow Provided (cfs):* \_\_\_\_\_ *Percent Reduction (%):* \_\_\_\_\_

Pre-Developed **10-year** flow (cfs): \_\_\_\_\_ Designed **10-year** flow (cfs): \_\_\_\_\_

*Reduction of Flow Provided (cfs):* \_\_\_\_\_ *Percent Reduction (%):* \_\_\_\_\_

Pre-Developed **100-year** flow (cfs): \_\_\_\_\_ Designed **100-year** flow (cfs): \_\_\_\_\_

*Reduction of Flow Provided (cfs):* \_\_\_\_\_ *Percent Reduction (%):* \_\_\_\_\_

Is 20% or greater reduction provided in all cases, to qualify for the ARC?  Yes  No

Required Volume of Pond (ac-ft): \_\_\_\_\_ Provided Volume of Pond (ac-ft): \_\_\_\_\_

Elevation of 100-year event (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Elevation of Emergency Spillway (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Additional Volume Provided (ac-ft): \_\_\_\_\_ Percent of Required Volume (%): \_\_\_\_\_

Is 120% or more of the Required Volume provided, to qualify for the AVC?  Yes  No

Credit Summary

**Direct Discharge Credit (DDC):** \_\_\_\_\_ %

Quality Credits (QLC) BMP #1: \_\_\_\_\_ % (5%)

BMP #2: \_\_\_\_\_ % (5%)

**Total Quality Credits:** \_\_\_\_\_ % *(Maximum is 10%)*

Rate Reduction Credit (RRC): \_\_\_\_\_ % (25%)

Additional Rate Credit (ARC): \_\_\_\_\_ % (10%)

Additional Volume Credit (AVC): \_\_\_\_\_ % (5%)

**Total Quantity Credits:** \_\_\_\_\_ % *(Maximum is 40%)*

**Total Annual Storm Water Credit:** \_\_\_\_\_ %

NPDES Credit (NPC): \_\_\_\_\_ (\$200)

**CHAPTER 7: EXAMPLE CREDIT APPLICATIONS**

Following are example applications for credit adjustments to the Storm Water Service Charge. The filled out example applications are attached.

**Example #1:** Direct Discharge (DDC per Chapter 3)

A single family detached (SFD) residence with 5,000 SF total impervious area discharges a portion of its runoff directly to the Rock River. Due to topography on the lot, only 3,000 SF of the total discharges directly to the River, while the runoff from the remaining area flows over the neighboring lot.

**Example #2:** Rate Reduction Credit, Additional Rate Reduction Credit, Additional Volume Credit, and a Quality Credit (RRC, ARC and AVC per Chapter 4, and QLC per Chapter 5)

An industrial customer with 100,000 SF (36 IAUs) of impervious area has installed a detention pond that meets the design criteria specified in Chapter 4. The post-developed runoff rates from the 3 design storms are being controlled to pre-development levels. In addition, the pond was designed (by enlarging it and making a small change to its outlet structure) to achieve an additional 20% reduction of runoff rates below pre-development levels, and 20% additional storage volume. The customer's Engineer will also certify that the pond will remove 80% of total suspended solids, according to calculations. The customer has not installed any other BMPs on site at this time.

**Example #3:** NPDES Credit (NPC per Chapter 5)

The industrial customer from Example #2 obtains an NPDES Storm Water Discharge Permit from the Illinois Environmental Protection Agency, due to the type of industrial activity on site. They are already receiving the other credits referred to in Example #2, so this application is for the NPC only. Once per year, the customer must re-apply for this credit.

City of Rock Island, Illinois, Public Works Department

FORM 1 – STORM WATER SERVICE CHARGE CREDIT APPLICATION

Credits Applied for: [X] Direct Discharge (DDC) [ ] Quality (QLC) [ ] NPDES (NPC)
(check all that apply) [ ] Rate Reduction (RRC) [ ] Add. Rate (ARC) [ ] Add. Volume(AVC)

Applicant Information (Financially Responsible Entity): (Please print or type)

Name: Robert Homeowner
Address: 1000 Rock Island Lane
City: Rock Island State: Illinois Zip Code: 61201
Contact Person: (same as above) Telephone: ( 309 ) 555-1234

Property Owner Information (If Different from Above):

Name:
Address:
City: State: Zip Code:

Property Information:

Property Location/Address: 1000 Rock Island Lane, Rock Island
Is this property a single-family detached (SFD) home? [X] Yes [ ] No
Parcel Identification Number (PIN): 9999 Property Size (SF/Acre): 2 Acres
Receiving Water's Name (if applicable): Rock River Impervious Area (SF): 5000 SF
Brief Description of Storm Water Facilities at Location (if applicable):
(none)

Plan Review Information:

Has this project and its storm water calculations been approved by the City? [ ] Yes [X] No
If Yes, date of final approval of plan and calculations:

(If no copy is on file, City will notify Applicant to request a copy.)

If No, provide copies of as-built plans and calculations showing the project meets minimum City requirements.

Please indicate the review information that you are attaching to this application:

[ ] Sketch Plans/Narratives [X] Survey Plat [ ] Construction Plans [ ] As-Built Plans
[ ] Construction Specifications [ ] Runoff Calculations [ ] Routing Calculations [ ] TSS Calcs

Certifications:

The above information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual, by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

Robert Homeowner
Type or print name
Signature
Robert Homeowner

Property Owner
Title or Authority
Date
5-1-03

The following certification is required for approval of all credits for which a certified technical submission was required:
The above information and the information on Form 2 was prepared either by or under the supervision of myself as the qualified professional and is true and correct to the best of my knowledge and belief.

William Surveyor
Type or print name
Signature
William Surveyor

IL-LS #062-0999999
Professional License Type and Number
Date
( 309 ) 555-4321
Phone

**FORM 2 – STORM WATER SERVICE CHARGE CREDIT APPLICATION**

*(Form 1 must accompany this application form)*

Direct Discharge Credit (DDC)

Total Gross Impervious Area (sf): 5000 SF Impervious Area Discharging Direct (sf): 3000 SF

Percent of Direct Discharge (%): 60% Percentage of Credit (%): 60%

Quality Credits (QLC)

BMP #1: Description of BMP \_\_\_\_\_

BMP #2: Description of BMP \_\_\_\_\_

Check Here  if you attach additional BMPs for consideration.

(Plans, specifications, calculations, or other supporting data should be supplied for each BMP)

NPDES Permit Credit (NPC)

NPDES Permit Type and Number: \_\_\_\_\_

(Copy of NPDES Permit must be attached)

Past Visual Inspection Reports attached?  Yes  No

If No, Explain why: \_\_\_\_\_

(Inquire if you are required to submit a copy of your SWPPP in this case)

Quantity Reduction Credits (RRC, ARC, AVC)

Pre-Developed **2-year** flow (cfs): \_\_\_\_\_ Designed **2-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Pre-Developed **10-year** flow (cfs): \_\_\_\_\_ Designed **10-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Pre-Developed **100-year** flow (cfs): \_\_\_\_\_ Designed **100-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Is 20% or greater reduction provided in all cases, to qualify for the ARC?  Yes  No

Required Volume of Pond (ac-ft): \_\_\_\_\_ Provided Volume of Pond (ac-ft): \_\_\_\_\_

Elevation of 100-year event (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Elevation of Emergency Spillway (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Additional Volume Provided (ac-ft): \_\_\_\_\_ Percent of Required Volume (%): \_\_\_\_\_

Is 120% or more of the Required Volume provided, to qualify for the AVC?  Yes  No

Credit Summary

<b>Direct Discharge Credit (DDC):</b>	<b><u>60</u> %</b>
Quality Credits (QLC) BMP #1:	_____ % (5%)
BMP #2:	_____ % (5%)
<b>Total Quality Credits:</b>	<b>_____ % (Maximum is 10%)</b>
Rate Reduction Credit (RRC):	_____ % (25%)
Additional Rate Credit (ARC):	_____ % (10%)
Additional Volume Credit (AVC):	_____ % (5%)
<b>Total Quantity Credits:</b>	<b>_____ % (Maximum is 40%)</b>
<b>Total Annual Storm Water Credit:</b>	<b><u>60</u> %</b>
NPDES Credit (NPC):	_____ (\$200)

City of Rock Island, Illinois, Public Works Department

FORM 1 – STORM WATER SERVICE CHARGE CREDIT APPLICATION

Credits Applied for: [ ] Direct Discharge (DDC) [X] Quality (QLC) [ ] NPDES (NPC)
(check all that apply) [X] Rate Reduction (RRC) [X] Add. Rate (ARC) [X] Add. Volume(AVC)

Applicant Information (Financially Responsible Entity): (Please print or type)

Name: Rock Island Industries
Address: 5000 Industrial Park Road
City: Rock Island State: Illinois Zip Code: 61201
Contact Person: Linda Contact Telephone: (309) 555-1234

Property Owner Information (If Different from Above):

Name: (same)
Address:
City: State: Zip Code:

Property Information:

Property Location/Address: 5000 Industrial Park Road, Rock Island
Is this property a single-family detached (SFD) home? [ ] Yes [X] No
Parcel Identification Number (PIN): 99999 Property Size (SF/Acre): 5 Acres
Receiving Water's Name (if applicable): Rock River Impervious Area (SF): 100,000 SF
Brief Description of Storm Water Facilities at Location (if applicable):
Catch Basins and Storm Sewers that drain to a detention pond. The detention pond then outlets to Sand Creek.

Plan Review Information:

Has this project and its storm water calculations been approved by the City? [ ] Yes [X] No
If Yes, date of final approval of plan and calculations:

(If no copy is on file, City will notify Applicant to request a copy.)

If No, provide copies of as-built plans and calculations showing the project meets minimum City requirements.

Please indicate the review information that you are attaching to this application:

[ ] Sketch Plans/Narratives [ ] Survey Plat [X] Construction Plans [X] As-Built Plans
[ ] Construction Specifications [X] Runoff Calculations [X] Routing Calculations [X] TSS Calcs

Certifications:

The above information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual, by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

Linda Contact
Type or print name

President
Title or Authority

Linda Contact
Signature

5-1-03
Date

The following certification is required for approval of all credits for which a certified technical submission was required:
The above information and the information on Form 2 was prepared either by or under the supervision of myself as the qualified professional and is true and correct to the best of my knowledge and belief.

Michael Engineer
Type or print name

IL-PE #062-0999999
Professional License Type and Number

Michael Engineer
Signature

5-2-03 (309) 555-4321
Date Phone

City of Rock Island, Illinois, Public Works Department

**FORM 2 – STORM WATER SERVICE CHARGE CREDIT APPLICATION**  
*(Form 1 must accompany this application form)*

Direct Discharge Credit (DDC)

Total Gross Impervious Area (sf): \_\_\_\_\_ Impervious Area Discharging Direct (sf): \_\_\_\_\_

Percent of Direct Discharge (%): \_\_\_\_\_ Percentage of Credit (%): \_\_\_\_\_

Quality Credits (QLC)

BMP #1: Description of BMP Detention Pond Designed to remove 80% TSS

BMP #2: Description of BMP \_\_\_\_\_

Check Here  if you attach additional BMPs for consideration.

(Plans, specifications, calculations, or other supporting data should be supplied for each BMP)

NPDES Permit Credit (NPC)

NPDES Permit Type and Number: \_\_\_\_\_

(Copy of NPDES Permit must be attached)

Past Visual Inspection Reports attached?  Yes  No

If No, Explain why: \_\_\_\_\_

(Inquire if you are required to submit a copy of your SWPPP in this case)

Quantity Reduction Credits (RRC, ARC, AVC)

Pre-Developed **2-year** flow (cfs): 5      Designed **2-year** flow (cfs): 3

Reduction of Flow Provided (cfs): 1      Percent Reduction (%): 40%

Pre-Developed **10-year** flow (cfs): 8      Designed **10-year** flow (cfs): 6

Reduction of Flow Provided (cfs): 2      Percent Reduction (%): 25%

Pre-Developed **100-year** flow (cfs): 12      Designed **100-year** flow (cfs): 9

Reduction of Flow Provided (cfs): 3      Percent Reduction (%): 25%

Is 20% or greater reduction provided in all cases, to qualify for the ARC?  Yes  No

Required Volume of Pond (ac-ft): 2.0      Provided Volume of Pond (ac-ft): 2.4

Elevation of 100-year event (ft): 600.0      Discharge at that Elevation (cfs): 9

Elevation of Emergency Spillway (ft): 599.5      Discharge at that Elevation (cfs): 7

Additional Volume Provided (ac-ft): 0.4      Percent of Required Volume (%): 120%

Is 120% or more of the Required Volume provided, to qualify for the AVC?  Yes  No

Credit Summary

**Direct Discharge Credit (DDC):** \_\_\_\_\_ %

Quality Credits (QLC) BMP #1: 5 % (5%)

BMP #2: \_\_\_\_\_ % (5%)

**Total Quality Credits:** 5 % (Maximum is 10%)

Rate Reduction Credit (RRC): 25 % (25%)

Additional Rate Credit (ARC): 10 % (10%)

Additional Volume Credit (AVC): 5 % (5%)

**Total Quantity Credits:** 40 % (Maximum is 40%)

**Total Annual Storm Water Credit:** 45 %

NPDES Credit (NPC): \_\_\_\_\_ (\$200)

City of Rock Island, Illinois, Public Works Department

FORM 1 – STORM WATER SERVICE CHARGE CREDIT APPLICATION

Credits Applied for: [ ] Direct Discharge (DDC) [ ] Quality (QLC) [x] NPDES (NPC)
(check all that apply) [ ] Rate Reduction (RRC) [ ] Add. Rate (ARC) [ ] Add. Volume (AVC)

Applicant Information (Financially Responsible Entity): (Please print or type)

Name: Rock Island Industries
Address: 5000 Industrial Park Road
City: Rock Island State: Illinois Zip Code: 61201
Contact Person: Linda Contact Telephone: (309) 555-1234

Property Owner Information (If Different from Above):

Name: (same)
Address:
City: State: Zip Code:

Property Information:

Property Location/Address: 5000 Industrial Park Road, Rock Island
Is this property a single-family detached (SFD) home? [ ] Yes [x] No
Parcel Identification Number (PIN): 99999 Property Size (SF/Acre): 5 Acres
Receiving Water's Name (if applicable): Rock River Impervious Area (SF): 100,000 SF
Brief Description of Storm Water Facilities at Location (if applicable):
Catch Basins and Storm Sewers that drain to a detention pond. The detention pond then outlets to Sand Creek.

Plan Review Information:

Has this project and its storm water calculations been approved by the City? [x] Yes [ ] No
If Yes, date of final approval of plan and calculations: 6-1-03

(If no copy is on file, City will notify Applicant to request a copy.)

If No, provide copies of as-built plans and calculations showing the project meets minimum City requirements.

Please indicate the review information that you are attaching to this application:

[ ] Sketch Plans/Narratives [ ] Survey Plat [ ] Construction Plans [ ] As-Built Plans
[ ] Construction Specifications [ ] Runoff Calculations [ ] Routing Calculations [ ] TSS Calcs

Certifications:

The above information is true and correct to the best of my knowledge and belief. (This form must be signed by the financially responsible person if an individual, or if not an individual, by an officer, director, partner, or registered agent with authority to execute instruments for the financially responsible person). I agree to provide corrected information should there be any change in the information provided herein.

Linda Contact
Type or print name

President
Title or Authority

Linda Contact
Signature

5-1-04
Date

The following certification is required for approval of all credits for which a certified technical submission was required:

The above information and the information on Form 2 was prepared either by or under the supervision of myself as the qualified professional and is true and correct to the best of my knowledge and belief.

Type or print name

Professional License Type and Number

Signature

Date Phone

City of Rock Island, Illinois, Public Works Department

**FORM 2 – STORM WATER SERVICE CHARGE CREDIT APPLICATION**  
*(Form 1 must accompany this application form)*

Direct Discharge Credit (DDC)

Total Gross Impervious Area (sf): \_\_\_\_\_ Impervious Area Discharging Direct (sf): \_\_\_\_\_  
 Percent of Direct Discharge (%): \_\_\_\_\_ Percentage of Credit (%): \_\_\_\_\_

Quality Credits (QLC)

BMP #1: Description of BMP Detention Pond Designed to remove 80% TSS

BMP #2: Description of BMP \_\_\_\_\_

Check Here  if you attach additional BMPs for consideration.

(Plans, specifications, calculations, or other supporting data should be supplied for each BMP)

NPDES Permit Credit (NPC)

NPDES Permit Type and Number: \_\_\_\_\_ NPDES Permit #999-09999

(Copy of NPDES Permit must be attached)

Past Visual Inspection Reports attached?  Yes  No

If No, Explain why: \_\_\_\_\_

(Inquire if you are required to submit a copy of your SWPPP in this case)

Quantity Reduction Credits (RRC, ARC, AVC)

Pre-Developed **2-year** flow (cfs): \_\_\_\_\_ Designed **2-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Pre-Developed **10-year** flow (cfs): \_\_\_\_\_ Designed **10-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Pre-Developed **100-year** flow (cfs): \_\_\_\_\_ Designed **100-year** flow (cfs): \_\_\_\_\_

Reduction of Flow Provided (cfs): \_\_\_\_\_ Percent Reduction (%): \_\_\_\_\_

Is 20% or greater reduction provided in all cases, to qualify for the ARC?  Yes  No

Required Volume of Pond (ac-ft): \_\_\_\_\_ Provided Volume of Pond (ac-ft): \_\_\_\_\_

Elevation of 100-year event (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Elevation of Emergency Spillway (ft): \_\_\_\_\_ Discharge at that Elevation (cfs): \_\_\_\_\_

Additional Volume Provided (ac-ft): \_\_\_\_\_ Percent of Required Volume (%): \_\_\_\_\_

Is 120% or more of the Required Volume provided, to qualify for the AVC?  Yes  No

Credit Summary

<b>Direct Discharge Credit (DDC):</b>	_____ %
Quality Credits (QLC) BMP #1:	_____ % (5%)
BMP #2:	_____ % (5%)
<b>Total Quality Credits:</b>	_____ % (Maximum is 10%)
Rate Reduction Credit (RRC):	_____ % (25%)
Additional Rate Credit (ARC):	_____ % (10%)
Additional Volume Credit (AVC):	_____ % (5%)
<b>Total Quantity Credits:</b>	_____ % (Maximum is 40%)
 <b>Total Annual Storm Water Credit:</b>	 _____ %
NPDES Credit (NPC):	_____ 200 (\$200)