

**Franklin Township Municipal Sanitary Authority  
Tap Fee Calculation  
December, 2007**

1. Connection Fee Portion

\_\_\_\_\_ This covers the cost of the lateral sewer from the main line to the property line.

A. Average connection charge White Valley & Murrysville Heights (1983)

Contract 2

a. Wyes @ \$32	\$	32
b. 25 lf 6" @ \$14		350
c. 18.5 CY Stone @ \$11/CY		204
d. 8.3 SY Paving @ \$18/SY		<u>150</u>
	<b>\$</b>	<b>736</b>

B. Contract 3

a. Wyes @ \$32	\$	32
b. 25 lf 6" @ \$14		425
c. 18.5 CY Stone @ \$12/Cy		222
d. 8.3 Sy Paving @ \$14/SY		<u>117</u>
	<b>\$</b>	<b>796</b>

The ENRCCI for December, 2007 = 8,089.45 and 5,432.86 for May 1995  
The ENRCCI ratio is 8,089.45 / 5,432.86 = 1.489

Therefore the Connection Fee Portion =  
 $(\$796 + \$736) / 2 = \$766 * 1.489$  (ENRCCI ratio) = **\$ 1,141**

Inspection and Administrative Costs **\$ 50**

2. Customer Facilities Fee Portion

This covers the sewer line from the property line to the residence. Since the property owner installs this, the Authority cannot charge a fee for installation. The Authority may charge a fee for inspection and administration provided that the costs are specifically and exactly documented.

Inspection and Administration Costs **\$ 100**

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3. Tapping Fee Portion

This is separated into 4 components.

A. Capacity Component (Plant and Main Pump Station)

*1. Sewage Treatment Plant ( From the January, 2007 Appraisal)	\$ 45,906,323
*2. Main Pump Station ( From the January, 2007 Appraisal)	\$ 1,815,472
**3. Original Plant Property + Additional Property Purchases	\$ 137,661
**4. Main pump Station Property	\$ 2,382
**5. Main Pump Station Force Main (10,030 lf @ \$97.60/lf)	\$ 1,457,624
6. Subtract Out Grants	
a. PL 660 (From Series A Closing Documents)	\$ (722,000)
b. EPA Grants	\$(14,075,890)
c. DEP Grants	\$ (45,000)
7. Outstanding Debt - Principal for 4.9 MGD Permit	\$ (12,731,935)
<b>TOTAL</b>	<b>\$ 21,744,637</b>

\* Item 1 (\$44,743,005) and Item 2 (\$1,769,466) above, are from the January, 2007 Appraisal. The ENRCCI for December, 2007 is 8,089.45 and for January, 2007 is 7,887.62. The ENRCCI ratio is  $8,089.45 / 7,887.62 = 1.026$  as updated above.

\*\* Item 3 (\$92,452), Item 4 (\$1,600) and Item 5 (\$978,928) are from the May 1995 Tap Fee Calculation. The ENRCCI for December, 2007 is 8,089.45 and for May 1995 is 5,432.86. The ENRCCI ratio is  $8,089.45 / 5,432.86 = 1.489$  as updated above.

**Therefore the Plant and Main Pump Station part of the Capacity Component =**

$$\begin{aligned} & \$21,744,637 / 4,900,000 \text{ GPD} = \$4.44/\text{GPD} \\ & \$4.44 \text{ GPD} * 90 \text{ GPD/EDU} * 2.48 \text{ Pa. Census} = \$991.01 \end{aligned}$$

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Interceptors

1.**	Pipe Costs		
	30" pipe = 12,293 lf @ \$157.89/lf (5,000,000 GPD)	\$	2,643,563
	27" pipe = 3,050 lf @ \$162.54/lf (4,500,000 GPD)	\$	675,207
	24" pipe = 7,300 lf @ \$142.97/lf (4,000,000 GPD)	\$	1,421,494
	20" pipe = 1,400 lf @ \$ 95.91/lf (2,800,000 GPD)	\$	182,881
	18" pipe = 4,500 lf @ \$ 86.82/lf (2,200,000 GPD)	\$	532,120
	14" pipe = 4,550 lf @ \$ 80.57/lf (1,300,000 GPD)	\$	499,301
	12" pipe = 20,370 lf @ \$ 60.45/lf (1,000,000 GPD)	\$	1,677,122
	10" pipe = 14,600 lf @ \$ 54.10/lf ( 700,000 GPD)	\$	1,075,789
	8" pipe = 5,100 lf @ \$ 47.75/lf ( 494,000 GPD)	\$	331,681
	6" F.M.= 2,800 lf @ \$ 33.00/lf (1,440,000 GPD)	\$	125,849
	4" F.M.= 900 lf @ \$ 28.00/lf ( 454,000 GPD)	\$	<u>34,322</u>
	Average 2,171,636 GPD	Sub-Total	\$ 10,057,121
2.**	Interceptor R/W's 1969 - 1995	\$	801,514
3.***	Interceptor Repair 2005	\$	396,634
4.**	Regulators	\$	112,116
5.	Pump Station Costs		
a.*	Sloan School Pump Station (From the January, 2007 Appraisal)	\$	468,641
b.*	Lyons Run Pump Station & Force (From the January, 2007 Appraisal)	\$	556,329
c.**	Lyons Run Interceptor	\$	489,881
6.	Subtract Out Grants		
a.	From Series A Closing Documents	\$	(395,000)
b.	EPA (Proportioned From 1984 Series Closing Documents)	\$	(94,957)
c.	Developer Contribution for Lyons Run Project	\$	(230,147)
7.	Outstanding Debt - Principal	\$	<u>(888,275)</u>
	<b>TOTAL</b>	<b>\$</b>	<b>11,273,857</b>

\* Item 5 a (\$456,765) and Item 5 b (\$542,231) above, are from the January, 2007 Appraisal. The ENRCCI for December, 2007 is 8,089.45 and for January, 2007 is 7,887.62. The ENRCCI ratio is 8,089.45 / 7,887.62 = 1.026 as updated above.

\*\* Item 1 (\$6,754,279), Item 2 (\$538,290), Item 4 (75,296) and Item 5 c (\$329,000) are from the May 1995 Tap Fee Calculation. The ENRCCI for December, 2007 is 8,089.45 and for May 1995 is 5,432.86. The ENRCCI ratio is 8,089.45 / 5,432.86 = 1.489 as updated above.

\*\*\* Item 3 (\$362,554) is from May, 2005. The ENRCCI for December, 2007 is 8,089.45 and for May, 2005 is 7,398.03. The ENRCCI ratio is 8,089.45 / 7,398.03 = 1.094 as updated above.

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**Therefore the interceptor part of the Capacity Component =**

$$\text{\$11,273,857} / \text{2,817,000 GPD} = \text{\$4.00/GPD}$$

$$\text{\$4.00/GPD} * \text{90 GPD/EDU} * \text{2.48 Pa. Census} = \text{\$892.80}$$

**B. Collector Sewer Component**

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**1.	Rights - of - Way	
a.	Collector Sewer R/W's 1969 - 1976	\$ 1,501,335
b.	Collector Sewer R/W's 1976 - 1995	\$ 94,016
c.	Collector Sewer R/W's 1996 - 2004	\$ 26,731
**2.	8" Sewers 287,464 lf @ \$47.75/lf	\$ 14,975,509
**3.	8" sewers 15,436 lf @ \$47.75/lf (From 1984 Series)	\$ 804,142
**4.	Major Additions/Repairs to Developers Lines 1976 - 2004	\$ 390,848
*5.	Pump Stations	
a.	Meadowbrook Road Pump Station(From the January, 2007 Appraisal)	\$ 217,098
b.	Murrysville Heights Pump Station(From the January, 2007 Appraisal)	\$ 109,256
6.	Subtract Out Grants	
a.	From Series A Closing Documents	\$ (815,600)
b.	EPA (Proportioned From 1984 Series Closing Documents)	\$ (742,161)
7.	Subtract Out Assessments	
a.	Series A	\$ (3,074,092)
b.	Sardis Heights	\$ (165,919)
c.	Route 22/Berlin Farm Road	\$ (110,650)
8.	Outstanding Debt - Principal	\$ (1,184,366)
	<b>Total</b>	<b>\$ 12,026,147</b>

\* Item 5 a (\$211,596) and Item 5 b (\$106,487) above, are from the January, 2007 Appraisal. The ENRCCI for December, 2007 is 8,089.45 and for January, 2007 is 7,887.62. The ENRCCI ratio is 8,089.45 / 7,887.62 = 1.026 as updated above.

\*\* Item 1 a (\$1,376,109), Item 1 b (\$86,174), Item 1 c (\$24,501), Item 2 (\$13,726,406), Item 3 (\$737,069) and Item 4 (358,247) are from the June 2005 Tap Fee Calculation. The ENRCCI for December, 2007 is 8,089.45 and for June 2005 is 7,141.97. The ENRCCI ratio is 8,089.45 / 7,141.97 = 1.091 as updated above.

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Capacity for an 8" sewer,  $n = 0.013$ ,  $s = 0.4\%$ ,  $Q = 493,900$  GPD

**Therefore the Collector Sewer Component of the Tapping Fee Portion =**

$$\mathbf{\$12,026,147 / 493,900 \text{ GPD} = \quad \mathbf{\$24.35 / \text{GPD}}$$

$$\mathbf{\$24.35 / \text{GPD} * 90 \text{ GPD} / \text{EDU} * 2.48 \text{ Pa. Census} = \quad \mathbf{\$5,434.92}$$

C. Special Purpose Component

This is to pay for special purpose facilities applicable only to a particular group or area. Examples would be booster pumps, fire service facilities or industrial wastewater treatment.

D. Reimbursement Component

The purpose of this is to collect tapping fees from new connections to facilities that were constructed by other parties. The Authority is required to reimburse the owners at whose expense the facilities were constructed per a Developer's Agreement. The total amount reimbursed shall not exceed the original costs of the facility. The new connections must be made within ten years of the date of dedication of such extension to the Authority. The reimbursement component shall be equal to the collection component of the Tapping Fee less 5% for administration.

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Summary of the Tap Fee Calculation	
Connection Fee Portion (If performed by FTMSA)	<b>\$ 1,141.00</b>
Inspection & Administration of Connection	<b>\$ 50.00</b>
Customer Facilities Fee Portion (Inspection & Administration)	<b>\$ 100.00</b>
Tapping Fee Portion	
Plant Capacity Component for 4.9 MGD Permit	<b>\$ 991.01</b>
Interceptor Capacity Component	<b>\$ 892.80</b>
Collection Portion	<b>\$ 5,434.92</b>
Total Tap Fee Calculation for 4.9 MGD Permit with Connection Fee	<b>\$ 8,609.73</b>
Total Tap Fee Calculation for 4.9 MGD Permit with no Connection Fee	<b>\$ 7,318.73</b>
Total Tap Fee Calculation for 4.9 MGD Permit (Plant & Interceptor)	<b>\$ 1,883.81</b>
Total Tap Fee Calculation for 4.9 MGD Permit (Plant & Inter. & Insp.)	<b>\$ 2,033.81</b>

ENRCCI = Engineering News Record Construction Cost Index