

Program Description

Regional Stormwater Management Program City of Austin, Texas

The Regional Stormwater Management Program is administered by the Watershed Engineering Division of the City of Austin's Watershed Protection Department. This program provides for the planning, design and construction of regional drainage improvements to prevent flooding caused by increased runoff from developments, using fees paid by the owners of those developments.

Beginning in 1974, City ordinances have required proposed developments to mitigate the effects of increased stormwater runoff leaving their sites. On site stormwater detention ponds were and still are the primary method used to meet these requirements. However, studies have established that a system of numerous small ponds, designed for individual sites, may provide only minimal flood protection when evaluated on a watershed wide basis. In addition, regular and effective maintenance of on site ponds is a major economic issue. Although they reduce peak flood flows immediately downstream, on site ponds can change the overall timing of flood flow movement through the watershed to the extent of possibly increasing peak flood flows at points further downstream. Recognizing the limited effectiveness of on site detention ponds in many situations, but also recognizing that all new developments contribute to the increased amounts of stormwater runoff in the watershed, the Watershed Engineering Division established the Regional Stormwater Management Program (RSMP) in 1984.

The Watershed Engineering Division uses a watershed wide approach to analyze potential flooding problems, identify appropriate mitigation measures, and select site locations and design criteria for regional drainage improvements. These improvements include detention and retention ponds, waterway enlargement and channelization, and improved conveyance structures. The RSMP is established in watersheds in and around the City that are currently developing and have potential for flooding problems as undeveloped land is converted to impervious cover. In these watersheds, the RSMP allows developers to participate in the program instead of constructing on site controls if the proposed development will produce no identifiable adverse impact to other nearby properties due to increased runoff. An ongoing long term goal of the Watershed Engineering Division is to develop master plans for all watersheds in and around the City. These plans typically include hydrologic analyses, hydraulic analyses, floodplain mapping, and planning information for potential regional drainage improvements.

The fees charged for participation in the RSMP are non-refundable and are based upon the size of the development, the proposed land use, and the development intensity. The fees are deposited and interest is accrued in a dedicated fund and they are allocated for regional stormwater management improvements. Please contact Jose Guerrero, P.E., of the Watershed Protection Department at 512-974-3386 for additional information.

Regional Stormwater Management Participation Request Form

Mail or deliver to:

City of Austin – Watershed Protection Department

Regional Stormwater Management Program

Attn: Jose Guerrero

505 Barton Springs Road

Austin, TX 78704

(512) 974 - 3386

Date: _____ Name of Site: _____

Address of Site: _____

Watershed: _____

Type of Development _____ Acreage of Participation: _____

Owner-Developer: _____ Engineer/Contact: _____

Firm: _____ Phone: _____

COA File Number: _____

COA Case Manager: _____

COA Drainage Reviewer: _____

Cost per Acre: _____

Total Cost: _____

Method of Payment: Check _____ LOC _____ Land _____

Off-site Improvement _____ Future Participant _____

Attachments: Engineer's Report _____ Location Map _____

Letter of Request to Participate _____

RSMP Reviewer Comments:

RSMP Review: _____ Date: _____

CHECKLIST

STORMWATER MANAGEMENT CONCEPT PLAN

The concept plan will typically consist of two sheets: a site plan and a drainage area plan. The site plan should be at a scale suitable to fit the entire site on one sheet, but shall not be less than 1" = 1000'.

The site plan should show the following:

- _____ 1) Project name and address.
- _____ 2) Vicinity map, including City of Austin grid number.
- _____ 3) Site boundary.
- _____ 4) General site layout.
- _____ 5) Existing and proposed drainage area boundaries within the site for all discharge points from the site.
- _____ 6) Discharges and velocities at each discharge point for the 2, 10 and 25, and 100 year storm events for existing and ultimate developed conditions.
- _____ 7) Existing and developed land use.
- _____ 8) Existing and developed time of concentration flow paths.
- _____ 9) SCS soil types and hydrologic soil groups.
- _____ 10) Proposed drainage and stormwater management improvements.
- _____ 11) Calculations demonstrating the adequacy of the intervening system (storm sewer, tributary channel, etc.), to convey the fully developed 100 year storm from the entire drainage area.

CHECKLIST (continued)

STORMWATER MANAGEMENT CONCEPT PLAN

The drainage area plan should be at a scale suitable to show the entire drainage area for flows through the site and downstream drainage conveyance systems to the main branch of the watershed, but shall not be less than 1" = 2000'. The purpose of the drainage area plan is to show drainage areas which discharge through or into the site and the downstream conveyance systems.

- _____ 1) Site boundary.
- _____ 2) Existing and proposed drainage areas for all discharge points from or through the site.
- _____ 3) Downstream conveyance systems to the main branch of the watershed, or to a point where the 100 year floodplain elevation has been established by current FEMA Flood Insurance Study.
- _____ 4) Proposed drainage and Stormwater Management improvements.

In addition, all backup calculations and computer models shall be submitted to the Watershed Engineering Division.

RSMP Participation Fees

The RSMP fee consists of two components; the construction cost component (C C C) and the land cost component (L C C). The two components are calculated independently for single-family developments and multi-family / commercial developments. Below are the details of how to calculate the fees.

The Watershed Engineering Division (WED) of the Watershed Protection and Development Review Department of the City of Austin will determine the actual fees paid by the participant.

1. Construction Cost Component (C C C)

The number of impervious acres is used to determine this part of the fee. The number of impervious acres is based on the maximum allowable impervious acreage as allowed by the more restrictive of zoning or watershed ordinance for subdivisions. Site plans may use the actual impervious cover for the site. The construction cost component will be adjusted annually by using the “Engineering News Record” construction cost index with the base construction cost index being referenced to October 2002.

Single-family Residential Development:

Impervious Acre Range		Cost per Impervious Acre	Number of Impervious Acres	Sub-Total Cost
From	To			
0.00	1.00	\$35000		\$
1.01	2.00	\$15000		\$
2.01	5.00	\$10000		\$
5.01	10.00	\$7000		\$
10.01	20.00	\$5000		\$
20.01	50.00	\$3000		\$
50.01	100.00	\$2000		\$
100.01	Infinity	\$1500		\$
Total				\$

Commercial and Multi-family Residential Development:

Impervious Acre Range		Cost per Impervious Acre	Number of Impervious Acres	Sub-Total Cost
From	To			
0.00	1.00	\$60000		\$
1.01	2.00	\$18000		\$
2.01	5.00	\$8000		\$
5.01	10.00	\$6000		\$
10.01	20.00	\$5000		\$
20.01	50.00	\$4000		\$
50.01	Infinity	\$2500		\$
Total				\$

2. Land Cost Component (L C C):

The land cost component (L C C) is calculated separately for each type of development, in conjunction with the construction cost component.

$$\text{Land Cost Component} = \text{Land Cost per Acre} * \text{Land Cost Area}$$

where:

$$\text{Land Cost per Acre} = (\text{Appraised value} / \text{Appraised area}) * 0.05$$

OR

$$= \text{Capped value} * 0.05$$

Capped Land Cost per Acre

Development Type	Capped Value
Single-Family	\$40,000 per acre
Multi-Family / Commercial	\$120,000 per acre

Land Cost Area =

New Development = Gross Site Area – Deductible Areas

Redevelopment = Limits of construction – Deductible Areas

Deductible Areas = (Drainage Easements, Water Quality Easements, and Conservation Easements)

Note: Impervious cover areas within easements cannot be deducted from the land cost area.

Land costs will be based on the land valuation. This may be established by a certified appraisal or by the values established by Appraisal Districts. The RSMP applicant must provide the parcel identification number for each parcel within the proposed development prior to RSMP approval. Upon RSMP participation approval, the applicant must provide dated copies of either a certified appraisal or the appraisal district's valuation for each parcel within the proposed development. Properties that are not appraised by Appraisal Districts, such as property owned by a governmental entity, may choose to use the capped land cost per acre values for RSMP participation or provide a certified appraisal. The land cost will be determined by the appraised value at the time of payment of the RSMP fee, not when the site is approved for participation in the RSMP. The effective date for Appraisal District valuations is the first of October for the current City of Austin fiscal year.

If a development encompasses more than one tax parcel, the land cost per acre will be based on the arithmetic mean of the land valuation from all parcels.

$$\text{3. Total Cost} = (\text{CCC}) \underline{\hspace{2cm}} + (\text{LCC}) \underline{\hspace{2cm}} = \$ \underline{\hspace{2cm}}$$

Exceptions:**All Developments:**

For sites that are in more than one watershed, the calculated RSMP fee will be apportioned by the percentage of the site in each watershed.

Single Family:

Single-family developments may restrict the allowable impervious cover by plat note or by a legally recorded separate instrument if the plat was previously approved.

Fee Incentives for Certain Single Family Developments:

Lot Size (from plat)		Percent Impervious Cover	Pay a Reduced Fee of
Greater than or equal to:	But less than:	Less Than:	
2 acres	5 acres	20-percent	50-percent of total cost
5 acres	Not Applicable	20-percent	25-percent of total cost

RSMP Agreements Mutually Exclusive:

Each Regional Stormwater Management Program (RSMP) agreement is mutually exclusive. No credit will be given for impervious cover paid for in previous RSMP agreements for subsequent phases of development. However, applicants may combine all related phases of a development into one RSMP agreement and remit the associated total fee at the time the permit for the first phase is approved.

Example Fee Calculation:

This example is based on a 10-acre single-family development in a watershed with an allowable maximum impervious cover of 40-percent.

Maximum impervious acres = $10 * 40\% = 4\text{-acres}$

Construction Cost Component (C C C)

Impervious Acre Range		Cost per Impervious Acre	Number of Impervious Acres	Sub-Total Cost
From	To			
0.00	1.00	\$35,000	1	\$ \$35,000
1.01	2.00	\$15,000	1	\$ \$15,000
2.01	5.00	\$10,000	2	\$ \$20,000
5.01	10.00	\$7,000	0	\$ 0
10.01	20.00	\$5,000	0	\$ 0
20.01	50.00	\$3,000	0	\$ 0
50.01	100.00	\$2,000	0	\$ 0
100.01	Infinity	\$1,500	0	\$ 0
Total			4	\$ 70,000

Construction Cost Component (C C C) = \$70,000

Land Cost Component (L C C):

Land Cost per Acre = $\$500,000 / 10\text{-acres} * 0.05 = \$2,500$

OR

$= \$40,000 * 0.05 = \$2,000$

USE Land Cost per Acre = \$2,000

Land Cost Component = $\$2,000 * 10\text{-acres} = \$20,000$

Total Cost = (CCC) \$70,000 + (LCC) \$20,000 = \$90,000

RSMP Participation Fee = \$90,000 for the example shown