

**CAPITAL CHARGES STUDY
PURSUANT TO ACT 57 OF 2003**

**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT
AND COLLECTION SYSTEM
CENTRE COUNTY**

JUNE 2005

HRG PROJECT NO. 1178.202

HRG

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**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM**

CAPITAL CHARGES STUDY

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**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM**

**SUMMARY OF CAPITAL CHARGES FEES
APRIL 2005**

Act 57 of 2003 provides for the imposition of three separate fees that are designed to allow Municipal Authorities and Municipalities to recover certain, specific costs and equity in the system. With the exception of assessments, these are the only initial charges that are allowed. However, an Authority may also require financial security including the funding of an escrow account in order to insure payment of review and inspection fees. Sewer rents and other charges that recover operating, maintenance, and debt service costs are largely unaffected by Act 57 except that certain conditions are applied to the collection and amount of reservation of capacity fees.

The University Area Joint Authority (UAJA) wastewater treatment and collection system was originally constructed in 1970. At that time, the original facilities were owned by the College-Harris Joint Authority (CHJA) and the Patton-Ferguson Joint Authority (PFJA). The system consists of the treatment plant, pumping stations, and the associated collection piping. The capacity of the UAJA system is 6,750,000 gallons per day.

The three fees authorized are:

	Schedule Reference	Maximum Amount of Charge per EDU
1 Connection Fee	A	Actual Cost
2 Customer Facilities Fee	B	Actual Cost
3 Tapping Fee		
a) Capacity Part	C	\$ 3,640.95
b) Collection Part	D	\$ 995.98
c) Special Purpose Part *	E	As Applicable
d) Reimbursement Component *	F	As Applicable
Total Residential Tapping Fee		\$ 4,636.93

*APPLIES ONLY TO CERTAIN SPECIFIC NEW CONNECTIONS.

This Residential Tapping Fee is the maximum that can be charged. The Authority may establish a lower fee based on a lower gallon per day requirement for residential users.

The Non-Residential Tapping Fee per gallon per day required is as follows.

Capacity Part	\$ 15.50
Collection Part	\$ 4.24
Total	\$ 19.74

The Special Purpose Part and Reimbursement Component will be applied as is applicable.

THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM
SCHEDULE A
CALCULATION OF CONNECTION FEE

The connection fee covers the cost of the facilities installed between the sewer main and the property line of the property being connected. Construction of these facilities is the responsibility of the property owner with the prior approval of the Authority. All costs associated with the installation of these facilities are to be paid by the property owner. If the Authority incurs costs associated with the installation of these facilities, the fee will be calculated using an actual cost method as illustrated below. The illustration provides examples of costs the Authority might incur that are chargeable to the property owner under the definition of this fee, but is not all-inclusive.

In lieu of payment of a connection fee, the Authority may require the construction to Authority standards and dedication of these facilities by the property owner. In this case, the Authority's only cost will be for inspection, and the cost of inspection may be charged based on the Authority's rate resolution in effect at the time of connection.

\$	Direct Materials Cost
+	Direct Subcontract Costs
+	Equipment Rental Charges
+	Direct Labor Costs
+	Fringe Benefits, Employment Taxes, and other Employment Costs
+	Cost of Inspection ⁽¹⁾
+	Application and Administrative Costs
+	Planning Module Review ⁽²⁾
+	Miscellaneous Engineering
+	Miscellaneous Legal Expenses
=	Total Connection Fee

(1) Includes the cost of inspection for all facilities installed by property owner or subcontractor hired by the Authority.

(2) If required.

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SCHEDULE B
CALCULATION OF CUSTOMER FACILITIES FEE**

The customer facilities fee covers the cost of facilities from the property line to the proposed dwelling or building. The property owner is generally responsible for constructing these facilities. In most instances, the Authority's only cost will be for inspection, and the cost of inspection may be charged based on the Authority's rate resolution in effect at the time of connection.

In some instances, the Authority may determine that the installation of special facilities is necessary to accommodate flow from a particular property. An example would be the installation of a grinder pump when gravity flow to the sewer main is not possible. The Authority may elect to install such facilities; however, all costs of these facilities are chargeable to the property owner as illustrated below:

\$	Direct Materials Cost
+	Direct Subcontract Costs
+	Equipment Rental Charges
+	Direct Labor Costs
+	Fringe Benefits, Employment Taxes, and other Employment Costs
+	Other Direct Costs
=	Total Customer Facilities Fee

**THE UNIVERSITY AREA JOINT AUTHORITY
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CALCULATION OF TAPPING FEE
SUMMARY**

The tapping fee is based on the Authority's equity in the system, and payment of the tapping fee constitutes the new user's buy-in of the system equity. The capital costs associated with the construction of the Authority's facilities are updated to reflect current costs in accordance with one of the methods allowed by the Act. Facilities funded by others and dedicated to the Authority are not included in the computation of this fee. Outstanding debt related to the facilities must be subtracted except when calculating the initial tapping fee for a new system. Under certain conditions, the estimated cost of future capacity facilities may be included.

The tapping fee is comprised of up to four components, which are separately calculated. In lieu of the payment of a tapping fee, the Authority may require the construction and dedication of only such capacity, collection, or other special purpose facilities necessary to supply service to the property owner or owners.

Capacity Part	\$ 3,640.95
+ Collection Part	\$ 995.98
+ Special Purpose Part *	As Applicable
+ <u>Reimbursement Component *</u>	<u>As Applicable</u>
 = Tapping Fee	 <u><u>\$ 4,636.93</u></u>

* Only applies to certain specific new connections.

**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM
SCHEDULE C
CALCULATION OF TAPPING FEE
CAPACITY PART**

Capacity Part. The Capacity Part of the tapping fee includes the Wastewater Treatment Plant, all major interceptors, the main pumping station, and all associated project costs.

As outlined by Act 57 of 2003, this study computes the value of the system based on the historical cost of facilities trended to current values with the commonly accepted Engineering News Record (ENR) construction cost index. Pursuant to the requirements of Act 57, the calculation of this fee requires a downward adjustment to reflect funds or facilities contributed by other parties, federal and state grants, and capital contributions from developers to arrive at the net historical cost. Outstanding debt must also be deducted from the cost of facilities. This methodology is used for the costs associated with all capacity facilities.

Values have been established using the actual costs of the facilities and all associated project costs including engineering, legal, financial, and other costs. A breakdown of historical costs and grants is included in Exhibit 1. Since this is not the initial tapping fee for a system exclusively serving new users, outstanding debt has been subtracted.

The calculation of the Capacity facilities part of the tapping fee is illustrated below.

<u>Adjusted and Trended Cost of Capacity Facilities - Outstanding Debt</u>	=	Cost per Unit of Design Capacity
Design Capacity (gpd)		
<hr/> \$ 170,149,012.51 - \$ 65,506,007.00	=	\$ 15.50
6,750,000		

Act 57 establishes a maximum tapping fee for residential connection of 90 gallons per day applied to the average number of persons per household as determined by the most recent census. This calculation uses a capacity per residential dwelling unit (DU) of 234.9 gpd based on an allocation of 90 gallons per person per day multiplied by the 2000 census statistic of 2.61 persons per unit in Centre County. The following calculation computes the maximum capacity part of the fee for a residential connection based on the cost per unit of design capacity.

Number of Units of Design Capacity (gpd per DU)	X	Cost per Unit of Design Capacity	=	Capacity Part of Tapping Fee
234.9	X	\$ 15.50	=	\$ 3,640.95

**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM
SCHEDULE C1**

TRENDED ADJUSTED PROJECT COST OF CAPACITY RELATED TAPPING FEE

Year	Adjusted Project Cost	ENR Index		Trend Factor	Trended Net Original Cost
	A	Project Year B	Current C		E = D*A
1967	\$ 244,931.00	1074	7398	6.89	\$ 1,687,150.41
1968	\$ 1,256,656.00	1155	7398	6.41	\$ 8,049,126.48
1969	\$ 528,905.00	1269	7398	5.83	\$ 3,083,403.62
1970*	\$ 6,387,569.21	1381	7398	5.36	\$ 34,218,129.63
1971	\$ 3,656.00	1581	7398	4.68	\$ 17,107.58
1972	\$ 1,088.00	1753	7398	4.22	\$ 4,591.57
1974	\$ 92,170.00	2020	7398	3.66	\$ 337,561.22
1975	\$ 49,531.00	2212	7398	3.34	\$ 165,655.67
1976	\$ 108,570.00	2401	7398	3.08	\$ 334,527.64
1977	\$ 14,975.00	2576	7398	2.87	\$ 43,006.62
1978	\$ 18,575.00	2776	7398	2.66	\$ 49,502.11
1979	\$ 183,793.00	3003	7398	2.46	\$ 452,780.76
1980	\$ 143,207.00	3237	7398	2.29	\$ 327,292.37
1981	\$ 6,815.00	3535	7398	2.09	\$ 14,262.34
1982	\$ 99.00	3825	7398	1.93	\$ 191.48
1983	\$ 1,055.00	4066	7398	1.82	\$ 1,919.55
1984	\$ 4,736.00	4146	7398	1.78	\$ 8,450.78
1985	\$ 95,971.00	4195	7398	1.76	\$ 169,247.55
1986	\$ 169,656.00	4295	7398	1.72	\$ 292,227.03
1987	\$ 232,802.00	4406	7398	1.68	\$ 390,891.78
1988	\$ 736,093.00	4519	7398	1.64	\$ 1,205,048.91
1989	\$ 981,229.00	4615	7398	1.60	\$ 1,572,943.04

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Year	Adjusted Project Cost		ENR Index		Trend Factor D = C/B	Trended Net Original Cost E = D*A
	A	B	Project Year	Current		
1990	\$ 8,091,034.00	4732	7398	1.56	\$ 12,649,507.51	
1991	\$ 18,019,993.00	4835	7398	1.53	\$ 27,572,266.44	
1992	\$ 5,933,112.00	4985	7398	1.48	\$ 8,805,047.66	
1993	\$ 1,117,936.00	5210	7398	1.42	\$ 1,587,426.20	
1994	\$ 456,565.00	5408	7398	1.37	\$ 624,568.76	
1995	\$ 411,257.00	5471	7398	1.35	\$ 556,110.27	
1996	\$ 106,350.00	5620	7398	1.32	\$ 139,995.96	
1997	\$ 296,887.00	5826	7398	1.27	\$ 376,994.51	
1998	\$ 1,631,664.00	5920	7398	1.25	\$ 2,039,028.76	
1999	\$ 1,454,730.00	6059	7398	1.22	\$ 1,776,215.97	
2000	\$ 2,752,597.00	6221	7398	1.19	\$ 3,273,382.51	
2001	\$ 3,504,790.00	6343	7398	1.17	\$ 4,087,724.49	
2002	\$ 12,444,054.00	6538	7398	1.13	\$ 14,080,928.65	
2003	\$ 16,854,836.00	6694	7398	1.11	\$ 18,627,439.01	
2004	\$ 16,266,860.13	7115	7398	1.04	\$ 16,913,876.49	
2005**	\$ 4,613,481.21	7398	7398	1.00	\$ 4,613,481.21	

* - 1970 Trunk Lines & Pumping Station costs are shown below and included in the total costs for 1970:

Year	Adjusted Project Cost		ENR Index		Trend Factor D = C/B	Trended Net Original Cost E = D*A
	A	B	Project Year	Current		
1970	\$ 5,651,090.79	1381	7398	5.36	\$ 30,272,823.80	

** - 2005 Costs were based on monthly reports and contract documents

**THE UNIVERSITY AREA JOINT AUTHORITY
WASTEWATER TREATMENT AND COLLECTION SYSTEM
SCHEDULE C2
ADJUSTMENT OF PROJECT COSTS - CAPACITY**

Year	Original Project Cost		Grants	Adjusted Project Cost	
1967	\$	244,931.00	\$	-	\$ 244,931.00
1968	\$	1,508,256.00	\$	251,600.00	\$ 1,256,656.00
1969	\$	786,805.00	\$	257,900.00	\$ 528,905.00
1970*	\$	6,509,489.21	\$	121,920.00	\$ 6,387,569.21
1971	\$	3,656.00	\$	-	\$ 3,656.00
1972	\$	1,088.00	\$	-	\$ 1,088.00
1974	\$	92,170.00	\$	-	\$ 92,170.00
1975	\$	49,531.00	\$	-	\$ 49,531.00
1976	\$	108,570.00	\$	-	\$ 108,570.00
1977	\$	14,975.00	\$	-	\$ 14,975.00
1978	\$	18,575.00	\$	-	\$ 18,575.00
1979	\$	183,793.00	\$	-	\$ 183,793.00
1980	\$	143,207.00	\$	-	\$ 143,207.00
1981	\$	6,815.00	\$	-	\$ 6,815.00
1982	\$	99.00	\$	-	\$ 99.00
1983	\$	1,055.00	\$	-	\$ 1,055.00
1984	\$	4,736.00	\$	-	\$ 4,736.00
1985	\$	95,971.00	\$	-	\$ 95,971.00
1986	\$	169,656.00	\$	-	\$ 169,656.00
1987	\$	232,802.00	\$	-	\$ 232,802.00
1988	\$	736,093.00	\$	-	\$ 736,093.00
1989	\$	981,229.00	\$	-	\$ 981,229.00

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Year	Original Project Cost		Grants	Adjusted Project Cost	
1990	\$	8,091,034.00	\$ -	\$	8,091,034.00
1991	\$	18,019,993.00	\$ -	\$	18,019,993.00
1992	\$	5,933,112.00	\$ -	\$	5,933,112.00
1993	\$	1,117,936.00	\$ -	\$	1,117,936.00
1994	\$	456,565.00	\$ -	\$	456,565.00
1995	\$	411,257.00	\$ -	\$	411,257.00
1996	\$	106,350.00	\$ -	\$	106,350.00
1997	\$	296,887.00	\$ -	\$	296,887.00
1998	\$	1,631,664.00	\$ -	\$	1,631,664.00
1999	\$	1,714,730.00	\$ 260,000.00	\$	1,454,730.00
2000	\$	2,752,597.00	\$ -	\$	2,752,597.00
2001	\$	3,609,790.00	\$ 105,000.00	\$	3,504,790.00
2002	\$	12,444,054.00	\$ -	\$	12,444,054.00
2003	\$	16,854,836.00	\$ -	\$	16,854,836.00
2004	\$	16,266,860.13	\$ -	\$	16,266,860.13
2005**	\$	4,613,481.21	\$ -	\$	4,613,481.21

* - 1970 Trunk Lines & Pumping Station costs are shown below and included in the total costs for 1970:

Year	Original Project Cost		Grants	Adjusted Project Cost	
1970	\$	6,415,437.21	\$ 764,346.42	\$	5,651,090.79

** - 2005 Costs were based on monthly reports and contract documents

**THE UNIVERSITY AREA JOINT AUTHORITY
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SCHEDULE D
CALCULATION OF TAPPING FEE
COLLECTION PART**

Collection Part. The Collection Part of the tapping fee includes all pumping stations except the main pumping station, collection piping, associated appurtenances, and other project costs.

As outlined by Act 57 of 2003, this study assesses the system value using the net historical cost of facilities trended to current values with the commonly accepted Engineering News Record (ENR) construction cost index. Pursuant to the requirements of Act 57, the calculation of this fee requires a downward adjustment of project costs to reflect funds or facilities contributed by other parties, federal and state grants, and capital contributions from developers to arrive at the net historical cost. Outstanding debt must also be deducted from the cost of facilities, and contributed facilities may not be included. This methodology is used for the costs associated with all collection facilities.

Values have been established using the actual costs of the pumping stations, piping, appurtenances, and all associated project costs – including engineering, legal, financial, and other costs. A breakdown of historical costs and grants is included in Exhibit 1. Since this is not the initial tapping fee for a system exclusively serving new users, outstanding debt has been subtracted.

The calculation of the Collection facilities part of the tapping fee is illustrated below.

<u>Adjusted and Trended Cost of Collection Facilities - Outstanding Debt</u>	=	Cost per Unit of Design Capacity
Design Capacity (gpd)		
\$ 28,627,827.08 - \$ 0.00	=	\$ 4.24
<hr style="width: 50%; margin: 0 auto;"/> 6,750,000		

Act 57 establishes a maximum tapping fee for residential connection of 90 gallons per day applied to the average number of persons per household as determined by the most recent census. This calculation uses a capacity per residential dwelling unit (DU) of 234.9 gpd based on an allocation of 90 gallons per person per day multiplied by the 2000 census statistic of 2.61 persons per unit in Centre County. The following calculation computes the maximum collection part of the fee for a residential connection based on the cost per unit of design capacity.

Number of Units of Design Capacity (gpd per DU)	X	Cost per Unit of Design Capacity	=	Collection Part of Tapping Fee
234.9	X	\$4.24	=	\$ 995.98

**THE UNIVERSITY AREA JOINT AUTHORITY
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**SCHEDULE D1
TRENDED ADJUSTED PROJECT COST OF COLLECTION RELATED
TAPPING FEE**

Year	Adjusted Project Cost		ENR Index		Trend Factor	Trended Net Original Cost
	A	B	Project Year	Current		
					D = C/B	E = D*A
1970	\$	5,344,015.84	1381	7398	5.36	\$ 28,627,827.08

**SCHEDULE D2
ADJUSTMENT OF PROJECT COSTS - COLLECTION**

Year	Original Project Cost	Grants	Adjusted Project Cost
1970	\$ 6,151,546.89	\$ 807,531.05	\$ 5,344,015.84

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**SCHEDULE E
CALCULATION OF TAPPING FEE
SPECIAL PURPOSE PART**

The Special Purpose Part is generally applicable only to a particular group of customers. The Special Purpose Part is designed to recover the cost of facilities that serve a special purpose or specific area, such as pump stations. Fees would be separately calculated for each applicable group and applied to new users as appropriate.

Illustration:

$$\frac{\text{Cost of Special Purpose Facilities}}{\text{Design Capacity of Special Purpose Facilities (gpd)}} = \text{Cost per Unit of Design Capacity}$$
$$\text{Number of Units of Design Capacity Required by Customer (gpd per DU/EDU)} \times \text{Cost per Unit of Design Capacity} = \text{Special Purpose Part of Tapping Fee}$$

**THE UNIVERSITY AREA JOINT AUTHORITY
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**SCHEDULE F
CALCULATION OF TAPPING FEE
REIMBURSEMENT PART**

Where appropriate, a reimbursement component may be included in the tapping fee charged for new connections to facilities constructed by others for which a reimbursement is due to the person constructing the facilities. This reimbursement must be defined in a written agreement between the Authority and the entity constructing the facilities. Typically, such agreements reimburse the cost of the excess capacity available for use by future connections.

Illustration:

Assume a developer constructs an oversized collection sewer that can accommodate flow from additional homes outside of his development. As a result, they do not have to pay the Collection Part of the tapping fee to the Authority for homes connected to their own development. They would then enter into a reimbursement agreement with the Authority in the event the Authority desires to make additional connections to the line.

The Reimbursement Part could be calculated as follows:

$$\begin{aligned} & \text{Developer's total cost for oversized line} \\ & - \text{Amount that would have been paid to the Authority for the homes in their development} \\ & \quad \text{for the collection part of the tapping fee.} \\ & \hline & = \text{Maximum Amount of Reimbursement Due Developer} \end{aligned}$$

This reimbursement would then be divided by the number of Dwelling Units (DUs) or Equivalent Dwelling Units (EDUs) that can be served by the excess capacity. This reimbursement per DU or EDU would then be added to the Authority's usual tapping fee for those properties that will be served through the oversized line.

$$\frac{\text{Amount of Reimbursement Due Developer}}{\text{Number of DUs/EDUs outside development that may be served by the oversized line}} = \text{Reimbursement per DU/EDU}$$

**Exhibit 1A - Wastewater Treatment Plant
Historical Cost Breakdown**

Year	UAJA Capital	Grants	Net Eligible Expenses
1966	\$ -	\$ -	\$ -
1967	\$ 244,931.00	\$ -	\$ 244,931.00
1968	\$ 1,508,256.00	\$ 251,600.00	\$ 1,256,656.00
1969	\$ 786,805.00	\$ 257,900.00	\$ 528,905.00
1970	\$ 94,052.00	\$ 121,920.00	\$ (27,868.00)
1971	\$ 3,656.00	\$ -	\$ 3,656.00
1972	\$ 1,088.00	\$ -	\$ 1,088.00
1973	\$ -	\$ -	\$ -
1974	\$ 92,170.00	\$ -	\$ 92,170.00
1975	\$ 49,531.00	\$ -	\$ 49,531.00
1976	\$ 108,570.00	\$ -	\$ 108,570.00
1977	\$ 14,975.00	\$ -	\$ 14,975.00
1978	\$ 18,575.00	\$ -	\$ 18,575.00
1979	\$ 183,793.00	\$ -	\$ 183,793.00
1980	\$ 143,207.00	\$ -	\$ 143,207.00
1981	\$ 6,815.00	\$ -	\$ 6,815.00
1982	\$ 99.00	\$ -	\$ 99.00
1983	\$ 1,055.00	\$ -	\$ 1,055.00
1984	\$ 4,736.00	\$ -	\$ 4,736.00
1985	\$ 95,971.00	\$ -	\$ 95,971.00
1986	\$ 169,656.00	\$ -	\$ 169,656.00
1987	\$ 232,802.00	\$ -	\$ 232,802.00
1988	\$ 736,093.00	\$ -	\$ 736,093.00
1989	\$ 981,229.00	\$ -	\$ 981,229.00
1990	\$ 8,091,034.00	\$ -	\$ 8,091,034.00
1991	\$ 18,019,993.00	\$ -	\$ 18,019,993.00
1992	\$ 5,933,112.00	\$ -	\$ 5,933,112.00
1993	\$ 1,117,936.00	\$ -	\$ 1,117,936.00
1994	\$ 456,565.00	\$ -	\$ 456,565.00
1995	\$ 411,257.00	\$ -	\$ 411,257.00
1996	\$ 106,350.00	\$ -	\$ 106,350.00
1997	\$ 296,887.00	\$ -	\$ 296,887.00
1998	\$ 1,631,664.00	\$ -	\$ 1,631,664.00
1999	\$ 1,714,730.00	\$ 260,000.00	\$ 1,454,730.00
2000	\$ 2,752,597.00	\$ -	\$ 2,752,597.00
2001	\$ 3,609,790.00	\$ 105,000.00	\$ 3,504,790.00
2002	\$ 12,444,054.00	\$ -	\$ 12,444,054.00
2003	\$ 16,854,836.00	\$ -	\$ 16,854,836.00
Totals	\$ 78,918,870.00	\$ 996,420.00	\$ 77,922,450.00

Jan-04	\$ 1,764,742.92
Feb-04	\$ 1,353,740.15
Mar-04	\$ 2,997,072.22
Apr-04	\$ 1,292,620.50
May-04	\$ 2,286,266.62
Jun-04	\$ 1,463,167.24
Jul-04	\$ 1,330,493.75
Aug-04	\$ 1,066,180.82
Sep-04	\$ 791,591.85
Oct-04	\$ 606,171.15
Nov-04	\$ 610,493.64
Dec-04	\$ 704,319.27
	<u>\$ 16,266,860.13</u>

Jan-05	\$ 394,987.74
Feb-05	\$ 490,767.83
Mar-05	\$ 259,925.72
Apr-05	\$ 278,594.03
	<u>\$ 1,424,275.32</u>

future (05) \$ 3,189,205.89

**Exhibit 1B - College-Harris Joint Authority
Historical Cost Breakdown**

College - Harris Joint Authority Interceptors (1970)				
Contract	Location	Total Cost	Capacity	Collection
1	Houserville	\$ 636,312.90	\$ 636,312.90	\$ -
2	Lemont	\$ 504,797.00	\$ 504,797.00	\$ -
3	Oak Hall	\$ 144,718.00	\$ 144,718.00	\$ -
4	Boalsburg	\$ 566,293.55	\$ 566,293.55	\$ -
5A	Slab Cabin Run	\$ 103,668.00	\$ 103,668.00	\$ -
6	Puddintown	\$ 298,639.72	\$ 298,639.72	\$ -
		<u>\$ 2,254,429.17</u>	<u>\$ 2,254,429.17</u>	<u>\$ -</u>
Main Pumping Station (1970)				
Contract	Part	Total Cost	Capacity	Collection
8A	General Const.	\$ 268,000.00	\$ 268,000.00	\$ -
8B	Plumbing	\$ 3,450.00	\$ 3,450.00	\$ -
8C	Electrical	\$ 49,802.00	\$ 49,802.00	\$ -
		<u>\$ 321,252.00</u>	<u>\$ 321,252.00</u>	<u>\$ -</u>
Collection Sewers (1970)				
Contract	Location	Total Cost	Capacity	Collection
7	Keller Street	\$ 195,847.64	\$ -	\$ 195,847.64
101	Houserville	\$ 426,145.60	\$ -	\$ 426,145.60
102A	Lemont	\$ 1,891,905.28	\$ -	\$ 1,891,905.28
103A	Boalsburg	\$ 1,256,606.00	\$ -	\$ 1,256,606.00
		<u>\$ 3,770,504.52</u>	<u>\$ -</u>	<u>\$ 3,770,504.52</u>
	Totals	\$ 6,346,185.69	\$ 2,575,681.17	\$ 3,770,504.52
	Grants	\$ -	\$ -	\$ -

**Exhibit 1C - Patton-Ferguson Joint Authority
Historical Cost Breakdown**

Patton - Ferguson Joint Authority Construction Costs (1970)			
Description	Total Cost	Capacity Cost	Collection Cost
Contract 1 + Ret 1**	\$ 667,720.20	\$ 667,720.20	\$ -
Contract 2 + Ret 2**	\$ 624,650.20	\$ 624,650.20	\$ -
Contract 3* + Ret 3**	\$ 2,369,879.62	\$ 1,278,657.78	\$ 1,091,221.84
Contract 4*	\$ 1,296,155.50	\$ 522,277.26	\$ 773,878.24
Contract 5	\$ 53,066.40	\$ -	\$ 53,066.40
Total Construcion	\$ 5,011,471.92	\$ 3,093,305.44	\$ 1,918,166.48
Engineering	\$ 733,792.15	\$ 452,929.46	\$ 280,862.69
Legal	\$ 40,675.99	\$ 25,107.05	\$ 15,568.94
Land and ROW	\$ 82,177.78	\$ 50,723.81	\$ 31,453.97
Administrative	\$ 72,047.35	\$ 44,470.86	\$ 27,576.49
Interest	\$ 272,322.39	\$ 168,089.60	\$ 104,232.79
Misc. Const. Cost	\$ 8,310.83	\$ 5,129.82	\$ 3,181.01
Total Construcion	\$ 1,209,326.49	\$ 746,450.60	\$ 462,875.89
Totals	\$ 6,220,798.41	\$ 3,839,756.04	\$ 2,381,042.37
Grants	\$ 1,571,877.47	\$ 764,346.42	\$ 807,531.05

Contract	Trunk Line
1	Big Hollow
2	Big Hollow
3*	Multiple*
4*	Struble*

* - Capacity portions and associated grants of PFJA Contracts #3 and #4 were determined by multiplying the trunk portion of total piping by the total contract cost as shown below.

Contract	Trunk Line	Trunk Length (ft)	Total length (ft)	%	Total Cost	Trunk Cost
3	Park Forest	3,837	44,000	9%	\$ 2,265,048.00	\$ 197,522.48
	Oakwood	3,903	44,000	9%	\$ 2,265,048.00	\$ 200,920.05
	Atherton Street	16,000	44,000	36%	\$ 2,265,048.00	\$ 823,653.82
				<u>54%</u>		<u>\$ 1,222,096.35</u>
		Total Cost	Not Grant Eligible	%	Grant %	Total Trunk Grant
		\$ 2,264,048.00	\$ 1,345,027.06	59.4%	40.6%	\$ 496,072.58
Contract	Trunk Line	Trunk Length (ft)	Total length (ft)	%	Total Cost	Trunk Cost
4	Struble	12430.4	30849	40.3%	\$ 1,296,155.50	\$ 522,277.26
		Total Cost	Not Grant Eligible	%	Grant %	Total Trunk Grant
		\$ 1,296,155.50	\$ 670,489.03	51.7%	48.3%	\$ 252,108.16

** - Retainage was listed for Contracts 1, 2, & 3 combined. The total was split between contracts based on total contract costs. Contract portions were split between Capacity and Collection based on Construction Costs. This is shown below.

	Contract Cost	%	
Contract 1	\$ 638,183.60	18.23%	
Contract 2	\$ 597,018.80	17.06%	
Contract 3	\$ 2,265,048.00	64.71%	
	<u>\$ 3,500,250.40</u>	<u>100%</u>	
	Total	Capacity	Collection
Retainage 1	\$ 29,536.60	\$ 29,536.60	\$ -
Retainage 2	\$ 27,631.40	\$ 27,631.40	\$ -
Retainage 3	\$ 104,831.62	\$ 56,561.42	\$ 48,270.20
	<u>\$ 161,999.62</u>	<u>\$ 113,729.42</u>	<u>\$ 48,270.20</u>

Exhibit 2 - Analysis of Outstanding Debt

Outstanding 12/31/03
\$ 77,110,281.00

Outstanding 12/31/05
\$ 65,506,007.00

Outstanding Debt	Amount	Capacity	Collection
PennVest	\$ 65,506,007.00	\$ 65,506,007.00	\$ -
	\$ 65,506,007.00	\$ 65,506,007.00	\$ -

Debt Allocation*

Capacity Facilities	100.00%
Collection Facilities	0.00%
	100.00%

* Debt Allocation is based on the net project costs attributed to Capacity Facilities and Collection Facilities. The percentages are calculated as follows

Facilities	Cost	%
Capacity	\$ 105,218,228.55	100.00%
Collection	\$ -	0.00%
	\$ 105,218,228.55	100.00%

Exhibit 3 - Calculation of Tapping Fee

CAPACITY PART

$$\frac{\text{Trended Cost} - \text{Debt}}{\text{Design Capacity (gallons per day)}} = \text{Cost per Unit of Design Capacity}$$

$$\frac{\$ 170,149,012.51 - \$65,506,007.00}{6,750,000} = \$ \quad \mathbf{15.50}$$

$$\begin{array}{r} \text{Cost per Unit} \\ \$ \quad 15.50 \end{array} \times \begin{array}{r} \text{No of Units of} \\ \text{Design Capacity} \\ 234.90 \end{array} = \begin{array}{r} \text{Tapping Fee/} \\ \text{Domestic Unit} \\ \$ \quad \mathbf{3,640.95} \end{array}$$

COLLECTION PART

$$\frac{\text{Trended Cost} - \text{Debt}}{\text{Design Capacity (gallons per day)}} = \text{Cost per Unit of Design Capacity}$$

$$\frac{\$ 28,627,827.08 - \$ \quad -}{6,750,000} = \$ \quad \mathbf{4.24}$$

$$\begin{array}{r} \text{Cost per Unit} \\ \$ \quad 4.24 \end{array} \times \begin{array}{r} \text{No of Units of} \\ \text{Design Capacity} \\ 234.90 \end{array} = \begin{array}{r} \text{Tapping Fee/} \\ \text{Domestic Unit} \\ \$ \quad \mathbf{995.98} \end{array}$$

$$\mathbf{\$ \quad 4,636.93}$$