USA

AGENDA
UNIFIED SEWERAGE AGENCY
BOARD OF DIRECTORS

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Agenda Title ADOPT RESOLUTION AND ORDER AND STORM AND SURFACE WATER MANAGEMENT SYSTEM DEVELOPMENT CHARGE METHODOLOGY

To be Presented By Bill Gaffi, General Manager (tb) 4/26/00

SUMMARY (Attach Supporting Documents If Necessary)

The proposed System Development Charge (SDC) methodology for the Unified Sewerage Agency's (Agency) Storm and Surface Water Management (SWM) utility updates the existing SWM SDC methodology adopted in 1991. The Agency's SWM SDC is a one-time fee imposed on new development intended to promote equity between new and existing users of SWM public facilities by recovering a proportionate share of planned capital facilities which will serve developing property within the Agency's service area.

The proposed methodology results in an improvement-based SWM SDC, which is calculated using the Agency's adopted Fiscal Year (FY) 2000-04 Capital Improvements Program (CIP). The proposed methodology is in conformance with SDC statutory requirements, under ORS 223.297 to 223.314, addressing such matters as authorized expenditures for SDC revenues, accounting for such revenues and expenditures, and exemption credits. Additionally, the Agency has complied with the public notification provisions as specified under ORS 223.304(5). Copies of the Agency's SWM SDC Analysis (attached to the Resolution & Order as Exhibit A) have been made available in advance of this public hearing.

Currently, the SWM SDC assessed by the Agency is $500 per Equivalent Service Unit (ESU). The proposed methodology allows a maximum SWM SDC of $545 per ESU. However, at this time, the Agency is not proposing an increase to the SWM SDC rate, and is not planning to propose an increase for the upcoming 2000-01 FY. This action by the Agency's Board of Directors (Board) would merely amend the methodology used to calculate the SWM SDC rate, and provide a basis for future rate adjustments.

CONTINUED

FISCAL IMPACT: Total Agency SWM SDC revenues for FY 99-00 and FY 00-01 are estimated at $690,000 and $700,000 respectively. It is anticipated the member cities in total will receive a similar amount under the current Member City Agreements. SWM SDC revenue growth is generally less than projected system ESU growth as a result of SDC credits being provided to qualifying projects.

REQUESTED ACTION: Adopt the Resolution and Order and Storm and Surface Water Management System Development Charge Methodology.

USA RO 00-31

Agenda Item No. 4.b.
Date: 5/9/00

Under the proposed methodology, the Agency will retain the flexibility to propose future SWM SDC rate adjustments based on each year's annual adopted CIP. Each time this analysis is undertaken, a new maximum SWM SDC will be calculated. Future SWM SDC rate recommendations will be brought to the Board during the annual Rates and Charges adoption process, or as otherwise needed.

The Agency contracted with the consulting team of Donovan Enterprises and Shaun Pigott Associates (Consultant Team) to prepare the analysis, provided in Exhibit A to the attached Resolution and Order, for the proposed SWM SDC methodology. The recommendation of the Consultant Team is that the Agency maintain its improvement-based SWM SDC, and not include a reimbursement component. The Consultant Team analysis concluded there was insufficient data available to calculate a reimbursement fee

The basis for the costs included under the improvement portion of the proposed SWM SDC methodology entailed an analysis of all SWM CIP projects intended to expand surface water storage/conveyance capacity or increase the level of performance of those facilities. To allocate total improvement-based SDC eligible costs to a rate per ESU, the analysis included a projection of future system growth using a 2.4 percent annual growth factor. This growth rate was derived from the ***1998 Rock Creek Advanced Wastewater Treatment Plant Facilities Plan*** (the Plan). The Plan contains data relative to growth rates for the Durham and Rock Creek service areas. These two wastewater treatment service areas represent the preponderance of the flow and population served within the overall Agency service area.

Finally, ORS 223.304(3) mandates that if the Agency employs a methodology for an improvement-based SDC it must also provide for a credit against the fee for the construction of qualified public improvements. The intent behind this credit is to recognize that those qualified public improvements constructed by new development which exceed the requirement for a particular site are recognized through a credit against the improvement-based SDC. The Agency has developed a system of credits that recognizes both water quality and quantity benefits of qualified SWM improvements. The proposed methodology calculates that a maximum water quality credit amounts to 45 percent of the improvement fee, while the corresponding water quantity credit amounts to 55 percent of the SDC. As with other aspects of the proposed SWM SDC methodology, the Agency will retain the flexibility to review the water quality and quantity credit amounts based on each year's adopted five-year CIP.

IN THE UNIFIED SEWERAGE AGENCY

OF WASHINGTON COUNTY

In the Matter of Adopting a Methodology for the Storm and Surface Water Management System Development Charges; Providing a Process for Allowing Credits for Construction of Certain Public Facilities, and Establishing Provisions for Administration and Payment of the Charges; Pursuant to Ordinance No. 28, and Declaring an Effective date.	RESOLUTION AND ORDER No. USA 00-31

The above-entitled matter came before the Board of Directors (Board) for the Unified Sewerage Agency of Washington County, Oregon (Agency) at its regular meeting of May 9, 2000; and

It appearing that this Board did, on April 19, 1994, adopt Agency Ordinance No. 28 pertaining to the establishment and administration of System Development Charges (SDCs) for the Storm and Surface Water Management (SWM) System; that Sections 6 and 7 of Ordinance No. 28 provide authority to establish and revise System Development Charges and the methodology therefore by Resolution and Order, subject to a public hearing; and

It appearing that the current SWM SDCs are contained in Resolution and Order No. 91-46 (R&O 91-46), which is in need of amendment to meet the requirements of ORS 223.297-223.314 (1999 Edition) and the needs of the Agency to fund SWM System improvements necessary to accommodate and mitigate the impacts of planned growth within the Agency; and

It appearing that the Board is in receipt of the report of Donovan Enterprises and Shaun Pigott Associates, dated March 20, 2000, entitled SWM System Development Charge Analysis; and that such report contains a methodology for estimating the costs of projected improvements to the Agency SWM System conforming to the requirements of state statute and Ordinance No. 28; and that this report identifies a maximum cost basis for an improvement fee of approximately $545 per Equivalent Service Units (ESU) for quantity and quality related facilities. A copy of the report is attached hereto as Exhibit A and incorporated herein as though fully set forth; and

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Hillsboro, Oregon 97124

It appearing that the Board has this day conducted a public hearing regarding the adoption of this Resolution pursuant to Ordinance No. 28, that any person affected by the proposed charge and methodology had an opportunity to testify, that public notice of such hearing was given by publication; and the Board being fully advised it is, therefore

RESOLVED AND ORDERED that the report of Donovan Enterprises and Shaun Pigott Associates dated March 20, 2000 be adopted and is by this reference incorporated herein as the methodology for the SWM SDC of the Agency; and it is further

RESOLVED AND ORDERED that the SWM SDC is hereby established as an improvement fee, provided however that the Board may establish a reimbursement fee in the future upon receipt of additional information and in accordance with Ordinance No. 28; and it is further

RESOLVED AND ORDERED that credits against SDCs shall be allowed pursuant to Ordinance No. 28, as amended by Ordinance No. 31, and consistent with the adopted Construction Standards of the Agency for the following Qualified Public Facilities:

A. Enlargement of the public conveyance system downstream from the development and off the site of the development, in conformance with the applicable standards of the Agency; or

B. Construction or enlargement of a public detention, retention, or disposal system located either on-site or downstream from the development and off the site of the development; and meeting or exceeding the applicable Agency standards for on-site facilities.

C. Not including the cost of on-site conveyance, detention, retention or disposal facilities solely to provide service to the development. Such water quantity and quality related facilities are to be constructed consistent with applicable Agency regulations and standards, and the adopted Master Plan and Plan of Capital Improvements for the Agency SWM System and any amendments thereto; and it is further

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RESOLVED AND ORDERED that R&O 91-46 is hereby superseded provided, however, that any charges incurred under R&O 91-46 shall remain valid and subject to collection; and it is further

RESOLVED AND ORDERED funds obtained from SWM SDCs shall be expended only as allowed by Ordinance No. 28; and it is further

RESOLVED AND ORDERED that this Resolution and Order shall take effect on July 10, 2000, and the General Manager shall make available this Resolution and Order and copies of the adopted methodology in the Office of the Unified Sewerage Agency.

DATED this 9th day of May, 2000.

UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON
By its Board of Directors

	AYE	NAY	ABSENT
BRIAN	✓		
JONES	✓		
ROGERS	✓		
DUYCK	✓		

Tom Brian
Chairman

Barbara Hejtmanek
Recording Secretary

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EXHIBIT A

Unified Sewerage Agency of Washington County

SWM System Development Charge Analysis

March, 2000

Prepared by
Donovan Enterprises
Shaun Pigott Associates

UNIFIED SEWERAGE AGENCY OF WASHINGTON COUNTY
SYSTEM DEVELOPMENT CHARGE
SURFACE WATER MANAGEMENT

EXECUTIVE SUMMARY

Donovan Enterprises and Shaun Pigott Associates have prepared this summary analysis describing a recommended methodology for the Unified Sewerage Agency's Surface Water Management (SWM) system development charge (SDC). This has been done in conjunction with the fiscal 2000-2004 capital improvement planning (CIP) process at the Agency. Oregon Revised Statute (ORS) 223 establishes the framework for SDCs, a framework which has been followed in formulating the Agency's structure for this calculation. Under statute, SDC's are a one-time fee imposed on new development within the Agency and have two (2) specific components: reimbursement and improvement. The analysis has calculated the following value for these two SDC elements:

SDC Element	Current SDC	Proposed SDC
Reimbursement	N/A	0
Improvement	500	545
Total SDC for the Agency	$500	$545

From the analysis of funding sources for existing facilities and the assessment of available storm and surface water conveyance/storage capacity, it is concluded that there is insufficient data currently available to calculate a reimbursement fee. Although the Agency has made investments in infrastructure to provide service, many of these investments have been for planning, repair, and replacement of infrastructure to address existing deficiencies in the system.

The improvement portion of the SDC is based on the cost of facilities which either expand the surface water management system's capacity to accommodate growth or increase its level of performance. In developing this improvement portion of the fee, each project in the Agency's adopted five year capital improvement plan has been evaluated to ensure that costs related to correcting existing system deficiencies or upgrading for historic lack of capacity have been excluded. Therefore, only capacity increasing/level of performance costs provide the basis for the SDC calculation as reflected in the attached capital improvement schedule. Planning data from the ***Rock Creek Advanced Wastewater Treatment Plant Facilities Plan*** (Authored by CH2M Hill; and dated November, 1998) forms the basis for the future demand analysis projections. The improvement SDC is calculated as a function of the estimated number of additional equivalent service units (ESUs) to be served by the Agency's surface water management facilities over the planning period. This analysis resulted in a recommended improvement fee of $545 per ESU. The Agency's current surface water management SDC is $500 per ESU. The following graphic summarizes the improvement SDC structure and calculation.

where one equivalent service unit (ESU) equals 2,640 square feet of impervious area. For fiscal 1999-2000 the user fee is set at $4.00 per ESU per month.

The purpose of this SDC analysis is to update the Agency's existing methodology for calculating the SWM SDC that accurately allocates to new development, those facility costs related to their need for additions to the SWM system. SDCs are legal and commonly used funding sources for such activities. The framework for the formulation of the SDC is codified in Oregon Revised Statute (ORS) Chapter 223. The language contained in this chapter is designed to establish the basis for the fee calculation which the Agency must follow in order to comply with the statute. The fundamental objective of the SDC structure is the imposition on new development of only those costs associated with providing or expanding surface water infrastructure to meet the capacity need created by that specific new development. Toward this end, the following objectives have been set for this analysis:

- Develop a basis for the charges and develop a consistent methodology for SDC's;
- Determine the most appropriate and defensible fee which ensures that new development is paying its equitable share of public facility costs;
- Establish policy recommendations which make the charges as fair and equitable as possible; and
- Provide clear and orderly documentation regarding the methodology, assumptions and costs supporting the recommended SDC.

SDC Legal Authority

System Development Charges are authorized by Oregon Revised Statutes (ORS) 223.297-314. The statute is specific in establishing the structure for SDC's, how they can be applied, how these funds can be used and the means of their accounting. SDC's are a one time fee imposed on new development, intended to promote equity between new and existing users of public facilities by recovering a proportionate share of existing and planned capital facilities which serve or will serve developing property within the Agency's service area. ORS 223 further provides that the charge be calculated based on two fee components. These components are:

Reimbursement - designed to recover costs associated with capital improvements already constructed or under construction; and

Improvement - designed to recover costs associated with capital improvements to be constructed.

Under ORS 223, the reimbursement fee considers the cost of existing facilities, prior contributions by existing users of those facilities, the value of the unused/available capacity, and generally accepted ratemaking principles. The objective is to promote a methodology that "future system users contribute no more than an equitable share to the cost of existing facilities". The reimbursement fee can be spent on capital costs or debt service related to the systems for which

costs necessary to expand/improve the system in order to accommodate anticipated future customers. The improvement costs necessary to store, treat, and/or convey future flows became the sole basis for the improvement portion of the SDC. The resulting capital improvement list and the allocation of cost is detailed in the attached schedule.

The total capital cost for new investment in the surface water management system over the five year planning period is budgeted at $15,749,900 in fiscal year 1999-2000 dollars. This figure is then reduced in proportion to the amount of the facility cost attributable to growth versus the amount most equitably recovered through existing customers. Again, only those projects or portions of projects determined to be necessary in order to accommodate growth in the Agency are included in the $8,423,450 to be recovered through SDC's. A sensitivity analysis has been done to estimate what the total future cost of this five-year CIP would be assuming an inflation impact at 3.5% per year. After adjusting for inflation, the total capital cost for the CIP expands up to $17,314,301. The corresponding value of the growth related elements of CIP amounts to $9,272,438. This sensitivity analysis was developed for reference only, and does not represent a methodology recommendation for adoption by the USA Board.

The next step in the process of developing the improvement fee is to determine the total number of ESUs to be served by the future investment in SWM facilities. Based on a May, 1999 query of the USA/TVWD billing system, it has been determined that the Agency has a current inventory of 85,635 billable ESU's. In order to estimate the future ESU's that will be served by the above referenced SWM infrastructure investments, the consultant team used the data contained in chapter two of the ***Rock Creek Advanced Wastewater Treatment Plant Facilities Plan*** (dated November, 1998). Chapter two of that document contains data relative to planning projections and growth rates for the Durham and Rock Creek service areas. These two wastewater treatment service areas represent the preponderance of the flow and population served within the overall USA service area. Table 2-4 in that document contains a growth forecast of dwelling units and population for these basins. According to the data contained in that table, between 1994 and 2000, it is estimated that compounded annualized growth in the combined Durham and Rock Creek treatment basins will amount to 2.4% per year for dwelling units. Applying this annual growth rate to the current billable ESU figure, it is estimated that the Agency will be serving 101,102 ESUs by the end of 2005. Therefore, the growth increment in ESU's from the current base to the end of 2005 would be 15,467 (i.e., 101,102 - 85,635).

The final improvement fee is the result of dividing the growth related element of the CIP by the overall growth in ESU's to establish a fee of $545 per ESU based on the adopted five year budgeted figures.

SURFACE WATER MANAGEMENT
ESTIMATED PROJECT COSTS SUMMARY
ESTIMATED INFLATION RATE

PROJ #	PROJECT NAME	ACTUAL FY-1998	BUDGET FY-1999	REVISED 1999	ADOPTED 2000	PROJECTED 2001	PROJECTED 2002	PROJECTED 2003	PROJECTED 2004	UNINFLATED TOTAL FY 2000-04	INFLATED TOTAL FY 2000-04
					3.50%	3.50%	3.50%	3.50%	3.50%		
	185th WATER QUALITY ENHANCEMENTS	0	-	-	50,000	-	-	-	-	50,000	51,750
	170th Upgrade / SW Management	0	-	-	-	-	250,000	625,000	4,000	879,000	999,132
4814	F-17, Rambler/Bohman Pond Area	35,953	462,700	100,000	550,000	20,000	0	0	0	570,000	590,675
4814	F-17, Rambler/Bohman Pond Area	neighbor share	(20,000)	0	(20,000)	0	0	0	0	(20,000)	(20,700)
4822	F-20, OES Marsh/ Radio Tower	0	100,000	0	100,000	100,000	800,000	0		1,000,000	1,097,597
4822	F-20, OES Marsh/ Radio Tower	Cost Share	0	Portland BES	(25,000)	(25,000)	(350,000)	0		(400,000)	(440,707)
4827	Anderson Storm	3,181	0	0	0	0	0	0	0	0	0
4875	ASH CREEK APT. STORM	0	0	44,950	0	0	0	0	0	0	0
	B-1 Ball Creek - Confluence to I-5	0	0	0	0	0	34,000	0	0	34,000	37,696
	B-1 Ball Creek - Confluence to I-5	0	0	0	0	0	0	0	0	0	0
	Bacteria Assessment	0	-	14,000	16,300	-	-	-	-	16,300	16,871
4892	BANKS STORM RELIEF	0	-	12,815	-	-	-	-	-	0	0
	Beaverton Cr Watershed Early Action Project	0	8,000	8,000	0	0	0	0	0	0	0
	Beaverton Cr. Contaminant Reduction	0	0	0	60,000	10,000	10,000	10,000	10,000	100,000	107,252
4339	BEAVERTON CREEK RESTORATION PROJECT	0	5,000	5,000	5,000	0	0	0	0	5,000	5,175
4823	Beaverton Creek Watershed Mgmt Plan	179,330	165,000	150,000	0	0	0	0	0	0	0
4823	Beaverton Creek Watershed Mgmt Plan	County Share	0	(18,000)	0	0	0	0	0	0	0
	Beaverton/Rock Creeks Flood Study	0	-	-	-	300,000	-	-	-	300,000	321,368
	Beaverton/Rock Creeks Flood Study	0	-	-	-	(200,000)	-	-	-	(200,000)	(214,245)
4723	BLT-2, BETHANY LAKE TRIBUTARY /WQ IMPROVEMENTS	588	80,000	10,000	80,000	0	0	0	0	80,000	82,800
4202	BN-150, BUTTERNUT WATER QUANTITY/QUALITY FACILITY	4,648	4,000	1,075	0	0	0	0	0	0	0
4882	BN-655, BUTTERNUT @ 191st DETENTION	0	100,000	90,000	117,000	0	0	0	0	117,000	121,095
4222	BRONSON WATERSHED PROJECT-GRANTS & CONTRIBUTIONS	0	0	0	0	0	0	0	0	0	0
4222	BRONSON WATERSHED PROJECT-GROSS PROJECT	9,238	30,000	14,000	12,000	16,000	12,000	12,000	16,000	68,000	75,637
4201	BROOKHAVEN WATER QUALITY FACILITY-GROSS PROJECT	238	110,000	125,000	0	0	0	0	0	0	0
4201	BROOKHAVEN WATER QUALITY FACILITY-REIMBURSEMENT	0	0	0	0	0	0	0	0	0	0
4388	BUTTERNUT ENHANCEMENT PROJECT	169,530	572,000	770,000	12,500	0	0	0	0	12,500	12,938
4876	CEDAR HILLS STORM	0	0	10,000	0	0	0	0	0	0	0
	Cedar Mill / N. Johnson Creek Flood Mgmt	0	0	0	227,000	300,000	444,000	20,800	20,800	1,012,600	1,097,156
4421	COOPERATIVE LOCALIZED PROJECTS AND BMPS	6,340	20,000	12,500	35,000	40,000	32,500	25,000	25,000	157,500	173,488
	F12 - Englewood Park Project	0	5,000	0	5,000	10,000	10,000	0	0	25,000	26,974
	F12 - Englewood Park Project	0	0		0	0	0		0	0	0
	F-14, Fanno Creek @ Denny	1,490	60,000	25,000	50,000	151,500	0	0		201,500	214,041
	F-14, Fanno Creek @ Denny	0	0				0	0		0	0
4853	FAIRWAY DRIVE STORM	3,693	96,000	15,000	81,000	0	0	0	0	81,000	83,835
	Fanno Cr. Hydraulic Conveyance Capacity Improv.	0	0	0	0	50,000	50,000	50,000	50,000	200,000	225,758
	Fanno Cr. Hydraulic Conveyance Capacity Improv.	0	0	0	0	0	0	0	0	0	0
4824	Fanno Creek FloodPlain Study	173,952	0	59,000	0	0	0	0	0	0	0
4824	Fanno Creek FloodPlain Study	0	0	(44,250)	city/county share	0	0	0	0	0	0
	Fanno Metals Assessment	0	50,000	0	0	50,000	0	0	0	50,000	53,561
4726	FUTURE SWM FACILITIES PROPERTY ACQUISITION	0	200,000	10,000	200,000	200,000	200,000	200,000	200,000	1,000,000	1,110,030
4795	Hedges Creek	3,012	0	0	0	0	0	0	0	0	0
	Install 2 Decant Facilities	0	-	-	15,000	-	-	-	-	15,000	15,525
	JAMIESON STORM UPGRADE	1,053	600,000	75,000	525,000	0	0	0	0	525,000	543,375
	JAMIESON STORM UPGRADE	city share	(150,000)	0	(150,000)	0	0	0	0	(150,000)	(155,250)
4617	KING CITY / Hwy 99 STORM DIVERSION	696,426	720,000	765,800	0	0	0	0	0	0	0
4870	King City Golf Course	818	0	0	0	0	0	0	0	0	0
	KING RICHARD UPGRADE	0	110,000	25,000	100,000	0	0	0	0	100,000	103,500
4789	Leahy Rd-84th Storm	13,244	0	70,290	0	0	0	0	0	0	0
N/A	MAJOR CONVEYANCE & REGIONAL SWM FACILITIES	0		0			1,400,000	1,400,000	1,400,000	4,200,000	4,821,498
4796	MOONSHADOW - ASH CREEK	(1,579)	0	0	0	0	0	0	0	0	0
	NORTH PLAINS STORM DRAINAGE STUDY	0	5,000	5,000	0	0	0	0	0	0	0
4540	NPDES/TMDL BMPs	29,707	20,000	17,000	200,000	25,000	25,000	25,000	25,000	300,000	319,879
4805	NW Science Park	35,801	0	0	0	0	0	0	0	0	0
4700	PARKVIEW STORM	49,983	0	0	0	0	0	0	0	0	0
	R-1, RC ENHANCEMENT - EVERGREEN TO CORNELL	0	0	0	100,000	0	0	0	0	100,000	103,500
4764	R-3, WEST UNION & 185th DETENTION - ROCK CREEK	23,769	335,000	100,000	100,000	510,000	0	0	0	610,000	649,825
NA	R-6, CORNELIUS PASS ROAD DETENTION	0	0	0	0	30,000	101,000	0	0	131,000	144,117
	Rel/Det Facility Upgrade/Conversion	3,412	200,000	100,000	200,000	200,000	200,000	200,000	200,000	1,000,000	1,110,030
	Rel/Det Facility Upgrade/Conversion	0	0	0	0	0	0	0	0	0	0
4851	RITA DRIVE STORM	432	88,750	14,750	74,000	0	0	0	0	74,000	76,590
4788	ROSA PLACE - 170th STORM	100,819	0	10,000	15,000	0	0	0	0	15,000	15,525
4869	Royalty Parkway Improvements	175,445	0	0	0	0	0	0	0	0	0
	Stormwater Outfall Assessment	0	-	-	50,000	-	-	-	-	50,000	51,750
	Student Watershed Research Project (SWRP)	10,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	55,000	61,052
1826	SUBBASIN STRATEGIES	6,049	100,000	0	250,000	250,000	100,000	0	0	600,000	637,428
4831	Summer Creek Enhancement	3,960	14,124	20,567	0	0	0	3,500	0	3,500	4,016
4831	Summer Creek Enhancement	Grant Reimb	(21,986)	(22,986)	0	0	0	0	0	0	0
4832	Sunset Ave / Banks	2,600	0	27,034	0	0	0	0	0	0	0
4084	SV-1 RALEIGHWOOD WATER QUALITY FACILITY	1,895	315,000	50,000	50,000	215,000	0	0	0	265,000	282,063
4885	SW 103rd Storm	0	0	39,000	0	0	0	0	0	0	0
4782	SWM Basin Temperature Management Plan	18,714	20,000	30,000	50,000	50,000			0	100,000	105,311
4820	SWM Mapping	0	61,250	61,250	120,000	120,000	0	0	0	240,000	252,747
4825	SWM PROGRAM UPDATE	6,360	50,000	170,000	0	0	0	0	0	0	0
	SWM SMALL WORKS	0	150,000	129,290	150,000	150,000	150,000	150,000	150,000	750,000	832,523
	SWM SMALL WORKS-reimbursements	0	0	(129,290)	0	0	0	0	0	0	0
4539	TECHNICAL SWM WORKSHOPS	5,427	4,000	3,000	4,000	4,000	4,000	4,000	4,000	20,000	22,201
4230	TMDL Compliance	23,111	0	0	0	0	0	0	0	0	0
	Upper Beaverton Cr. Detention	0	0	0	0	60,000	270,000	3,000	3,000	336,000	370,633
	URCC-1, WEST UNION @ DEERFIELD CULVERT REPLACEMENT	0	0	0		138,000	0	0	0	138,000	147,829
	W-1, WILLOW CREEK ENHANCE. - Hwy 26 to CORNELL	0	48,000	0	10,000	0	0	0	0	10,000	10,350
	W-7, WILLOW CR @ BRONSON BLVD., outfall WQF	0	63,000	10,000	53,000	0	0	0	0	53,000	54,855
4362	WTC-3, WILLOW CREEK @ 143rd CULVERTS	0	105,000	0	0	105,000	0	0	0	105,000	112,479
	SW 183rd AVENUE/ROSA ROAD STORM	0	0	0	130,000	0	0	0	0	130,000	134,550
	PRIVATE FACILITY INSPECTION & REPORT	0	0	0	150,000	0	0	0	0	150,000	155,250
	SOLV STREAM RESTORATION PROJECT	0	0	0	25,000	0	0	0	0	25,000	25,875
	SWM Capital Replacement	0	0	0	460,000	0	0	0	0	460,000	476,100
	TOTAL SWM PROJECTS	1,798,639	4,895,838	2,995,795	4,247,800	2,890,500	3,753,500	2,739,300	2,118,800	15,749,900	17,314,301

Projected Dwelling Units and Population for Durham and Rock Creek Service Areas
Per Table 2-4 Rock Creek AWTP Facility Plant

	Durham		Rock Creek		Total			
Year	Dwelling Units	Population	Dwelling Units	Population	Dwelling Units	Compounded Annual Growth Rate (base yr-94)	Population	Compounded Annual Growth Rate (base yr-94)
1994	59,605	160,340	54,671	147,065	114,276		307,405	
2000	66,498	175,055	65,256	170,971	131,754	2.400%	346,026	1.992%
2005	68,884	177,378	76,976	197,828	145,860	2.243%	375,206	1.828%
2010	76,848	193,463	91,009	228,433	167,857	2.432%	421,896	1.998%
2015	86,216	212,091	103,186	253,838	189,402	2.435%	465,929	2.000%
2020	95,075	233,885	115,363	283,793	210,438	2.376%	517,678	2.025%

Forecast of EDU's based on Compounded Annualized Growth Rates Over Various Time Frames

	Dwelling Units			Population		
Year	2.400% 1994...2000	2.243% 1994...2005	2.432% 1994...2010	1.992% 1994...2000	1.828% 1994...2005	1.998% 1994...2010
1998	85,635	85,635	85,635	85,635	85,635	85,635
1999	87,691	87,556	87,718	87,341	87,201	87,346
2000	89,795	89,520	89,851	89,081	88,795	89,092
2001	91,951	91,528	92,037	90,855	90,419	90,872
2002	94,158	93,581	94,275	92,665	92,072	92,688
2003	96,418	95,681	96,568	94,511	93,755	94,541
2004	98,732	97,827	98,917	96,394	95,470	96,430
2005	101,102	100,022	101,323	98,314	97,215	98,357

Uninflated Total Cost @ 2010
$14,984,900
Inflated Total Cost @ 2010
$16,522,526

Potential Range of SDC's

	Dwelling Units			Population		
Year	2.400% 1994...2000	2.243% 1994...2005	2.432% 1994...2010	1.992% 1994...2000	1.828% 1994...2005	1.998% 1994...2010
Uninflated						
SDC based on CAGR 1994 ... 2000:						
Assuming ESUs @ 2004	1,144			1,393		
Assuming ESUs @ 2005	969			1,182		
SDC based on CAGR 1994 ... 2005:						
Assuming ESUs @ 2004		1,229			1,524	
Assuming ESUs @ 2005		1,042			1,294	
SDC based on CAGR 1994 ... 2010:						
Assuming ESUs @ 2004			1,128			1,388
Assuming ESUs @ 2005			955			1,178
Inflated						
SDC based on CAGR 1994 ... 2000:						
Assuming ESUs @ 2004	1,262			1,536		
Assuming ESUs @ 2005	1,068			1,303		
SDC based on CAGR 1994 ... 2005:						
Assuming ESUs @ 2004		1,355			1,680	
Assuming ESUs @ 2005		1,148			1,427	
SDC based on CAGR 1994 ... 2010:						
Assuming ESUs @ 2004			1,244			1,531
Assuming ESUs @ 2005			1,053			1,299

Unified Sewerage Agency of Washington County
2000 Stormwater SDC Update
Basis for Allocation SWM Credits to Quality & Quantity

PROJ #	PROJECT NAME	Total Cost (Uninflated)	Total Cost Allocated to SDCs	Subsidiary Allocation to			
				Quality		Quantity	
				%	$	%	$
	185th WATER QUALITY ENHANCEMENTS	50,000	50,000	60%	30,000	40%	20,000
	170th Upgrade / SW Management	879,000	175,800	75%	131,850	25%	43,950
4814	F-17, Rambler/Bohman Pond Area	570,000	570,000	50%	285,000	50%	285,000
4814	F-17, Rambler/Bohman Pond Area	(20,000)	(20,000)	50%	(10,000)	50%	(10,000)
4822	F-20, OES Marsh/ Radio Tower	1,000,000	1,000,000	50%	500,000	50%	500,000
4822	F-20, OES Marsh/ Radio Tower	(400,000)	(400,000)	50%	(200,000)	50%	(200,000)
4827	Anderson Storm	0	-				
4875	ASH CREEK APT. STORM	0	-				
0	B-1 Ball Creek - Confluence to I-5	34,000	34,000	100%	34,000	0%	-
0	B-1 Ball Creek - Confluence to I-5	0	-				
	Bacteria Assessment	16,300	-				
4892	BANKS STORM RELIEF	0	-				
0	Beaverton Cr Watershed Early Action Project	0	-				
	Beaverton Cr. Contaminant Reduction	100,000	50,000	100%	50,000	0%	-
4339	BEAVERTON CREEK RESTORATION PROJECT	5,000	5,000	100%	5,000	0%	-
4823	Beaverton Creek Watershed Mgmt Plan	0	-				
4823	Beaverton Creek Watershed Mgmt Plan	0	-				
	Beaverton/Rock Creeks Flood Study	300,000	300,000	0%	-	100%	300,000
	Beaverton/Rock Creeks Flood Study	(200,000)	(200,000)	0%	-	100%	(200,000)
4723	BLT-2, BETHANY LAKE TRIBUTARY /WQ IMPROVEMENTS	80,000	80,000	25%	20,000	75%	60,000
4202	BN-150, BUTTERNUT WATER QUANTITY/QUALITY FACILITY	0	-				
4882	BN-655, BUTTERNUT @ 191st DETENTION	117,000	58,500	0%	-	100%	58,500
4222	BRONSON WATERSHED PROJECT-GRANTS & CONTRIBUTIONS	0	-				
4222	BRONSON WATERSHED PROJECT-GROSS PROJECT	88,000	-				
4201	BROOKHAVEN WATER QUALITY FACILITY-GROSS PROJECT	0	-				
4201	BROOKHAVEN WATER QUALITY FACILITY-REIMBURSEMENT	0	-				
4388	BUTTERNUT ENHANCEMENT PROJECT	12,500	12,500	25%	3,125	75%	9,375
4876	CEDAR HILLS STORM	0	-				
	Cedar Mill / N. Johnson Creek Flood Mgmt	1,012,600	253,150	0%	-	100%	253,150
4421	COOPERATIVE LOCALIZED PROJECTS AND BMPS	157,500	-				
0	F12 - Englewood Park Project	25,000	25,000	100%	25,000	0%	-
0	F12 - Englewood Park Project	0	-				
0	F-14, Fanno Creek @ Denny	201,500	201,500	50%	100,750	50%	100,750
0	F-14, Fanno Creek @ Denny	0	-				
4853	FAIRWAY DRIVE STORM	81,000	-				
0	Fanno Cr. Hydraulic Conveyance Capacity Improv.	200,000	50,000	0%	-	100%	50,000
0	Fanno Cr. Hydraulic Conveyance Capacity Improv.	0	-				
4824	Fanno Creek FloodPlain Study	0	-				
4824	Fanno Creek FloodPlain Study	0	-				
0	Fanno Metals Assessment	50,000	-				
4726	FUTURE SWM FACILITIES PROPERTY ACQUISITION	1,000,000	1,000,000	50%	500,000	50%	500,000
4795	Hedges Creek	0	-				
	Install 2 Decant Facilities	15,000	-				
0	JAMIESON STORM UPGRADE	525,000	131,250	0%	-	100%	131,250
0	JAMIESON STORM UPGRADE	(150,000)	(37,500)	0%	-	100%	(37,500)
4617	KING CITY / Hwy 99 STORM DIVERSION	0	-				
4870	King City Golf Course	0	-				
	KING RICHARD UPGRADE	100,000	25,000	0%	-	100%	25,000
4789	Leahy Rd-84th Storm	0	-				
N/A	MAJOR CONVEYANCE & REGIONAL SWM FACILITIES	4,200,000	2,100,000	50%	1,050,000	50%	1,050,000
4796	MOONSHADOW - ASH CREEK	0	-				
0	NORTH PLAINS STORM DRAINAGE STUDY	0	-				
4540	NPDES/TMDL BMPs	300,000	-				
4805	NW Science Park	0	-				
4700	PARKVIEW STORM	0	-				
	R-1, RC ENHANCEMENT - EVERGREEN TO CORNELL	100,000	100,000	100%	100,000	0%	-
4764	R-3, WEST UNION & 185th DETENTION - ROCK CREEK	610,000	457,500	25%	114,375	75%	343,125
NA	R-6, CORNELIUS PASS ROAD DETENTION	131,000	131,000	25%	32,750	75%	98,250
0	Ret/Det Facility Upgrade/Conversion	1,000,000	1,000,000	50%	500,000	50%	500,000
0	Ret/Det Facility Upgrade/Conversion	0	-				
4851	RITA DRIVE STORM	74,000	-				
4788	ROSA PLACE - 170th STORM	15,000	-				
4869	Royalty Parkway Improvements	0	-				
	Stormwater Outfall Assessment	50,000	50,000	100%	50,000	0%	-
0	Student Watershed Research Project (SWRP)	55,000	-				
1826	SUBBASIN STRATEGIES	600,000	300,000	50%	150,000	50%	150,000
4831	Summer Creek Enhancement	3,500	3,500	100%	3,500	0%	-
4831	Summer Creek Enhancement	0	-				
4832	Sunset Ave / Banks	0	-				
4084	SV-1 RALEIGHWOOD WATER QUALITY FACILITY	265,000	265,000	50%	132,500	50%	132,500
4885	SW 103rd Storm	0	-				
4782	SWM Basin Temperature Management Plan	100,000	-				
4820	SWM Mapping	240,000	-				
4825	SWM PROGRAM UPDATE	0	-				
	SWM SMALL WORKS	750,000	375,000	20%	75,000	80%	300,000
0	SWM SMALL WORKS-reimbursements	0	-				
4539	TECHNICAL SWM WORKSHOPS	20,000	20,000	1%	200	99%	19,800
4230	TMDL Compliance	0	-				
	Upper Beaverton Cr. Detention	336,000	168,000	25%	42,000	75%	126,000
	URCC-1, WEST UNION @ DEERFIELD CULVERT REPLACEMENT	138,000	-				
	W-1, WILLOW CREEK ENHANCE. - Hwy 26 to CORNELL	10,000	10,000	100%	10,000	0%	-
	W-7, WILLOW CR @ BRONSON BLVD., outfall WQF	53,000	53,000	100%	53,000	0%	-
4362	WTC-3, WILLOW CREEK @ 143rd CULVERTS	105,000	26,250	0%	-	100%	26,250
0	SW 183rd AVENUE/ROSA ROAD STORM	130,000	-				
0	PRIVATE FACILITY INSPECTION & REPORT	150,000	-				
0	SOLV STREAM RESTORATION PROJECT	25,000	-				
0	SWM Capital Replacement	460,000	-				
	TOTAL SWM PROJECTS	15,749,900	8,423,450		3,788,050		4,635,400
	CUMULATIVE BASIS FOR ALLOCATING SWM CREDITS TO QUALITY & QUANTITY			45%		55%	