Engineering Report

CITY OF HARRISBURG

SYSTEM DEVELOPMENT CHARGE METHODOLOGY & CAPITAL IMPROVEMENT PLAN UPDATES

Water System, Sanitary Sewer, Storm Drainage, Transportation & Parks & Recreation

Linn County, Oregon

February, 2012

CURRAN-McLEOD, INC., Consulting Engineers
6655 SW Hampton Street, Suite 210
Portland, OR 97223

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City of Harrisburg

SYSTEM DEVELOPMENT CHARGE METHODOLOGY & CAPITAL IMPROVEMENT PLAN UPDATES EXECUTIVE SUMMARY

REVISED FEBRUARY 2012

In 2010, the City of Harrisburg authorized CURRAN-McLEOD, INC to update the Harrisburg System Development Charge methodologies and fees, to account for current improvements made to the public infrastructure, master planning efforts and changes in the enabling statutes. This work was a joint effort with assistance from Mr. Bruce Cleeton, the City Administrator, Mr. Tim Bunnell the Community Development Superintendent, and Mr. Ron Staehlin, the City Engineer of Record from Southwood Engineering Corp. A summary of all new fees is contained on the last page of this executive summary.

State Statutes under ORS 223 permit the City to adopt System Development Charges for five components of the public infrastructure, including:

1. Water supply, treatment, distribution and storage system;
2. Wastewater collection, transmission, treatment and disposal;
3. Storm drainage and flood control systems;
4. Transportation systems; and,
5. Parks and Recreation facilities.

For each of these five areas of public infrastructure, the update document bound herein addresses the value of existing public improvements, an estimate of cost of needed improvements and an equitable means of allocating these costs to each benefitting user.

The previous SDC update and fee adjustments were completed by Resolution 871 in July of 2006. The following table summarizes the current proposed fees and identifies the effective annual change from the 2006 fee structure. In addition to updating cost components, several modifications were also made in redefining eligible costs, benefitting users and the means of allocating costs.

UTILITY SYSTEM	EXISTING 2006 SDC	PROPOSED 2012 SDC*	EFFECTIVE ANNUAL INCREASE*
Water System	$2,540	$4,222	9%
Sanitary Sewer	1,888	3,590	11%
Storm Drainage	672	450	-7%
Transportation	2,760	3,045	2%
Parks & Recreation	1,297	1,800	6%
Administration	364	-	-
Total	$9,521	$13,107	5.5% / yr

*Administrative charges of 4% are included in each SDC and in the annual adjustment calculation

The following is a summary of the major changes and impacts for each infrastructure:

WATER SDC UPDATE OVERVIEW:

The previous SDC inventoried a total of $7,194,700 of needed capital improvements to serve future users, and allocated these costs over the entire estimated 2,832 EDU build-out of the City. Without a reimbursement fee to counter-balance, this resulted in a reduced cost for each new connection because a large portion of the costs needed to serve future population were allocated to the existing customers.

The current inventory of needed capital improvements has escalated to slightly over $8,000,000 and a new Reimbursement Fee totaled slightly over $1,600,000. These costs were both allocated to all current and future users based on a per gallon cost to the limits of their individual capacity, which was 15% - 20% less than the capacities used in the previous SDC update.

The methodology used in the water update is generally the same as the methodology used in the 2006 SDC, to take all costs and divide them by all benefitted users. Refinements included redefining specific capacities for each major component of the water system and reallocating costs accordingly.

The net effect of all refinements is an increase of the SDC fee per Single family Residential EDU from the previous $2,540 to the proposed fee of $4,222.

SANITARY SEWER SDC UPDATE OVERVIEW

Similar to the water SDC, the sanitary sewer SDC update incorporates specific capacities of each system component, includes a reimbursement fee to account for existing investment in the system, and allocates all costs over all users. This update incorporated a value for the existing treatment plant and pumping stations that was not included in the previous SDC values.

A major change proposed is to base the fee on average dry weather flow as opposed to a plumbing fixture unit. The SDC update bases an EDU on the average dry weather flow discharged to the system from a single family residential unit. This flow is well documented in the Wastewater Facilities Plan as 85 gallons per day per person, which equates to 240 gallons per day per EDU for a typical 2.83 persons household per the 2000 census. At this loading factor, the capacity of the collection and treatment systems can be definitively identified.

The existing SDC methodology calculated build-out at 6 EDU per low density residential acre and 12 EDU per multifamily acre, based on the 1994 Potential Development Impact Analysis completed for the City by the Oregon Department of Transportation. This resulted in 2,832 EDU at build-out.

This current SDC Update bases build-out EDU on the inventory of developable land contained in the 2007 City of Harrisburg Urbanization Study completed by ECONorthwest, by applying an average of 5.3 EDU per the 153.8 acres of developable property and adding 14% commercial /

industrial to the existing population. This updated analysis resulted in build-out EDU of 2,320, or approximately 20% less, which would increase the SDC fee.

The previous SDC included a total of $5,380,900 in needed improvements with no value accounting for the existing improvements. The SDC update includes $2,420,000 of needed capital improvements and calculates a value of the existing system at over $5,000,000. The treatment system has the capacity to serve approximately 6,000 people, or 2,120 EDU. The collection system will serve buildout of the UGB which is calculated to include 2,320 EDU.

Accordingly, the actual cost of sanitary service for a new single family residential unit is calculated to be approximately $3,590. This is a substantial increase over the current fee of $1,888, but accurately reflects the actual cost of new service.

STORM DRAINAGE SDC UPDATE OVERVIEW

The methodology of the update is very similar to the existing SDC in that all costs are allocated over the total projected 290 acres of impervious area in the built-out UGB. The existing SDC accounted for $2,979,000 of needed improvements through 2017 and did not include any reimbursement component.

The SDC update inventoried a total of approximately $800,000 in needed capital improvements, and added a reimbursement value totaling slightly over $1,100,000. The proposed storm drainage fee is $450 per EDU, which is a reduction of 30% from the existing fee of $672.

TRANSPORTATION SDC UPDATE OVERVIEW

The SDC Update has several substantial changes proposed for the Transportation SDC. First the basis for allocation of cost is proposed to be on Equivalent Length New Daily Trips (ELNDT) generated by each land, with an adjustment factor to encourage local commercial industrial growth. Trip values are published by the Institute of Transportation Engineers (ITE) so are easily applied and easily defensible.

The typical cost allocation method used for all SDC methodologies was to inventory all existing improvements for a reimbursement fee, and planned future improvements for an improvement fee, and then allocate the total cost over the total trips from all benefitted users. Alternatively, if the inventory of needed improvements only addressed future needs to support growth, then the capital improvement costs would need to be allocated over future users only to be equitable.

The 1999 Harrisburg TSP did not include an inventory of existing improvements or an accounting of total trips; as a result, this update does not include a reimbursement fee, and follows the alternative methodology of allocating the cost of needed future improvements over the estimated number of future users. The Transportation System Plan (TSP) contains the list of all needed improvements. This master planning effort was completed in 1999, so the list of needed improvements applies to all future users as of 1999.

The inventory of needed improvements in 1999 was $8,182,500. The SDC Update also included the capital improvements identified by the City staff and totaled $12,539,500 of needed improvements, of which only $2,142,452 was determined to be eligible for SDC funding. These costs were allocated over the estimate of 7,000 ELNDT for future benefitting users, resulting in a fee of $3,045 per single family dwelling.

PARKS & RECREATION

The Parks SDC update is based on the Master Plan prepared by Resource Assistance for Rural Environments (RARE) in 2004. This master plan did not include a new capital improvement plan, but rather only provided costs and guidelines as to what improvements were required on a per person basis.

This SDC update similarly uses the generic improvements identified in the Master Plan to determine the basis of cost per person to determine the Parks & Recreation Improvement Fee. Additionally, this update also included a Capital Improvement Plan to identify eligible improvements. With this methodology, there is no reimbursement fee component.

The 2006 SDC adopted by the City had a total CIP of $8,182,500 generated by City Staff. The current CIP improvements total approximately $2,400,000 resulting in a fee of $635 per person, or $1,800 per EDU defined as 2.83 people.

SDC SUMMARY

The following page contains a summary of all SDC fees for all infrastructure components for a single point of reference. This document should be made available to the development community upon adoption.

CITY OF HARRISBURG
WATER SYSTEM SDC FEE SCHEDULE
February 2012

METER SIZE	EDU FACTOR	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
3/4"*	1	$3,360	$700	$ 162	**$4,222**
1"	2	$6,720	$1,400	$ 325	**$8,445**
1 ½"	4.5	$15,120	$3,150	$ 731	**$19,001**
2"	8	$26,880	$5,600	$1,299	**$33,779**
3"	18	$60,480	$12,600	$2,923	**$76,003**
4"	32	$107,520	$22,400	$5,197	**$135,117**

* Includes 5/8" x 3/4" and 3/4" x 3/4" meter

CITY OF HARRISBURG
SANITARY SEWER SDC FEE SCHEDULE
February, 2012

METER SIZE	EDU FACTOR	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
3/4"*	1	$1,040	$2,412	$ 138	**$3,590**
1"	2	$2,080	$4,824	$ 276	**$7,180**
1 ½"	4.5	$4,680	$10,854	$ 621	**$16,155**
2"	8	$8,320	$19,296	$1,105	**$28,721**
3"	18	$18,720	$43,416	$2,485	**$64,621**
4"	32	$33,280	$77,184	$4,419	**$114,883**

* Includes 5/8" x 3/4" and 3/4" x 3/4" meter

CITY OF HARRISBURG
STORM DRAINAGE SDC FEE SCHEDULE
February, 2012

LAND USE	UNITS	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
Residential	EDU	$177	$256	$ 17	**$ 450 / EDU**
Commercial/ Industrial	1,000 SF*	$63.20	$91.50	$ 6	**$ 161 / KSF**

* Units are per 1,000 square feet of impervious area on the development site

CITY OF HARRISBURG
TRANSPORTATION SDC IMPROVEMENT FEE FOR SELECTED LAND USES
BASED ON ITE AVERAGE WEEKDAY ELNDT
February, 2012

	ITE CATEGORY, UNIT*	ELNDT/ RATE	COST/ ELNDT	LOCAL FACTOR	ADMIN FEE (4%)	SDC COST
	Unit Cost per ELNDT	1	$306	-	$ 12	$ 318
	Residential					
210	Single family, per living unit	9.57	$306	100%	**$ 117**	**$3,045**
220	Apartment, per living unit	6.72	$306	100%	**$ 82**	**$2,138**
	Commercial / Industrial					
110	Light Industrial, per 1,000 sf*	6.97	$306	30%	**$ 25**	**$ 665**
120	Heavy Industrial, per 1,000 sf*	1.50	$306	30%	**$ 5**	**$ 143**
320	Motel, per room	5.63	$306	30%	**$ 20**	**$ 537**
630	Medical Clinic, per 1,000 sf*	31.45	$306	30%	**$ 115**	**$3,000**
710	General Office, per 1,000 sf*	11.01	$306	30%	**$ 40**	**$1,050**
814	Specialty Retail, per 1,000 sf*	44.32	$306	30%	**$ 162**	**$4,230**

* Units are per 1,000 square feet of gross building area

CITY OF HARRISBURG
PARKS AND RECREATION SYSTEM SDC FEES
February, 2012

TYPE OF UNIT	POPULATION PER UNIT	IMPROVEMENT FEE PER PERSON	REIMBURSEMENT FEE PER PERSON	ADMINISTRATION FEE (4%)	TOTAL SDC
Single Family	2.83	$635	$0	$ 72	**$1,800**
Multi-Family	2.69	$635	$0	$ 68	**$1,700**

City of Harrisburg

SYSTEM DEVELOPMENT CHARGE METHODOLOGY & CAPITAL IMPROVEMENT PLAN UPDATES

Water System, Sanitary Sewer, Storm Drainage,
Transportation & Parks & Recreation
Revised February 2012

INTRODUCTION & BACKGROUND

In November of 2010, the City of Harrisburg contracted with CURRAN-McLEOD, INC to assist in updating the City's Capital Improvement Plans (CIP) and System Development Charge (SDC) methodologies to maintain compliance with state statutes. This effort was completed with assistance from the City Administrator / Planner, Mr. Bruce Cleeton, the City's Community Development Superintendent, Mr. Tim Bunnell, and the City Engineer of Record, Mr. Ron Staehlin from Southwood Engineering Corp.

This text is intended to be a single point source document that contains the listing of SDC eligible public works for each of the five public infrastructure components and the methodologies adopted to equitably allocate the cost for each. The capital improvement plans are based on master planning efforts for each utility, as supplemented by an inventory of projects identified subsequent to adoption of the plans.

The City of Harrisburg's public infrastructure planning is divided into five components compatible with the requirements of the Oregon Revised Statutes, to include:

1. Water supply, treatment, distribution and storage system;
2. Wastewater collection, transmission, treatment and disposal;
3. Drainage and flood control systems;
4. Transportation systems ; and,
5. Parks and Recreation facilities.

The SDC fees are intended to include only that portion of the connection charge that is greater than the amount necessary to reimburse the agency for the cost of inspecting and/or installing connections to each system.

This text identifies the detail of each of the five utility infrastructure systems, including specific summaries of the value and capacity of existing facilities, an estimate of costs of needed capital improvement for future growth, and an allocation of costs to future users. The goal of this effort is to provide an understandable, defensible and equitable framework of charges that represent the proportionate cost of providing service for each future connection.

SDC METHODOLOGY OVERVIEW

Oregon Revised Statutes 223.297 through 223.314 provides the statutory basis for application of System Development Charges. This statute is intended to provide a uniform framework for development of equitable funding to support orderly growth.

Per statute, SDCs are composed of Reimbursement Fees, Improvement Fees or a combination of both. The updated methodologies identify current "replacement value" for all existing improvements with surplus capacity, to establish the basis of the Reimbursement Fee. The basis for the Improvement Fee is the "estimated cost" of improvements not yet constructed but needed to serve future populations.

Existing improvements typically have surplus capacity for future users as well as deficiencies for service even to the existing users. Similarly, projects on the Capital Improvement Plan listing are required to provide capacity for future users but also frequently resolve deficiencies in service to the existing users. To account for the surplus capacity in the City's existing infrastructure and the concurrent need to undertake capital improvements to serve future users and resolve deficiencies, the Harrisburg SDC Methodology includes a combination of both Reimbursement Fees and Improvement Fees.

To assure an equitable allocation of costs between existing and future users, when available the value of all existing facilities and the estimated cost of all future improvements are allocated to all users, current and future equally, based on their proportional use of the available capacity. This method of allocating costs to all users assures the charge to future connections is equitable and that it is no more than the proportionate cost allocated to each existing user. This methodology avoids double charging for capacity and is also independent of current population and the need to identify percentage of remaining capacity to serve future users. The allocation is dependent only upon the cost of the facilities and the corresponding capacity.

Although all SDCs are primarily related to population growth, the rate of population growth has no impact on calculation of the fee. The fee is based on funding planned improvements to support a given population, independent of when that population is realized. In periods of high growth, SDC revenues will accrue more quickly to allow undertaking needed improvements earlier to support the accelerated growth. In periods of low growth, revenues will accrue more slowly, but the need for infrastructure improvements to support this growth is also protracted. Developing the list of the required capital improvements and anticipated scheduling is the task of the master planning for each utility and not part of the scope of this SDC update.

SDCs are typically collected with building permits which are not based on population. As a result, the unit of measure for allocating SDC costs is defined in various unique forms for each utility, but is generally based on the impact of one single family residential unit and called an Equivalent Dwelling Unit (EDU).

A water system EDU is based on Peak Day Demand (PDD), being the amount of water used during a peak day event by a single family residential unit. A wastewater EDU is based on the Average Dry Weather Flow (ADWF) discharged to the treatment facility from a single family residential unit. A single stormwater EDU is based on the estimate of impervious area of a typical single family residential unit. Transportation EDUs are based on the average number of Equivalent Length New Daily Trips (ELNDT) identified for a single family residential unit. Costs for Parks and Recreation improvements are based entirely on population, and therefore an EDU is simply the average population of a single family residential unit.

In each update below, the cost per basic unit is calculated and then multiplied by the number of basic units that comprise a typical single family residential unit, which is then defined as one EDU. Water and wastewater basic units are gallons with a water system EDU being 680 gallons per day and a wastewater EDU being 240 gallons per day. Stormwater basic unit is a square foot of impervious area, with a typical single family residential dwelling estimated to have an average of 2,800 square feet, which then defines one EDU. The basic unit for the transportation system is an Equivalent Length New Daily Trip (ELNDT) with the documented 9.57 ELNDT for a single family residential dwelling being one EDU. Parks and Recreation basic unit is population, with an EDU equal to 2.83 people as defined in the 2000 census as the average population per dwelling unit.

ANNUAL ADJUSTMENTS

As permitted by the state statutes, the SDC should be maintained annually and the cost of maintaining the SDC program recovered from the 4% administration charge incorporated into each SDC fee. The annual adjustments should include updating the Improvement Fee CIP cost estimates, the value of existing facilities listed in the Reimbursement Fee schedule, the values of credits for eligible public works projects, and the resulting Reimbursement and Improvement Fees, all in accordance with an approved cost index. The statutes require the cost index to be:

(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property, or a combination of the three;

(B) Published by a recognized organization or agency that produces the index or date source for reasons that are independent of the system development charge methodology; and

(C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.

The Engineering News Record (ENR) Construction Cost Index (CCI) for the published 20-city average satisfies the criteria in this statute. This text recommends using the ENR 20-city average as opposed to the City's traditional use of the ENR Seattle index due to the substantial differences between the City of Harrisburg and the City of Seattle. Use of the 20 city average will provide more of an average change applicable to the entire region, and utilizes a well established and well known industry standard. For reference, this current SDC update is based on an ENR CCI for March, 2011, of 9,010.

In accordance with ORS 223.309(2) the City may adjust the capital improvement plan, project cost estimates or values of existing improvements at anytime. However, if the SDC is increased as a result of the addition of a new "capacity increasing capital improvement" project, the City must provide a written notice a minimum of 30 days prior to adoption of the modifications to persons who have requested notice under ORS 223.304(6). Subsequently, the City must hold a public hearing for adoption only if the City receives a written request for a hearing on the proposed modification within seven days of the date of the proposed adoption.

If the City elects to modify the cost allocation methodology as opposed to only the CIP, written notice is required to be mailed to all persons who have requested notification, 90 days prior to any adoption hearings. Additionally, the revised methodology must be made available for public review a minimum of 60 days prior to the first hearing.

CREDITS FOR ELIGIBLE CONSTRUCTION

ORS 223.304(4) requires that a method of credits be available for the construction of qualified public improvements. The statute further defines qualified public improvements as those required as a condition of development approval, identified in the plan and list adopted pursuant to ORS 223.309 and either:

(a) Not located on or contiguous to property that is the subject of development approval; or

(b) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

As a result of ORS 223.304(4)(a) credits must be provided for 100% of the cost of eligible off-site public improvements, and in accordance with ORS 223.2304(4)(b), a credit must be provided for on-site development only for the component of an eligible improvement which has capacity greater than that required to serve the development. Under each infrastructure section below, minimum base unit sizing criteria and values for credits are summarized.

If a credit is provided under ORS 223.304(4)(a) for the entire cost of an eligible off-site public improvement, a site-specific SDC allocation (as opposed to regional) should be adopted by resolution, to collect the value of the improvements from the adjoining benefitted properties.

The value of the credits granted in accordance with ORS 223.304(4)(a) are ultimately collected in two components, from the regional SDC allocations for the oversize component, if any, and from the adjacent benefitted property owners as an SDC Overlay for the base unit sizing as each intervening benefited property develops. All credits granted as a result of ORS 223.304(4)(b) for on-site over-sizing are ultimately collected by regional SDC revenues.

Credits are typically used to offset the SDC fees due from the developing property. In the event the credit exceeds the fees due from the development, the City has the option of reimbursing the developer with cash from current SDC reserves, cash receipts from future SDC revenues, and/or providing a credit against future development. Technically, the statutes limit the application of a credit for future development to a maximum of 10 years.

In the interests of equity, cash payments should be made to the developer for any excess credit value if financially feasible. This eliminates the need to account for long term repayment agreements. Additionally it is significant to note that reimbursements to private developers from SDC funds are not required to comply with prevailing wage or public bid laws if the City is not a party to the actual construction contract.

CREDIT FOR PRE-EXISTING USE

A system development charge is imposed on all new construction or when a change of use on a parcel increases the demand on the utility. In the event of a change of use, the system development charge for the new use is offset by a credit in the amount of the calculated system development charge for the pre-existing use.

SDC ADMINISTRATION REQUIREMENTS

Per ORS 223.311, System Development Charge revenues must be deposited in dedicated accounts for each utility and an annual accounting prepared identifying amounts collected for each utility, amounts spent on each qualified project, and the annual cost of complying with these requirements. The statute mandates that Reimbursement fees may be expended on any capital improvements or associated debt service within the subject utility. Improvement Fees may only be spent on capacity increasing capital improvement or associated debt service, for projects that are included in the Capital Improvement Plan for each utility. Accordingly it is important to account for reimbursement and improvement fees separately.

The City needs to establish administrative procedures to contest the methodology or calculations of the SDC fees. The SDC Methodology may only be contested within 60 days of adoption. Expenditures may only be contested within two years of the date of expenditure.

The City must also advise a person making any written objection to the calculation of SDC fees of their right to petition for review pursuant to ORS 34.010 to 34.100.

Oregon Revised Statutes 223.307(5) allows SDC revenues to be expended for costs of complying with the provision of ORS 223.297 to 223.314, including the costs of developing SDC methodologies and providing annual accounting of development charge expenditures. Accordingly, annual costs are estimated to be 4% of the annual revenues derived from SDCs, thus a 4% surcharge is incorporated into each identified fee.

FIRE and SCHOOL DISTRICT SDC EXEMPTION

The City of Harrisburg has adopted Ordinance 869 which exempts the Harrisburg Fire/Rescue District and the Harrisburg School District No.7 from all system development charges.

PUBLIC INFRASTRUCTURE SDC UPDATES

The following sections each contain a summary for each of the five public utility systems of existing improvements with associated replacement cost and capacity, a summary of the Capital Improvement Plans with estimate of project costs, capacity, timing and percentage of eligible costs, and last, calculations to determine the updated System Development Charges.

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City of Harrisburg
WATER SYSTEM SDC UPDATE
February 2012

W-I. OVERVIEW

The City of Harrisburg Water System Master Plan Update prepared by Southwood Engineering in April, 2009, is used as the basis to establish the listing of capital improvements and service population for this SDC update. Additionally this planning effort was supplemented by input from the Public Works Department and City Engineer in June of 2010 through publication of an updated water system CIP, which is incorporated into the text of this update.

To be conservative, the capacity of all water system components, excepting distribution, is based on the ability to meet the maximum daily demand. This assures that adequate resources are available at all times to serve the demand and replenish supplies within 24 hours. As the observed maximum daily demands approach the system capacity, capital improvements should be undertaken to expand the system.

Maximum Day Demand (MDD) was derived in the 2008 Water System Master Plan Update to be 275 gallons per capita per day (gpcd). However, it should be noted that approximately 14% commercial/industrial demands are incorporated into these consumption figures. As a result the net residential MDD should be reduced by 14% to 240 gpcd.

Based on the 2000 US Census data, the average household size for Harrisburg Oregon was 2.83 people per residence, which then defines an Equivalent Dwelling Unit (EDU). Accordingly, the Maximum Day Demand per EDU is 2.83 people multiplied by 240 gallons per day per person for a total of 680 gallons per day per EDU (gpd/EDU).

Using this maximum daily demand figure it is easy to identify the existing capacity of source, treatment and storage components, and to identify the improvements required to serve future population growth. The 2008 Master Plan improvements were predicated on serving a future population of 6,140 plus commercial/industrial users, for a total of 2,475 EDU.

Distribution system capacities are defined not only by their ability to deliver maximum daily demands, including fire flows, but also by a geographical service area. The distribution system provides the backbone for expanding the system throughout the service area or Urban Growth Boundary. As a result, cost allocations for distribution system improvements are based on the resulting peak day demand for the number of EDUs calculated at build-out of the service area.

In 2007 an Urbanization Study was completed by ECONorthwest which identified available lands and housing units for the Harrisburg Urban Growth Boundary. In 2007, UGB build-out population was projected to include an additional 153.8 acres at an average of 5.3 housing units per gross acre. This was projected to add 2,307 people to the existing 2007 population of 3,449. Thus, build-out population is estimated at 5,756 people, or 2,034 residential EDUs. Incorporating the 14% commercial/industrial development gives a total build-out within the UGB of 2,320 EDU. The equivalent maximum day water demand for 2,320 EDU equals 1,580,000 gpd.

W-II. CREDITS FOR ELIGIBLE CONSTRUCTION

As discussed previously, credits must be available for eligible public works construction that met the requirements of the statute. Credits can be issued for 100% of off-site improvements, identified herein as Offsite Credit, or for the oversize component only of on-site improvements, identified herein as Oversize Credit, if the project is contained in the Capital Improvement Plan in the SDC. The minimum line size for any system improvement is recommended to be 8" diameter. Thus in this SDC update, oversize credits will apply only to lines sized above the minimum 8" diameter.

The following table summarizes construction costs, including 20% engineering and administration, which is recommended to be used as the basis for any SDC credits given for eligible distribution system improvements:

CITY OF HARRISBURG
WATERLINE CONSTRUCTION CREDITS
February 2012

LINE SIZE	8"	10"	12"	14"
CONSTRUCTION COST	$50/lf	$60/lf	$72/lf	$85/lf
OFFSITE CREDIT	$50/lf	$60/lf	$72/lf	$85/lf
OVERSIZE CREDIT	$0	$10/lf	$22/lf	$35/lf

When offsite improvements are approved with 100% credits in accordance with ORS 223.304(4)(a), an SDC overlay should be adopted to allocate the cost to the base pipeline size, the cost of an 8" pipeline, over the frontage of the intervening undeveloped properties. The cost of the 8" pipeline is a development expense that is the responsibility of the intervening property owner only, as this is the minimum line size required to serve this property. This cost should be accounted for and included in the SDC assessments at the time of development of the intervening property.

If there is little or no potential for additional development on an intervening property, and the mainline is required to be replaced to provide additional capacity for development, all costs of the improvement should be deemed SDC eligible, regardless of size and without establishing the SDC overlay.

W-III. WATER SYSTEM CAPITAL IMPROVEMENT PLAN

The following table lists all capital improvements as identified in the 2008 Water System Master Plan Update and by City staff, with all estimated costs adjusted to the current March, 2011, ENR CCI of 9,010, and ultimate total capacity stated in gallons per day. This table is published to satisfy the requirements of ORS 223.309:

CITY OF HARRISBURG

WATER SYSTEM CAPITAL IMPROVEMENT PLAN

February 2012

NO.	PROJECT DESCRIPTION	PROJECT PRIORITY	ELIGIBLE COST	ULTIMATE CAPACITY GPD	SDC COST PER GAL
Source Development: Total Source Capacity 1,700,000 gpd					
	New River Intake	11-20 yrs	$630,000	1,700,000	$0.37
Treatment System Improvements: Total Ultimate Treatment Capacity 1,700,000 gpd					
	Water Filtration Plant	11-20 yrs	$5,000,000	1,700,000	$2.94
Distribution System Improvements: MDD of UGB Build-out is 1,580,000 gpd					
6.	Upgrade from 4" to 8" on Azalea Dr. and Cherry Ave and 8" loop between Azalea and Cherry, 1,000 LF	1-5 yrs	0	1,580,000	0.00
7.	Upgrade from 2" to 6" in alley N of Monroe between 2nd and 3rd St. 300 LF	1-5 yrs	0	1,580,000	0.00
8.	Upgrade from 1 1/4" to 6" on Arbor Ct., 300 LF	1-5 yrs	0	1,580,000	0.00
9.	Upgrade from 2" to 6" on Monroe between 1st and 2nd Streets, 300 LF	1-5 yrs	0	1,580,000	0.00
10.	Upgrade from 4" to 8" on Burton between 7th and 9th Streets, 700 LF	1-5 yrs	0	1,580,000	0.00
11.	Upgrade from 4" to 12" on Smith Street between 1st and 4th Streets, 1,100 LF	1-5 yrs	0	1,580,000	0.00
12.	Upgrade from 4" to 8" on Kesling, Schooling and 8th Street	1-5 yrs	0	1,580,000	0.00
13.	12" water main East on Summerville Loop from Heckart Lane to Cramer Ave, 800 LF	1-5 yrs	76,800	1,580,000	0.05

14.	8" water main along 9th from Priceboro to Territorial,	1 - 5 yrs	0	1,580,000	0.00
15.	12" water main along City Limits from Priceboro to Territorial, 4,800 LF	6 - 10 yrs	465,000	1,580,000	0.29
16.	12" water main along City Limits from Territorial to Diamond Hill Dr. 2,500 LF	6 - 10 yrs	209,700	1,580,000	0.13
Storage Improvements: Capacity 2.6 MG less 1,080 Fire Storage equivalent MDD 1,520,000 gpd					
	New 2.1 MG Reservoir & Pump Station	11- 20 yrs	1,700,000	1,520,000	1.12**
System Planning - Benefit to the entire UGB Equivalent MDD 1,580,000 gpd					
	Planning & SDC Update	1-20 yrs	40,000	1,580,000	0.02
	Miscellaneous Oversizing	1-20 yrs	40,000	1,580,000	0.02
		TOTAL	**$8,161,500**	**TOTAL**	**$4.94**

* Assumes a grant contribution of $250,000 **Cost of storage improvements are allocated based on providing storage equivalent to one Maximum Day Demand as opposed to Average Day Demand plus the difference between Max Hourly and Max Day Demands as identified in the Water System Master Plan.

Note that many of the distribution system improvements identified in the June 2010 CIPP and in the table above have been identified as ineligible for SDC funding. This is due to the reasoning that these improvements were not mandated by growth, but rather by the need to maintain the existing lines, most of which are undersized and deteriorated. The lines that were deemed eligible have significance to providing capacity to support growth.

W-IV. SDC IMPROVEMENT FEE CALCULATION

The Improvement Fee is intended to quantify the cost of needed improvements to serve future users. The fee calculation is equal to the maximum day demand per EDU multiplied by the SDC cost per gallon:

SDC Cost per EDU = (Maximum Day Demand) x (Cost per Gallon)

SDC Cost per EDU = (680 gallons/EDU) x ($4.94/gallon)

Improvement Fee = $3,360 per EDU

W-V. SDC REIMBURSEMENT FEE ASSET SUMMARY

The Reimbursement Fee is intended to quantify the value of existing capacity available to serve future demands. The following table lists the current value of each capital improvement completed to-date, based on actual costs adjusted to the March, 2011, ENR Construction Cost Index of 9,010, or an estimated current value if actual costs are not available. The current value is then divided by the capacity of each existing facility to determine the cost per gallon.

All oversized lines, those greater than 8", have a component of capacity to serve the entire UGB. The following table summarizes all distribution improvement oversizing for inclusion in the reimbursement fee calculation.

CITY OF HARRISBURG
WATER SYSTEM REIMBURSEMENT FEE
EXISTING IMPROVEMENTS SUMMARY & CAPACITY
February 2012

PROJECT DESCRIPTION	ORIGINAL VALUE (YR)	CURRENT VALUE NET GRANTS	CAPACITY GPD	SDC COST PER GAL
Existing Source and Transmission Improvements – Ultimate Capacity 1,700,000 gpd				
Well Sources (4, 5, 6, 7 & 8)	NA	$250,000	1,700,000	$0.15
Treatment System Improvements – Ultimate Capacity 1,700,000 gpd				
Water Treatment Plant	NA	---	---	---
Distribution System Improvements – Ultimate Capacity 1,580,000 gpd				
Reservoir Booster Station	NA	360,000	1,580,000	0.23
System Oversizing				
10,480 LF 10" @ $10/LF	NA	104,800	1,580,000	0.07
21,630 LF 12" @ $22/LF		475,860	1,580,000	0.30
4,050 LF 14" @ $35/LF		141,750	1,580,000	0.09
Storage Improvements – Ultimate Capacity 2.6 MG less 1.08 MG Fire Storage				
2.0 MG Concrete Reservoir	NA	0	1,520,000	0.00*
0.5 MG Steel Reservoir	NA	260,000	1,520,000	0.17*
Engineering, Master Planning, SDC Methodology:				
Water Master Plan Update	$30,000 (2008)	33,100	1,580,000	0.02
2010 SDC Update	$3,720 (2011)	3,720	1,580,000	0.00
	TOTAL	**$1,629,230**	**TOTAL**	**$1.03 / gal**

* Cost of storage improvements are allocated based on providing storage equivalent to one Maximum Day Demand (275 gpcd including industrial demands) as opposed to Average Day Demand plus the difference between Max Hourly and Max Day Demands (total 235 gpcd), as identified in the Water System Master Plan. Existing 2.0 MG reservoir is anticipated to be removed from service.

W-VI. SDC REIMBURSEMENT FEE CALCULATION

Similar to the Improvement Fee, the reimbursement component of the SDC is cost per gallon multiplied by Maximum Day Demand of 680 gpd/EDU:

SDC Cost per EDU = (Maximum Day Demand) x (Cost per Gallon)

SDC Cost per EDU = (680 gpd/EDU) x ($1.03/gallon)

Reimbursement Fee = $700 per EDU

W-VII. WATER SYSTEM SDC FEE SUMMARY

All residential units are assigned one EDU per dwelling unit. Commercial and industrial developments are assessed proportionate SDC charges based on the capacity of water meter used to service the facility. All SDC costs also include a charge of 4% for staff administration.

SDC charges apply to all meters serving domestic demands. Meters installed for the sole purpose of fire protection, which are completely isolated from any demands other than fire protection, will not be assessed an SDC charge for connection to the system.

CITY OF HARRISBURG
WATER SYSTEM SDC FEE SCHEDULE
February 2012

METER SIZE	EDU FACTOR	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
3/4"*	1	$3,360	$700	$ 162	**$4,222**
1"	2	$6,720	$1,400	$ 325	**$8,445**
1 ½"	4.5	$15,120	$3,150	$ 731	**$19,001**
2"	8	$26,880	$5,600	$1,299	**$33,779**
3"	18	$60,480	$12,600	$2,923	**$76,003**
4"	32	$107,520	$22,400	$5,197	**$135,117**

* Includes 5/8" x 3/4" and 3/4" x 3/4" meter

Harrisburg Water System Oversizing Inventory					
March 2011					
Street/Location	**From**	**To**	**Size**	**Length (ft)**	**Material**
Sixth Street	Priceboro Drive	La Salle St	10	2,550	PVC
Sixth Street	La Salle	Kesling St	10	820	PVC
Priceboro Drive	Sixth Street	11th St	10	2,150	PVC
Between P & W /UP RR	South of La Salle		10	280	PVC
Territorial St	Fourth St	North Nineth	10	2,630	CI
Territorial St	North Nineth	West of Tenth St	10	400	AC
Smith St	East of Seventh St	East end of Smith St	10	1,650	PVC
			Total	10,480	
Sixth Street	Kesling St	Smith St	12	780	PVC
South Second	South of Sommerville Ave		12	400	PVC
South Second	Pacific Hwy 99E	North of Territorial	12	2,700	PVC
11th Ave/Heckart Lane	Priceboro Drive	Sommerville Loop	12	1,700	PVC
Sommerville Loop	Sixth Street	Heckart Lane	12	2,100	PVC
South Nineth Street	Sommerville Loop	La Salle St	12	1,000	PVC
Between P & W /UP RR	P&W RR right-of-way	UP RR Right-of-Way	12	330	PVC
Fourth St	South of La Salle	Territorial St	12	2,350	CI
Territoral St	South Second	Fourth St	12	700	PVC
Peoria Road	North of Territorial St		12	5,000	PVC
Territoial St	West of Tenth St	East of Tenth St	12	220	PVC
Seventh St	Territorial St	Smith St	12	550	PVC
Smith St	West of Sixth Street	East of Seventh St	12	650	PVC
Seventh St	Territorial St	Arrow Leaf Place	12	2,050	PVC
Tenth St	Territorial Rd	End of Tenth St	12	750	PVC
Diamond Hill Rd	N. Nineth Street	East on Diamond Hill	12	350	PVC
			Total	21,630	
NA (cross P & W RR)	Sixth Street	South Second St	14	2,100	PVC
South Second	Sommerville Ave	Pacific Hwy 99E	14	900	PVC
Pacific Hwy 99E	West of South Second	South Second St	14	300	
NA (cross P & W RR)	South Second	P & W RR	14	750	CI

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City of Harrisburg
SANITARY SEWER SYSTEM SDC UPDATE
February 2012

SS-I. OVERVIEW

The sanitary sewer system is well defined in the 2001 Wastewater Facility Plan with a detailed Capital Improvement Plan, including collection system I/I repairs, treatment lagoon expansion and effluent irrigation improvements. The Capital Improvement Plan was used as the basis for developing the SDC updates, but also includes additional items identified by City support staff.

The design parameter that defines the capacity of the sanitary sewer collection system piping is the geographical area. Pumping stations and force mains are limited by hydraulic capacity and the treatment facility is limited by hydraulics or the associated total pounds of waste contribution. The common parameter that can be applied to all components is the daily Average Dry Weather Flow (ADWF). Typical criteria identified in the Facilities Plan for the City of Harrisburg indicates the average daily flow is approximately 85 gallons per capita per day at a concentration of 250 mg/L (or 0.20 lbs per day) for organic loads.

Based on the 2000 US Census data, the average household size for Harrisburg Oregon was 2.83 people per residence, which then defines an Equivalent Dwelling Unit (EDU). Accordingly, the Average Dry weather Flow per EDU is 2.83 people multiplied by 85 gallons per day per person for a total of 240 gallons per day per EDU (gpd/EDU). Organic loading would be 2.83 multiplied by 0.20 or 0.57 lbs per EDU per day.

The Master Plan improvements were sized based on serving a future population of 4,650 people. However, a review of the improvements at the Wastewater Treatment Facility with City staff indicates the capacity is much higher. The lagoon treatment process is followed by a deep bed, up-flow polishing filter. With this addition, the treatment facility is estimated to have a capacity to serve a population of 6,000, or 2,120 EDU, with an average dry weather flow of 508,800 gpd. This increased capacity is used to allocate the costs of the main pumping facilities, the treatment lagoons and effluent disposal systems.

The collection system is defined by the geographical service area with an estimated build-out EDU of 2,320 as developed earlier in this text based on the 2007 Urbanization Study. Similar to the other public utilities, the collection system piping provides the backbone for expanding the system throughout the service area and Urban Growth Boundary.

As a result, the cost of oversized collection system improvements are allocated based on the resulting Average Dry Weather Flow for the number of EDUs calculated at build-out. For 2,320 EDU at 240 gpd, the resulting ADWF at build-out is 556,800 gpd. This capacity will be used to allocate the costs of the collection system pumping stations and the oversized pipelines.

SS-II. CREDITS FOR ELIGIBLE CONSTRUCTION

The minimum line size under DEQ standards for a public sewer is 8" diameter. Similar to the water system SDC, credits are required for the oversized component of any on-site improvements required to be oversized, and for 100% of off-site improvements. To receive a credit, the project must be contained in the Capital Improvement Plan in this SDC.

The following table summarizes construction costs, including engineering, which will be used as the basis for any SDC credits for eligible collection system improvements:

CITY OF HARRISBURG
SANITARY SEWER CONSTRUCTION CREDITS
February 2012

LINE SIZE	8"	10"	12"	16"	18"	24"
CONSTRUCTION COST	$62/lf	$72/lf	$82/lf	$90/lf	$98/lf	$120/lf
OFFSITE CREDIT	$62/lf	$72/lf	$82/lf	$90/lf	$98/lf	$120/lf
OVERSIZE CREDIT	$0	$10/lf	$20/lf	$28/lf	$36/lf	$58/lf

SS-III. SANITARY SEWER CAPITAL IMPROVEMENT PLAN

The following table identifies all capital improvements from the 2001 Wastewater Facilities Plan and information collected from City support staff. All estimated costs have been adjusted to the reference March, 2011, ENR CCI of 9,010.

CITY OF HARRISBURG
SANITARY SEWER CAPITAL IMPROVEMENT PLAN
February 2012

NO.	PROJECT DESCRIPTION	PROJECT PRIORITY	ELIGIBLE COST	ULTIMATE CAPACITY GPD	SDC COST PER GAL
Collection System Improvements: Total Capacity within UGB 556,800 gpd ADWF					
	Miscellaneous Oversizing	1-20 yrs	$40,000	556,800	$0.07
Treatment System Improvements: Total Capacity within UGB 556,800 gpd ADWF					
	Riverbank Protection Improvements	11-20 yrs	2,340,000	556,800	4.20
System Planning: Master Planning, SDC Updates - Benefit to the entire UGB					
	Planning & SDC Update	1-20 yrs	40,000	556,800	0.07
		TOTAL	**$2,420,000**	**TOTAL**	**$4.34**

SS-IV. SANITARY SDC IMPROVEMENT FEE CALCULATION

The Improvement Fee required to fund needed sanitary sewer system improvements is equal to the number of gallons per day per EDU at ADWF multiplied by the cost per gallon:

SDC Cost per EDU = (ADWF per EDU) x (Cost per Gallon)

SDC Cost per EDU = (240 gallons/EDU) x ($4.34/gallon)

Improvement Fee = $1,040 per EDU

SS-V. SANITARY SDC REIMBURSEMENT FEE ASSET SUMMARY

The Reimbursement Fee is based on the value of existing facilities available to serve current and future demands. The following table lists the current value of each capital improvement completed to-date, based on actual costs adjusted to the March, 2011, ENR Construction Cost Index of 9,010, or an estimated current value if actual costs are not available. The current value is then divided by the ADWF capacity of each existing facility to determine the cost per gallon.

CITY OF HARRISBURG
SANITARY SEWER REIMBURSEMENT FEE
EXISTING IMPROVEMENTS SUMMARY & CAPACITY
February 2012

PROJECT DESCRIPTION	ORIGINAL VALUE (YR)	CURRENT VALUE NET GRANTS	CAPACITY GPD	SDC COST PER GAL
Collection System Improvements: Total Capacity within UGB 556,800 gpd ADWF				
System Oversizing 17,360 LF 10" @ $10/LF 2,880 LF 12" @ $20/LF 820 LF 16" @ $28/LF 3,250 LF 24" @ $56/LF	NA	 $173,600 57,600 22,960 182,000	556,800	$0.78
Pump Station Improvements: Total Capacity within the UGB 556,800 gpd ADWF				
Harris Glenn Pump Station	NA	$150,000	556,800	$0.27
Clover Leaf Pump Station	NA	$150,000	556,800	$0.27
Meadows Pump Station	NA	$180,000	556,800	$0.32
Treatment System Improvements: Total Treatment Capacity 508,800 gpd ADWF				
Wastewater Treatment Facility including Main Pump Station, 26 ac treatment lagoons, contact chamber, river outfall, and irrigation improvements	NA	$4,235,000	508,800	$8.32

Engineering, Master Planning, SDC Methodology:				
Wastewater Facilities Plan	NA	40,000	556,800	0.08
2010 SDC Update	NA	3,720	556,800	0.01
	TOTAL	**$5,194,880**	**TOTAL**	**$10.05 / gal**

The value of the Treatment Facility including the main pumping station, all lagoons, disinfection system, outfall and summer irrigation facilities was based on the 2004 cost of $2,431,000 for construction of the expanded facilities, and $1,000,000 estimated value of the existing facility, both adjusted by the ENR index from 7,298 in September 2004 to 9,010 in 2011.

SS-VI. SANITARY SEWER SDC REIMBURSEMENT FEE CALCULATION

Similar to the Improvement Fee, the reimbursement component of the SDC is cost per gallon multiplied by ADWF of 240 gpd/EDU:

SDC Cost per EDU = (ADWF per EDU) x (Cost per Gallon)

SDC Cost per EDU = (240 gpd/EDU) x ($10.05/gallon)

Reimbursement Fee = $2,412 per EDU

SS-VII. SANITARY SEWER SDC FEE SUMMARY

All residential units are assigned one EDU per dwelling unit. Commercial and industrial developments are assessed proportionate SDC charges based on the capacity of the water meter serving the property, in accordance with the following table. All SDC costs also include a charge of 4% for staff administration.

CITY OF HARRISBURG
SANITARY SEWER SDC FEE SCHEDULE
February 2012

METER SIZE	EDU FACTOR	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
3/4"*	1	$1,040	$2,412	$ 138	**$3,590**
1"	2	$2,080	$4,824	$ 276	**$7,180**
1 ½"	4.5	$4,680	$10,854	$ 621	**$16,155**
2"	8	$8,320	$19,296	$1,105	**$28,721**
3"	18	$18,720	$43,416	$2,485	**$64,621**
4"	32	$33,280	$77,184	$4,419	**$114,883**

* Includes 5/8" x 3/4" and 3/4" x 3/4" meter

Harrisburg Sanitary Sewer Oversizing Inventory
February 2012

Street/Location	From	To	Quan	Size	Length (ft)	Material
Sixth St	Priceboro Dr	1500 ft North	1	10	1,500	PVC
Sixth St	1500 ft N of Priceboro Dr	La Salle St	1	10	1,050	CONC
Sommerville St	Sixth St	1050 East	1	10	1050	CONC
P & W RR Right-of-Way	170 ft N of Territorial Dr	780 ft N of Territorial Dr	1	10	610	AC
P & W RR Right-of-Way	P & W RR Right-of-Way	UP RR Right-of-Way	1	10	550	AC
Second St	580 ft south of 16" Ac	1140 ft South	1	10	560	CONC
Peoria Road Force Main	South Pump Station	Peoria Road PS Intertie	1	10	4,550	PVC
Peoria Rd PS	Peoria Rd Pump Station	Peoria Road Intertie	1	10	710	PVC
Peoria Rd PS	Peoria Rd Pump Station	Stub out	1	10	710	PVC
Seventh St	Stanley St	520 ft south on Seventh	1	10	520	ABS
Peoria Road Force Main	Peoria Rd	Lagoons	1	10	5,550	PVC
			Total		17,360	

P & W RR Right-of-Way	La Salle St	170 ft N of Territorial Dr	1	12	2,300	AC
Second St	16" AC to Pump Station	580 ft South	1	12	580	CONC
			Total		2,880	
Pump Station @ Second St	Pump Station	820 ft East to P & W RR	1	16	820	AC
			Total		820	
Peoria Rd	Peoria Rd Pump Station	3250 ft South	1	18	3,250	PVC
			Total		3,250	
Peoria Rd	Peoria Rd	Pump Station	1	24	50	PVC
			Total		50	

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City of Harrisburg
STORM DRAINAGE SDC UPDATE
February 2012

SD-I. OVERVIEW

The existing storm drainage SDC provides a good methodology to inventory and allocate costs of needed improvements to new users. The current methodology allocates the cost of needed improvements over the total square foot of impervious area estimated at build-out of the Urban Growth Boundary (UGB). Using this cost per square foot, the current SDC then has adopted an average number of impervious square feet per typical single family residential unit, which then defines one Equivalent Dwelling Unit (EDU).

The current SDC addresses the cost of needed future improvements only, which is the Improvement Fee component of the SDC, and does not address the investment made in the existing improvements, or the Reimbursement Fee component. To be equitable, both the cost of needed future improvements and the value of existing improvements with capacity to serve future users should be allocated over the total impervious area within the UGB. This SDC update incorporates a reimbursement fee which includes an inventory of the value and capacity of existing improvements in the storm drainage system.

The current inventory of impervious area is derived in Attachment 'A' of Harrisburg Resolution 871 and is calculated based on land use, to include 290 acres of impervious area (or 12,630,000 square feet) at full buildout of the UGB. For storm drainage, an Equivalent Dwelling Unit (EDU) is defined by the amount of impervious area associated with a typical single family residential housing unit. The SDC methodology has adopted a standard of 2,800 square feet of impervious area for one EDU, as the average for a single family residential unit.

As a result, buildout EDU for the storm drainage system is calculated to be 290 acres divided by 2,800 square feet per EDU, for a total of 4,510 EDU. This number is much higher than buildout EDU for water or wastewater, because it has a large number of EDUs associated with the impervious areas from commercial/industrial development; on the order of twice the area associated with all residential development.

SD-II. CREDITS FOR ELIGIBLE CONSTRUCTION

Similar to all utility SDCs, credits must be available for eligible public works construction that met the requirements of the statute. When a project is listed in the Capital Improvement Plan, credits must be issued for 100% of off-site improvements, which are typically improvements made in existing developed areas that are needed to support growth in other areas, which are called Offsite Credits. Additionally, credits are mandated when the on-site utility improvements are required to be made larger than needed for the specific development, which are identified as Oversizing.

The minimum line size for any storm drainage system improvement is recommended to be 12" diameter. Thus oversizing credits apply only to storm sewers sized above the minimum 12" diameter.

The following table summarizes construction costs, including engineering, which will be used as the basis for any SDC credits for eligible storm drainage system improvements:

CITY OF HARRISBURG
STORM DRAINAGE SYSTEM CONSTRUCTION CREDITS
February 2012

LINE SIZE	12"	15"	18"	21"	24"	27"	30"	36"
CONSTRUCTION COST	$34/lf	$38/lf	$42/lf	$48/lf	$56/lf	$64/lf	$72/lf	$80/lf
OFFSITE CREDIT	$34/lf	$38/lf	$42/lf	$48/lf	$56/lf	$64/lf	$72/lf	$80/lf
OVERSIZE CREDIT	$0	$4/lf	$8/lf	$14/lf	$22/lf	$30/lf	$38/lf	$46/lf

When offsite improvements are approved with credits, an SDC overlay should be adopted to allocate the cost to the base pipeline size, the cost of a 12" pipeline, over the frontage of the adjoining undeveloped properties.

SD-III. STORM DRAINAGE SYSTEM CAPITAL IMPROVEMENT PLAN

The most recent master planning efforts include preparation of capital improvement planning and SDC modifications by City staff in June of 2010.

The following table documents identified capital improvements needed to accommodate future growth within the urban growth boundary, with associated costs estimated in June, 2010, and adjusted to the current March, 2011, ENR CCI of 9,010. The capacity figures are stated in 1,000 square feet (KSF) of impervious area, i.e., if the facility serves the entire UGB, the benefitting area is 290 acres or 12,632 KSF of impervious area.

Project number references are from the City's CIP listing dated June 11, 2010. This table is published to satisfy the requirements of ORS 223.309 and provides the listing of projects eligible for SDC expenditures.

CITY OF HARRISBURG
STORM DRAINAGE SYSTEM CAPITAL IMPROVEMENT PLAN
February 2012

NO.	PROJECT DESCRIPTION	PROJECT PRIORITY	ELIGIBLE COST	CAPACITY KSF	SDC COST PER KSF
Collection System Improvements: Benefitted area is entire UGB 4,510 EDU					
6.	Hwy 99E & Peoria Rd	1-5 yrs	$113,200		
7.	UPRR N. of Territorial	1-5 yrs	67,500		
8.	7th & Dempsey to UPRR	1-5 yrs	144,100		
9.	Moore, 2nd to 3rd Streets	1-5 yrs	33,800		
10.	Monroe, 1st to River Outfall	6-10 yrs	33,800		
11.	Monroe, 1st to 3rd Streets	6-10 yrs	33,800		
12.	Schooling Alley, 2nd to 3rd	6-10 yrs	31,300		
13.	Kesling, 3rd to 4th Streets	6-10 yrs	33,800		
14.	Sommerville Loop	11-20 yrs	226,400		
		Subtotals	$717,700.00	12,630	$56.80
System Planning: Master Planning, SDC Updates - Benefit to the entire UGB					
	Planning & SDC Update	1-20 yrs	40,000	12,630	3.20
	Miscellaneous Oversizing	1-20 yrs	40,000	12,630	3.20
		TOTAL	**$797,700**	**TOTAL**	**$63.20/KSF**

SD-IV. STORM DRAINAGE IMPROVEMENT FEE CALCULATION

The fee calculation is shown in the table above to be $63.20 per 1,000 square feet of impervious area. A typical single family residential property is 2,800 square feet (or 2.8 KSF) of impervious area, so the Improvement Fee equates to:.

SDC Cost per EDU = (Impervious area per EDU) x (Cost per KSF)

SDC Cost per EDU = (2.8 KSF/EDU) x ($63.20/KSF)

Improvement Fee = $177 per EDU

SD-V. STORM DRAINAGE REIMBURSEMENT FEE

The Reimbursement Fee is intended to quantify the value of existing capacity available to accommodate future growth. This is the value of the existing improvements that have been constructed by the existing residents, and provides the backbone for collection of increased runoff created by growth.

The following table lists the current value of all existing storm system oversizing, based on actual costs adjusted to the March, 2011, ENR Construction Cost Index of 9,010, or an estimated current value if actual costs are not available. Similar to the improvement fee calculation, the current value is then divided by the amount of impervious area estimated within the UGB. A summary of all oversized components is bound at the end of this text section.

CITY OF HARRISBURG
STORM DRAINAGE SYSTEM REIMBURSEMENT FEE
EXISTING IMPROVEMENTS SUMMARY & CAPACITY
February 2012

PROJECT DESCRIPTION	ORIGINAL VALUE (YR)	CURRENT VALUE NET GRANTS	CAPACITY KSF	SDC COST PER KSF
Collection System Improvements – Ultimate Capacity within the UGB 12,630 KSF				
System Oversizing				
4,800 LF 15" @ $4/LF		$19,200		
5,900 LF 18" @ $8/LF		47,200		
3,410 LF 21" @ $14/LF		47,740		
4,750 LF 24" @ $22/LF	NA	194,500		
140 LF 27" @ $30/LF		4,200		
1,480 LF 30" @$38/LF		562,400		
140 LF 33" @ $42		5,880		
420 LF 36" @$46		19,320		
630 LF Misc @ $50		31,500		
Subtotal		$931,940	12,630	$73.79
Stormwater Pumping Stations – Ultimate Capacity within the UGB 12,630 KSF				
Harris Glen Pump Station	NA	$220,000	12,630	17.42
Engineering, Master Planning, SDC Methodology – Capacity to match UGB 12,630 KSF				
2010 SDC Update	$3,720 (2011)	3,720	12,630	0.30
	TOTAL	**$1,104,160**	**TOTAL**	**$91.50 / KSF**

SD-VI. SDC REIMBURSEMENT FEE CALCULATION

As determined in the above table, the Reimbursement Fee required to recover the cost of existing facilities that have been installed with capacity to serve future growth is the value per KSF times the impervious area. For a single family residential dwelling, one EDU is equal to 2,800 square feet of impervious area:

SDC Cost per EDU	=	(Impervious area per EDU) x (Cost per KSF)
SDC Cost per EDU	=	(2.8 KSF/EDU) x ($91.50/KSF)
Reimbursement Fee	=	**$256 per EDU**

SD-VII. STORM DRAINAGE SYSTEM SDC FEE SUMMARY

All residential units are assigned one EDU per dwelling unit, which is based on an average of 2,800 square feet of impervious area per unit. Commercial and industrial developments are assessed proportionate SDC charges based on the equivalent number of EDU for the actual impervious area of the proposed development. All SDC costs also include a charge of 4% for staff administration.

CITY OF HARRISBURG
STORM DRAINAGE SDC FEE SCHEDULE
February 2012

LAND USE	UNITS*	IMPROVEMENT FEE	REIMBURSEMENT FEE	ADMINISTRATION FEE (4%)	TOTAL SDC
Residential	EDU	$177	$256	$ 17	**$ 450 / EDU**
Commercial/ Industrial	1,000 SF	$63.20	$91.50	$ 6	**$ 161 / KSF**

* Units are per 1,000 square feet of impervious area on the development site.

Harrisburg Storm Drainage Oversizing Inventory
February 2012

Street/Location	From	To	Quan	Size	Length (ft)	Material
Ninth St	Ninth St	Priceboro	1	10	80	PVC
				Subtotal	80	
Across Priceboro Drive	850 feet west of 11th St		1	12	50	CONC
				Subtotal	50	
11th St	Applegate Place	30"	1	15	100	PVC
Across Priceboro Drive	550 feet west of 11th St		2	15	50	CONC
Detention Pond 700 ft West of 11th St	North from Priceboro Pl	Detention Pond	1	15	50	PVC
Whiteledge Place	Across Siuskaw		1	15	100	PVC
9th St	9th St North of Siuslaw Pl		1	15	550	PVC
South 8th St	Umpqua	Detention Pond	1	15	120	PVC
Priceboro Dr	West along Priceboro	Sixth St	1	15	200	CONC
Sixth St	Priceboro Dr	North 0 - 300 feet	1	15	300	CONC
Sixth St	300 ft S of La Salle St	South of La Salle St	1	15	260	CONC
Sixth St	Across La Salle St		1	15	80	CONC
East of Sixth St, South of La Salle	50 ft S of La Salle St	La Salle St dry well	1	15	50	CONC
Sixth St @ La Salle	East	Sixth St	1	15	200	CONC
Culver Across Sommerville Loop	600 ft East of Sixth St		1	15	50	CONC
Hammer St	Hammer Ct	Ninth St	1	15	270	PVC
West of Ninth St, South of Clay Ct	South of Clay Court	170 ft west	1	15	170	PVC
Territorial Rd @ Seventh St			1	15	10	CONC
Territorial St	Seventh St	450 ft West	1	15	450	CONC
Territorial Rd @ Ninth St	Ninth & Territorial	100 ft East	1	15	100	CONC
Territorial Rd 100 ft East of Ninth	South Side Territorial	50 ft N	1	15	50	HDPE
Territorial Rd 200 ft West of Tenth	Territorial Rd	120 ft North	1	15	120	HDPE
Kobe Lane @ Tenth St	Kobe Lane	130 ft West	1	15	130	HDPE
Diamond Hill Road	550 ft SE of Ninth St	950 ft SE	1	15	400	HDPE
N. Ninth St	210 ft South of Ladino Pl	320 ft SW to Crimson Way	1	15	320	PVC
150 ft E of Arrow Leaf Place	North of Arrow Leaf Ave	120 ft North	1	15	120	PVC
Dempsey St	Ninth St	Sixth St	1	16	550	CONC
				Subtotal	4,800	
Siuslaw St	Applegate Place	11th St	1	18	280	PVC
Detention Pond 700 ft West of 11th St	South from Whitledge Pl	Detention Pond	1	18	360	PVC
9th St Pump Station	9th St	Pump Station	1	18	70	PVC
Sixth St	Priceboro Dr	North 300 - 750 feet	1	18	450	CONC
East of Sixth St, South of La Salle	300 ft S of La Salle St	50 ft S of La Salle St	1	18	250	HDPE

Street/Location	From	To	Quan	Size	Length (ft)	Material
West of Sixth St, North of La Salle	La Salle St	400 feet North	1	18	400	CMP
East of Sixth St, South of Kesling St	380 ft South of Kesling St	600 ft south	1	18	210	HDPE
Whithman Way	Whithman Way	150 Ft North	1	18	150	HDPE
Ninth St	Hammer St	100 ft South	1	18	100	PVC
La Salle St	Ninth St	450 ft East	1	18	450	CONC
Ninth St	Ninth St	Greenway Drive	1	18	700	CONC
Territorial Rd 300 ft West of Seventh St	300 ft West of Seventh St	190 ft West	1	18	190	CONC
Diamond Hill Road	Ninth St	250 ft NE	1	18	250	HDPE
Diamond Hill Road	Ninth St	550 SE	1	18	550	HDPE
Ninth St @ Dempsey	East of Ninth	Dempsey	1	18	100	CONC
Dempsey St @ Sixth St	Sixth St	210 ft west	1	18	210	CONC
Ladino Pl East of N. Ninth	Ladino Pl	N. Ninth	1	18	340	PVC
N. Ninth South of Ladino Pl	Ladino Pl	210 ft South	1	18	210	PVC
Seventh St	Erica Place	North to Erica Way	1	18	630	PVC
				Subtotal	5,900	
9th St 200 feet N of Priceboro Dr	Across 9th St		4	21	90	CONC
Sixth St	Priceboro Dr	North 750 - 1150 feet	1	21	400	CONC
West of Sixth St, North of La Salle	400 feet North of La Salle St	Kesling St	1	21	450	CMP
Kesling St to UP RR Right-of-Way	Kesling St dry well	NE to RR	1	21	750	CONC
UP RR Right-of-way	South of Smith St		1	21	300	CONC
South of Smith St @ Monroe	South of Smith St	Smith St	1	21	130	PVC
South of Smith St @ Monroe	Monroe St	150 ft West	1	21	150	PVC
Smith St 100 ft W of Monroe	Smith St	60 ft North	1	21	60	PVC
Territorial Rd @ Seventh Pl	Territorial Rd	Seventh St	1	21	210	CONC
Diamond Hill Road	250 ft East of Ninth St	400 ft NE	1	21	150	HDPE
Seventh St	Erica Way	North to Pump Station	1	21	720	PVC
				Subtotal	3,410	
11th St	30"	Siuslaw St	1	24	330	PVC
East of Sixth St, South of Kesling St	Kesling St dry well	380 ft South	1	24	380	HDPE
UP RR Right-of-way	Smith Street	North of Territorial St	1	24	1,300	CONC
West of Spurlock	Sommerville Loop	Whitman Way	1	24	300	HDPE
West of Ninth St @ Greenway Dr	Greenway Dr	400 ft NW	1	24	420	CONC
Smith St 100 ft W of Monroe	60 ft North of Smith St	500 ft North	2	24	440	HDPE
Smith St 100 ft W of Monroe	500 ft North of Smith St	Territorial Rd	1	24	60	HDPE
Smith St @ Seventh St	South of Smith St	80 ft North	1	24	80	CONC
Smith St @ Seventh St	Seventh St	160 ft West	1	24	160	CONC
Sixth St	110 ft North of Territorial Rd	250 ft NW	1	24	250	CMP
Across Territorial Rd @ Tenth St	South of Territorial	80 ft North	2	24	80	CONC
Territorial Rd	Tenth St	140 ft West	2	24	140	HDPE

Street/Location	From	To	Quan	Size	Length (ft)	Material
Territorial Rd 180 ft West of Tenth	Territorial Rd	700 ft North	2	24	700	HDPE
East end Dempsey St @ Ninth St			1	24	20	CONC
200 ft E of Ninth St on Burton St	Culvert Across St		1	24	90	CMP
				Subtotal	4,750	
Smith St 200 ft West of Seventh St	Smith St	40 ft North	1	27	40	CONC
Diamond Hill Road Culvert	400 ft East of N. Ninth St		2	27	100	CONC
				Subtotal	140	
North of Detention Pond	11th St	Detention Pond	1	30	180	PVC
West of Ninth St @ Greenway Dr	400 ft NW of Greenway Dr	30 ft NW	1	30	30	CONC
Territorial Rd @ Seventh St			1	30	30	CONC
Seventh St	Territorial Rd	Quincy St	1	30	430	CONC
Quincy St	Seventh St	Sixth St	1	30	600	CONC
Diamond Hill Road	Seventh Street	210 ft NE	1	30	210	CONC
				Subtotal	1,480	
UP RR Right-of-way Culvert	Hwy 99E & UP RR		2	33	60	CONC
UP RR Right-of-way Culvert	S of Hwy 99E & UP RR		2	33	80	CONC
				Subtotal	140	
Culvert Across Sixth St	East	West	1	36	130	CONC
Territorial St	Sixth St	80 ft East	1	36	80	CONC
Sixth St	Territorial Rd	110 ft North	1	36	110	CONC
UP RR Right-of-way Culvert	Parallel UP RR Right-of-Way		1	36	50	CONC
UP RR Right-of-way Culvert	Parallel UP RR Right-of-Way		1	36	50	CONC
				Subtotal	420	
UP RR Right-of-way Culvert	350 West of Stanley St		1	42	70	CMP
West of Sixth St @ Quincy St	Quincy St	250 ft West	1	LS	250	
Territorial Rd 300 ft West of Seventh St	230 ft south of Territorial Rd	Territorial Rd	1	24 x 42	230	CMP
Peoria Rd			1	32 x 40	80	CONC
				Subtotal	630	

City of Harrisburg
TRANSPORTATION SDC UPDATE
February 2012

T-I. OVERVIEW

The Transportation System SDC has been derived from the 1999 City of Harrisburg Transportation System Plan (TSP), the Addendum to the 1999 TSP, and the June, 2010, Transportation Capital Improvement Plan (CIP) prepared by the City staff. The purpose of this update is to inventory all projects required to serve future growth and equitably allocate the current costs to future users.

The 1999 Transportation System Plan identified eight roadway capital improvement projects to be completed between 2006 and 2010. Of the eight projects, three have been completed and five were carried forward into the 2010 CIP in whole or in part. The 1999 TSP also identified 5 high priority bikeway projects totaling $475,346. These projects are not identified as a component of the 2010 Transportation CIP and were either completed or eliminated from consideration. Thus, the bikeway projects have not been included in this SDC update.

An industry standard for allocating demands for transportation systems is the application of Equivalent Length New Daily Trips (ELNDT), which has standard rates published by the Institute of Transportation Engineers (ITE) for various land uses. The 1999 Transportation System Plan projected an additional 548 new housing units by 2017 with an additional 5,192 average weekday ELNDT as a basis for allocating cost.

The total ELNDT for existing and future population combined was not provided in the TSP. Without knowledge of either the current 1999 ELNDT total or the 2017 ELNDT total, allocating an equitable proportion of the cost of existing facilities to future users is not possible. Accordingly, the Transportation SDC Update will include an improvement fee only, predicated upon applying the costs of needed improvements to serve future growth, with no component for reimbursement of costs invested in excess capacity of existing facilities.

This update is based on the conclusion that the existing transportation system was adequate to serve the transportation needs of the existing population at the time of preparation of the 1999 TSP, and that all identified improvements were required to serve projected growth.

T-II. CREDITS FOR ELIGIBLE CONSTRUCTION

State statutes require a credit be made available to private developers for construction of qualified public improvements. Qualified capital construction includes all projects listed in the Capitol Improvements Plan to the extent eligible.

Streets improved within a development site are eligible for Oversizing Credits only, being that portion of the street construction that exceeds the minimum street standards. The minimum street standards identified in the Harrisburg Municipal Code Chapter 17.40 includes a 32-foot street width and 5 foot sidewalks, within a 54-foot right-of–way.

The value of transportation credits given for required improvements off-site of the development property are mandated by statute to be equal to 100% of the costs of the eligible improvement, and are noted as Offsite Credits in the following table. The following table lists the eligible credits, including engineering fees, to be applied to all eligible transportation improvements, for half street construction on a lineal foot basis:

CITY OF HARRISBURG
TRANSPORTATION SDC FOR STREET CONSTRUCTION
CREDIT FOR HALF STREET CONSTRUCTION
February 2012

	UP TO 32'	36'	40'	44'	48'
Total Cost	$250	$270	$290	$310	$330
Offsite Credit	$250	$270	$290	$310	$330
Oversizing Credit	$ 0	$ 20	$ 40	$ 60	$ 80

T-III. TRANSPORTATION SYSTEM CAPITAL IMPROVEMENT PLAN

The following table lists all the improvements identified in the June, 2010, Transportation CIP, the 1999 TSP and the subsequent Addendum to the TSP, with the project location and estimated cost to complete the work. All entries have been adjusted by the ENR CCI to be comparable 2011 dollars. The percent of SDC eligibility in the following table is estimated based on several options, including:

a. The potential for private development funding the cost of non-eligible minimum street improvements (32') as a component of on-site development. However, due to the potential of oversize components, such as larger street widths or medians, a portion of the estimated costs is SDC eligible. An estimate of 10% of the value of new street construction is included for the oversize component potential;

b. For street improvements in currently developed areas, the proportionate benefit accrued to future users is the basis for determining the SDC eligible component. At the time the TSP was prepared, the estimate of future population was 548 units or 1,550 additional residents beyond the 1999 population of approximately 2,550. This equates to 38% benefit to future users; and,

c. The availability of grants to assist the City with regionally important projects is a necessity for several projects, due to the magnitude of the project costs and the benefits to the state highway and railroad systems. An estimate of 50% alternative funding was included for highway and railroad signalization costs, and the remaining costs were allocated proportionately to future and existing population, resulting in a net 20% SDC eligibility.

CITY OF HARRISBURG
TRANSPORTATION SYSTEM CAPITAL IMPROVEMENT PLAN
February 2012

NO	PROJECT DESCRIPTION	PROJECT PRIORITY	TOTAL COST	SDC ELIGIBLE	SDC COST
Transportation System Improvements					
2	Relocate UPRR crossing gates on LaSalle Street	1-5 yrs	$67,500	20%	**$13,500**
3	Smith Street from 1st to 4th (reconstruct street, curbs, gutters and sidewalks)	1-5 yrs	$676,700	38%	**$257,146**
4	9th Street from Hammer to Marcus Landing (new street)	1-5 yrs	$400,000	0%	**$0**
5	North portion of Burton Street North of Harvest Glen Subdivision (new street)	1-5 yrs	$77,700	0%	**$0**
6	South portion of Burton Street East of 9th Street to Harvest Glen Subdivision (new street).	1-5 yrs	$88,000	0%	**$0**
7	Kesling Street between 1st and 2nd Streets (curbs, gutters and new street)	1-5 yrs	$138,400	38%	**$52,592**
8	Relocate P & WRR crossing gates on LaSalle Street	1-5 yrs	$202,600	20%	**$40,520**
9	4th Street from Moore to Macy (curbs, gutters and new street)	1-5 yrs	$109,100	38%	**$41,458**
10	4th Street from Macy to Kesling (curb, gutter and sidewalk on East side)	1-5 yrs	$33,800	38%	**$12,844**
11	6th Street from Kesling to Smith (reconstruct street, curbs, gutters and sidewalks)	1-5 yrs	$431,700	38%	**$164,046**
12	Traffic Signal at 3rd and LaSalle	1-5 yrs	$634,000	20%	**$126,800**
13	9th Street from Burton to Diamond Hill Dr (2" overlay)	1-5 yrs	$83,900	0%	**$0**
14	9th Street from Territorial to Burton (curbs, gutters and new street)	1-5 yrs	$282,200	20%	**$56,440**
15	Burton Street from 8th to 9th (curbs, gutters and new street)	1-5 yrs	$397,300	38%	**$150,974**
16	Cramer Ave from Priceboro to Diamond Hill (new street including 2 lanes with median and bike lanes)	6-10 yrs	$3,167,500	10%	**$316,750**
17	2nd Street from 99E to Fountain (curb, gutter, sidewalk and new street)	6-10 yrs	$178,200	38%	**$67,716**
18	10th Street from Territorial to Marcus Landing (new street)	6-10 yrs	$1,538,000	10%	**$153,800**
19	10th Street, Diamond Hill to Burton	6-10 yrs	$590,000	10%	**$59,000**

20	LaSalle from 3rd to 6th Streets, (new street)	6-10 yrs	$759,200	38%	**$288,496**
21	Cramer Ave, Priceboro to Diamond Hill (new street)	6-10 yrs	$2,603,700	10%	**$260,370**
Transportation System Planning					
	Planning & SDC Update	1-20 yrs	$40,000	100%	40,000
	Miscellaneous Oversizing	1-20 yrs	$40,000	100%	40,000
		TOTAL	**$12,539,500**	**TOTAL**	**$2,142,452**

T-IV. TRANSPORTATION SDC IMPROVEMENT FEE CALCULATION

The transportation SDC costs are allocated based on the number of Equivalent Length New Daily Trips (ELNDT) generated by the benefitting properties. The TSP estimated benefitted properties through the year 2017 at approximately 550 residential units for a total of 5,192 ELNDT. This did not include any anticipated trips generated by commercial / industrial development nor did this estimate include all development that would benefit from these improvements. The capacity of many of these improvements will provide for growth well beyond the year 2017.

The Capital Improvement Plan prepared by the City of Harrisburg contains many additional projects that are required to adequately support growth, and which have a capacity beyond the TSP planning window of 2017. As a result, the ELNDT total used to allocate costs to the benefitting properties should be much larger than that quantified in the TSP.

Based on the 2007 Harrisburg Urbanization Study, build-out of the UGB is estimated to include a total population of 5,756. This is an increase of approximately 3,200 in population from 1999 through build-out, or approximately 1,100 residential EDU at 9.57 ELNDT per EDU for a total of 10,500 ELNDT. With an estimated 14% associated commercial/industrial growth, the future ELNDT through build-out of the UGB is estimated at 12,000 ELNDT.

It is reasonable to conclude the benefitting properties and associated ELNDT is somewhere between the TSP figure of 5,192 ELNDT and build-out of 12,000 ELNDT. Using build-out of the UGB would understate the required fee, because the TSP has not incorporated all improvements required to serve the population beyond 2017. For allocation of eligible project costs in this SDC update, the benefitting properties are estimated to generate a total of 7,000 ELNDT. This figure should be verified during the next update of the TSP.

-

The SDC improvement fee cost per ELNDT is then:

SDC Improvement Fee	=	(SDC ELIGIBLE COSTS) / (ELNDT)
SDC Improvement Fee	=	($2,142,452)/ (7,000 ELNDT)
Improvement Fee	=	**$306 per ELNDT**

T-V. SDC REIMBURSEMENT FEE CALCULATION

In that no inventory of transportation system improvements was included in the TSP, and no estimates of ELNDT are available for the existing community, no costs have been included to support a reimbursement fee. The basis of the SDC methodology is that all improvements are required to serve future populations.

As projects are undertaken from the Capital Improvement Plan, the project costs should be used to support creation of a reimbursement fee and the project removed from the Improvement Fee calculation. The reimbursement fee should be the total of actual project costs, as adjusted by the ENR CCI to the current year, allocated over 7,000 ELNDT, comparable to the improvement fee.

The 7,000 ELNDT inventory of benefitting capacity should remain unchanged until a new Transportation System Plan is adopted with an expanded list of needed improvements and an upward revised inventory of benefitting ELNDTs, based on the number of benefitting trips from 1999 TSP forward.

T-VI. TOTAL SDC FEE CALCUATION

Based on the identified Capital Improvement Plan, reimbursement values and the projected number of new Equivalent Length New Daily Trips through the planning period, the SDC fee is summarized below:

SDC Improvement Fee	=	$306 per ELNDT
SDC Reimbursement Fee	=	$0 per ELNDT
Transportation SDC	=	**$306 per ELNDT**

The cost per ELDNT should be applied to the ITE Trip Generation factor to determine the specific charge for each land use, as adjusted by a Local Factor discussed below. The ITE Trip Generation factor should be based on the average weekday trips from the best category fit in the current Trip Generation Manual, which is included by reference in this update.

The City of Harrisburg recognizes the significance of promoting local employment opportunities and encouraging the provision of services to this community. As a result, a Local Factor has been incorporated to mitigate the non-residential ITE trip rates to encourage job opportunities and the provision of services to support the community. The Local Factor reduces the commercial industrial published trip rates, thus reducing the fees assessed.

The financial impact of reduced commercial industrial transportation SDC fees is minor relative to the City as a whole in that the commercial industrial component of growth is only estimated at approximately fourteen percent of the future growth. Reducing the commercial industrial trip rates will encourage the creation of employment opportunities and also encourage development of additional local services to support the community.

The following table lists the SDC costs for selected land use, including a 4% charge for administration. Attached at the end of this section is a complete listing of all available ITE trip categories with published average weekday trip rates from the 7th Edition as adjusted by the Local Factor.

CITY OF HARRISBURG
TRANSPORTATION SDC IMPROVEMENT FEE FOR SELECTED LAND USES
BASED ON ITE AVERAGE WEEKDAY ELNDT
February, 2012

	ITE CATEGORY, UNIT*	ELNDT/ RATE	COST/ ELNDT	LOCAL FACTOR	ADMIN FEE (4%)	SDC COST
	Unit Cost per ELNDT	1	$306	-	$ 12	$ 318
	Residential					
210	Single family, per living unit	9.57	$306	100%	**$ 117**	**$3,045**
220	Apartment, per living unit	6.72	$306	100%	**$ 82**	**$2,138**
	Commercial / Industrial					
110	Light Industrial, per 1,000 sf*	6.97	$306	30%	**$ 25**	**$ 665**
120	Heavy Industrial, per 1,000 sf*	1.50	$306	30%	**$ 5**	**$ 143**
320	Motel, per room	5.63	$306	30%	**$ 20**	**$ 537**
630	Medical Clinic, per 1,000 sf*	31.45	$306	30%	**$ 115**	**$3,000**
710	General Office, per 1,000 sf*	11.01	$306	30%	**$ 40**	**$1,050**
814	Specialty Retail, per 1,000 sf*	44.32	$306	30%	**$ 162**	**$4,230**

* Units are per 1,000 square feet of gross building area

ITE TRIP GENERATION, 7th Edition
ELNDT AVERAGE WEEKDAY TRIP RATES

ITE CODE	LAND USE	ITE TRIP RATE	LOCAL FACTOR	ELNDT RATE
Port & Terminal Use				
010	Waterport / Marine Terminal, Per Acre	11.93	30%	3.58
021	Commercial Airport, Per Commercial Flight per day	122.21	10%	12.22
022	General Aviation Airport, Per Average Flights per Day	1.97	30%	0.59
030	Truck Terminal, Per Acre	81.90	30%	24.57
090	Park-and-Ride Lot with Bus Service, Per Parking Space	4.50	30%	1.35
093	Light Rail Transit Station with Parking, Per Parking Space	2.51	30%	0.75
Industrial Use				
110	General Light Industrial, Per KSF	6.97	30%	2.09
120	General Heavy Industrial, Per KSF	1.50	30%	0.45
130	Industrial Park, Per KSF	6.96	30%	2.09
140	Manufacturing, Per KSF	3.82	30%	1.15
150	Warehousing, Per KSF	4.96	30%	1.49
151	Mini-Warehouse, Per KSF	2.50	30%	0.75
Residential Use				
210	Single-Family Detached Housing, Per Dwelling	9.57	100%	9.57
220	Apartment, Per Dwelling	6.72	100%	6.72
221	Low-Rise Apartment, Per Occupied Unit	6.59	100%	6.59
222	High-Rise Apartment, Per Dwelling	4.20	100%	4.20
230	Residential Condominium/ Townhouse, Per Dwelling	5.86	100%	5.86
232	High-Rise Residential Condominium /Townhouse, Per Dwelling	4.18	100%	4.18
240	Mobile Home Park, Per Occupied Dwelling	4.99	100%	4.99

ITE Code	Land Use	ITE Trip Rate	Local Factor	ELNDT Rate
251	Senior Adult Housing - Detached, Per Dwelling	3.71	100%	3.71
252	Sr. Adult Housing - Attached, Per Dwelling Unit	3.48	100%	3.48
253	Congregate Care Facility, Per Dwelling	2.02	100%	2.02
254	Assisted Living, Per Bed	2.66	100%	2.66
255	Continuing Care Retirement Community, Per Occupied Unit	2.81	100%	2.81
260	Recreational Home, Per Dwelling	3.16	100%	3.16
270	Residential Planned Unit Development, Per Dwelling	7.50	100%	7.50
Lodging				
310	Hotel, Per Room	8.17	30%	2.45
311	All Suites Hotel, Per Room	4.90	30%	1.47
312	Business Hotel, Per Occupied Unit	7.27	30%	2.18
320	Motel, Per Room	5.63	30%	1.69
Recreational				
411	City Park, Per Acre	1.59	30%	0.48
412	County Park, Per Acre	2.28	30%	0.68
413	State park, Per Acre	0.65	30%	0.20
414	Water Slide Park, Per Parking Space	1.67	30%	0.50
415	Beach Park, Per Acre	29.81	30%	8.94
417	Regional Park, Per Acre	4.57	30%	1.37
418	National Monument, Per Acre	5.37	30%	1.61
420	Marina, Per Berth	2.96	30%	0.89
430	Golf Course, Per Acre	5.04	30%	1.51
432	Golf Driving Range, Per Tee	13.65	30%	4.10
435	Multipurpose Recreational Facility, Per Acre	90.38	30%	27.11
437	Bowling Alley, Per KSF or Per Lane	33.33	30%	10.00
443	Movie Theater without Matinee, Per KSF	78.06	30%	23.42

ITE Code	Land Use	ITE Trip Rate	Local Factor	ELNDT Rate
452	Horse Racetrack, Per Acre	43.00	30%	12.90
460	Arena, Per Acre	33.33	30%	10.00
480	Amusement Park, Per Acre	75.76	30%	22.73
481	Zoo, Per Acre	114.88	10%	11.49
488	Soccer Complex, Per Field	71.33	30%	21.40
490	Tennis Courts, Per Court	31.04	30%	9.31
491	Racquet/Tennis Club, Per KSF	14.03	30%	4.21
492	Health/Fitness Club, Per KSF	32.93	30%	9.88
493	Athletic Club, Per KSF	43.00	30%	12.90
495	Recreational Community Center, Per KSF	22.88	30%	6.86
Institutional				
520	Elementary School, Per KSF	14.49	30%	4.35
522	Middle School/Junior High School, Per KSF	13.78	30%	4.13
530	High School, Per KSF	12.89	30%	3.87
540	Junior/Community College, Per KSF	27.49	30%	8.25
560	Church, Per KSF	9.11	30%	2.73
561	Synagogue, Per KSF	10.64	30%	3.19
565	Day Care Center, Per KSF	79.26	30%	23.78
566	Cemetery, Per Acre	4.73	30%	1.42
590	Library, Per KSF	54.00	30%	16.20
Medical				
610	Hospital, Per KSF	17.57	30%	5.27
620	Nursing Home, Per KSF	6.10	30%	1.83
630	Clinic, Per KSF	31.45	30%	9.44
Office				
710	General Office Building, Per KSF	11.01	30%	3.30
714	Corporate Headquarters Building, Per KSF	7.98	30%	2.39
715	Single Tenant Office Building, Per KSF	11.57	30%	3.47

ITE Code	Land Use	ITE Trip Rate	Local Factor	ELNDT Rate
720	Medical-Dental Office Building, Per KSF	36.13	30%	10.84
730	Government Office Building, Per KSF	68.93	30%	20.68
731	State Motor Vehicles Department, Per KSF	166.02	10%	16.60
732	United States Post Office, Per KSF	108.19	10%	10.82
733	Government Office Complex, Per KSF	27.92	30%	8.38
750	Office Park, Per KSF	11.42	30%	3.43
760	Research and Development Center, Per KSF	8.11	30%	2.43
770	Business Park, Per KSF	12.76	30%	3.83
Retail				
812	Building Materials & Lumber Store, Per KSF	45.16	30%	13.55
813	Free-Standing Discount Superstore, Per KSF	49.21	30%	14.76
814	Specialty Retail Center, Per KSF	44.32	30%	13.30
815	Free-Standing Discount Store, Per KSF	56.02	30%	16.81
816	Hardware/Paint Store, Per KSF	51.29	30%	15.39
817	Nursery (Garden Center), Per KSF	36.08	30%	10.82
818	Nursery (Wholesale), Per Acre	19.50	30%	5.85
820	Shopping Center, Per KSF	42.94	30%	12.88
823	Factory Outlet Center, Per KSF	26.59	30%	7.98
841	New Car Sales, Per KSF	33.34	30%	10.00
843	Automobile Parts Sales, Per KSF	61.91	30%	18.57
848	Tire Store, Per KSF	24.87	30%	7.46
849	Tire Superstore, Per KSF	20.36	30%	6.11
850	Supermarket, Per KSF	102.24	10%	10.22
851	Convenience Market (Open 24 Hours), Per KSF	737.99	5%	36.90
853	Convenience Market with Gasoline Pumps, Per KSF	845.60	5%	42.28
854	Discount Supermarket, Per KSF	96.82	30%	29.05
860	Wholesale Market, Per KSF	6.73	30%	2.02

ITE Code	Land Use	ITE Trip Rate	Local Factor	ELNDT Rate
861	Discount Club, Per KSF	41.80	30%	12.54
862	Home Improvements Superstore, Per KSF	29.80	30%	8.94
863	Electronics Superstore, Per KSF	45.04	30%	13.51
869	Discount Home Furnishing Superstore, Per KSF	47.81	30%	14.34
870	Apparel Store, Per KSF	66.40	30%	19.92
879	Arts and Craft Store, Per KSF	56.55	30%	16.97
880	Pharmacy/Drugstore without Drive-Through Window, Per KSF	90.06	30%	27.02
881	Pharmacy/Drugstore with Drive-Through Window, Per KSF	88.16	30%	26.45
890	Furniture Store, Per KSF	5.06	30%	1.52
Service				
911	Walk-In Bank, Per KSF	156.48	10%	15.65
912	Drive-In Bank, Per KSF	246.49	5%	12.32
931	Quality Restaurant, Per KSF	89.95	30%	26.99
932	High-Turnover (sit-Down) Restaurant, Per KSF	127.15	10%	12.72
933	Fast Food Restaurant without Drive-Through Window, Per KSF	716	5%	35.80
934	Fast Food Restaurant with Drive-Through Window, Per KSF	496.12	5%	24.81
935	Fast Food Restaurant with Drive-Through Window and No Indoor Seating, Per KSF	1400	5%	70.00
941	Quick Lubrication Vehicle Shop, Per Bay	40	30%	12.00
944	Gasoline/Service Station, Per Fueling Positions	168.56	10%	16.86
945	Gasoline/Service Station with Convenience Market, Per Fueling Positions	162.78	10%	16.28
946	Gasoline/Service Station with Convenience Market and Car Wash, Per Fueling Positions	152.84	10%	15.28
947	Self-Service Car Wash, Per Wash Stall	108.00	10%	10.80

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City of Harrisburg

PARKS AND RECREATION SDC UPDATE

February 2012

P-I. OVERVIEW

In 2003 the City of Harrisburg contracted with Resource Assistance for Rural Environment (RARE) from the University of Oregon to prepare a Parks Master Plan. The Plan was published in August, 2004, and quantified the needed level of service and priorities to generally comply with the recommendations of the National Recreation and Park Association (NRPA). Specific capital improvement projects were identified based on a level of service of seven acres of park facilities per 1,000 population.

In 2006, the City staff prepared an updated Capital Improvement Plan as support for Resolution 871 adopting Parks & Recreation SDC charges. The 2006 CIP had a total cost of $3,673,400 and was allocated over 2,832 EDU, which was identified as buildout of the UGB.

In June, 2010, the City again updated the CIP and identified ten projects to be completed over the next seven years to comply with the requirements of the Master Plan with the notable addition of a library building, Community Center and swimming pool facility at the High School.

With the exception of the library, Community Center and swimming pool, preparing the system development charge to fund identified Parks and Recreation improvements is very straight forward. Improvements listed in the 2004 Master Plan and subsequently listed here in the Capital Improvement Plan can be quantified per 1,000 population. In that the SDC is based on population, the cost per person is easily established, and the number of people per Equivalent Dwelling Unit (EDU) is similarly easily defined from census data.

The library, Community Center and swimming pool are difficult to incorporate into the Parks & Recreation SDC. There have been efforts in the state legislature to add several municipal services including schools, libraries, police, and fire and rescue facilities to the list of public infrastructure categories eligible for SDC funding. However, these have all failed to be passed into law. The library is specifically excluded in the statute. The swimming pool at the High School would appear to be specifically excluded with the failure of the legislature to approve SDCs for schools. Stand alone, the pool would be more defensible.

Additionally, the statute specifically excludes funding construction of office facilities that are more than an incidental part of the eligible capital improvement. The Community Center is difficult to defend as a primary Parks and Recreation facility or as an incidental component of the Parks and Recreational facilities. Although this improvement was discussed in the 2004 Master Plan, it was not identified in the Capital Improvement Plans.

Each of these facilities would be difficult to defend under the definition of Qualified Public Improvements per ORS 223.299, and equally difficult to defend as an incidental component of Parks and Recreation facilities. As a result, these facilities are not included in the SDC eligible Capital Improvement Plan and are recommended to be funded through alternative means.

P-II. CREDITS FOR ELIGIBLE CONSTRUCTION

As discussed previously, credits must be available for eligible public works construction that met the requirements of the statute. Credits must be issued for 100% of eligible off-site improvements, and for the oversize component only of on-site improvements. For Parks and Recreation each improvement will have regional significance and likely of greater scope than any one development, so it is unlikely that a capital improvement would be constructed as a component of private development subject to oversize credits only.

The amount of any credit should be based on actual costs, but also generally follow the values listed in the CIP tables. Land dedication should be appraised to establish a defensible value for a credit. If the City elects to have park improvements constructed by private development, the City should be integrally involved in the selection of materials and purchase of equipment and pre-approve all expenditures.

The benefit of completing Parks & Recreation capital improvements through a credit for private development is that construction work is not required to comply with public bid or prevailing wage laws. As a result, the work can be completed at lower costs.

P-III. PARKS & RECREATION CAPITAL IMPROVEMENT PLAN

The 2004 Parks Master Plan identified typical capital improvements for Parks and Recreation based on population, but did not define a concise listing of projects or total cost. In 2006, the current SDC structure was approved by the City in Resolution Number 871, which quantified the needed park improvements through buildout of the UGB, although again the detail is not contained in the resolution document.

In 2010, the City of Harrisburg prepared a Capital Improvement Plan that was specific to each park site and type of improvement. This listing is important and it identifies improvements where desired. However, it is difficult to quantify the benefitted population and scope of work for each task. Additionally, some of the CIP entries are maintenance related or are projects that may not be eligible for SDC funding as discussed above.

To generate a rational allocation of costs, the following CIP tables list the unit price for improvements identified in the 2004 Master Plan (ENR 7,115), with costs adjusted to March, 2011(ENR 9,010), and in a second table, specific park & recreation projects which are derived from the June, 2010, CIP (ENR 8,805). The cost per EDU is established by the unit price improvements table, whereas the eligible projects are listed in the second CIP table.

CITY OF HARRISBURG

PARKS AND RECREATION SYSTEM UNIT PRICE ESTIMATES

FEBRUARY 2012

NO	PROJECT DESCRIPTION	ESTIMATED 2011 COST	BENEFITTED POPULATION	COST PER PERSON
1	Land Acquisition, 7 acres per 1,000	$420,000	1,000	**$420**
2	Site Development & Equipment	$25,000	1,000	**25**
3	Picnic Facilities & Park Amenities	$10,000	1,000	**10**
4	Parking Facilities	$50,000	1,000	**50**
5	Riverfront Improvements	$80,000	1,000	**80**
6	Walking & Bike Paths	$50,000	1,000	**50**
			Total Cost Per Person	**$ 635**

The 2007 Urbanization Study, completed by ECONorthwest, identified 153.8 acres of available residential land, and projected an average of 5.3 housing units per gross acre, within the Harrisburg Urban Growth Boundary. This was projected to add 2,307 people to the existing 2007 population of 3,449. Thus, build-out population is estimated at 5,756 people. As a result, collection of all SDCs from future growth would generate approximately $1.4 million in 2011 dollars for new park improvements based on the schedule above.

Specific improvements identified by City staff to support buildout of the UGB are shown in the following table, which provides the Capital Improvement Plan as required by ORS 223.309:

CITY OF HARRISBURG

PARKS AND RECREATION SYSTEM
CAPITAL IMPROVEMENT PLAN

February 2012

NO	PROJECT DESCRIPTION	PRIORITY	ELIGIBLE COST
2	Museum Internal Parking Lot Improvements	1-5 yrs	$55,200
3	Land Acquisition (Three Additional Sites)	1-5 yrs	$1,000,000
4	Museum Parking Lot (Phase II)	1-5 yrs	$102,300
5	Library Improvements	6-10 yrs	$0
6	Improvements at New Park Sites	6-10 yrs	$474,000
7	Develop North End of Boat Landing, With Parking	6-10 yrs	$296,000
8	Community Center	6-10 yrs	$0
9	Bike Path Along River Front	11-20 yrs	$446,700
10	Swimming Pool	11-20 yrs	$0
System Planning			
	Planning & SDC Update	1-20 yrs	$25,000
		TOTAL CIP COSTS	**$2,394,200**

P-IV. SDC IMPROVEMENT FEE CALCULATIONS

The Parks and Recreation SDC is based on population only. This approach does not incorporate the collection of any SDCs from institutional, commercial or industrial development as it is difficult to define the nexus between non-residential land use and park facilities.

The 2000 census documented the average residential household population for the City of Harrisburg to be 2.83 people per unit, which will be used for defining an EDU in this SDC update. If a substantial change is identified in the 2010 Census data, this SDC allocation should be updated accordingly.

Using a methodology based on residential population, with the cost per person as identified in the CIP table above, and the average population per household from the Census Bureau estimates, the Parks and Recreation SDC Improvement Fee per EDU is calculated as follows:

SDC Improvement Fee = (CIP Cost per person) * (people per EDU)

SDC Improvement Fee = ($635 per person) * (2.83 people per EDU)

SDC Improvement Fee = $1,800 per EDU

P-V. SDC REIMBURSEMENT FEE SUMMARY

This SDC Update concludes that with school facilities, the existing park facilities provide an adequate level of service, with no deficiency or surplus of capacity, and thus no reimbursement fee is included for Parks & Recreation.

P-VI. PARKS AND RECREATION SDC FEE SUMMARY

All Parks & Recreation SDCs are charged based on average population per residential dwelling unit. No Parks & Recreation SDC is allocated to commercial / industrial development. Additionally, a 4% administration fee is incorporated into each SDC charge as shown.

CITY OF HARRISBURG
PARKS AND RECREATION SYSTEM SDC FEES
February 2012

TYPE OF UNIT	POPULATION PER UNIT	IMPROVEMENT FEE PER PERSON	REIMBURSEMENT FEE PER PERSON	ADMINISTRATION FEE (4%)	TOTAL SDC
Single Family	2.83	$635	$0	$ 72	**$1,800**
Multi-Family	2.69	$635	$0	$ 68	**$1,700**