

# CITY OF FLAGSTAFF STORMWATER UTILITY CREDIT MANUAL



City of Flagstaff  
Stormwater Management Section  
2323 North Walgreens Street  
Flagstaff, Arizona 86004

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# WATER SERVICES DIVISION

## Stormwater Management



## Stormwater Credit Manual

The Stormwater credit manual is intended to provide utility account holders an option for utility rate discounts based on stormwater quantity and quality best management practices. The original credit manual was instituted in 2005 with routine revisions through time. The last revision was in 2022 with the addition of a floodproofing credit and a change to the conservation easement requirement (a reduction in needed acreage) and to detention basin design requirements. This 2023 version creates a new credit for both commercial and residential accounts for unpaved access drives (driveways) that are otherwise surrounded by undeveloped land. The following is an addendum to the commercial, industrial, multi-family, or members of homeowner's associations AND to residential development for credits based on non-paved access drives with substantial rural non-developed adjacent land use. The purpose of this addition is to reflect the non-contribution of unpaved access drives to stormwater runoff where there is considerable undisturbed native land adjacent to the access drive. This is consistent with NRCS' unconnected impervious area composite curve number adjustment, used in drainage design in parts of the USA.

The Credit Manual is provided in two sections, the first section provides details of each potential discount while the second section is the application for discounts. The application should be submitted to Customer Service at the City Hall front counter or emailed to the Stormwater Section (please see the City website for the most up-to-date email contacts).

# WATER SERVICES DIVISION

## Stormwater Management



### Determination of Stormwater Credit Amounts

**2023 Version**

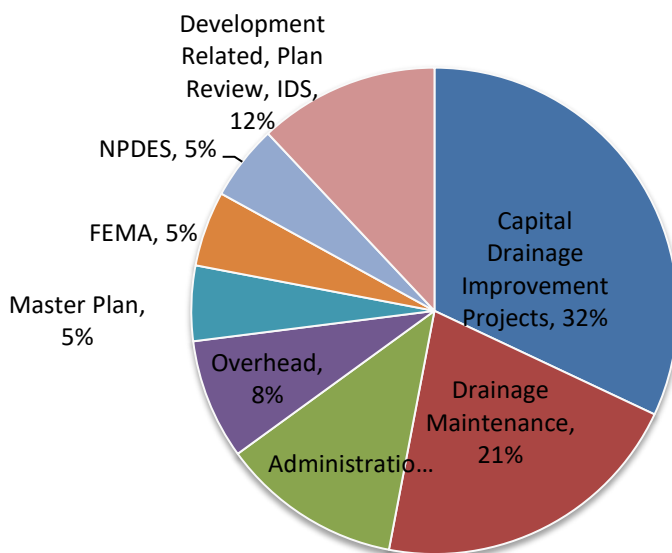
The following is a general description of how the Stormwater Section determines appropriate credits for the Stormwater Utility Fee. The credit is based on stormwater quantity and quality issues as discussed below. Credits listed are per bill and applicable until deemed not in compliance by City staff or until there is a change in account holder.

#### City Stormwater Program Elements

An assessment of the City's Stormwater Management Activities is necessary to determine appropriate credits. The Program has two overall functional areas, Stormwater Quantity and Stormwater Quality. These include many sub-categories:.. Stormwater Quantity is the larger of the two and includes the following:

- Regulatory Compliance: FEMA Regulations, ADWR Regulations, City Floodplain Regulations, Floodplain Permits, CRS, NFIP
- Civil Plan Review and Drainage Report Review
- Capital Drainage Improvement Program
- Masterplan activities
- Drainage Maintenance

Stormwater Quality activities include AZPDES Compliance Activities and Low Impact Development projects.



**Stormwater  
Activities  
Budget  
breakdown  
activities**

The effectiveness of the stormwater quantity mitigation determines the credit amount you can receive:

1. **CREDITS FOR COMMERCIAL, INDUSTRIAL, MULTI-FAMILY OR MEMBERS (ON-LOT) OF HOMEOWNERS' ASSOCIATIONS.** These credits do not apply to single family or duplex units.

**A. Detention Basins**

Detention basins slow the rate of runoff to ensure that downstream properties are not adversely impacted by increased flow rates. Detention is directly related to capital improvements (controlling the need for upsizing), FEMA activities (flooding potential) and Master Planning (flood flow increases). Furthermore, detention can reduce flood flow rates by up to 50% when compared with pre-development flood flows.

- Detention basins that exceed the current standard for attenuation of the 100-year storm receive a credit of up to 20%. Full credit is given to basins that attenuate a 500-year design storm or 3 inch rain event in 45 minutes if within a post-wildfire watershed.

**B. Low Impact Development (LID) and Active Rainwater Harvesting (non-residential)**

LID facilities or active rainwater harvesting systems designed to retain 1 inch of runoff have direct relationships with Capital Improvements, FEMA activities, NPDES and master planning. Also, LID or active rainwater harvesting retains 1 inch of stormwater as compared to the 100 year 24-hour storm volume of 4.5 inches.

For LID or active rainwater harvesting mitigations constructed greater than the 1 inch level as required, the credit is 10%.

**C. Conservation Easements**

A Conservation Easement is defined as a no possessory interest of a holder in real property that, for conservation purposes as defined by A.R.S. 33-271(2), permanently protects that property from being developed or otherwise altered from its natural state in the future. A Conservation Easement operates like a deed restriction and is held by a governmental body empowered to hold an interest in real property, or by a charitable corporation or trustee of a charitable trust.

To qualify for a stormwater credit, the Conservation Easement must protect a minimum of 2 contiguous acres. The effect of the undisturbed land on stormwater quality can only be measured qualitatively. The Conservation Easement must contain significant stormwater assets, such as regional watercourses to be eligible.

The credit for the granting of a Conservation Easement is 10%.

#### **D. Unpaved Access Road/Driveway Credit**

A 90% discount will be given for the impervious surface calculation of the access road (only) if the access road is composed of cinders, gravel, or dirt and the landowner can demonstrate that there is three times as much contiguous undeveloped land adjacent to the access road. The landowner must attest to maintain a ratio of at least 3:1 undeveloped contiguous adjacent land to access road impervious surface.

A record of this attestation and credit decision will be kept by the Stormwater Program, if new development occurs near the access road that drops the ratio below 3:1 the discount may be rescinded.

## **2. CREDIT FOR RESIDENTIAL DEVELOPMENT**

### **A. Water Harvesting for Residential Development**

To receive credits, you must provide rain barrels of sufficient size on roof downspouts or other similar method(s) of collecting rainwater and use the rainwater for irrigation or consumption. Collection of rainwater reduces stormwater runoff volume and can result in improved water quality.

A typical rain barrel collects a small percentage of the total runoff from a typical roof section during the 100-year event. For a 20x20' roof section, 1000 gallons may be expected to run off.. The use of the roof water on vegetation as irrigation results in improvements to water quality. Harvesting also decreases demands on potable water use. A minimum collection of 300 gallons is required for a credit. The credit is only applicable until there is a change in account holder, a new customer will have to re-apply and may require a site visit to confirm water harvesting is still on-site.

Credit is 10%

### **B. Unpaved Access Road/Driveway Credit**

A 90% discount will be given for the impervious surface calculation of the access road (only) if the access road is composed of cinders, gravel, or dirt and the landowner can demonstrate that there is three times as much contiguous undeveloped land adjacent to the access road. The landowner must attest to maintain a ratio of at least 3:1 undeveloped contiguous adjacent land to access road impervious surface.

A record of this attestation and credit decision will be kept by the Stormwater Program, if new development occurs near the access road that drops the ratio below 3:1 the discount may be rescinded.

### **3. CREDIT FOR NON-RESIDENTIAL PROPERTIES**

#### **Development and Implementation of a Structured Educational Program**

A credit is provided for an institution or organization that develops and implements a Public Education Program for primary, secondary or college-level students on stormwater management and water quality issues. The program must be designed to meet the goals and requirements of public education and outreach as defined in 40 CFR Parts 9, 122, 123 and 124 and A.R.S. Title 49, Chapter 2, Article 3.1 and Arizona Administrative Code, Title 18, Chapter 9, Articles 9 and 10.

Public education is a vital component of the City's Stormwater Quality Program. A properly structured program promotes pollution prevention and strengthens the City's NPDES compliance activities. If an applicant proposes such a program, the City should assist in program development to ensure compliance with the above-cited requirements.

Credit is 20%. The credit will be provided so long as the Educational Program is active.

### **4. CREDIT FOR ALL PROPERTIES**

#### **Active and Passive Floodproofing of Primary Structures**

A credit is provided to a property that can demonstrate either "wet" or "dry" floodproofing of the primary structure(s) on the property to the extent of a 100 year design storm or a 2 inch rain in 45 minutes if within a post-wildfire watershed. The land owner needs to show adequate evidence of floodproofing which may include an Elevation Certificate, professionally sealed as-built design, or professionally sealed memorandum or technical report from a Professional Engineer, Professional Architect, or Licensed Surveyor.

Credit is 10% and is provided as long as evidence of floodproofing is maintained and operational.

#### **Procedure for Application of Credits:**

Complete the attached Application Form and submit it to the Stormwater Division. Staff will review the application to assess completeness and partial credits, if any. If eligibility requirements are met, the Credit will become effective on the next utility bill. Credits may not be applied retroactively.

The Stormwater Division Staff may periodically inspect your activities to verify credits and that credited facilities are being properly maintained. If staff discovers a deficiency, we will send a letter to the applicant noting the deficiency and suspension of the credit. Credit(s) can be reinstated after we receive and verify that the deficiencies have been corrected. Credits applied before this version of the Credit Manual will be "grandfathered" and will not require a new application for credits.



## City of Flagstaff, Stormwater Division

### *Application for Stormwater Utility Fee Credit*

Dear Flagstaff Resident:

This is an application to the City of Flagstaff to reduce your Stormwater Utility Fee. If you have implemented Stormwater controls on your property, you might be eligible for a reduction in your current fee. Please check the appropriate box(es) and provide any necessary supporting documents requested with this application. An incomplete application will not be processed.

After the Stormwater Section reviews, verifies and approves your application the credit will become effective on your next utility bill. We will send a copy of the processed application to you for your records.

#### **CREDITS:**

**1.A. Stormwater Detention** (commercial, industrial, multi-family, and members of homeowners' associations):

\_\_\_ There is a detention basin on my property constructed that provides detention for a 500 year event or 3 inch rain in 45 minutes if within a post-wildfire watershed. The basin is presently functional and maintained as necessary (for a homeowners' association, please provide documentation that basins are inspected and maintained).

Credit is 20% or pro-rated if less than 500 year event but greater than current standards.

**1.B. Low Impact Development (LID) or Active Rainwater Harvesting** (commercial, industrial, multi-family or members of homeowners' associations)

\_\_\_ My property has been constructed with city-approved LID or active rainwater harvesting that exceeds current minimum standards. The facilities are presently functional, and maintenance is performed as necessary (for homeowners' association, please provide documentation that facilities are inspected and maintained).

Credit is 10% Partial, prorated credits may be applied for varying amounts of LID/Active harvesting.



### **1.C. Conservation Easement**

\_\_\_ I am applying for the Conservation Easement Credit and have attached a copy of the recorded Conservation Easement, recorded Holder Acceptance, and survey map with legal description of the easement. I acknowledge that the easement protects at least 2 contiguous acres. Note: The applicant is encouraged to have all the required documentation reviewed by City staff.

Credit is 10%

### **1.D. Unpaved Access Road Credit (Commercial, Industrial, Multi-Family, Member of HOA)**

\_\_\_ I am applying for an unpaved access road credit and have attached photos demonstrating the unpaved surface of the access drive, a map of my parcel with access drive identified and contiguous adjacent area that meets or exceeds a 3:1 ratio of undeveloped area to unpaved access area.

Credit is 90% (for access road square footage only)

### **2.A. Residential Water Harvesting (individual residential only):**

\_\_\_ I have installed rain barrels, of a minimum 300-gallon total capacity, on roof downspouts and utilize the stormwater for irrigation or other recycling purposes, or I have installed other types of catchments and reuse the stormwater for purposes of recycling. Attached is a sketch of my lot and house showing the locations and sizes of my rain barrels or catchments. Also attached is a description of the use of the stormwater.

Credit is 10%

### **2.B. Residential Unpaved Access Road Credit**

\_\_\_ I am applying for an unpaved access road credit and have attached photos demonstrating the unpaved surface of the access drive, a map of my parcel with access drive identified and contiguous adjacent area that meets or exceeds a 3:1 ratio of undeveloped area to unpaved access area.

Credit is 90% (for access road square footage only)

### **3. Structured Educational Program (Public Education Program for primary, secondary and college-level students)**

\_\_\_ My institution/organization is applying for the credit for the development and implementation of a Stormwater Education Program. I have developed the program in conjunction with City staff and the program meets the goals and requirements of appropriate State and Federal Codes.

Up to a 20% credit may be provided

**4. Active or Passive Floodproofing**

\_\_\_ My property includes active or passive “wet” or “dry” floodproofing of the primary structure(s). I am including adequate evidence that the floodproofing meets a 100 year event, or 2 inch in 45 minutes rain event if within a post-wildfire watershed.

Credit is 10%

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

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

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

Telephone (wk/home): \_\_\_\_\_

Home Owner’s Association Name and contact phone # (if applicable)

\_\_\_\_\_

By signing below, I attest that the above information is true and correct. I acknowledge and agree that the City of Flagstaff may inspect my property to verify that my stormwater credits are existing and functioning properly. I further agree that I will ensure that my stormwater facilities will be properly maintained. I understand that if my stormwater facilities are no longer in place, or are not functioning properly, my credit will be revoked. I also acknowledge that misrepresentation of the above information may constitute fraud and may be punishable by law.

---

Print Name

Signature

You will be sent an executed copy of this form for your records.

For office use only

Received by:

\_\_\_\_\_

Application Verification:

\_\_\_\_\_

Date applied toward billing:

\_\_\_\_\_

Authorized signature:

\_\_\_\_\_