

# SECTION V

## STORMWATER SDC

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The City's existing stormwater SDC is \$1,254.96 per single family dwelling unit (SFDU), and \$1,458.10 per impermeable acre for all other customers.

### A. CAPACITY BASIS

Under the proposed approach, single family residential customers would be charged based on the estimated average amount of impervious surface area per developed single family residential parcel, commonly referred to as an equivalent service unit or ESU. All other customer types would be charged based on actual measured impervious surface area by parcel, expressed as the number of ESUs on the parcel.

The term impervious surface area refers to hard surface area that prevents or slows water permeation into the ground. Impervious surface area is most widely accepted as an appropriate measure of a property's contribution of runoff, providing a clear relationship, or "rational nexus," to service received from a stormwater program.

In order to estimate the number of ESUs - the denominators in both reimbursement and improvement fee calculations – the following approach was taken:

- City staff studied a sample of SFR developments, and determined that the average impervious surface area for SFR customers is 2,650 square feet.
- City staff also provided a summary of the City's existing land use data by acreage and percentage impervious area by category. The study did not include parks, recreational areas, playgrounds, vacant parcels, right-of-ways, and water surfaces. With City staff's concurrence, we estimated the total number of equivalent service units (ESUs) by dividing the estimated impervious surface area for applicable land use categories by the assumed average SFR impervious surface area of 2,650 sf. (i.e. ESU definition).
- Hence, the stormwater utility's current customer base was estimated to be approximately 8,542 ESUs (about 2,417 single family residential ESUs and 6,125 non-single family residential ESUs).
- During the 20-year study period, the City's annual growth rate is projected to be 1.37% (per the 2005 Buildable Land Analysis Update).
- The initial total number of ESUs was grown proportionately with forecasted growth. As a result, it was estimated that the stormwater utility's customer base would grow from 8,542 ESUs to 11,214 ESUs, resulting in projected growth of 2,672 ESUs. It is important to note that forecasted growth in ESUs may not occur proportionately with City's projected growth. Absent specific projections, however, this was a necessary simplifying assumption.

## **B. REIMBURSEMENT FEE COST BASIS**

In order to estimate the cost of unused capacity in the existing stormwater system – the numerator in the reimbursement fee calculation – the following approach was taken.

- Working closely with City staff, Murray, Smith and Associates (MSA), performed the cost estimates for the water, wastewater, and stormwater systems, and calculated the unused portion of the total capacity of each utility's existing fixed assets. The total cost of the stormwater utility fixed assets was \$1,368,630 as of June 30, 2007. It was determined that there was no unused capacity in the assets that were included in the fixed assets listing.
- The utility's FY 2008/2009 and FY 2009/2010 budgeted year-end estimated capital expenditures were also treated as construction-work-in-progress (CWIP) and added to the utility's fixed assets. Total cost of these construction projects was \$630,631. The portion financed from the utility's operating fund (\$302,424) was assumed to be benefiting only existing customers and assigned as used capacity. The remaining \$328,207 was financed from the utility's system development charge fund. It was assumed to be growth related and designated as unused capacity.
- Hence, the total cost of the stormwater utility fixed assets was \$1,999,261 at the end of FY 2009/2010. The total value of unused capacity was \$328,207, or 16.4% of the total fixed assets.
- The utility's outstanding debt principal balance was \$195,236. Prorating with the unused capacity's share in the utility's total asset base (i.e. 16.4%), it is estimated that \$32,051 of this amount is related to the unused capacity. Since the utility did not fully pay for the unused capacity available yet, and growth would pay for the related portion of the outstanding debt through rates, this amount was deducted from the total value of the unused capacity.
- Hence, the total reimbursement fee cost basis is calculated to be \$296,156 (i.e. the total value of unused capacity net of a proportionate share of outstanding debt principal balance; \$328,207 less \$32,051).

## **C. REIMBURSEMENT FEE CALCULATION**

The reimbursement fee was then calculated as follows. The net cost basis of \$296,156 was divided by total forecasted growth in ESUs (2,672) to establish the reimbursement fee of \$110.85 per ESU.

## **D. IMPROVEMENT FEE COST BASIS**

The improvement fee cost basis is calculated as follows:

- Working closely with City staff, Murray, Smith and Associates (MSA) provided the 20-year capital improvement project list and allocation of project costs between existing needs and growth (i.e. SDC eligible).
- Capital improvement projects budgeted for FY 2010/2011 were also added to the list provided. That portion of costs that would be financed from the utility's operating fund

was allocated to existing customers only. The remaining portion that would be financed from the SDC fund was allocated to growth.

- The estimated total cost of capital improvement projects, including the ones budgeted for FY 2010/2011, is \$15,418,682.
- The total of project costs identified as capacity increasing for future users, and hence SDC eligible, was \$1,869,444.
- At the end of FY 2009/2010, the stormwater SDC fund balance was \$408,575. This amount was credited against the SDC eligible project costs to both (1) recognize that the fund balance is available for spending on the project list and (2) prevent new users from paying for those projects twice.
- The resulting net total of \$1,460,869 is the improvement fee cost basis.

#### **E. IMPROVEMENT FEE CALCULATION**

The improvement fee was then calculated as follows. The net cost basis of \$1,460,869 was divided by total forecasted growth in ESUs (2,672), to establish the improvement fee of \$546.80 per ESU.

#### **F. RECOMMENDED SYSTEM DEVELOPMENT CHARGE**

The recommended stormwater SDC is the sum of the reimbursement fee and the improvement fee, adjusted by an administrative cost recovery factor of 1.61%, or \$10.58. The administrative cost recovery factor was derived by dividing annual SDC program accounting and administrative costs, including the amortized cost of this study, by forecasted annual SDC revenues. The resulting recommended SDC is \$668.23 per ESU.