

APPENDIX L:

Estimated User Rate Analysis

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 1

ESTIMATED USER RATES	
Funding Agency-PennVest (Option 1-30 yr. payback period w/ 1.0% int. and \$5.2 Million in Grants)	
Case: Alternative 1	
Construction of a Central Sewage Collection System and Conveyance Line to Plains Township Sewer System	
Cost Description	
Capital Cost Estimate Summary - Alternative No. 1 (Including Land)	
1 Sewage Collection and Conveyance System	\$ 10,405,519
2 State Route 115 Corridor Sewage Collection System	\$ 1,066,111
3 Sewage Conveyance System	\$ 988,416
4 Equalization Tank/Pump Station	\$ 838,800
5 Connection Fee to Plains	\$ 210,000
Total	\$ 13,508,846
Financing	
PENNVEST Funding Package	
TOTAL PROJECT COST	\$ 13,508,846
EST. NUMBER EDUs	480
\$500 Connection Fee for each EDU (Bear Creek Twp.)	
CONNECTION FEE - \$500/EDU	\$ 240,000
GRANT MONEY	\$ 5,200,000
BALANCE TO FINANCE	\$ 8,068,846
Financing Parameters Using Pennvest Standard Loan Offer	
Assume:	
n = 30 YRS (payback period)	
i = 1.00% (interest rate)	
Final User Cost	
1 Debt Repayment Fee	\$ 651
2 Operation and Maintenance Fee (includes fees to Plains and WWSA)	\$ 410
Subtotal User Fee	\$ 1,061
Annual User Fee with 3% non-pay rate	\$ 1,094

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 1

ESTIMATED USER RATES	
Funding Agency - PENNVEST (Option 2 - 30 yr. payback period w/ 1.0% interest and No Grants)	
Case: Alternative 1	
Construction of a Central Sewage Collection System and Conveyance Line to Plains Township Sewer System	
Cost Description	
Capital Cost Estimate Summary - Alternative No. 1 (Including Land)	
1 Sewage Collection and Conveyance System	\$ 10,405,519
2 State Route 115 Corridor Sewage Collection System	\$ 1,066,111
3 Sewage Conveyance System	\$ 988,416
4 Equalization Tank/Pump Station	\$ 838,800
5 Connection Fee to Plains	\$ 210,000
Total	\$ 13,508,846
Financing	
PENNVEST Funding Package	
TOTAL PROJECT COST	\$ 13,508,846
EST. NUMBER EDUs	480
\$500 Connection Fee for each EDU (Bear Creek Twp.)	
CONNECTION FEE - \$500/EDU	\$ 240,000
GRANT MONEY	\$ -
BALANCE TO FINANCE	\$ 13,268,846
Financing Parameters Using Pennvest Loan Offer	
Assume:	
n = 30 YRS (payback period)	
i = 1.0% (interest rate)	
Final User Cost	
1 Debt Repayment Fee	\$ 1,071
2 Operation and Maintenance Fee (includes fees to Plains and WWSA)	\$ 410
Subtotal User Fee	\$ 1,481
Annual User Fee with 3% non-pay rate	\$ 1,526

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 1

ESTIMATED USER RATES

Funding Agency-Rural Utilities Service (RUS) (Option 3-40 yr. payback per. w/ 4% int. and No Grants)

Case: Alternative 1

Construction of a Central Sewage Collection System and Conveyance Line to Plains Township Sewer System

Cost Description

Capital Cost Estimate Summary - Alternative No. 1 (Including Land)

1 Sewage Collection and Conveyance System	\$	10,405,519
2 State Route 115 Corridor Sewage Collection System	\$	1,066,111
3 Sewage Conveyance System	\$	988,416
4 Equalization Tank/Pump Station	\$	838,800
5 Connection Fee to Plains	\$	210,000
Total	\$	13,508,846

Financing

RUS Standard Funding Package

TOTAL PROJECT COST	\$	13,508,846
EST. NUMBER EDUs		480
\$500 Connection Fee for each EDU (Bear Creek Twp.)		

CONNECTION FEE - \$500/EDU	\$	240,000
GRANT MONEY	\$	-
BALANCE TO FINANCE	\$	13,268,846

Financing Parameters Using Pennvest Standard Loan Offer

Assume:

n = 40 YRS (payback period)

i = 4.00% (interest rate)

Final User Cost

1 Debt Repayment Fee	\$	1,397
2 Operation and Maintenance Fee (includes fees to Plains and WWSA)	\$	410
Subtotal User Fee	\$	1,806
Annual User Fee with 3% non-pay rate	\$	1,862

Bear Creek Twp, Luzerne County, PA
Sewage Facilities Alternative 2

ESTIMATED USER RATES	
Funding Agency - PENNVEST (Option 2 - 30 yr. payback period w/ 1.0% interest and No Grants)	
Case: Alternative 2	
Construction of a Sanitary Sewer System and 0.15 MGD Plant near Study Area No. 1	
Direct Stream Discharge to Deep Hollow	
Total Project Cost Estimate Summary - Alternative No. 2	
1 Sewage Collection and Conveyance System	\$ 10,405,519.20
2 State Route 115 Corridor Sewage Collection System	\$ 1,066,111.20
3 Wastewater Treatment Plant (0.15 MGD SBR)	\$ 4,073,760.00
Total	\$ 15,545,390.40
Financing	
PENNVEST Funding Package	
TOTAL PROJECT COST \$ 15,545,390	
EST. NUMBER EDUs 480	
\$500 Connection Fee for each EDU (Bear Creek Twp.)	
CONNECTION FEE - \$500/EDU \$ 240,000	
GRANT MONEY \$ -	
BALANCE TO FINANCE \$ 15,305,390	
Financing Parameters Using Pennvest Loan Offer	
Assume:	
n = 30 YRS (payback period)	
i = 1.0% (interest rate)	
Final User Cost	
1 Debt Repayment Fee	\$ 1,236
2 Operation and Maintenance Fee	\$ 508
Subtotal User Fee	\$ 1,744
Annual User Fee with 3% non-pay rate	\$ 1,798

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 3

ESTIMATED USER RATES	
Funding Agency - PENNVEST (Option 2 - 30 yr. payback period w/ 1.0% interest and No Grants)	
Case: Alternative 3	
Construction of a Sanitary Sewer System and 0.15 MGD Plant near Study Area No. 2	
Spray irrigation with seasonal stream discharge	
Total Project Cost Estimate Summary - Alternative No. 3	
1 Sewage Collection and Conveyance System	\$ 10,939,816.80
2 Wastewater Treatment Plant (0.15 MGD SBR)	\$ 4,610,880.00
3 Spray Irrigation System	\$ 3,241,713.60
Total	\$ 18,792,410.40
Financing	
PENNVEST Funding Package	
TOTAL PROJECT COST	\$ 18,792,410
EST. NUMBER EDUs	480
\$500 Connection Fee for each EDU (Bear Creek Twp.)	
CONNECTION FEE - \$500/EDU	\$ 240,000
GRANT MONEY	\$ -
BALANCE TO FINANCE	\$ 18,552,410
Financing Parameters Using Pennvest Loan Offer	
Assume:	
n = 30 YRS (payback period)	
i = 1.0% (interest rate)	
Final User Cost	
1 Debt Repayment Fee	\$ 1,498
2 Operation and Maintenance Fee	\$ 582
Subtotal User Fee	\$ 2,080
Annual User Fee with 3% non-pay rate	\$ 2,144

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 4

ESTIMATED USER RATES	
Funding Agency - PENNVEST (Option 2 - 30 yr. payback period w/ 1.0% interest and No Grants)	
Case: Alternative 4	
Construction of a Sanitary Sewer System and 0.15 MGD Plant near Study Area No. 2	
Spray irrigation with no direct stream discharge	
Total Project Cost Estimate Summary - Alternative No. 4	
1 Sewage Collection and Conveyance System	\$ 11,119,816.80
2 Wastewater Treatment Plant (0.15 MGD Extended Aeration)	\$ 3,698,640.00
3 Spray Irrigation System	\$ 4,542,588.00
Total	\$ 19,361,044.80
Financing	
PENNVEST Funding Package	
TOTAL PROJECT COST	\$ 19,361,045
EST. NUMBER EDUs	480
\$500 Connection Fee for each EDU (Bear Creek Twp.)	
CONNECTION FEE - \$500/EDU	\$ 240,000
GRANT MONEY	\$ -
BALANCE TO FINANCE	\$ 19,121,045
Financing Parameters Using Pennvest Loan Offer	
Assume:	
n = 30 YRS (payback period)	
i = 1.0% (interest rate)	
Final User Cost	
1 Debt Repayment Fee	\$ 1,544
2 Operation and Maintenance Fee	\$ 601
Subtotal User Fee	\$ 2,145
Annual User Fee with 3% non-pay rate	\$ 2,211

Bear Creek Township, Luzerne County, PA
Sewage Facilities Alternative 5

ESTIMATED USER RATES - Study Areas 1 and 2

Funding Agency - PENNVEST (Option 2 - 30 yr. payback period w/ 1.0% interest and No Grants)

Case: Alternative 5

Separate Sanitary Sewer System and Community Subsurface Disposal

Total Project Cost Estimate Summary - Alternative No. 5

1 Sewage Collection and Conveyance System - Study Area No. 1 and 2	\$	10,939,816.80
2 Wastewater Treatment Plant (0.15 MGD SBR)	\$	3,984,480.00
3 Subsurface Wastewater Disposal - Study Areas 1 and 2	\$	8,197,920.00
Total	\$	23,122,216.80

Financing

PENNVEST Funding Package

TOTAL PROJECT COST	\$	23,122,217
EST. NUMBER EDUs		480
\$500 Connection Fee for each EDU (Bear Creek Twp.)		
CONNECTION FEE - \$500/EDU	\$	240,000
GRANT MONEY	\$	-
BALANCE TO FINANCE	\$	22,882,217

Financing Parameters Using Pennvest Loan Offer

Assume:

n = 30 YRS (payback period)

i = 1.0% (interest rate)

Final User Cost

1 Debt Repayment Fee	\$	1,847
2 Operation and Maintenance Fee	\$	553
Subtotal User Fee	\$	2,401
 Annual User Fee with 3% non-pay rate	 \$	 2,475