

*Jefferson County*  
*Public Service District*

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March 17, 2006


West Virginia Infrastructure and Jobs Development Council  
300 Summers Street, Suite 980  
Charleston, West Virginia 25301

To Whom It May Concern:

Enclosed please find a copy of our application for a wastewater treatment facility on the Flowing Springs Run.

Should you need additional information, please feel free to call me.

Sincerely,

  
Susanne Lawton  
General Manager

*210 W. 3rd Avenue*  
*Ranson, WV 25438*  
*Phone: 304-725-4647*  
*Fax: 304-725-5976*  
*E-Mail: [admasst@jcpsd.com](mailto:admasst@jcpsd.com)*

***WEST VIRGINIA***  
***INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL***  
**PRELIMINARY APPLICATION**

**For**

**Jefferson County Public Service District**  
**Flowing Springs Run Wastewater Treatment Plant**  
**March 16, 2006**

Prepared by:

**Pentree, Incorporated**  
1428 Main Street  
P. O. Box 1309  
Princeton, WV 24740

**WEST VIRGINIA  
INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL  
PRELIMINARY APPLICATION  
INDEX**

***I.      PRELIMINARY APPLICATION***

*Copy of latest rate tariff*

*Annual Report*

***II      PRELIMINARY ENGINEERING REPORT***

***III     Possible Financial Package to Facilitate  
          (Financial Analysis)***

***IV     5G Documentation***

**WEST VIRGINIA**  
**INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL**  
**PRELIMINARY APPLICATION**

**I. ADMINISTRATIVE AND IDENTIFYING INFORMATION AND DATA:****A. SPONSOR INFORMATION**

1. Project Sponsor: Jefferson County Public Service District
2. Sponsor's Address: 210 West Third Avenue  
Ranson, WV 25438
3. Sponsor's Telephone Number: ( 304 ) 725-4647 Fax Number: 725-5976

**B. GENERAL PROJECT INFORMATION**

1. Project Type (Water, Wastewater): Wastewater  
 Is the project a new system, extension, or upgrade? Upgrade
2. Project Location - City: Near Charles Town County: Jefferson
3. Total customers served (existing): 1,828 New customers to be served by project: 2,268
4. Project Description: Construct Flowing Springs wastewater treatment plant and expand collection system  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
5. Is this an emergency project as defined by § 31-15A-2? Yes ☐ No ☒  
 If Yes, explain: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**C. CONTACT INFORMATION**

1. Contact Person: Ms. Susanne Lawton, General Manager
2. Contact's Address: Jefferson County P.S.D.  
210 West 3rd Avenue  
Ranson, WV 25438
3. Contact's Telephone Number: ( 304 ) 725-4647 Fax Number: 725-5976

**CHECK ONE:**

X New Application      ☐ Revised Application  
 \_\_\_\_\_  
 Council Project Number

**Council Use Only**

1. Project Name/Number: \_\_\_\_\_
2. Location: \_\_\_\_\_
3. Date Received: \_\_\_\_\_
4. Date of Council Action: \_\_\_\_\_

**D. PROJECT FUNDING ASSISTANCE SUMMARY**

<b>Funding Sources</b>	<b>Amount Requested</b>	<b>Amount Committed*</b> (attach commitment letters)
1)Aid in Construction from Developers	\$	\$
2)Grant from Special Appropriations Pool	\$	\$
3)Grant from Infrastructure Council	\$1,500,000	\$
4) 30 year 1/2% loan	\$	\$
5) 40 year 1/2% loan	\$	\$
6)Other Sources (Private BAN)	\$12,830,940	\$
7 40year 0% wrap loan (See Attached Sheet)	\$7,300,000	\$
<b>TOTAL</b>	<b>\$21,630,940</b>	<b>\$0</b>

The 0%-40 year loan is wrapped around the existing debt. See attached spreadsheet for details.

**II. ENGINEERING INFORMATION AND DATA:**

1. Engineering Report Status - Is a copy attached?:      Yes ☒      No ☐      (If No, application will be returned!)
2. Documentation of Compliance with WV Code §§5G-1-1 enclosed    Yes ☒      No ☐  
See Documentation in Section 10
3. Status of Engineering Agreement: Existing signed agreement which will be renegotiated prior to design beginning.
4. Status of Plans / Specs:  
Not designed as of this date, facility plan completed which includes schematic design.
5. Consulting Engineer/Architect: Pentree, Incorporated
6. Consultant's Address: Pentree, Incorporated  
P.O. Box 1309  
Princeton, WV 24740
7. Consultant's Telephone Number: ( 304 ) 431-7800  
Fax Number: ( 304 ) 425-0445

**III. BUDGET AND FINANCIAL INFORMATION**

<b>A. PROJECT COST SUMMARY</b>		
Budget Line Item	Cost	
1. Construction Cost: Subtotal		\$ 16,506,705
2. Engineering Cost:		
Planning	\$ 7,500	
Design	\$ 1,980,800	
Construction	\$ 1,255,500	
Subtotal		\$ 3,243,800
3. Legal Cost:		
Project Attorney	\$ 50,000	
Right-of-Ways (Legal)	\$ 50,000	
PSC Attorney	\$ 75,000	
Subtotal		\$ 175,000
4. Administrative Cost:		
Project Coordinator	\$ 100,000	
Other Administrative Costs	\$ 50,000	
Subtotal		\$ 150,000
5. Financing Costs:		
Interim Financing	\$ 100,000	
Capitalized Interest	\$	
Bond Counsel	\$ 100,000	
Subtotal		\$ 200,000
6. Site, Easements and ROW Cost:		
Land Acquisition Costs	\$ 90,000	
Easement Costs	\$ 55,000	
Subtotal		\$ 145,000
7. Project Contingency: Subtotal		\$ 1,210,435
8. TOTAL PROJECT COST		<u>\$21,630,940</u>

<b>B. PROJECT FINANCING SUMMARY</b>		
Project Funds	Amount	
Federal Grants (total)		
State Grants (total)	\$1,500,000	
Federal Loans @ _____ % for _____ Years	\$	
@ _____ % for _____ Years		
State Loans @ \$ _____ ½ % for 30 Years	\$7,300,000	
@ \$ 7,300,000 0 % for 40 Years		
Other Funding Sources (BAN)	\$12,830,940	
TOTAL FUNDING PROVIDED	\$21,630,940	

The 0% - 40 year loan is wrapped around existing debt. See attached spreadsheet for details.

Cost Estimates Prepared By: Pentree, Inc. Date: March 2006

**C. GENERAL FINANCIAL INFORMATION SUMMARY**1. Sponsor's most recent fiscal year's Public Service Commission annual audit report, as applicable - date - 6 / 30 / 2005Is a copy attached? Yes ☒ No ☐ N/A ☐  
(If No, the application will be returned) (N/A is only applicable to new utilities)

2. List holder of outstanding bonds or other long term debt and the status (current, delinquent or defaulted):

Lender	terms	Balance	Date of Maturity	Current Status
1) See attached listing on page 4A and 4B				
2)				
3)				
4)				

3. Has the sponsor ever been delinquent on any private, State, or Federal long term debt? Yes ☒ No ☐  
If Yes, list lender, dates of delinquency and current status of listed delinquencies:

Lender	Date of Delinquency	Current Status
1) WV WDA - 1998 Series A and B	1993-1995	Current
2) SRF-1993 Series A	1993-1995	Current

4. Status Report - Provide the following data:

Item	Current Amount	Proposed Project Amount
Estimated Operating Revenues - Annual - Metered	\$1,065,685	\$197,478.00
- Other	\$58,581	\$2,385,000.00
- TOTAL	\$1,124,266	\$2,582,478.00
Operation and Maintenance Budget - Annual*	\$690,703	\$357,673.00
Debt Service - Annual	\$353,255	\$1,486,040.00
Purchased Water Cost - Annual		\$0.00
- per Thousand Gallons		\$0.00
Purchased Wastewater Treatment Cost - Annual	\$206,640	\$0.00
- per Thousand Gallons	\$2.27	\$0.00
Average monthly rate cost per customer (per 4000 gallons/month)	\$46.00	\$46.00
Average monthly rate cost per customer (per 4500 gallons/month)	\$51.75	\$51.75

\*Itemized Costs for Labor, Power, Chemicals, Maintenance, Administration, etc., must be itemized on either Attachment 1A, 1B, 1C, or 1D

5. Date of Last Rate Increase? - ( 6 / 23 / 2005 ): PSC Case 05-0395-PSD-30B Percentage Increase: 6.6 %6. Median Household Income in project area: \$ \$43,024 /YearHow was this figure obtained? The Infrastructure Council

**IV. JOB CREATION****A. ECONOMIC CONSIDERATIONS**

1. Describe the area's economic conditions and needs for the project: Jefferson County has a population which is growing rapidly with many new developments planned or already under construction. The Jefferson County Planning Commission has developed a zoning system to help insure an orderly growth pattern and to protect the environment and history of the area. This project will serve those developments, the Burr Business Park and existing residents within the Flowing Springs drainage basin served by the District.
2. Describe the economic impact of the project: The availability of adequate and accessible public sewage treatment capacity is vital to economic development and the growth of the business sector in Jefferson County. The development of the Burr Business Park, Phase 2 would be completed now if sewer capacity had been available when it was needed. The Jefferson County Development Authority has listed seventeen companies interested in locating there. They estimate that 100 jobs have been lost due to lack of sewer.

**B. JOB CREATION**

1. Describe the nature and number of permanent full time and part time jobs created or retained by the project:  
It is expected that 3 permanent full time jobs at the treatment plant will be created by this project. The Jefferson County Development Authority has stated that 7 projects with 250 jobs have been delayed until adequate sewer service is available for the Burr Business Park, Phase 1. This project will support the business park, housing construction and financial sectors. The proposed plant will provide sewage service allowing the construction of 2,268 proposed new homes over the next 7 years. Those homes will provide 1,542 permanent and over 568 temporary (1 yr) jobs for 10 years according to the National Association of Home Builders Report.
2. Number of construction jobs created by the Project: 30

**C. BUSINESS COMMITMENTS**

1. Provide a list of businesses that are committed to the project and dollar amount of commitment:

Name of Business	Commitment Amount	Jobs Retained	Jobs Created
1)			
2)			
3)			
4)			
5)			

2. Describe nature of business:

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**V. WASTEWATER DISCHARGE AND AIR QUALITY**

**A. NON DOMESTIC WASTEWATER DISCHARGE INFORMATION**

1. Itemize and describe each specific non domestic discharge:

Discharge	Flow (MGD)		Pollutants Expected To Be Present
	Average	Maximum	
1) None Anticipated			NA
2)			
3)			
4)			
5)			

Describe: Any industrial flows from the Burr Business Park will be evaluated and pretreatment established if required. It is not known if any non domestic discharges will be generated from the business park.

2. Is the discharge direct or indirect? Direct ☐ Indirect ☐

If this is an indirect discharge, name the publicly owned treatment works providing treatment:

Has the wastewater treatment plant agreed to treat the non domestic wastewater? Yes ☐ No ☐

3. Do Clean Water Act Section 307 effluent guidelines or pretreatment standards apply? Yes ☐ No ☐

If Yes, specify effluent guidelines that apply: \_\_\_\_\_

Calculate guideline based effluent limitations:

### B. AIR QUALITY

1. Have Air Emissions increased or will they increase as the result of the construction of a new discharge or source, or the relocation of an existing emission which may be in violation of any Air Quality standards or requirements which are allowable under current emissions standards? Yes ☐ No ☒

If so, has an Application or Notice of Application been filed with DEP's Division of Air Quality? Yes ☐ No ☐

Detail current status: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### VI. TRAINING INFORMATION

If the project sponsor is a Public Service District, or the project in any way involves service by a public service district, identify the district board members, date and location of the most recent PSC training seminar attended.

<u>Marty Kable, Chairman</u>	<u>2-2000</u>	<u>Cedar Lakes, Ripley</u>
<u>Jack Lantzy, Treasurer</u>	<u>2-2004</u>	<u>Parkersburg</u>
<u>Joseph Hankins, Secretary</u>	<u>10-2004</u>	<u>Canaan Valley</u>
Board Members	Date	Location

### VII. CERTIFICATION

I certify, under penalty of law, that this document and all the attachments submitted are, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Joseph Hankins, Secretary

Name and Official Title (type or print)

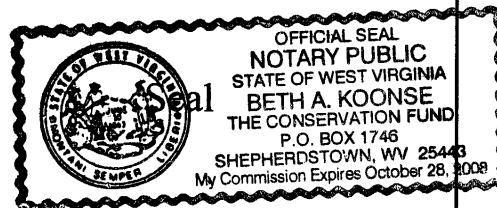
[Signature] 17 MARCH 06  
 Sponsor's Signature Date

Acknowledged before the Subscriber by [Signature]  
 (SPONSOR)

This Day of 17 March 20 06

[Signature]  
 (NOTARY PUBLIC)

My Commission Expires 10/28/08 20 08



## Attachment 1A Sheet 1 - Class A &amp; B Utilities (Year 1 O&amp;M)

<b>SEWER OPERATING EXPENSES</b>					
Line No.	Account (a)	Class		Amount for year	Amount Related to Project
		A (b)	B (c)		
1	<b>COLLECTING EXPENSES</b>				
2	OPERATION:				
3	701. Operation Supervision and Engineering	A	B		
4	702. Operation Supervision and Engineering	A	B	\$56,577	\$6,153
5	703. Supplies and Expenses	A	B	\$1,478	
6	Total Operation			\$58,055	
7	MAINTENANCE:				
8	704. Maintenance Supervision and Engineering	A	B		
9	705. Maintenance of Collecting System Plant		B		
10	705.1 Maintenance of Service Connections and Trap	A			
11	705.2 Maintenance of Collecting and Transmission Mains	A			
12	705.3 Maintenance of Structures and Improvements	A			
13	705.4 Maintenance of Other Collecting System Equipment	A			
14	Total Maintenance				
15	MISCELLANEOUS:				
16	708. Rents	A	B		
17	Total Collecting Expenses			\$58,055	\$6,153
18	<b>PUMPING EXPENSES</b>				
19	OPERATION:				
20					
21	721. Operation Supervision and Engineering	A	B		
22	722. Operation Labor	A	B	\$23,546	\$9,399
23	723. Power and Fuel	A	B	\$24,877	\$5,991
24	724. Supplies and Expenses	A	B	\$10,399	\$882
25	Total Operation			\$58,822	\$16,272
26	MAINTENANCE:				
27	725. Maintenance Supervision and Engineering	A	B		
28	726. Maintenance Supervision and Engineering	A	B	\$1,095	
29	727. Maintenance of Pumping Equipment		B		\$5,892
30	727.1 Maintenance of Power Pumping Equipment	A		\$7,118	
31	727.2 Maintenance of Other Pumping System Equipment	A			
32	Total Maintenance			\$8,213	\$5,892
33	MISCELLANEOUS:				
34	728. Rents	A	B		
35	Total Pumping Expenses			\$67,035	\$22,164
36	<b>TREATMENT AND DISPOSAL EXPENSES</b>				
37	OPERATION:				
38					
39	741. Operation Supervision and Engineering	A	B		
40	742. Operation Labor	A	B		\$85,000
41	743. Purification Supplies and Expenses		B		\$44,365
42	743.1 Supplies and Expenses	A		\$109	\$163,558
43	743.2 Chemical Treatment Expenses	A			\$1,851
44	Total Operation			\$109	\$294,774
45	MAINTENANCE:				
46	744. Maintenance Supervision and Engineering	A	B		
47	745. Maintenance of Structures and Improvements	A	B		\$12,800
48	746. Maintenance of Treatment and Disposal System Equipment	A	B		\$10,433
49	Total Maintenance			\$0	\$23,233
50	MISCELLANEOUS:				
51	747. Rents	A	B	\$199,188	
52	Total Treatment and Disposal Expenses			\$199,297	\$318,007

## Attachment 1A Sheet 2 - Class A &amp; B Utilities

<b>SEWER OPERATING EXPENSES</b> (Continued)					
Line No.	Account (a)	Class		Amount for year	Amount Related to Project
		A (b)	B (c)		
1	<b>BILLING AND COLLECTING EXPENSES</b>				
2					
3	780. Supervision	A	B		
4	781. Flat Rate Inspection	A	B		
5	782. Meter Reading	A	B		
6	783. Billing, Collecting and Accounting	A	B	\$64,997	\$11,349
7	784. Uncollectible Accounts	A	B	\$10,079	\$2,979
8	785. Rents	A	B		
9	Total Billing and Collecting Expenses			\$75,076	\$14,328
10					
11	<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>				
12	790. Administrative and General Salaries	A	B	\$79,687	
13	791. Other General Office Salaries	A	B	\$5,500	
14	792. Expenses of General Officers and General Office Employees		B		
15	792.1 Expenses of General Officers	A			
16	792.2 Expenses of General Office Employees	A			
17	793. General Office Supplies and Expenses	A	B	\$36,189	
18	794. Management and Supervision Fees and Expenses	A	B		
19	795. Special Services	A	B	\$76,908	
20	796. Special Legal Services	A	B		
21	797. Regulatory Commission Expenses	A	B	\$5,526	
22	798. Insurance	A	B	\$8,266	
23	799. Injuries and Damages	A	B		
24	800. Employees' Welfare Expenses and Pensions		B	\$56,214	
25	800.1 Employees' Welfare Expenses	A			
26	800.2 Pensions	A			
27	801. Miscellaneous General Expenses	A	B	\$11,589	
28	802. Maintenance of General Property		B		
29	802.1 Maintenance of Structures and Improvements	A			
30	802.2 Maintenance of Office Furniture and Equipment	A		\$197	
31	802.3 Maintenance of Communication Equipment	A			
32	802.4 Maintenance of Miscellaneous Property	A		\$1,206	
33	803. Rents	A	B	\$9,960	
34	804. Commissions Paid Under Agency Sales Contracts	A	B		
35	805. Franchise Requirements	A	B		
36	807. Administrative and General Expenses Transferred - Credit	A	B		
37	808. Joint Expenses - Debit	A	B		
38	809. Joint Expenses - Credit	A	B		
39	Total Administrative and General Expenses			\$291,242	\$0
40					
41	<b>SUMMARY OF OPERATING EXPENSES</b>				
42					
43	Collecting Expenses			\$58,055	\$6,153
44	Pumping Expenses			\$67,035	\$22,164
45	Treatment and Disposal Expenses			\$199,297	\$318,007
46	Billing and Collecting Expenses			\$75,076	\$14,328
47	Administrative and General Expenses			\$291,242	\$0
48	Total Operating Expenses			\$690,705	\$360,652
49					
50	Total Salaries and Wages of Sewer Department for Year,			\$224,807	\$85,000
51	Including Amounts Charged to Operating Expenses, Construction				
52	and Other Accounts				
53					
54	Total Number of Employees of Sewer Department at End of Year,			9	3
55	Including Administrative, Operating, Maintenance, Construction				
56	and Other Employees				

## Attachment 1B Sheet 1 - Class A &amp; B Utilities

<b>WATER OPERATION AND MAINTENANCE EXPENSES</b>			
Line No.	Account (a)	Amount for year	Amount Related to Project
1	<b>SOURCE OF SUPPLY EXPENSES</b>		
2	OPERATION:		
3	600. Operation Supervision and Engineering		
4	601. Operation Labor and Expenses		
5	602. Purchased Water		
6	603. Miscellaneous Expenses		
7	604. Rents		
8	Total Operation	\$0	\$0
9	MAINTENANCE:		
10	610. Maintenance Supervision and Engineering		
11	611. Maintenance of Structures and Improvements		
12	612. Maintenance of Collecting and Impounding Reservoirs		
13	613. Maintenance of Lake, River and Other Intakes		
14	614. Maintenance of Wells and Springs		
15	615. Maintenance of Infiltration Galleries and Tunnels		
16	616. Maintenance of Supply Mains		
17	617. Maintenance of Miscellaneous Water Source Plant		
18	Total Maintenance	\$0	\$0
19		\$0	\$0
20	Total Source of Supply Expenses		
21	<b>PUMPING EXPENSES</b>		
22	OPERATION:		
23	620. Operation Supervision and Engineering		
24	621. Fuel for Power Production		
25	622. Power Production Labor and Expenses		
26	623. Fuel or Power Purchased for Pumping		
27	624. Pumping Labor and Expenses		
28	625. Expenses Transferred - Credit		
29	626. Miscellaneous Expenses	\$0	\$0
30	627. Rents		
31	Total Operation	\$0	\$0
32	MAINTENANCE:		
33	630. Maintenance Supervision and Engineering		
34	631. Maintenance of Structures and Improvements		
35	632. Maintenance of Power Production Equipment		
36	633. Maintenance of Pumping Equipment	\$0	\$0
37	Total Maintenance	\$0	\$0
38		\$0	\$0
39	Total Pumping Expenses		
40	<b>WATER TREATMENT EXPENSES</b>		
41	OPERATION:		
42	640. Operation Supervision and Engineering		
43	641. Chemicals		
44	642. Operation Labor and Expenses		
45	643. Miscellaneous Expenses		
46	644. Rents		
47	Total Operation		
48	MAINTENANCE:		
49	650. Maintenance Supervision and Engineering		
50	651. Maintenance of Structures and Improvements		
51	652. Maintenance of Water Treatment Equipment		
52	Total Maintenance		
53		\$0	\$0
54	Total Water Treatment Expenses		

## Attachment 1B Sheet 2 - Class A &amp; B Utilities

<b>WATER OPERATING AND MAINTENANCE EXPENSES</b> (Continued)			
Line No.	Account (a)	Amount for year	Amount Related to Project
1	<b>TRANSMISSION AND DISTRIBUTION EXPENSES</b>		
2	OPERATION:		
3	660. Operation Supervision and Engineering		
4	661. Storage Facilities Expenses		
5	662. Transmission and Distribution Lines Expenses		
6	663. Meter Expenses		
7	664. Customer Installations Expenses		
8	665. Miscellaneous Expenses		
9	666. Rents		
10	Total Operation		
11	MAINTENANCE:		
12	670. Maintenance Supervision and Engineering		
13	671. Maintenance of Structures and Improvements		
14	672. Maintenance of Distribution Reservoirs and Standpipes		
15	673. Maintenance of Transmission and Distribution Mains		
16	674. Maintenance of Fire Mains		
17	675. Maintenance of Services		
18	676. Maintenance of Meters		
19	677. Maintenance of Hydrants		
20	678. Maintenance of Miscellaneous Plant		
21	Total Maintenance		
22			
23	Total Transmission and Distribution Expenses	\$0	\$0
24	<b>CUSTOMER ACCOUNTS EXPENSES</b>		
25	OPERATION:		
26	901. Supervision		
27	902. Meter Reading Expenses	\$0	\$0
28	903. Customer Records and Collection Expenses		
29	904. Uncollectible Accounts		
30	905. Miscellaneous Customer Accounts Expenses		
31	Total Customer Accounts Expenses		
32	907. Customer Service and Information Expenses		
33	910. Sales Promotion Expenses		
34	<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>		
35	OPERATION:		
36	920. Administrative and General Salaries		
37	921. Office Supplies and Other Expenses	\$0	\$0
38	922. Administrative Expenses Transferred - Credit		
39	923. Outside Services Employed		
40	924. Property Insurance		
41	925. Injuries and Damages		
42	926. Employee Pensions and Benefits		
43	927. Franchise Requirements		
44	928. Regulatory Commission Expenses		
45	929. Duplicate Charges - Credit		
46	930.1 Institutional or Goodwill Advertising Expenses		
47	930.2 Miscellaneous General Expenses	\$0	\$0
48	930.3 Research and Development Expenses		
49	931. Rents		
50	Total Operation		
51	932. Maintenance of General Plant		
52		\$0	\$0
53	Total Administrative and General Expense		
54		\$0	\$0
55	Total Operation and Maintenance Expenses		

**Attachment 1C - Class C & D Utilities**

<b>SEWER INCOME STATEMENT</b>			
Line No.		Amount for year _____	Amount Related to Project
1	<b>OPERATING REVENUES</b>		
2	Domestic Sewer Service		
3	Commercial Sewer Service		
4	Industrial Sewer Service		
5	Customers' Forfeited Discounts and Penalties		
6	Miscellaneous Sewerage Revenues		
7	Total Revenues		
8	<b>OPERATING EXPENSES</b>		
9	Sewerage Operating Expenses		
10	Collecting System Expenses		
11	Pumping System Expenses		
12	Treatment and Disposal System Expenses		
13	Billing and Collecting Expenses		
14	Administrative and General Expenses		
15	Total Operating Expenses		
16	<b>DEPRECIATION EXPENSES</b>		
17	<b>TAXES</b>		
18	Total Expenses		
19	Net Sewer Service Operating Revenues		
20	Other Income (Interest Earned, etc.)		
21	Gross Income		
22	<b>INCOME DEDUCTIONS</b>		
23	Interest		
24	Debt Discount and Expense		
25	Other Charges to Income		
26	Total Deductions		
27	<b>NET INCOME</b>		
28	<b>RESERVATIONS OF NET INCOME</b>		
29	Scheduled Bond Retirement		
30	Safety Margin Coverage Deposits		
31	Other Reservations of Net Income		
32	Total Reservations of Net Income		
33	Balance Transferred to Surplus		

## Attachment 1D Sheet 1 - Class C &amp; D Utilities

<b>WATER OPERATION AND MAINTENANCE EXPENSES</b>			
Line No.	Class C Account (a)	Amount for year	Amount Related to Project
1	<b>1. SOURCE OF SUPPLY EXPENSES</b>		
2	OPERATION:		
3	600. Operation Labor		
4	601. Purchased Water		
5	602. Operation Supplies and Expenses		
6	MAINTENANCE:		
7	605. Maintenance of Water Source Plant		
8	Total Source of Supply Expenses		
9	<b>2. PUMPING EXPENSES</b>		
10	OPERATION:		
11	620. Operation Labor		
12	621. Fuel for Power Production		
13	622. Fuel or Power Purchased for Pumping		
14	623. Operation Supplies and Expenses		
15	MAINTENANCE:		
16	625. Maintenance of Pumping Plant		
17	Total Pumping Expenses		
18	<b>3. WATER TREATMENT EXPENSES</b>		
19	OPERATION:		
20	630. Operation Labor		
21	631. Chemicals		
22	632. Operation Supplies and Expenses		
23	MAINTENANCE:		
24	635. Maintenance of Water Treatment Plant		
25	Total Water Treatment Expenses		
26	<b>4. TRANSMISSION AND DISTRIBUTION EXPENSES</b>		
27	OPERATION:		
28	640. Operation Labor		
29	641. Operation Supplies and Expenses		
30	MAINTENANCE:		
31	650. Maintenance of Distribution Reservoirs and Standpipes		
32	651. Maintenance of Mains		
33	652. Maintenance of Services		
34	653. Maintenance of Meters		
35	654. Maintenance of Hydrants		
36	655. Maintenance of Other Plant		
37	Total Transmission and Distribution Expenses		
38	<b>5. CUSTOMER SERVICE EXPENSES</b>		
39	OPERATION:		
40	901. Meter Reading Labor		
41	902. Accounting and Collecting Labor		
42	903. Supplies and Expenses		
43	904. Uncollectible Accounts		
44	Total Customer Accounts Expenses		
45	<b>6. CUSTOMER SERVICE EXPENSES</b>		
46	OPERATION:		
47	907. Customer Service and Information Expenses		
48	<b>7. SALES PROMOTION EXPENSES</b>		
49	OPERATION:		
50	910. Sales Promotion Expenses		



## Attachment 1D Sheet 2 - Class C &amp; D Utilities

<b>WATER OPERATION AND MAINTENANCE EXPENSES</b> (Continued)			
Line No.	Class C Account (a)	Amount for year _____	Amount Related to Project
1	<b>8. ADMINISTRATIVE AND GENERAL EXPENSES</b>		
2	OPERATION:		
3	920. Administrative and General Salaries		
4	921. Office Supplies and Other Expenses		
5	922. Administrative Expenses Transferred - Credit		
6	923. Outside Services Employed		
7	924. Property Insurance		
8	925. Injuries and Damages		
9	926. Employee Pensions and Benefits		
10	927. Franchise Requirements		
11	928. Regulatory Commission Expenses		
12	930.1 Institutional or Goodwill Advertising Expenses		
13	930.2 Miscellaneous General Expenses		
14	930.3 Research and Development Expenses		
15	933. Transportation Expenses		
16	MAINTENANCE:		
17	935. Maintenance of General Plant		
18	Total Administrative and General		
19			
20	Total Water Operation and Maintenance Expenses - Class C		
Line No.	Class D Account (a)	Amount for year _____	Amount Related to Project
28	<b>1. PLANT OPERATION AND MAINTENANCE</b>		
29	600. Salaries and Wages		
30	610. Purchased Water		
31	620. Fuel or Power Purchased for Pumping		
32	630. Chemicals		
33	640. Supplies and Expenses		
34	650. Repairs of Water Plant		
35	660. Transportation Expenses		
36		\$0	
37	Total Plant Operation and Maintenance Expenses		
38	<b>2. GENERAL EXPENSES</b>		
39	680. Administrative and General Salaries		
40	681. Office Supplies and Other Expenses		
41	682. Outside Services Employed		
42	684. Insurance Expense		
43	686. Employee Pensions and Benefits		
44	688. Regulatory Commission Expenses		
45	689. Miscellaneous General Expenses		
46	690. Uncollectible Accounts		
47		\$0	
48	Total General Expenses		
49			
50	Total Water Operation and Maintenance Expenses - Class D	\$0	

Attachment 2

**ACKNOWLEDGMENT OF UNIFORM BIDDING PROCEDURES FOR PROJECTS  
RECOMMENDED BY THE WV INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL**

The following bidding procedures, effective June 5, 2003, must be followed on all public water and wastewater projects reviewed by the West Virginia Infrastructure and Jobs Development Council, regardless of the specific funding sources recommended:

1. The date, time and place that the bids will be received shall be included in the Advertisement for Bid.
2. The bids shall be read aloud at the time and place specified in the advertisement.
3. The Pre-Bid Meeting, when deemed necessary, is to be held at least 10 calendar days before the bid date.
4. The last addendum issued shall be received by contractors no fewer than five calendar days prior to the bid date.
5. Bid date will be extended if items 3 and 4 cannot be met.
6. Bid date will not follow a weekend or holiday unless absolutely necessary.
7. Bid openings should be in the afternoon, when possible.
8. Equipment should be pre-qualified by the Engineer, where feasible.
9. The following items must be submitted with the bid:
  - a. EEO Certification: Only one is required for all agencies.
  - b. Acknowledgment of Receipt of Addenda.
  - c. Bid Bond: Signed or countersigned by a WV agent.
  - d. Signed Bid.
  - e. Federal Requirements when they are involved.
10. Bidding Documents must include a Bid Form and a Measurement and Payment section. Each bid item must be adequately described including how it is to be paid and what is to be included.

We hereby certify that the above procedures will be followed to the best of our ability.

Utility:

Susanne Lanton, General Manager

Date:

3-17-06

F-3

Utility's Agent/Engineer:

[Signature]

Date:

3-16-06

Attachment 3

**WEST VIRGINIA  
INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL PROJECTS**

Date project submitted to the Infrastructure Council: 17 MARCH 06

1. Project sponsor name, address, contact person(s) and telephone number:

Jefferson County Public Service District  
210 West Third Avenue  
Ranson, West Virginia 25438  
Attn: Ms. Susanne Lawton  
(304) 725-4647

2. Project description - attach maps or other explanatory documentation:

Construct sewage treatment plant and collection system. See attached Map.

3. The utility or entity who will own and operate the project:

Jefferson County Public Service District

4. Identify the sources and amounts of funds being requested:

Grant from Infrastructure Council -	\$ 1,500,000	
40 year 1/2% loan-	\$ 7,300,000	(See Attached)

5. Briefly describe the health, environmental and/or public benefits of the project:

Jefferson County has a population which is growing rapidly with many new developments planned or already under construction. The Jefferson County Planning Commission has developed a zoning system to help insure an orderly growth pattern and to protect the environment and history of the area. This project will serve those developments and the existing residents of that part of the county zoned for development along with providing wastewater treatment capacity for the Jefferson County Industrial Park to expand. The plant will utilize MBR technology and discharge a tertiary quality effluent which will be designed to target a discharge of no more than 3 mg/l of total nitrogen and 0.1 mg/l phosphorus thus lessening the nutrient loading to the Chesapeake Bay and exceeding the treatment required to meet the current limits imposed by the Chesapeake Bay agreement.

6. Attach an itemized estimate of the total project cost.

Attached



**PLEASE SUBMIT THIS COMPLETED FORM TO  
YOUR LOCAL REGIONAL PLANNING AND DEVELOPMENT COUNCIL  
(Regional Planning & Development Council List on Next Page)**

**REGIONAL PLANNING AND DEVELOPMENT COUNCILS**

<b>COUNTIES</b>	<b>REGIONAL COUNCIL / ADDRESS</b>	<b>PHONE</b>	<b>FAX</b>
McDowell, Mercer, Monroe, Raleigh, Summers, Wyoming	Region I Planning & Development Council 1330 Mercer Street / P.O. Box 1442 Princeton, WV 24740-1442	(304) 431-7225	(304) 431-7235
Cabell, Lincoln, Logan, Mason, Mingo, Wayne	Region II Planning & Development Council 1221 Sixth Avenue / P.O. Box 939 Huntington, WV 25712-0939	(304) 529-3357	(304) 529-7229
Boone, Clay, Kanawha, Putnam	Region III Planning & Development Council 315 D Street South Charleston, WV 25303	(304) 744-4258	(304) 744-2534
Fayette, Greenbrier, Nicholas, Pocahontas, Webster	Region IV Planning & Development Council 500 B Main Street Summersville, WV 26651	(304) 872-4970	(304) 872-1012
Calhoun, Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt, Wood	Region V Planning & Development Council 531 Market Street / P.O. Box 247 Parkersburg, WV 26101	(304) 422-4993	(304) 422-4998
Doddridge, Harrison, Marion, Monongalia, Preston, Taylor	Region VI Planning & Development Council 7003-C Mountain Park Drive Fairmont, WV 26554	(304) 366-5693	(304) 367-0804
Barbour, Braxton, Gilmer, Lewis, Randolph, Tucker, Upshur	Region VII Planning & Development Council Four West Main Street Buckhannon, WV 26201	(304) 472-6564	(304) 472-6590
Hampshire, Hardy, Grant, Mineral, Pendleton	Region VIII Planning & Development Council Eight Grant County Industrial Park P.O. Box 849 Petersburg, WV 26847	(304) 257-2448	(304) 257-2292
Berkeley, Jefferson, Morgan	Region IX Planning & Development Council 121 West King Street Martinsburg, WV 25401	(304) 263-1743	(304) 263-7156
Marshall, Ohio, Wetzel	Region X Planning & Development Council 105 Bridge Street Plaza Wheeling, WV 26003	(304) 282-3685	(304) 282-1821
Brooke, Hancock	Region XI Planning & Development Council 814 Adams Street Steubenville, OH 43952	(740) 282-3685	(740) 282-1821

2005 JUL -1 PM 1:18

PUBLIC SERVICE COMMISSION  
OF WEST VIRGINIAP.S.C. W. Va. No. 9  
Canceling P.S.C. W. Va. No. 8**JEFFERSON COUNTY PUBLIC SERVICE DISTRICT,**  
a public utility

OF

RANSON, WEST VIRGINIA

RATES, RULES AND REGULATIONS FOR FURNISHING

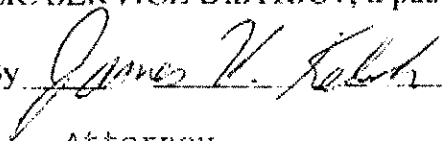
**SEWERAGE AND SEWAGE DISPOSAL SERVICE**at a portion of Jefferson County in the general vicinities of Charles Town and Ranson  
including areas north and south of Charles Town along State Routes 9, 340 and 17Filed with **THE PUBLIC SERVICE COMMISSION**  
of  
**WEST VIRGINIA**

Issued June 24, 2005

Effective for service rendered on and after June 23, 2005  
or as otherwise provided hereinIssued by authority of an order of  
The Public Service Commission of West Virginia  
in Case No. 05-0395-PSD-30B dated  
June 23, 2005 or as otherwise provided herein

Issued by JEFFERSON COUNTY PUBLIC SERVICE DISTRICT, a public utility

By



Attorney

Title

JEFFERSON COUNTY PUBLIC SERVICE DISTRICT (Sewer) P.S.C. W. Va. Tariff No. 9  
Original Sheet No. 1

RULES AND REGULATIONS

- I. Rules and Regulations for the Government of Sewerage Utilities, adopted by the Public Service Commission of West Virginia, and now in effect, and all amendments thereto and modifications thereof hereafter made by said Commission.



## JEFFERSON COUNTY PUBLIC SERVICE DISTRICT (Sewer)

P.S.C. W. Va. No. 9  
Original Sheet No. 2APPLICABILITY

Applicable within the entire territory served

AVAILABILITY

Available for general domestic, commercial, and industrial service

RATES (customers with a metered water supply)

\$11.50 per thousand gallons of metered water usage

MINIMUM CHARGE

No bill will be rendered for less than \$26.98 per month.

The above minimum charge is subject to an additional \$0.71 per thousand gallons per month.

FLAT RATE CHARGE (Customers with non-metered water supply)

Equivalent of 4,500 gallons of water usage, \$51.75 per month

MULTIPLE OCCUPANCY

For unmetered trailer parks, the monthly charge for services shall be equal to the number of units multiplied by the unmetered charge provided above.

DELAYED PAYMENT PENALTY

The above schedule is net. On all accounts not paid in full when due, ten percent (10%) will be added to the net current amount unpaid. This delayed payment penalty is not interest and is only to be collected once for each bill where it is appropriate.

TAP FEE

The following charges are to be made whenever the utility installs a new tap to serve an applicant.

A tap fee of \$250.00 will be charged to customers applying for service outside of a certificate proceeding before the Commission for each new tap to the system.

## JEFFERSON COUNTY PUBLIC SERVICE DISTRICT (Sewer)

P.S.C. W. Va. No. 9  
Original Sheet No. 3DISCONNECT - RECONNECT FEES

Whenever water service has been disconnected for non-payment of sewer bills in conjunction with a water service termination agreement with the City of Charles Town, a disconnection fee of \$10.00 shall be charged. Whenever water service has been disconnected for non-payment of sewer bills in conjunction with a water service termination agreement with Jefferson Utilities, Inc., a disconnection fee of \$20.00 shall be charged.

Whenever water service, which has been previously disconnected or otherwise withheld for non-payment of a sewer bill in conjunction with a water service termination agreement with the City of Charles Town is reconnected, a reconnection fee of \$10.00 shall be charged. Whenever water service, which has been previously disconnected or otherwise withheld for non-payment of a sewer bill in conjunction with a water service termination agreement with Jefferson Utilities, Inc. is reconnected, a reconnection fee of \$20.00 shall be charged.

LEAK ADJUSTMENT INCREMENT

\$3.01 per M. gallon is to be used when the bill reflects unusual consumption which can be attributed to eligible leakage on customer's side of the meter. This rate shall be applied to all such consumption above customer's historical average usage.

RETURNED CHECK CHARGE

A service charge equal to the actual bank fee assessed to the sewer utility up to a maximum of \$25.00 will be imposed upon any customer whose check for payment of charges is returned by the bank due to insufficient funds.

## JEFFERSON COUNTY PUBLIC SERVICE DISTRICT (Sewer)

P.S.C. W. Va. No. 9  
Original Sheet No. 4CAPITAL IMPROVEMENT FEE

As used in this section, a "Developer" is defined as "a person, corporation, or entity who is in the business of land and/or commercial or housing development for profit, or a person, corporation, or entity who requests an alternate main line extension that includes the installation of mains by the person, corporation or entity."

As used in this section, a "Previously Developed Tract" is defined as property previously subdivided for commercial or housing development, for profit. On and after March, 2005, Developers and those seeking a new sewer connection for a Previously Developed Tract shall pay to the District a capital improvement fee for connections made to the sewer system of an unserved structure or facility which will have its wastewater flows treated at the Charles Town wastewater treatment plant. The capital improvement fees are due as of the date of the issuance of the final sewer availability letter issued by the Jefferson County Public Service District.

The capital improvement fee shall be \$1,127.00 for each residential connection. Connections for non-residential use shall be paid in accordance with a residential usage equivalent schedule set forth below. The funds collected from the capital improvement fee shall be maintained in a separate fund administered jointly by the District and the cities of Charles Town and Ranson or their designees and shall be used only for the purpose of improving the Charles Town treatment facilities. The usage equivalent for other than single family residential units for the capital improvement fee shall be based upon the following:

RESIDENTIAL USAGE EQUIVALENTS FOR CAPITAL IMPROVEMENT FEE

<u>UNIT</u>	<u>WATER GALLONS PER DAY</u>	<u>RESIDENTIAL USAGE EQUIVALENT</u>
Apartments	150/unit	1.0/unit
Bowling Alleys	200/alley	1.33/alley
Churches with kitchen	8/member	0.05/member
Churches w/o kitchen	2/member	0.013/member
Food Service	32/seat	0.213/seat
Fast Food Restaurant	35/seat	0.23/seat
Bar & Cocktail Lounge	2/patron	0.013/patron
(additive)		
Tavern-Little or no food	20/seat	0.132/per seat
Hotel	120/room	0.8/per room
Industry, sanitary	15/person/shift	0.1/person per shift

## JEFFERSON COUNTY PUBLIC SERVICE DISTRICT (Sewer)

P.S.C. W. Va. No. 9  
Original Sheet No. 5RESIDENTIAL USAGE EQUIVALENTS FOR CAPITAL IMPROVEMENT FEE  
(Continued)

<u>UNIT</u>	<u>WATER GALLONS PER DAY</u>	<u>RESIDENTIAL USAGE EQUIVALENT</u>
<b><u>Institutions:</u></b>		
Hospital	250/bed	1.67/bed
Nursing Homes	150/bed	1.0/bed
Others	75/person	0.5/person
Office Buildings	15/person	0.1/person
Laundry Self Service	250/washer	1.67/washer
Mobile Home Park	150/unit space	1.0/unit space
Motels	120/room	0.8/room
Retail Stores	400/toilet room	2.67/toilet room
Residence	150/residence	1.0/residence
<b><u>School:</u></b>		
Day, no cafeteria/showers	15/pupil	0.1/pupil
Day with cafeteria	18/pupil	0.12/pupil
Day with cafeteria/showers	20/pupil	0.133/pupil
Boarding	75/pupil	0.5/pupil
Service Station	500/set of pumps	3.33/set of pumps
Shopping Centers	16/100 ft. of sales area	0.12/100 ft. of sales area
Swimming Pools	10/swimmer design capacity	0.067/swimmer design capacity
<b><u>Theaters:</u></b>		
Drive Inn	4/car space	0.027/car space
Others	3/seat	0.02/seat
Warehouse	15/employee	0.1/employee

If a unit does not appear on this schedule, the District shall determine its Residential Usage Equivalent in consultation with its consulting engineer.



## **INDEPENDENT ACCOUNTANTS' REPORT ON FINANCIAL STATEMENTS**

The Members of the Public Service Board  
Jefferson County Public Service District

We have compiled the accompanying comparative balance sheets of the Jefferson County Public Service District Sewer Fund as of June 30, 2005 and 2004, and the related statements of income and earned surplus accounts and statements of cash flows for the years then ended and the accompanying supplemental information which is presented only for supplemental analysis purposes included in the accompanying prescribed form in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

Our compilation was limited to presenting in the form prescribed by the Public Service Commission of West Virginia information that is the representation of the District's management. We have not audited or reviewed the financial statements and supplemental information referred to above and, accordingly, do not express an opinion or any other form of assurance on them.

These financial statements and supplemental information are presented in accordance with the requirements of the Public Service Commission of West Virginia, which differ from generally accepted accounting principles. Accordingly, these financial statements and supplemental information are not designed for those who are not informed about such differences.

*CoxHollida LLP*

September 26, 2005

**SEWER UTILITIES  
(Classes A and B)**

**ANNUAL REPORT**

of

**Jefferson County Public Service District**

(Name of Respondent)

**210 WEST THIRD AVENUE, RANSON, WV 25438**

(Address of Respondent)

to the

**PUBLIC SERVICE COMMISSION**

of

**West Virginia**

For the Year Ended **June 30, 2005**

Name, title, address, and telephone number (including area code) of officer or other person to whom should be addressed any communication concerning this report.

**Susanne Lawton, General Manager  
210 West Third Avenue, Ranson, WV 25438  
(304) 725 - 4962**

## NOTICE

### GENERAL INSTRUCTIONS

1. The original copy of this report form properly filled out and verified should be filed with the Public Service Commission of West Virginia on or before the last day of the third month following the close of the calendar year or other established fiscal year by each class A and Class B public utility (as defined in the Uniform System of Accounts). One copy of the report should be retained by the respondent in files. The conformed copies may be carbon copies if legible.
2. This form of annual report is prepared in conformity with Uniform System of Accounts for Public Utilities prescribed by the Public Service Commission of West Virginia, and all accounting words and phrases are to be interpreted in accordance with the said classification.
3. Instructions should be carefully observed and each question should be answered fully and accurately whether it has been answered in previous annual report or not. Where the word "none" truly and completely states the fact, it should be given to any particular inquiry. Where dates are called for, the month and day should be stated as well as the year. Customary abbreviations may be used in stating dates.
4. If any schedule does not apply to the respondent such fact should be shown on the schedule by the words "not applicable".
5. All entries should be made in permanent form. Entries of a contrary or opposite character (such as decreases reported in a column providing for both increases and decreases) should be enclosed in parentheses. Reports made out with a pencil, in hectograph impression, or by other means which do not result in a permanent record, will not be accepted.
6. Commission authorization (abbreviated Comm. Auth.) used in the report mean the authorization of the Commission or any other commission. Where a commission authorization is shown, the identity of the commission should also be given.
7. The annual report should in all particulars be complete in itself. Reference to report of previous years or to other reports should not be made in lieu of required entries except as specifically authorized.
8. Wherever schedules call for comparison of figures of a previous year, the figures reported must be based upon those shown by the annual report of the previous year, or an appropriate explanation given why the different figures were used.
9. Additional statements inserted for the purpose of further explanation of accounts or schedules should be made on durable paper conforming to this form in size and width of margin. The inserts should be securely bound in the report. Inserts should be the schedule numbers and titles of the schedule to which they pertain.
10. The word "respondent" wherever used in this report means the person, firm, association, corporation or municipal corporation in whose behalf the report is made.
11. If the respondent makes a report for a period other than a calendar year, the beginning and the end of the period covered must be clearly stated on the front cover, and throughout the report where the year or period is required to be stated.
12. The respondent is requested to file with the Commission a copy of all report to stockholder issued since the filing of the last annual report to the Commission.
13. Round off cents to the nearest whole dollar on all schedules except where cents are important.

## LIST OF SCHEDULES

Designate in column "c" by the terms of "not applicable," as appropriate, in instances where no information or amounts have been reported in certain schedules. Pages may be omitted where the responses are "none" or "not applicable" to the schedules on such pages.

Title of Schedule (a)	Schedule Page No. (b)	Remarks (c)
<b>Identity of Respondent</b>	4	
<b>Officers and Directors or Officials</b>	5	
<b>Important Changes During the Year</b>	5	
<b>Comparative Balance Sheet</b>	6-7	
<b>Long-Term Debt</b>	8	
<b>Reserve for Depreciation of Utility Plant</b>	9	
<b>Reserve for Amortization of Utility Plant Acquisition Adjustments</b>	9	Not Applicable
<b>Capital Surplus</b>	9	Not Applicable
<b>Income and Earned Surplus Accounts</b>	10-11	
<b>Statement of Cash Flows</b>	11a-11b	
<b>Miscellaneous Credits to Surplus</b>	12	Not Applicable
<b>Miscellaneous Reservations of Surplus</b>	12	Not Applicable
<b>Miscellaneous Debits to Surplus</b>	12	
<b>Salaries of All Officials</b>	12	
<b>Sewer Plant in Service, Leased to Others, and Held for Future Use</b>	14-15	
<b>Sewer Plant Acquisition Adjustments</b>	16	Not Applicable
<b>Reserve for Depreciation of Sewer Plant</b>	16	
<b>Sewer Plant in Process of Reclassification</b>	17	Not Applicable
<b>Sewer Operating Revenues</b>	18	
<b>Sewer Operating Expenses</b>	19-20	
<b>Verification</b>	21	



## IDENTITY OF RESPONDENT

1. Exact name of respondent.

Jefferson County Public Service District

2. If name of respondent was changed during year, give particulars of change and date change became effective.

N/A

3. Address of principal business office at end of year.

210 West Third Avenue, Ranson, WV 25438

4. Communities served by respondent.

Jefferson County, West Virginia

5. Name and title of office having custody of the general corporate books of account and address of office where the general corporate books are kept.

Susanne Lawton, General Manager  
210 West Third Avenue, Ranson, WV 25438

6. Name of State under the laws of which respondent is incorporated and date of incorporation.

N/A

7. If respondent is not incorporated, give the type of organization and date organized.

Public Service District  
December, 1983

8. If at any time during the year the property of respondent was held by a receiver or trustee, give (a) name of receiver or trustee, (b) date such receiver or trustee took possession, (c) the authority by which the receivership or trusteeship was created, and (d) date when possession by receiver or trustee ceased.

N/A

9. State the classes of utility or other services furnished by respondent during the year.

Class "A" Utility

**OFFICERS AND DIRECTORS OR OFFICIALS**

Report below the officers and directors or respondent at end of year. If there were any changes during the year, show title, name and address of previous officer or directory and date of change. List officers first, then directors, listing twice officers who are also directors.

Line No.	Name (a)	Official Title (b)	Principal Business Address (c)
1	H.M. "Marty" Kable	Chairman	845 Cranes Lane, Charles Town, WV 25414
2	Joseph Hankins	Secretary	977 Turner Road, Shepherdstown, WV 25443
3	Jack Lantzy	Treasurer	88 Sybil Court, Shepherdstown, WV 25443
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

1. State number of meetings of board of directors held during year

22

2. State number of directors required to constitute a quorum.

2

3. State total amount of directors' fees paid during year

\$

5,600

**IMPORTANT CHANGES DURING THE YEAR**

Hereunder give particulars concerning the matters indicated below. Make the statements explicit and precise, and number them in accordance with the inquiries. Each inquiry must be answered. However, if the word "none" states the fact it may be used in answering any inquiry, or if information is given elsewhere in the report which answers any inquiry, reference to such schedules will be sufficient.

1. Important extensions or system giving location, new territory covered by sewer system, and dates of beginning operations.
2. Estimated increase or decrease in annual revenues due to important rate changes, giving basis of estimate and stating for each revenue classification the amounts of increase or decrease and the number of customers affected for each such classification.
3. Additional matters of fact (not elsewhere provided for) which the respondent may desire to include in its report.

1 See Page 13

2 None

3 A separate report for a class D utility reflecting the water department's activity is being filed by the Jefferson County Public Service District for the year ended June 30, 2005.





**LONG-TERM (Accounts 210, 211, 212 and 213)**

1. Report by balance sheet accounts particulars concerning long-term debt included in Accounts 210, Bonds; 211 Receivers' Certificates; 212, Advances from Associated Companies; and 213, Miscellaneous Long-Term Debt.
2. For bonds assumed by the respondent, column (a) should include name of the issuing company as well as the description of the bonds.
3. Advances from Associated Companies should be reported separately for Advances on Notes, Account 212.1 and Advances on Open Accounts, Account 212.2. Demand notes shall be designated as such. Names of associated companies from which advances were received shall be shown in col. (a).
4. For receiver's certificates show the name of the court and date of court order under which such certificates were issued
5. In an insert schedule give explanatory particulars for Accounts 211, 212 and 213 of net changes during the year. With respect to long-term advances, show for each company (a) principal advanced during year, (b) interest added to principal amount and (c) principal repaid during year. Give Commission authorization numbers and dates.
6. If the respondent has pledged any of its long-term debt securities give particulars in a footnote, including name of the pledges and purpose of the pledge.
7. If the respondent has long-term debt securities which have been nominally issued and are nominally outstanding at end of year, describe such securities in a footnote.
8. If interest expense was incurred during the year on any obligations retired or reacquired before end of year, include such interest expense in column (f). Explain any difference between the total of column (f) and the total of Account 530. Interest on Long-Term Debt and Account 534.1, interest on Advances from Associated Companies.
9. Give particulars concerning any long-term debt authorized by a regulatory commission but not yet issued.

Line No.	Class and Series of Obligation (a)	Nominal Date of Issue (b)	Date of Maturity (c)	Outstanding Balance Sheet (d)	INTEREST FOR YEAR		HELD BY RESPONDENT		Redemption Price Per \$100 End of Year (l)
					Per Rate (e)	Amount (f)	Reacquired Long-Term Debt (Acct. 153) (g)	Sinking and Other Funds (h)	
1	WDA-Series 1988B	05/05/88	10/10/28	262,012	0%			24,064	
2	SRF-Series 1993A	11/10/93	11/10/13	412,658	0%			64,690	
3	Series 1998 A	03/12/98	10/01/28	2,155,000	4.15%	111,370	*	319,038	
4	Series 1998 B	06/25/98	06/01/19	419,353	0%			39,624	
5	Series 1998 C	06/25/98	06/01/38	662,039	0%			0	
6	SRF-Series 1999A	12/08/99	03/01/30	312,147	0%			16,551	
7	SRF-Series 2000A	06/22/00	12/01/31	1,020,144	0%			49,903	
8	Series 2003 A	06/01/03	06/01/28	1,445,000	Various	71,965	*	135,484	
9	Series 2003 B	06/01/03	06/01/06	15,000	5.5%	2,750	*	9,690	
10	Deferred Loss on Refinancing	06/25/98		(319,243)		13,880	*	0	
11	WVHDF Note Payable	06/25/98	06/01/08	943,585	0%			0	
	Class and Series of Obligation (j)		Total Issue (k)	Discount (l)	Premium (m)	Issuance Expense (n)	Net Proceeds (o)	Unamortized Discount and Expense (p)	Unamortized Premium (r)
1	WDA-Series 1988B		425,767			0	425,767	0	
2	SRF-Series 1993A		971,000			27,778	943,222	12,817	
3	Series 1998 A		2,430,000			186,260	2,243,740	140,928	
4	Series 1998 B		599,089			28,000	571,089	18,181	
5	Series 1998 C		662,039			44,094	617,945	36,362	
6	SRF-Series 1999A		378,363			17,001	361,362	13,601	
7	SRF-Series 2000A		1,132,930			35,133	1,097,797	28,106	
8	Series 2003 A		1,445,000			134,065	1,310,935	123,358	
9	Series 2003 B		85,000			7,866	77,134	7,236	
10	Deferred Loss on Refinancing		0			0	0	0	
11	WVHDF Note Payable		950,000			9,500	940,500	2,837	
	111,370 *								
	71,965		199,965						
	2,750		(34,273)						
	13,880		33,551						
	199,965		199,243						

Accrued interest at 06/30/04  
Accrued interest at 06/30/05  
Interest expense Page 10, Account 530

**LONG-TERM (Accounts 210, 211, 212 and 213)**

1. Report by balance sheet accounts particulars concerning long-term debt included in Accounts 210, Bonds; 211 Receivers' Certificates; 212, Advances from Associated Companies; and 213, Miscellaneous Long-Term Debt.
2. For bonds assumed by the respondent, column (a) should include name of the issuing company as well as the description of the bonds.
3. Advances from Associated Companies should be reported separately for Advances on Notes, Account 212.1 and Advances on Open Accounts, Account 212.2. Demand notes shall be designated as such. Names of associated companies from which advances were received shall be shown in col. (a).
4. For receiver's certificates show the name of the court and date of court order under which such certificates were issued
5. In an insert schedule give explanatory particulars for Accounts 211, 212 and 213 of net changes during the year. With respect to long-term advances, show for each company (a) principal advanced during year, (b) interest added to principal amount and (c) principal repaid during year. Give Commission authorization numbers and dates.
6. If the respondent has pledged any of its long-term debt securities give particulars in a footnote, including name of the pledges and purpose of the pledge.
7. If the respondent has long-term debt securities which have been nominally issued and are nominally outstanding at end of year, describe such securities in a footnote.
8. If interest expense was incurred during the year on any obligations retired or reacquired before end of year, include such interest expense in column (f). Explain any difference between the total of column (f) and the total of Account 530. Interest on Long-Term Debt and Account 534.1, interest on Advances from Associated Companies.
9. Give particulars concerning any long-term debt authorized by a regulatory commission but not yet issued.

Line No.	Class and Series of Obligation  (a)	Nominal Date of Issue  (b)	Date of Maturity  (c)	Outstanding Balance Sheet  (d)	INTEREST FOR YEAR		HELD BY RESPONDENT		Redemption Price Per \$100 End of Year (l)
					Per Rate  (e)	Amount  (f)	Reacquired Long-Term Debt (Acct. 153)  (g)	Sinking and Other Funds  (h)	
1	WDA Note Payable	12/15/97	12/01/17	145,000	0%			-	
2									
3									
4									
5									
6									
7									
8									
9									
10									
11	Total			7,472,695				659,044	
	Class and Series of Obligation  (j)		Total Issue  (k)	Discount  (l)	Premium  (m)	Issuance Expense  (n)	Net Proceeds  (o)	Unamortized Discount and Expense  (p)	Unamortized Premium  (r)
1	WDA Note Payable		145,000			3,750	141,250	-	
2									
3									
4									
5									
6									
7									
8									
9									
10									
11	Total							383,426	

**RESERVE FOR DEPRECIATION OF UTILITY PLANT**

(Comprising Reserve for Depreciation of Sewer Plant and Similar Reserves for Other Utility Departments included in reserve for Depreciation and Amortization of Other Property.)

1. Report below a summary of the reserves for depreciation of sewer and other utility plant at the end of year and the changes in such reserves during the year.

2. The amounts entered in columns ( c ), (d) and (e) for sewer plant, line 1 should agree with the amounts reported on page 16, Reserve for Depreciation of Sewer Plan, lines 32,38 and 43.

Line No.	Name of utility department (a)	Balance Beginning of Year (b)	Depreciation accruals for year (c)	Net changes for plant retired during year (d)	Other items debit or credit (e)	Balance end of year (f)
1	<b>Sewer account 250</b>	<b>2,855,557</b>	<b>305,770</b>	<b>(12,811)</b>	<b>(2,731)</b>	<b>3,145,785</b>
2	<b>Other:</b>					
3	<b>Common</b>					
4	<b>Gas</b>					
5	<b>Water</b>					
6						
7						
8						
9	<b>Total</b>	<b>2,855,557</b>	<b>305,770</b>	<b>(12,811)</b>	<b>(2,731)</b>	<b>3,145,785</b>

**RESERVE FOR AMORTIZATION OF UTILITY PLANT ACQUISITION ADJUSTMENTS**

(Comprising Reserve for Amortization of Sewer Plant Acquisition Adjustments and Similar reserves for Other Utility Departments Included in reserve for Depreciation and Amortization of Other Property.)

1. Report below the changes during year in the reserves for amortization of utility plant acquisition adjustments.

2. Describe each debit and credit during year and state contra accounts debited or credited

Line No.	Item (a)	Sewer (b)	(c)	(d)	(e)	Total (f)
21	Balance beginning of year					
22	CREDITS					
23	(Specify Accounts Debited)					
24						
25						
26						
27	Total credits					
28	DEBITS					
29	(Specify Accounts Credited)					
30						
31						
32						
33	Total debits					
34	Balance end of year					<b>N/A</b>

**CAPITAL SURPLUS**

1. Report below an analysis of the changes in capital surplus during year.

2. State the nature of capital surplus and describe how it arose.

Line No.	Item (a)	Amount (b)
51	Balance beginning of year	
52	Credits	
53	(Give nature of each credit and state account charged.)	
54		
55		
56		
57	Total Credits	
58	Debits	
59	(Give nature of each debit and state account credited.)	
60		
61		
62		
63	Total Debits	
64	Balance end of year	<b>N/A</b>

**INCOME AND EARNED SURPLUS ACCOUNTS**

1. Report below a statement of income and changes in Earned Surplus for the year according to prescribed accounts.
2. If the increases and decrease are not derived from previously reported figures explain in footnotes.

Line No. (a)	Title of Account (a)	Sch. Page No. (b)	Current Year (c)	Increase or Decrease from Preceding Year (d)
1	OPERATING INCOME			
2	501 Operating Revenue	18	1,419,612	118,571
3	Operating Revenue Deductions			
4	502 Operating Expenses	19-20	1,124,416	243,404
5	503 Depreciation	9	305,770	(4,324)
6	504 Amortization of Limited-Term Utility Investments			
7	505 Amortization of Utility Plant Acquisition Adjustments	9		
8	506 Property Losses chargeable to Operations			
9	507 Taxes		21,886	2,120
10	Total Operating Revenue Deductions		1,452,072	241,200
11	Net Operating Revenues		(32,460)	(122,629)
12	508 Income from Utility Plant Leased to Others			
13	509 Rent for Lease of Utility Plant			
14	Utility Operating Income			
15	OTHER INCOME			
16	520 Income from Mds., Jobbing and Contract Work			
17	521 Income from Non-Utility Operations			
18	522 Revenues from Lease of Other Physical Property			
19	523 Dividend Revenues			
20	524 Interest Revenues		3,582	2,604
21	525 Revenues from Sinking and Other Funds		12,899	6,516
22	526 Miscellaneous Non-Operating Revenues Note 1		126,684	(28,586)
23	527 Non-Operating Revenue Deductions			
24	Total Other Income		143,165	(19,466)
25	Gross Income			
26	INCOME DEDUCTIONS			
27	530 Interest on Long-Term Debt	8	199,243	(4,079)
28	531 Amortization of Debt Discount and Expense		18,470	(1,607)
29	532 Amortization of Premium on Debt-Cr.			
30	533 Taxes Assumed on Interest			
31	534 Interest on Debt to Associated Companies	8		
32	535 Other Interest Charges		108	35
33	536 Interest Charged to Construction-Cr.			
34	537 Miscellaneous Amortization			
35	538 Miscellaneous Income Deductions			
36	Total Income Deductions		217,821	(5,651)
37	Net Income		(107,116)	(136,444)
38	DISPOSITION OF NET INCOME			
39	540 Miscellaneous Reservations of Net Income			
40	Balance Transferred to Earned Surplus		(107,116)	(136,444)
41	EARNED SURPLUS			
42	271 Earned Surplus, Beginning of Year		(953,739)	35,156
43	400 Credit Balance Transferred from Income Account		(107,116)	(136,444)
44	401 Miscellaneous Credits to Surplus	12	-	(5,828)
45	Total Credits		(1,060,855)	(107,116)
46	410 Debit Balance Transferred from Income Account			
47	411 Dividend Appropriations-Preferred Stock			
48	412 Dividend Appropriations-Common Stock			
49	413 Miscellaneous Reservations of Surplus	12		
50	414 Miscellaneous Debits to Surplus	12	(8,181)	(8,181)
51	Total Debits		(8,181)	(8,181)
52	271 Earned Surplus, End of Year		(1,069,036)	(115,297)

Note 1 Amount includes contributions in aid of construction which is now reported as income in accordance with GASB statement No. 33.

Misc Non Operating Revenues	126,434
Capital Contributions	250
	126,684



1. Report below a statement of income and charges in Earned Surplus for the year according to prescribed accounts.
2. If the increases and decreases are not derived from previously reported figures explain in footnotes.

[illegible]

**STATEMENT OF CASH FLOWS**

The overall design of the form has been categorized in accordance with FASB #95 - Statement of Cash Flows using the direct method. For those completing the form without assistance of an accountant, categorize receipts and disbursements using captions given and the blank lines as necessary to reconcile with cash accounts.

Cash Flows from Operating Activities include the cash effects of items normally appearing on an income statement. Other cash transactions should be reported as investing or financing activities, whichever appears to be the most appropriate for each circumstance.

Line No.	Statement of Cash Flows	Amount for Year
1	Cash Flows from Operating Activities:	
2	Cash from Customers Attributable to Operating Revenues	1,584,035
3	Less: Cash Paid for Operation & Maintenance Expenses	1,128,879
4	Cash Paid for Taxes Other Than Income Taxes	17,617
5	Income Taxes Paid	
6	Subtotal of Cash Flows from Operating Activities	437,539
7	Interest and Other Income Received	16,481
8	(Interest Paid)	(186,193)
9	Other Cash Inflows (Outflows) from Operating Activities:	
10	Decrease in Deferred Debits	
11	Decrease in Due Other Government	
12	Increase in Due Other Utility; Customer & Developer Deposits	
12	Net Cash Provided by (Used in) Operating Activities	267,827
	Cash Flows from Investing Activities:	
	Cash Inflows:	
13	Proceeds from Sale of Utility Plant	500
14	Contributions and Advances in Aid of Construction	
15	Contributions and Advances from Associated Companies	
16	Proceeds from Sale of Investment Securities	
17	Proceeds from Disposal of Other Non-current Assets	
	Cash Outflows:	
18	Expenditures on Additions to Utility Plant	(210,486)
19	Refunds of Customer Advances for Construction	
20	Investments in and Advances to Associated Companies	
21	Purchase of Investment Securities	
22	Acquisition of Other Non-current Assets	
23	Other Cash Inflows (Outflows) from Investing Activities	
24	Net Decrease (Increase) in Preliminary Surveys	15,739
25	(Decrease) in Deferred Debits	
26		
27	Net Cash Provided by (Used in) Investing Activities	(194,247)
	Cash Flows from Financing Activities:	
	Cash Inflows - Proceeds from Issuance of:	
28	Long-Term Debt	99,358
29	Preferred Stock	
30	Common Stock	
	Cash Outflows	
31	Payments for Retirement of Long-Term Debt	(231,289)
32	Preferred Stock	
33	Common Stock	
34	Dividends on Preferred Stock	
35	Dividends on Common Stock	
	Other Cash Inflows (Outflows) from Financing Activities	
36	Net Increase or (Decrease) in Short-Term Debt	
37	Net Increase or (Decrease) in Customer Deposits	24,119
38	Net Increase or (Decrease) in Developer Deposits	
39		
40		
41		
42	Net Cash Provided by (Used in) Financing Activities	(107,812)
43	Net Increase (Decrease) in Cash and Cash Equivalents	(34,232)
44	Cash and cash Equivalents - Beginning of Year	1,164,694
45	Cash and cash Equivalents - End of Year	1,130,462

## STATEMENT OF CASH FLOWS

Line No.	Reconciliation of Net Income to Net Cash Provided by Operating Activities	Amount for Year
46	Net Income	(107,116)
	Adjustments to reconcile net income to net cash provided by operating activities:	
47	Depreciation and amortization	305,770
48	Net deferred taxes & investment tax credits	
49	(Allowance for funds used during construction)	
50	(Gain) Loss recognized on disposition of assets	(501)
51	Amortization of debt discount (premium) on debt	18,470
52	Net (increase) decrease in receivables	38,239
53	(Increase) decrease in materials and supplies	
54	(Increase) decrease in prepayments	-
55	Net (increase) decrease in other accrued revenues & assets	259
56	Increase (decrease) in accounts payable	(4,722)
57	Increase (decrease) in interest accrued	(722)
58	Net increase (decrease) in taxes accrued & taxes payable	4,269
59	Net increase (decrease) in other accrued expenses	
60	Increase (decrease) in operating reserves	-
61	Other Adjustments - AMORTIZATION OF DEFERRED LOSS	13,880
62	rounding	1
63		
64		
65		
66	Net cash provided by operating activities	267,827

**MISCELLANEOUS CREDITS TO SURPLUS (Account 401)**

1. Report below the nature, account charged, and amount of miscellaneous credits to surplus during year.

Line No.	Nature of Credit (a)	Account Charged (b)	Amount (c)
1	N/A		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14	Total		-

**MISCELLANEOUS RESERVATIONS OF SURPLUS and MISCELLANEOUS DEBITS TO SURPLUS (Accounts 413 or 414)**

1. Report below the amount, account credited, and nature of each reservation and miscellaneous debit to surplus during year. Show separate totals for accounts 413 and 414. Minor items may be grouped.  
 2. State the basis on which surplus reservations were determined and, if recurrent reservations are to be made, state the number and annual amounts of such reservations or the eventual total amount to be reserved.

Line No.	Nature of reservation or miscellaneous debit (a)	Account Credited (b)	Amount (c)
31	Prior year audit adjustments	414	8,181
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43	Total		8,181

**SALARIES OF ALL OFFICIALS**

1. Report below the amount of compensation paid during the year to each elected officer of the respondent. Report also the compensation of the general manager, if the general manager or person holding a position comparable to general manager is not an elected officer of respondent.  
 2. If compensation reported for any officer does not cover the full year, state the period covered.  
 3. Bonuses and other allowances should be included in the total compensation. Furnish particulars as to such other compensation

Line No.	Name and title (a)	Total compensation for year (b)	DISTRIBUTION TO ACCOUNT CLASSIFICATIONS (state utility department and account number)				
			791 (c)	790 (d)	(e)	(f)	(g)
61	General Manager						
62	Susanne Lawton	51,700		51,700			
63							
64							
65	Board Members						
66							
67							
68	H.M. "Marty" Kable	1,875	1,875				
69	Jack Lantzy	1,950	1,950				
70	Joseph Hankins	1,775	1,775				
71							
72							
73							

**CONSTRUCTION WORK IN PROGRESS-SEWER (Account 100.3)**

1. Report below the particulars called for concerning sewer plant in process of construction but not ready for service at the date of the balance sheet

2. Minor projects may be grouped by classes. Show number of items in each group.

Line No.	Description of Project (a)	Balance End of Year (b)	Estimated Total Cost of Project (c)
1	Walnut Grove Project-upgrade eliminated 6 pump stations and now are	324,555	1,333,934
2	down to 2 new pump stations. This alternate main line extension serves		
3	the Walnut Grove, Briar Run, Cambridge, and Breckenridge subdivisions.		
4	Walnut Grove and Breckenridge portion of project is completed and that		
5	balance has been reclassified from construction work in progress to utility		
6	plant, however Briar Run, and Cambridge are still considered in process		
7	due to new home construction. Estimated date of completion - 2006.		
8			
9			
10	Norbourne Glebe - Currently 23 homes on billing out of 602 homes to be	3,533	500,000
11	built.		
12			
13			
14			
15	Locust Knoll (aka Jett Farm) - Awaiting on cost details from engineers. No	74	100,000
16	alternate mainline extension agreement as of yet.		
17			
18			
19	Sheridan - The developer deeded 3 acres to the District for a treatment	8,798	900,000
20	plant. Homes have started in this subdivision. Upon completion of the		
21	subdivision, the District will purchase the treatment plant for \$1.		
22			
23	Athey Townhouse - Green Meadow Town Homes - Currently 64 homes on	14,028	52,847
24	billing. County Green - Currently 77 homes.		
25			
26	Thornhill - Subdivision that will have 697 homes. None currently online.	2,693	500,000
27	Upon completion of the subdivision, the District will purchase the treatment		
28	plant for \$1.		
29			
30	Arcadia/Harvest - Subdivision that will have 416 homes. None currently	1,991	100,000
31	online.		
32			
33			
34	Wormald/Beallair - Subdivision that will have approximately 400 homes.	3,520	100,000
35	None currently online.		
36			
37	Spruce Hill North - Subdivision that will have 130 homes. None currently	1,342	100,000
38	online.		
39			
40	Deerfield - 48 customers. The District will purchase this plant for \$1.	4,086	10,000
41			
42			
43			
44	Total	364,620	3,696,781
45			
46			
47			
48			

## SEWER PLANT IN SERVICE, LEASED TO OTHERS, AND HELD FOR FUTURE USE (CLASS A AND CLASS B SEWER UTILITIES)

1. Report by prescribed accounts the original cost of sewer plant in service and the additions and retirements of such plant during year; also, the original cost and additions and retirements during year of sewer plant leased to others and sewer plant held for future use.

2. Do not include as adjustments, corrections of additions and retirements for the current year or preceding year. Such items should be included in the appropriate column (d) or (e).

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Balance End of Year (f)
1	I. Intangible Plant					
2	301 Organization					
3	302 Franchises and Consents					
4	303 Miscellaneous Intangible Plant					
5	Total Intangible Plant	0	0	0	0	0
6	II. TANGIBLE PLANT					
7	LAND AND LAND RIGHTS					
8	311 Land and Land Rights					
9	311.1 Collecting System Land	50,842				50,842
10	311.2 Pumping System Land	22,729				22,729
11	311.3 Treatment and Disposal System Land					
12	311.4 Miscellaneous Land	2,754				2,754
13	Total Land and Land Rights	76,325	0	0	0	76,325
14						
15	312 Structures and Improvements					
16	312.1 Collecting System	139,301				139,301
17	312.2 Pumping System					
18	312.3 Treatment and Disposal System	1,100,805				1,100,805
19	312.4 General Plant					
20	Total Structures and Improvements	1,240,106	0	0	0	1,240,106
21	COLLECTING SYSTEM					
22	320 Service Connections, Traps and Accessories					
23	321 Collecting Mains and Accessories	9,298,697	340			9,299,037
24	322 Transmission Mains and Accessories	240,858				240,858
25	323 Other Collecting System Equipment					
26	Total Collecting System	9,539,555	340	0	0	9,539,895
27	PUMPING SYSTEM					
28	330 Receiving Wells					
29	331 Electric Pumping Equipment	1,699,971	54,072			1,754,043
30	332 Other Power Pumping Equipment					
31	333 Force Mains	1,066,676	13,673			1,080,349
32	334 Miscellaneous Pumping System Equipment					
33	Total Pumping System	2,766,647	67,745	0	0	2,834,392
34						

## SEWER PLANT IN SERVICE. LEASED TO OTHERS. AND HELD FOR FUTURE USE (continued)

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Balance End of Year (f)
35	TREATMENT AND DISPOSAL SYSTEM					
36	341 Grit Removal Chambers					
37	342 Grit Removal Equipment					
38	343 Sedimentation Tanks					
39	344 Sludge Removing Equipment					
40	345 Sludge Concentration Chambers					
41	346 Decanting Equipment					
42	347 Sludge Pumping Equipment					
43	348 Sludge Digesting Tank and Accessories					
44	349 Heating Equipment and Accessories					
45	350 Waste Burning Equipment					
46	351 Sludge Drying and Filtering Equipment					
47	352 Other Sewage Removing Equipment					
48	353 Chlorination Plant and Accessories					
49	354 Chlorine Contact Tanks					
50	355 Other Chemical Treatment Plant and Equipment					
51	356 Outfall Pipes and Accessories					
52	357 Other Disposal Equipment					
53	Total Treatment and Disposal System	0	0	0	0	0
54						
55						
56	GENERAL PLANT					
57						
58	391 Office Furniture and Equipment	116,705	2,175		(2,615)	116,265
59	392 Transportation Equipment	95,333	23,844	(12,811)		106,366
60	393 Stores Equipment					
61	394 Tools and Shop Equipment					
62	395 Laboratory Equipment					
63	397 Communication Equipment	4,098	909			5,007
64	398 Miscellaneous General Plant					
65	399 Utility Plant Purchased or Sold					
66	Total General Plant	216,136	26,928	(12,811)	(2,615)	227,638
67	Total Tangible Plant	13,838,769	95,013	(12,811)	(2,615)	13,918,356
68	Total Sewer Plant in Service	13,838,769	95,013	(12,811)	(2,615)	13,918,356
69						
70						
71	SUMMARY OF SEWER PLANT	Balance Beginning of Year	Balance End of Year			
72						
73	Balance Sheet Subaccount					
74	100.1 Sewer Plant in Service, Leased to Others, and Held for Future Use	13,838,769	13,918,356			
75	100.3 Construction Work in Progress	242,611	364,620			
76	100.5 Sewer Plant Acquisition Adjustments					
77	100.6 Sewer Plant is Process of Reclassification					
78	Total Sewer Plant Per Balance Sheet	14,081,380	14,282,976			

**SEWER PLANT ACQUISITION ADJUSTMENTS (Account 100.5)**

1. Report below the changes in the above account during the year.
2. If debits or credits were made to this account during the year, arising from acquisitions of sewer plant, furnish a statement showing the following information for each acquisition:
  - (a) Particulars as to the cost of property to respondent, showing the amount of cash, securities or other consideration.
  - (b) Original cost of property and how original cost was determined.
  - (c) Depreciation and amortization reserves recorded and how reserve requirements were determined.
  - (d) Amount of plant acquisition adjustment.
  - (e) Classification of plant acquisition adjustments according to the character of the amounts comprising the total.
  - (f) Date and other reference to Commission authorization of acquisition.
  - (g) Plan for amortization of acquisition adjustments and date of Commission approval of plan.
  - (h) Basis of computing amount of acquisition adjustment applicable to sewer plant where sewer plant and other plant were acquired in the same transaction.
3. State in a footnote the amounts, if any, of plant acquisition adjustments applicable to sewer plant leased to others and sewer plant held for future use.

Line No.	Item (a)	Amount (b)
1	Balance beginning of year	
2	DEBITS	
3	From plant acquisitions during year (debit)	
4	Other debits (give nature of debit and account credited):	
5		
6		
7	Total debits	
8	CREDITS	
9	From plant acquisitions during year (credit)	
10	Other credits (give nature of credit and account debited):	
11		
12		
13	Total credits	
14	Balance end of year	N/A

**RESERVE FOR DEPRECIATION OF SEWER PLANT (Account 250)**

1. Report below the information called for concerning reserve for depreciation of sewer plant at end of year.
2. Explain any important adjustments during year.
3. Show separately amounts computed as interest credits under a sinking fund or similar method of depreciation reserve accounting.
4. If the respondent maintains a separate classification for common utility plant, a portion of the reserve for depreciation of such plant should be allocated to the reserve for depreciation of sewer plant. Explain the basis of such allocation and state if there was any change in the basis of allocation from that of the previous year.
5. If any portion of the depreciation reserve balance at end of year applies to sewer plant leased to others or to sewer plant held for future use, state such amounts in a footnote.

Line No.	Item (a)	Amount (b)
31	Balance beginning of year	2,855,557
32	Depreciation accruals for year, charged to:	
33	Depreciation	305,770
34	Other accounts (specify)	
35		
36		
37	Total depreciation accruals for year	305,770
38	Net charges for plant retired:	
39	Book cost of plant retired	(12,811)
40	Cost of removal	
41	Salvage (credit)	
42	Net charges for plant retired	(12,811)
43	Other debit or credit items (describe):	
44	Effect of prior year audit adjustment	(2,731)
45		
46		
47	Total debit or credit items (net debit)	(2,731)
48	Balance end of year	
49	Allocation to sewer plant of reserve for depreciation of common utility plant	
50	Total reserve for depreciation of sewer plant including reserve for common utility plant allocated	3,145,785



**SEWER PLANT IN PROCESS OF RECLASSIFICATION**

Report below, accordance to accounts to which classified in the books of the respondent, the amount of sewer utility plant which has not been classified in accordance with the sewer plant accounts prescribe in the Uniform System of Accounts.

Line No.	Number and Title of Account (a)	Balance Beginning of Year (b)	Retirements (c)	Adjustments (d)	Balance End of Year (e)
1	N/A				
2					
3					
4					
5					
6					
7					
8					
9					
10					
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12					
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60					

## SEWER OPERATING REVENUES

1. Report below the amount of operating revenues for the year for each account and the amount of increase or decrease over the preceding year.
2. If increases and decreases are not derived from previously reported figures, explain any inconsistencies.

3. Number of customers should be reported on the base of number of meters. The average number of customers means the average of the 12 figures at the close of each month.
4. Unmetered sales should be included below. The details of such sales should be given in a footnote.

Line No.	Account (a)	OPERATING REVENUES		AVERAGE NUMBER OF CUSTOMERS	
		Amount for Year (b)	Increase or Decrease from Preceding Year (c)	Number for Year (d)	Increase or Decrease from Preceding Year (e)
1	SALES OF SEWER SERVICE				
2	601 Domestic Service	1,377,603	117,636	1,827	287
3	602 Industrial Waste Service				
4	606 Service to Public Authorities				
5	607 Service to Other Systems				
6	609 Other Sewerage Service				
7	Total Sales of Sewer Service	1,377,603	117,636	1,827	287
8	OTHER SEWER REVENUES				
9	610 Rents from Sewerage Property				
10	612 Customers' Forfeited Discounts and Penalties	42,009	935		
11	615 Miscellaneous Sewerage Revenues				
12	616 Merchandising, Jobbing and Contract Work				
13	Total Other Sewer Revenues	42,009	935		
14	Total Sewer Operating Revenues	1,419,612	118,571	1,827	287

## SEWER OPERATING EXPENSES

1. Enter in the spaces provided the sewer operating expenses for the year.

2. If the increases and decreases are not derived from previously reported figures explain in footnotes.

Line No.	Amount (a)	Class		Amount for Year (d)	Increase or Decrease from Preceding Year (e)
		A (b)	B (c)		
1	COLLECTING EXPENSES				
2	Operation:				
3	701 Operation Supervision and Engineering	A	B		
4	702 Operation Labor	A	B	34,378	(7,300)
5	703 Supplies and Expenses	A	B	390	(1,362)
6	Total Operation			34,768	(8,662)
7	Maintenance:				
8	704 Maintenance Supervision and Engineering	A	B		
9	705 Maintenance of Collecting System Plant		B		
10	705.1 Maintenance of Service Connections and Traps	A		585	585
11	705.2 Maintenance of Collecting and Transmission Mains	A			
12	705.3 Maintenance of Structures and Improvements	A			
13	705.4 Maintenance of Other Collecting System Equipment	A			
14	Total Maintenance			585	585
15	Miscellaneous:				
16	708 Rents	A	B		
17	Total Collecting Expenses			35,353	(8,077)
18	PUMPING EXPENSES				
19	Operation:				
20	721 Operation Supervision and Engineering	A	B		
21	722 Operation Labor	A	B	70,972	26,127
22	723 Power and Fuel	A	B	43,670	2,612
23	724 Supplies and Expenses	A	B	7,343	1,408
24	Total Operation			121,985	30,147
25	Maintenance:				
26	725 Maintenance Supervision and Engineering	A	B		
27	726 Maintenance of Structures and Improvements	A	B	1,363	(2,279)
28	727 Maintenance of Pumping Equipment		B		
29	727.1 Maintenance of Power Pumping Equipment	A		47,748	38,791
30	727.2 Maintenance of Other Pumping System Equipment	A			
31	Total Maintenance			49,111	36,512
32	Miscellaneous:				
33	728 Rents	A	B		
34	Total Pumping Expenses			171,096	66,659
35	TREATMENT AND DISPOSAL EXPENSES				
36	Operation:				
37	741 Operation Supervision and Engineering	A	B		
38	742 Operation Labor	A	B		
39	743 Purification Supplies and Expenses		B		
40	743.1 Supplies and Expenses	A		169	(69)
41	743.2 Chemical Treatment Expenses	A			
42	Total Operation			169	(69)
43	Maintenance:				
44	744 Maintenance Supervision and Engineering	A	B		
45	745 Maintenance of Structures and Improvements	A	B		
46	746 Maintenance of Treatment and Disposal System Equipment	A	B		
47	Total Maintenance			0	0
48	Miscellaneous:				
49	747 Rents	A	B	243,984	17,652
50	Total Treatment and Disposal Expenses			244,153	17,583
51					
52					
53					
54					
55					

## SEWER OPERATING EXPENSES (Continued)

Line No.	Amount (a)	Class		Amount for Year (d)	Increase or Decrease from Preceding Year (e)
		A (b)	B (c)		
1	BILLING AND COLLECTING EXPENSES				
2					
3	780 Supervision	A	B		
4	781 Flat Rate Inspection	A	B		
5	782 Meter Reading	A	B	1,343	1,343
6	783 Billing Collecting and Accounting	A	B	57,541	(3,089)
7	784 Uncollectible Accounts	A	B	6,321	3,875
8	785 Rents	A	B		
9	Total Billing and Collecting Expenses			65,205	2,129
10					
11	ADMINISTRATIVE AND GENERAL EXPENSES				
12	790 Administrative and General Salaries	A	B	122,206	17,824
13	791 Other General Office Salaries	A	B	5,996	2,283
14	792 Expenses of General Officers and General Office Employees		B		
15	792.1 Expenses of General Officers	A			
16	792.2 Expenses of General Office Employees	A			
17	793 General Office Supplies and Expenses	A	B	63,634	12,769
18	794 Management and Supervision Fees and Expenses	A	B		
19	795 Special Services	A	B	190,884	38,839
20	796 Special Legal Services	A	B		
21	797 Regulatory Commission Expenses	A	B	11,195	3,530
22	798 Insurance	A	B	11,723	2,840
23	799 Injuries and Damages	A	B		
24	800 Employees' Welfare Expenses and Pensions		B		
25	800.1 Employees' Welfare Expenses	A		54,976	(1,606)
26	800.2 Pensions	A			
27	801 Miscellaneous General Expenses	A	B	129,962	87,780
28	802 Maintenance of General Property		B		
29	802.1 Maintenance of Structures and Improvements	A			
30	802.2 Maintenance of Office Furniture and Equipment	A		110	56
31	802.3 Maintenance of Communication Equipment	A			
32	802.4 Maintenance of Miscellaneous Property	A		6,823	195
33	803 Rents	A	B	11,100	600
34	804 Commissions Paid under Agency Sales Contracts	A	B		
35	805 Franchise Requirements	A	B		
36	807 Administrative and General Expenses Transferred-Credit	A	B		
37	808 Joint Expenses-Debit	A	B		
38	809 Joint Expenses-Credit	A	B		
39	Total Administrative and General Expenses			608,609	165,110
40					
41	SUMMARY OF OPERATING EXPENSES				
42					
43	Collecting Expenses			35,353	(8,077)
44	Pumping Expenses			171,096	66,659
45	Treatment and Disposal Expenses			244,153	17,583
46	Billing and Collecting Expenses			65,205	2,129
47	Administrative and General Expenses			608,609	165,110
48	Total Operating Expenses			1,124,416	243,404
49					
50	Total Salaries and Wages of Sewer Department for Year.				
51	Including Amounts Charged to Operating Expenses, Construction				
52	and Other Accounts			285,097	33,562
53					
54	Total Number of Employees of Sewer Department End of Year.				
55	Including Administrative, Operating, Maintenance, Construction				
56	and Other Employees			9	2

**VERIFICATION**

The foregoing report must be verified by the oath of the officer, or person duly designated, having control of the books and records of account of the utility. The oath required may be taken before any person authorized to administer an oath by the laws of the State in which the same is taken.

**OATH**State of West Virginia

SS:

County of JeffersonSusanne Lawton

makes oath and says that

(Insert here the name of the affiant)

she is General Manager

(Insert here the official title of the affiant)

of Jefferson County Public Service District

(Insert here the exact legal title or name of the utility)

that she has examined the foregoing report; that to the best of her knowledge, information, and belief, all statements of fact contained in said report are true and that said report is a correct statement of the business and affairs of the above-named utility in respect to each and every matter set forth therein during the period from and including--

July 1, 20 04, to and including June 30, 20 05

(Signature of affiant)

Subscribed and sworn to before me, a \_\_\_\_\_ in and  
for the State and county above named, this \_\_\_\_\_ day of \_\_\_\_\_,  
20 \_\_\_\_\_.

My commission expires \_\_\_\_\_, 20 \_\_\_\_\_

L.S.  
USE AN  
IMPRESSION  
SEAL

(Signature of officer authorized to administer oaths)

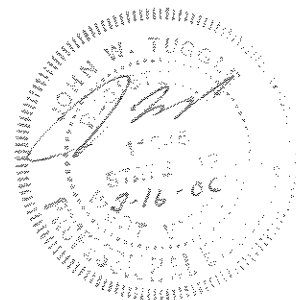
**PRELIMINARY ENGINEERING REPORT**  
**FOR**  
**2006 JEFFERSON COUNTY PUBLIC SERVICE DISTRICT**  
**WEST VIRGINIA INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL**  
**PROJECT PRELIMINARY APPLICATION**

**For**

**Jefferson County Public Service District**  
**March 16, 2006**

Prepared by:

**Pentree, Incorporated**  
1428 Main Street  
P. O. Box 1309  
Princeton, WV 24740



## **1. INTRODUCTION**

This document was developed to accompany the “West Virginia Infrastructure and Jobs Development Council Preliminary Application” after a facility plan titled “ 2005 Jefferson County Public Service District Wastewater Facility Plan ” had been developed for the Jefferson County Public Service District.

### **A.**

As a result of insufficient wastewater treatment capacity availability in the community, several developers have begun to obtain permits to construct their own wastewater treatment plants. The economics of industry have made it necessary for the developers to either build a wastewater treatment plant or cease business. This wastewater treatment capacity shortage has been created by dramatic and historic increases in residential and commercial development pressure both inside and outside the designated growth areas of Jefferson County. To provide stability in the treatment of wastewater to the community, the Jefferson County Public Service District plans to construct two wastewater treatment plants. The two plants will be located in the Flowing Springs and Evitts Run watersheds.

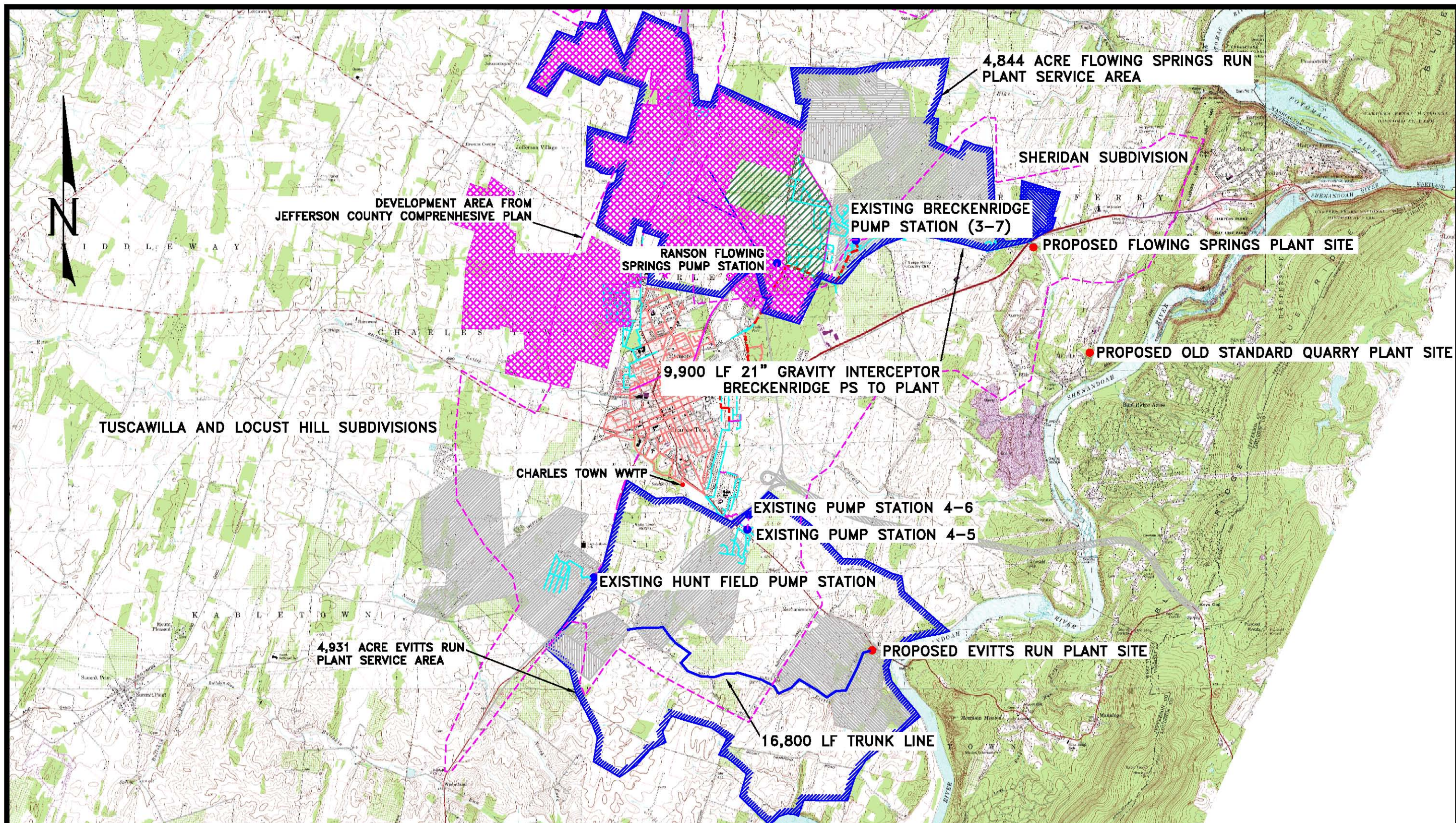
This plan is to provide sewage service for the Flowing Springs drainage basin downstream of the Ranson Annexation area of Jefferson County and for a portion of the Evitts Run drainage shed downstream of the Charles Town WWTP. The Flowing Springs service area lies within the Districts territory near Charles Town and is characterized as the flow which currently flows to the Breckenridge pump station. The Evitts Run service area is characterized as that area downstream of Route 340 whose flow which would flow by gravity to a wastewater treatment built near the mouth of Evitts Run.

The Jefferson County Public Service District, which was formed in 1983, is the implementing authority for this report. Its governing rules and regulations are based on those promulgated by West Virginia legislative bodies and the West Virginia Public Service Commission.

This project will provide a wastewater treatment plant and interceptor collection system for either Flowing Springs or Evitts Run in Jefferson County. Two applications are being submitted simultaneously, one for each basin.

- B. An 11 inch by 17 inch map detailing the study area has been attached as page 2 of this report.







## **II. CURRENT SITUATION**

### **A. SOURCES/DISCHARGE**

Data from the Eastern Panhandle Regional Planning and Development Council (Region 9) reports the following housing unit figures for sewage disposal in Jefferson County:

**Table 1**

<b>TYPE OF DISPOSAL</b>	<b>HOUSING UNITS</b>	<b>PERCENTAGE</b>
Public Sewer	5,906	40.4%
Septic Tank or Cesspool	8,486	58.1%
Other Means	214	1.5%
<b>TOTAL</b>	<b>14,606</b>	<b>100.0%</b>

Flowing Springs and Evitts Run currently receive effluent from sewage treatment plants. These streams most likely receive runoff from failed septic systems. These streams flow into the Shenandoah River.

Like other sewer service providers in the Eastern Panhandle, Charles Town has struggled with anticipating and providing for additional treatment capacity within its wastewater treatment plant as dictated by the rapidly growing development in the area. This has resulted in a increased shortfall of treatment capacity in Jefferson County. The City of Charles Town population has not grown as rapidly as the surrounding areas (Ranson and the Districts service area). The City of Charles Town has now begun to make upgrades at its wastewater treatment plant after realizing a shortfall in treatment capacity created a wastewater disposal crisis in the surrounding area. The Charles Town wastewater treatment plant most recent upgrade will increase its capacity to 1.75 MGD. The new capacity will be assimilated very rapidly.

### **B. CUSTOMERS**

The tables on the following pages details the new customers which will be served by these systems. In addition, the District will divert approximately 2,140 existing EDU's from the Charles Town plant to the proposed plants which will help relieve some of the development pressure which the Charles Town plant is currently experiencing.

**Table 2 - Proposed Development and Existing District Users in the Flowing Springs Drainage Shed**

USER	DAY 1	END YEAR 1	END YEAR 2	END YEAR 3	END YEAR 4	END YEAR 5	END YEAR 6	END YEAR 7
Existing Users of Pump Station 3-7 (Breckenridge PS)	677							
Robelei	31							
Orchard Hills Users	268							
Burr Industrial Park	286							
Jefferson Avenue Users	100							
Daniels Forest		25	25	25	25	25	25	25
Forest View		28	28	28	28	28	28	24
Aspen Green		20	20	20	20	20	20	20
Butler Lands				30	30	30	30	12
Breckenridge Subdivision		100	100	100	100	100	100	100
Briar Run		50	50	50	50			
Harvest Hills		30	100	100	100	86		
Burr/Bardane Industrial Park (200 EDU's)								
Locust Knoll (175 EDU Total)	0	25	25	25	25	25	25	25
Sub-Total	1362	278	348	378	378	314	228	206
Cumulative	1362	1,640	1,988	2,366	2,744	3,058	3,286	3,492
New Users to Contribute to Plant	0	278	626	1,004	1,382	1,696	1,924	2,130
Projected Water Usage @ 148 Gal/EDU/Day	201,576	242,720	294,224	350,168	406,112	452,584	486,328	516,816
Projected Flow to Plant @ 222 Gal/EDU/Day	302,364	364,080	441,336	525,252	609,168	678,876	729,492	775,224

Estimate 200 New EDU's per year for years 8, 9 and 10. The projected flow to the plant will be 819,624, 864,024 and 908,424 respectfully.

There are 4,844 acres in the Flowing Springs drainage shed which are expected to be developed. Allowing 2 single family dwelling per acre would generate 9,688 new households. Deduction the 2,130 units from the table above yields 7,558 EDU or a flow of 1,677,876 gallons per day which could be treated at a District Owned facility. This includes the Ranson Flowing Springs annexation area

**Table 3 -Proposed Development and Existing District Users in the Evitts Run Drainage Shed**

USER	DAY 1	END YEAR 1	END YEAR 2	END YEAR 3	END YEAR 4	END YEAR 5	END YEAR 6	END YEAR 7
Existing Users along Jefferson Avenue	356							
Existing Users of Pump Station 4-5	302							
Norborne Glebe	43	100	100	100	147	51		
Highland Farms		50	100	100	100	100	100	50
Spruce Hill		20	40	30				
Hayes Property*		70	100	100	100	100	100	100
Stolipher Farms*		46	46	46	46	46	46	48
Miscellaneous Commercial EDU's	77							
Dailey Farms (539 EDU's No buildout schedule submitted as of this writing)								
Sub-Total	778	286	386	376	393	297	246	198
Cumulative	778	1,064	1,450	1,826	2,219	2,516	2,762	2,960
New Users to Contribute to Plant	0	286	672	1,048	1,441	1,738	1,984	2,182
Projected Water Usage @ 148 Gal/EDU/Day	115,144	157,472	214,600	270,248	328,412	372,368	408,776	438,080
Projected Flow to Plant @ 222 Gal/EDU/Day	172,716	236,208	321,900	405,372	492,618	558,552	613,164	657,120

Estimate 200 New EDU's per year for years 8, 9 and 10. The projected flow to the plant will be 701,520, 745,920 and 790,320 respectfully.

There are 4,931 acres in the Evitts Run drainage shed which are expected to be developed. Allowing 2 single family dwelling per acre would generate 9,862 new households. Deduction the 2,182 units from the table above yields 7,680 EDU or a flow of 1,704,960 gallons per day which could be treated at a District Owned facility.

### **C. DISTRIBUTION/COLLECTION**

A gravity system from the Breckenridge Pump Station to the proposed Halltown Site plant and a gravity interceptor along Evitts Run to near Route 340 are the interceptors for these projects. Additional pump stations and force mains have been included to divert the flow from the existing District customers to the new "District" owned plants. The withdrawal of these customers will provide the initial flow needed for the plants to operate while providing additional capacity at the Charles Town WWTP. A map has been included on the following page which details the collection system proposed for this project.

### **D. TREATMENT**

The major treatment plants near the study area belong to the City of Charles Town (1.75 MGD), the Harpers Ferry-Bolivar PSD (0.3 MGD). The Charles Town Plant treats wastewater from Charles Town, Ranson and the Jefferson County P.S.D. including sources within the study area which will be diverted to the proposed treatment plant.

The Charles Town plant just increased its rated capacity. Development will continue to draw upon its resources. This project will take some of the development pressure off the Charles Town plant by diverting the Districts existing flow away from it. The existing flow which would be diverted from the Charles Town plant (current customers of the District) will be replaced by new flows from other developments.

The existing Harpers Ferry Plant (0.3 MGD) would gain no new flow. This 23 year old plant is in "fair condition" (response from Harpers Ferry/Bolivar PSD). Their expansion is limited by lack of land due to the Harpers Ferry National Historical Park. This plant, which discharges to the Shenandoah River, runs at about two-thirds of its capacity.

#### **Flowing Springs Plant:**

A cursory Infiltration/Inflow (I/I) analysis of the existing collection system served by the Breckenridge pump station has been provided, based on pump station analysis. Analysis of the Districts operational records indicate that the Breckenridge pump station ran a mean of 10.79 hours per day for the period of July 1, 2004 through November 30, 2004. The following calculation determines the flow from that station based on the runtime records:

$10.79 \text{ (hr/day)} \times 60 \text{ (min/hr)} \times 230 \text{ (gal/min)} \text{ pump rated capacity} = 148,902 \text{ (gal/day)}$   
Based on water usage records, an average of 137,592 gallons per day were expected to be pumped by this pump station.  
 $\text{Infiltration / Inflow} = \text{Actual Flow} - \text{Projected Flow} = 148,902 \text{ gallons per day} - 137,592 \text{ gallons} = 11,310 \text{ gallon per day}$

<b>Table 4 - Known Collection System for Breckenridge Pump Station</b>			
<b>Diameter (inches)</b>	<b>Length (ft)</b>	<b>Length (Miles)</b>	<b>Allowable infiltration Gallons per day</b>
8	38,812.00	7.35	11,761
10	461.00	0.09	175
18	2,775.00	0.53	1,892
21	2,837.00	0.54	2,257
Total			16,085

Allowable infiltration calculated at 200 gallons per inch diameter per mile length of pipe per day  
No allowance has been made for Sanitary Associates collection system as the extent of that system is unknown.

Based upon the size of the collection system, this analysis shows that the collection system is not exhibiting any appreciable infiltration or inflows. It should be noted that an increase in pump station run time does occur on days with heavy rainfall. This inflow could come from either the Districts collection system or the Sanitary associates collection system. Smoke testing should be performed to locate the source of the inflow(s) and eliminate it.

#### **Evitts Run Plant:**

A cursory Infiltration/Inflow (I/I) analysis of the existing collection system served by the Pump Station 4-5 has been provided, based on pump station analysis. Analysis of the Districts operational records indicate that the Pump Station 4-5 ran a mean of 4.46 hours per day for the period of **June 30, 2005 through November 15, 2005**. The District has had problems the pumps and check valves and this analysis period reflects performance after numerous repairs and increased maintenance was performed at the station. The following calculation determines the flow from that station based on the runtime records:

$$4.46 \text{ (hr/day)} \times 60 \text{ (min/hr)} \times 91 \text{ (gal/min)} \text{ (pump rated capacity @ c-120)} = 24,352 \text{ (gal/day)}$$

The pump station flow meter indicated that the station pumped an average of 31,612 GPD from June 30, 2005 through November 15, 2005. With pump A running an average of 3.22 hours per day and Pump B running an average of 1.24 hours per day. Based on water usage records from July 2004 thru June 2005, an average of (41,445 \* 0.85 PSC adjustment) 35,288 gallons per day were expected to be pumped by this pump station.

$$\text{Infiltration / Inflow} = \text{Actual Flow} - \text{Projected Flow} = 35,288 \text{ gallons per day} - 31,612 \text{ gallons} = \text{a negative 3,676 gallon per day}$$

Based upon the size of the collection system, this analysis shows that the collection system is not exhibiting any infiltration or inflows. Theoretical pumping flows and actual will vary. However, it appears from the records examined for this study that this collection system is functioning as it should without appreciable I&I. The negative value is attributed to error of measurement variances.

<b>Table 5 - Known Collection System for Pump Station 4-5</b>				
Area	Length in Feet	Length in Miles	Dia. Inches	Allowable infiltration Gallons per day
Crosswinds Subdivision	7,935	1.50	8	2,405
Hill Side Subdivision	1,380	0.26	8	418
Greenfield Subdivision	970	0.18	8	294
Route 9 East Collection System (Constructed with Pump Station 4-5)	4,033	0.76	8	1,222
Norborne Glebe	4,895	0.93	8	1,483
Norborne Glebe	1,150	0.22	6	261
Total	20,363	3.86		6,083

Allowable infiltration calculated at 200 gallons per inch diameter per mile length of pipe per day  
Sewer maps for known systems are shown on the plans drawings.

Infiltration and Inflow data for the other portions of the Districts collection system are unknown. Currently the collection systems are commingled with those of Ranson and Charles Town. Once they are separated from those systems, they will be analyzed and upgraded as required.

## **E. NEED FOR PROJECT**

Various government groups have pointed out areas that would benefit from public sewage systems, generally due to septic tank problems. These generally include the Blue Ridge Mountain area, north and west of Shepherdstown, from Leetown to Middleway (to Happy Creek Subdivision), Route 340 By-Pass, Route 340 from Charles Town to Harpers Ferry, Kearneysville, Shenandoah Junction, Jefferson Village, Halltown, Millville and Summit Point.

The service area for the proposed plants has karst hydrology. The area is underlaid by limestone and dolomite formations. Groundwater use in Jefferson county accounts for between 41.5% to 46.5% of the domestic water. "The Jefferson County Comprehensive Plan" (page III-17) states that 58.5% of the residents of Jefferson County rely on surface water while the

remaining 41.5% use groundwater.

A 1982 study by the WV Department of Health (see Section 9) indicated 46% of the county's water wells were contaminated and deemed unsafe. The 1991 USGS Water-Resources Investigations Report (90-4118) states that 53 percent of tested wells and springs contained fecal coliform bacteria and 70 percent contained fecal streptococcal bacteria.

The Jefferson County Health Department states that a recent evaluation of 303 septic systems resulted in fifteen requiring upgrades to meet current standards and an additional four that were failing (July 14, 1999 letter, see Section 9). Four failing systems out of 303 is 1.3% with a margin of error of plus or minus 5.7%. In addition, a 1982 study of Jefferson County by the West Virginia Department of Health found two percent of the septic systems were malfunctioning with a surface discharge and another six percent were modified due to malfunctioning. The study was based upon single visits to only fifty systems and is *not* the percentage of systems that failed during a one year period. The Jefferson County Comprehensive Plan states (page III-29), in relation to the two percent failure rate, "this statistic is unlikely" to be this low. Note surveying only fifty systems results in statistics with a margin of error of approximately 14%. Further, the County Comprehensive Plan (page III-33) states that the county should explore methods other than "septic system only."

#### **Flowing Springs Facility:**

There are 4,844 acres in the Flowing Springs Run Plant Service Area which are expected to be developed. Allowing 2 single family dwelling per acre would generate 9,688 new households. Deduction the 2,130 units from the table on page 4 of this report yields 7,558 EDU or a flow of 1,677,876 gallons per day which could be treated at a District Owned facility. This includes portions of the Ranson Flowing Springs annexation area. The Table on page 4 details 1362 existing EDU's (Residential and Commercial) and 2,130 new users from developments who have contacted the District and requested service over the next 7 years.

#### **Evitts Run Facility:**

There are 4,931 acres in the Evitts Run Plant Service Area which are expected to be developed. Allowing 2 single family dwelling per acre would generate 9,862 new households. Deduction the 2,182 units from the table on page 5 yields 7,680 EDU or a flow of 1,704,960 gallons per day which could be treated at a District Owned facility. The Table on page 5 details 778 existing EDU's (Residential and Commercial) and 2,182 new users from developments who have contacted the District and requested service over the next 7 years.

### **F. EXISTING PERMITS / CERTIFICATES**

None

### III. FUTURE SITUATION

#### A. POPULATION PROJECTIONS

Historic trends for Jefferson County have documented a growth rate of 1.67 percent increase per year based on the 1980, 1990 and 2000 censuses. A population projection for the year 2024 predicts 59,566 as shown in the calculations below. Refer to the chart in Section II for more complete demographics.

##### Arithmetic Projection:

Where  $k_a$  is determined for two time intervals, 1980-1990 and 1990-2000:

$$k_{a1} = (35,926 - 30,302) / 10 = 562 \quad (1.57 \text{ percent increase per year})$$

$$k_{a2} = (42,190 - 35,926) / 10 = 626 \quad (1.74 \text{ percent increase per year})$$

$$\text{Average } k_a = (562 + 626) / 2 = 594$$

Determine the 2026 population by arithmetic projection:

$$P = P_{1990} + k_a(2026-2000)$$

$$P = 42,190 + (594 \times 26) = \mathbf{57,634 \text{ people}}$$

##### Geometric Projection:

Determine the geometric-growth constant for 1980-2000:

$$k_g = (\ln 42,190 - \ln 30,302) / 20 = 0.0165$$

Determine the 2026 population by geometric projection:

$$\begin{aligned} \ln P &= \ln 42,190 + k_g(26) \\ &= 10.6499 + 0.0165(26) \end{aligned}$$

$$P = \mathbf{64,790 \text{ people}}$$

##### Average:

Since two methods of population projection are used, the average of the two will govern for this report:

$$\text{Average} = (57,634 + 64,790) / 2 = \mathbf{61,212 \text{ people in the year 2026.}}$$



The “Jefferson County Comprehensive Plan,” by the county’s Planning Commission, includes various population predictions for the year 2020. The three methods predict 48,968 (Series M), 50,671 (Series A) and 63,101 (Planning Commission staff) with an average of 54,247 people. Utilizing the same projection method as shown on the previous page, a projection of 56,406 people for the year 2020 is predicted and falls within the range of predictions in the County’s Comprehensive Plan. It is over ten percent lower than the prediction of 63,101 made by the Planning Commission’s staff. It should be noted that the Comprehensive Plan’s predictions were made several years ago whereas this study’s are made based upon year 2000 census figures.

Jefferson County has been issuing approximately 300 to 350 building permits per year for new houses. Using 325 new residences per year with 2.54 people per house, there should be approximately 58,700 residents in year 2020. This figure is within five percent of this plan’s method estimate of 56,406.

Based on these figures, the county’s population will grow approximately 33.7% over the next twenty years. Over the same time range (2000 to 2020), the “Jefferson County Comprehensive Plan” predicts increases of 18.1% to 43.0% (with the Planning Commission’s staff predicting 43.0%).

Some residents and officials believe the county’s population may grow quicker than the historical trends predict. Planning for such a growth surge is challenging and perhaps impossible since the specifics (locations and population numbers) can never be fully known in advance.

Based on the current 2.54 people per household, there will be approximately 58,757 people in 23,133 homes in the year 2023 (assuming that all residents live in single family homes for planning purposes).

The tables on pages 4 and 5 detail the projected users of the proposed treatment plants and the sequential generated flows.

## **B. FLOW PROJECTIONS**

The tables on pages 4 and 5 detail the projected users of the proposed treatment plants and the sequential generated flows. Based on those flows the following table predicts the peak flows for both plants.

## **C. WASTE-LOAD ALLOCATIONS**

A copy of the Wasteload allocation has been included in Section 9 of this report. The receiving stream for this project is Flowing Springs and the Shenandoah River. The District has previously obtained wasteload allocations for both streams and currently holds a wasteload allocation for one location on Flowing Springs.

### Sludge Disposal:

Sludge disposal will be handled in accordance with the terms and conditions of the NPDES permit; therefore it will be handled in a manner that will not cause a negative environmental impact. The sludge from this wastewater treatment plant will either be landfilled or land applied in an area where its nutrients will not impact the Chesapeake Bay.

The Jefferson County P.S.D. officials may have sites appropriated to dispose of the dried sludge for agricultural applications. These applications will be for soil conditioning and/or land reclamation. The conditioned land will be sown in a grass mixture and cycled over a period of not less than two (2) years before farm application. Care will be taken to ensure that the land area does not have direct run off into any streams. This is to allow natural physical, chemical and biological breakdown of the sludge to occur. All land application will be coordinated with the West Virginia Soil Conservation Service. Currently land application may still be an option for sludge disposal, however, Chesapeake Bay requirements will most likely eliminate that option.

The financial analysis within this report assumes that land application of the sewage sludge within the Chesapeake Bay drainage area will not be possible. If that is the case the sludge will be disposed in a licensed solid waste landfill in accordance with the applicable regulations governing the receiving landfill. A budget of \$50.00 per ton has been utilized.

It is possible that the sludge may be shipped out of the Chesapeake Bay drainage basin and land applied. A theoretical example would be allowing \$0.15 per ton-mile for transportation of the sludge would allow shipping the sludge up to 333 miles for application, provided the recipient will obtain and dispose of the sludge at no cost. No confirmed sludge application sites have been identified by this study.

#### **D. PERMITS / CERTIFICATES REQUIRED**

1. NPDES permit for collection and discharge or modify existing NPDES Permit for operation of a sewage collection system
2. PSC tariff and rate approvals and certificate of convenience and necessity
3. Highway encroachment and crossing permits from the WVDOT
4. Public Lands permits for stream crossings
5. Army Corps of Engineers Permits for stream crossings
6. Planning Commission of Jefferson County Permit
7. Railroad Boring (crossing) Permit(s)
8. Erosion and Sediment Control Permit for Jefferson County

#### **IV. ALTERNATIVES**

Existing treatment plants and collection systems have also been taken into account. As of this writing the existing municipal wastewater treatment plants within Jefferson County are feeling the pressure of development and are near their treatment capacity. Implementation of this study will provide desperately needed relief to the receiving streams and groundwater now being adversely affected within the county.

The Charles Town plant just completed upgrades to raise its capacity to 1.75 MGD. Present and proposed developments will continue to draw upon its resources. Charles Town recognizes that the plant will need to be upgraded to handle future flows

The existing Harpers Ferry Plant (0.3 MGD) would gain no new flow. This 23 year old plant is in “fair condition” (response from Harpers Ferry/Bolivar PSD). Their expansion is limited by lack of land due to the Harpers Ferry National Historical Park. This plant, which discharges to the Shenandoah River, runs at about two-thirds of its capacity. The flow from Elk Branch would be pumped to the proposed treatment plant.

## V. PLAN SECTION AND PUBLIC PARTICIPATION

Numerous public meetings have been held by the Jefferson County Public Service District to discuss the proposed plan. At the public meetings, the proposed scope of work was fully discussed along with the estimated user charges. A projector was used to clearly show maps, charts and explanations for the projects.

The Jefferson County Public Service District has commissioned several studies during the last eight years to determine the wastewater treatment needs of the county and examine options to meet those needs in a sustainable and economic manner. This application is the culmination of those studies after considering a limited subset of all options considered over the last 42 months. The second to last study commissioned by the District was the Flowing Springs Addenda 2 Facility Plan. For that particular project, the District required a value engineering study to be conducted. ARRO engineers were selected and performed a value engineering study of that facility plan. The ARRO value analysis conclusions recommended that the service area being considered by the District be split into a northern and southern service area serving the Flowing Springs and Evitts Run drainage basins with each service area discharging into a MBR wastewater treatment plant.

The Flowing Springs Addenda No. 2 Facilities Plan was developed to satisfy WVDEP requirements and provide detailed information for interested citizens and stakeholders. The plan was a preliminary investigation and analysis to establish feasibility and necessity of a wastewater treatment project, final design of a proposed project was not included in the facilities plan nor is any final design included within this report. This report documents the need for the project and selects a cost effective, environmentally sound project. “The plan also represents a public record of decision making and shall be written to provide the general public, municipal officials, and regulatory officials with a clear understanding of the problem, solutions and consequences of the project.” (WV State § 47-31-7.1)

Public participation has been an integral part of the selection process. The following listing of facility plans commissioned by the District illustrates the decision making process carried out by the District. Public meetings were conducted by the District for each of the plans listed below. This application is in response to the needs of Jefferson County and incorporates the public input from all of the Facility Plans listed below.

Title:	Year:
Flowing Springs Facility Plan	1997
Flowing Springs Facility Plan Addenda 1	1998
Flowing Springs Facility Plan (Revised)	1999
Jefferson County Countywide Wastewater Study	2001
Flowing Springs / Cattail Run Facility Plan	2003
Flowing Springs Facility Plan Addenda 2	2004
2005 Jefferson County Public Service District Wastewater Facility Plan	2005

## **VI. ENVIRONMENTAL INFORMATION**

Jefferson County is rapidly growing with many new subdivisions either under construction or planned within the next few years. Outside of the towns; subdivisions, apartment complexes and small business parks have developed. Since the Charles Town wastewater treatment has not be able to provide developers with capacity, package wastewater treatment plants and treatment systems with in-ground disposal systems have been pursued by developers. To prevent numerous small treatment plants from being established along with the increased density of existing communities and proposed developments within Jefferson County dictated that the Jefferson County Public Service District undertake this project.

Adequate wastewater facilities are part of the essential infrastructure needed for economic growth of a thriving community such as Jefferson County as well as providing necessary health and welfare for its residents. With the proposed improvements, Jefferson County will have initiated the construction of a regional wastewater system to address the needs of its citizens. Construction of this initial phase will help provide for an attractive environment for residential, commercial and industrial advances. The primary objective of this program is to provide a safe and healthy environment for the existing and future residents and wildlife in the study area. Without these improvements, the detrimental effects of pollution caused by homes and businesses in the region would eventually result in an unsafe community.

### Possible impact on Recreational Contact use of the Shenandoah:

Very little impact is expected from discharges from this facility other than the negative perception of wastewater plant effluent. This apprehension by the general public is reasonable to expect given the general impression of sewage. However, the effluent will be a clear fluid so the public will only see what appears as pure water leaving the plant. Utilizing advanced state-of-the-art wastewater treatment methods helps assure that all discharges from this facility will not negatively impact the environment. As this plant will utilize tertiary filtration, the discharge will be as clear as drinking water. The effluent will be disinfected utilizing ozone. Ozone is a very strong oxidation agent that breaks down the cell walls of pathogenic microbes which causes the cell walls to disintegrate. Ozone has a very short life and will be gone by the time the effluent reaches the outfall. The outfalls will be constructed in a manner which will aesthetically blend in with the existing environment to further reduce the negative image associated with waste water plant discharges

### Air Quality/Noise Standards:

a. The office of Air Quality has previously provided data indicating that Jefferson County is included in the category of "attainment/unclassifiable" by USEPA. This means that it is presumed to meet all applicable air quality standards for criteria pollutants. The only potential effect on air quality created by this project would be during the construction phase. This would be exhaust fumes and dust from construction equipment.

- b. Incineration will not be a part of the treatment process.
- c. There will be significant growth and development expected from the implementation of this project. It is anticipated that the growth and development will not create violations of the ambient air quality standards or noise standards as either primary or secondary impacts. Growth will be controlled by county zoning.
- d. Violation of noise standards is not expected as a primary or secondary impact of the project.

#### Water Quality:

- a. To mitigate the effects of possible sedimentation or erosion, a plan utilizing best practice procedures will be submitted for approval with the construction plans. The procedures outlined in the submitted plan will be followed by the contractor and the owner.
- b. If the planning area continues to grow at the rates experienced in the past twenty years (or if the county experiences a population surge as many residents and officials expect), non-implementation of this project could affect the surface water and groundwater quality of Jefferson County. This would be due to the increased number of septic tanks installed or additional point source discharges of package treatment plants. It is natural to assume that the more septic water infiltrates into the ground, the greater the chance for groundwater deterioration. It should be noted that most of Jefferson County is underlain by carbonate bedrock which has undergone karsification. Chemicals can be quickly carried from the surface through conduits in the bedrock to the groundwater. From there, they can move quickly to streams, springs and water wells.
- c. There are currently challenges to stream standards at the existing Charles Town Treatment Plant. This stream is Evitts Run. The plant this study is considering on Evitts Run will discharge to the Shenandoah River.

#### Water Supply:

- a. There are no known water supply intakes downstream of the proposed discharge points within the West Virginia regulatory boundaries.
- b. Since all current receiving streams eventually flow into the Potomac and Shenandoah Rivers the project will not cause a significant amount of water to be transferred from one sub-basin to another.
- c. There are no known existing or possible future groundwater supply sources to which the project will discharge.

#### Biology:

a. There are sixteen federally endangered and five federally threatened species in Jefferson County. There are an additional 81 rare species. See Appendix H for further details. Since this project is still in the planning stages, the actual type and amount of work in areas adjacent to their habitat is unknown at this time.

b. No wildlife or their habitat will be affected by the proposed construction. The effects of future development on wildlife or their habitat will be controlled by the Jefferson County Planning Commission.

c. There are no indications that aquatic life will be affected by the project or the discharge created by the project at the treatment works, except in a positive manner.

#### Sensitive Areas:

a. None of the proposed project construction will affect any known sensitive environmental areas.

b. There are no known plans to include any of the streams or their drainage areas in wild or scenic designated areas.

#### Wetlands:

a. Wetlands are included in the service area but will not be disturbed. See Appendix E for wetland locations.

b. The wetlands in the service area will not be affected directly or indirectly by the plants or interceptors.

#### Land Use Planning and Management:

The Jefferson County Planning Commission has zoned a large amount of land for either residential, commercial or industrial growth. This is especially true around Charles Town, between Charles Town and Harpers Ferry and west of Shepherdstown. This Study largely serves the zoned growth areas and is in agreement with the Comprehensive Plan's goals for land usage. Some of the area served by the proposed plants is not currently within the planned growth zone of the Jefferson County Comprehensive Plan.

The possible projects within this Study do conform to existing land use plans and will not cause significant changes to existing land use patterns. Several subdivisions are already planned within the next few years with some already under construction. So, great growth is already planned for the county whether any projects within this Study proceed or not.

The proposed projects will be designed to take care of planned and projected wastewater requirements. These project will induce population changes but the effect will be only minor on



energy sources and loss of agricultural land. County zoning will control growth.

Flood plains will not be opened to development due to interceptor routing. Sludge disposal will be conducted according to WV Department of Environmental Protection regulations.

Reserve Capacity:

a. The treatment plants and pump stations will have for a 20 year staging period, greater than 30% of their design average capacity devoted to reserve.

b. The interceptor will have a designed staging period of greater than 20 years and documentation exists to indicate that the overall (primary and secondary) environmental impacts will not be reduced by construction with a larger pipe at the present time.

Socio-Economic Environment:

The project will not require the acquisitions of residential property however easements for the proposed collection lines will be necessary. Sites will be required for pump station locations. The pump station locations have been chosen outside of the residential areas of the study areas. Land for the plant site and pump stations will be acquired by fee negotiation or condemnation. No parks or recreational areas will be acquired or affected by treatment plant construction or interceptor routing. Since there are several equally suitable sites for the proposed wastewater treatment plants, no statements of availability have been obtained yet although preliminary contacts have been made with property owners of potential plant sites. These will be acquired as the project progresses and addendums are written.

The plant sites will have a 300-foot buffer zone required by the State of West Virginia.

The project will not violate any laws that were imposed to protect the environment.

There is no known documentation which suggests the local populace cannot afford their local share of the proposed project. In addition, existing landowners could benefit from the development of land due to the project.

The West Virginia Division of Culture and History was contacted during the county wide study and they stated that a Phase I Archaeological Survey should be conducted in many areas of the county. Due to the vast area covered within this Study, this would best be conducted as projects are designed when exact layout and locations are known. Much of the collection line will be within state owned right of ways. Approximately 400 right of ways will be required. The project does not threaten to violate any laws designed to protect the environment.

## VII. PROJECT SUMMARIES

### 1. ENGINEERING SUMMARY

The tables on the following pages detail the proposed project. The project will consist of gravity and force main sewage collection system with a 1.0 MGD Membrane Biological Reactor treatment plant.

#### Proposed WWTP:

TABLE 6 - Proposed MBR Plant (1.0 MGD) (3.0 TN, 0.1 TP)				
Item Description	Quantity	Unit	Unit Cost	Total Cost
Site (expansion space to go to 3.0 MGD)	3	Acre	\$30,000	\$90,000
Temporary Construction and Facilities	1	LS	\$10,000	\$10,000
Project Administrative Offices	1	LS	\$36,000	\$36,000
Lab Building	1	LS	\$160,000	\$160,000
Lab Furniture	1	LS	\$30,000	\$30,000
Lab Equipment	1	LS	\$40,000	\$40,000
Filter Press Building	1	LS	\$250,000	\$250,000
Belt Filter Press System	1	LS	\$400,000	\$400,000
Blower Building	1	LS	\$140,000	\$140,000
Flow EQ Basins Reinforced Concrete Floors	106	Cy	\$950	\$100,700
Flow EQ Basins Reinforced Concrete Walls	233	Cy	\$1,300	\$302,900
Treatment Basins Reinforced Concrete Floors	815	Cy	\$950	\$774,250
Treatment Basins Reinforced Concrete Walls	1,025	Cy	\$1,300	\$1,332,500
Digester Basins Reinforced Concrete Floors	294	Cy	\$950	\$279,300

Digester Basins Reinforced Concrete Walls	345	Cy	\$1,300	\$448,500
Day Tank Basins Reinforced Concrete Floors	29	Cy	\$950	\$27,550
Day Tank Basins Reinforced Concrete Walls	34	Cy	\$1,300	\$44,200
Excavation	12,000	Cy	\$11	\$132,000
Handrails and Grating	1	LS	\$24,000	\$24,000
MBR Building	15,100	SF	\$55	\$830,500
MBR and Digester Equipment	1	LS	\$4,507,580	\$4,507,580
Flow EQ Basin Pump Station	1	LS	\$100,000	\$100,000
Flow Control Monitoring System	1	LS	\$40,000	\$40,000
Flow EQ Basin Mixer	1	LS	\$20,000	\$20,000
Sludge Mixer	1	LS	\$15,000	\$15,000
Sludge Pump	1	LS	\$35,000	\$35,000
Pretreatment Building	1	LS	\$200,000	\$200,000
Pretreatment System Structures	1	LS	\$35,000	\$35,000
Screen	1	LS	\$96,000	\$96,000
Grit Removal Equipment w/pump	1	LS	\$50,000	\$50,000
Grit Classifier	1	LS	\$48,000	\$48,000
Ozone Building	1	LS	\$40,000	\$40,000
Concrete Pad for Bulk Liquid Oxygen	1	LS	\$1,500	\$1,500
Ozonation Equipment	1	LS	\$280,000	\$280,000
Slab for Ozone Contact Chamber	1	LS	\$1,500	\$1,500
Cascade Aerator	1	LS	\$20,000	\$20,000
Non Potable Water Supply System Aquavar type System	1	LS	\$43,000	\$43,000
Influent Flow Meter	1	LS	\$10,000	\$10,000

Effluent Flow Meter	1	LS	\$10,000	\$10,000
Standby Generator Set	1	LS	\$60,000	\$60,000
On Site Electrical	1	LS	\$220,000	\$220,000
Concrete Sidewalks	1	LS	\$5,000	\$5,000
Asphalt Paving	2,285	SY	\$20	\$45,700
Site Lights	1	LS	\$8,000	\$8,000
Site Fencing and Gates	1,425	LF	\$20	\$28,500
Pine Tree Screening	1	LS	\$7,000	\$7,000
Aggregate Yard Pavement (6" thick)	8,765	SY	\$14	\$122,710
Site Grading	2.5	AC	\$5,000	\$12,500
Site Seeding	0.5	AC	\$1,200	\$600
Site Piping	1	LS	\$210,000	\$210,000
Stainless Steel Air Distribution Lines (4")	250	LF	\$25	\$6,250
Stainless Steel Air Distribution Lines (8")	1,600	LF	\$50	\$80,000
Flow Splitting Manhole	1	EA	\$25,000	\$25,000
Site Drainage	1	LS	\$15,000	\$15,000
Stormwater Management Pond	1	LS	\$5,000	\$5,000
Overhead Monorail Crane	3	EA	\$25,000	\$75,000
1.0 MGD Pump Station Low Head	1	LS	\$500,000	\$500,000
SDR-26 FORCE MAIN (Dual	325	LF	\$75	\$24,375
Chemical Feed System and	2	LS	\$21,200	\$42,400
Sludge Hauling Vehicle	1	LS	\$50,000	\$50,000
Automatic Samplers	3	EA	\$3,500	\$10,500
Items excluded from equipment quote	1	LS	\$250,000	\$250,000

<b>Sub Total</b>				<b>\$12,808,515</b>
<b>Contingencies @5%</b>				<b>\$640,426</b>
<b>Total Estimate</b>				<b>\$13,448,941</b>

**Flowing Springs WWTP Collection System:**

**Redirect flow from Orchard Hills to a District owned Flowing Springs Run WWTP  
using a force main along Route 9**

Average water usage from November 2004 through October 2005 was 1,181,717 gallons per month were attributed to Orchard Hills. Therefore at 148 gallons per EDU / Day

$$1,181,717 \times 12 / 365 / 148 = 262 \text{ EDU's}$$

<b>TABLE 7 - Orchard Hills to Flowing Springs Interceptor</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
Pump Station	EA	3	\$115,000	\$345,000
6" SDR-21 Forcemain	LF	3,450	\$60	\$207,000
4" SDR-21 Forcemain	LF	4,650	\$60	\$279,000
Estimated Construction Cost				\$831,000
Contingencies @ 10%				\$83,100
Sub Total				\$914,100

**Redirect route 9 flow to district Owned Flowing springs run WWTP  
Includes Burr/Bardane Industrial Park flows**

Average water usage records from November 2004 through October 2005 was 1,262,770 gallons per month were attributed to the Burr Industrial Park. Therefore at 148 gallons per EDU / Day

$$1,262,770 \times 12 / 365 / 148 = 280 \text{ EDU's}$$

**TABLE 8**

<b>DIVERT FLOW FROM ROUTE 9 PUMP STATION TO FLOWING SPRINGS RUN WWTP DOES NOT INCLUDE ORCHARD HILLS</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
Duplex Grinder Station to Replace PS 2-306	EA	1	\$14,000	\$14,000
Small Dia. FM to PS 1-12A	LF	1,400	\$30	\$42,000
Duplex Grinder Station to Replace PS 1-12A	EA	1	\$14,000	\$14,000
Small Dia. FM to PS 1-12	LF	3,200	\$30	\$96,000
Duplex Grinder Station to Replace PS 1-12	EA	1	\$14,000	\$14,000
Small Dia. FM to Gravity System to PS 1-10	LF	2,700	\$30	\$81,000
Replace PS 1-10	EA	1	\$350,000	\$350,000
SDR-21 FM PS 1-10 to FS Interceptor	LF	8,500	\$65	\$552,500
Estimated Construction Cost				\$1,163,500
Contingencies @ 10%				\$116,350
Sub Total				\$1,279,850

**TABLE 9**

<b>New Users Who Would Be Served by the Route 9 Pump Station System</b>		
<b>Source</b>	<b>Existing EDU'S</b>	<b>Planned EDU'S</b>
Locust Knoll	0	175
Bardane Industrial Park	199	200
Harvest Hills	0	400
Total	199	775

**Redirect Flow to District owned Flowing Springs Run WWTP from the  
Jefferson Avenue System from Pump Station 4-2 (Behind Wendy's) to Breckenridge**

**TABLE 10**

<b>DIVERT FLOW FROM UPPER JEFFERSON AVENUE TO FS WWTP REVERSE FLOW AT PUMP STATION 4-2</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
6" SDR-21 Forcemain	LF	1,300	\$60	\$78,000
Estimated Construction Cost				\$78,000
<b>DIVERT FLOW FROM UPPER JEFFERSON AVENUE TO FS WWTP REVERSE FLOW AT PUMP STATION 3-6 (INCLUDES JEFFERSON CROSSING 240 EDU's)</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
6" SDR-21 Forcemain	LF	750	\$60	\$45,000
New Pumps for Pump Station	LS	1	\$45,000	\$45,000
Estimated Construction Cost				\$90,000
<b>DIVERT FLOW FROM UPPER JEFFERSON AVENUE TO FS WWTP CONNECTION TO FLOWING SPRINGS INTERCEPTOR</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
8" SDR-21 Forcemain	LF	50	\$70	\$3,500
<b>ALL COSTS COMBINED</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
Estimated Construction Cost				\$171,500
Contingencies @ 10%				\$17,150
Sub Total				\$188,650

**Evitts Run WWTP:**

<b>TABLE 11- Evitts Run Interceptor Collection System</b>				
<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>
30" SDR-35-PVC	LF	2,500	\$120	\$300,000
Upgrade Highland Farms lines to 30" SDR-35-PVC	LF	6,000	\$30	\$180,000
21" SDR-35 PVC	LF	7,700	\$86	\$662,200
STREAM CROSSINGS (30" LINE) USING DIP AND STONE	LF	300	\$150	\$45,000
STREAM CROSSINGS (21" LINE) USING DIP AND STONE	LF	300	\$120	\$36,000
6' DIA. MANHOLE	EA	64	\$3,000	\$192,000
Construction Cost				\$1,415,200
Contingencies @ 5%				\$70,760
Sub Total				\$1,485,960

**Redirect Flow to District owned Evitts Run WWTP**

**TABLE 12**

<b>DIVERT FLOW FROM SAMUEL STREET PUMP STATION TO EVITTS RUN WWTP INCLUDES JEFFERSON AVENUE FLOWS</b>				
<b>Item</b>	<b>Units</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
10" SDR-35 Gravity Sewer	LF	700	\$80	\$56,000
4' Dia. Manhole	EA	5	\$2,500	\$12,500
Pump Station	EA	1	\$250,000	\$250,000
6" SDR-21 Forcemain	LF	3,680	\$60	\$220,800
Road Bore under Route 340	LF	320	\$550	\$176,000
Shared Force Main with PS 4-5	LF	10,300	\$30	\$309,000
Estimated Construction Cost				\$1,024,300



DIVERT FLOW FROM PUMP STATION 4-5 TO EVITTS RUN WWTP				
Item	Units	Qty.	Unit Price	Total
New Pump Station	LS	1	\$150,000	\$150,000
6" SDR-21 Forcemain	LF	300	\$60	\$18,000
Shared Force Main with Samuel St. Flow	LF	10,300	\$30	\$309,000
Estimated Construction Cost				\$477,000
Estimated Cost per EDU (296)				\$1,611
FORCEMAIN ALONG ROUTE 9 TO EVITTS RUN INTERCEPTOR				
INCLUDED WITHIN SAMUEL ST. AND PS 4-5 ESTIMATES				
ALL COSTS COMBINED				
Estimated Construction Cost				\$1,501,300
Contingencies @ 10%				\$150,130
Sub Total				\$1,651,430

**TABLE 13**

From Norborne Glebe PS				
Item Description	Unit	Quantity	Unit Cost	Total Cost
12" SDR-35-PVC (To Norborne Glebe)	LF	2,600	\$48	\$124,800
4' Dia. Manholes	EA	11	\$2,500	\$27,500
Construction Cost				\$152,300
Contingencies @ 5%				\$7,615
Sub Total				\$159,915

## **B. COST SUMMARY**

Project Cost Summary and Financial Analysis is included as Appendix A of this Document.

## **C. PROJECT SCHEDULE**

- ((1) Approval of facilities plan
- (2) Loan application acceptance
- (3) Archaeological Research begins
- (4) Design begins
- (5) Submission of user charges to the West Virginia Public Service Commission for approval
- (6) Begin Right of Way acquisitions Concurrent with (4)
- (7) Submission of project plans and specifications 270 days after (4)
- (8) Approval of project plans and specifications 30 days after (7)
- (9) Advertisement for bids 30 days after (8)
- (10) Opening of bids 30 days after (9)
- (11) Awarding of contracts 60 days after (10)
- (12) Loan Receipt 90 days after (10)
- (13) Commencement of project construction Concurrent with (12)
- (14) Completion of project construction 365 days after (13)

Note: Exact dates are contingent upon approval dates of various state agencies.

#### **D. LANDS AND RIGHTS-OF-WAY**

Much of the collection line will be within state owned right of ways. Approximately 100 right of ways will be required. No right of ways have been obtained to date.

#### **E. PUBLIC HEALTH BENEFITS**

Jefferson County is rapidly growing with many new subdivisions either under construction or planned within the next few years. Outside of the towns; subdivisions, apartment complexes and small business parks have developed. Some of these are served by package wastewater treatment plants, but the majority are served by in-ground septic disposal systems.

If the planning area continues to grow at the rates experienced in the past twenty years (or if the county experiences a population surge as many residents and officials expect), non-implementation of this project could affect the surface water and groundwater quality of Jefferson County. This would be due to the increased number of septic tanks installed or additional point source discharges of package treatment plants. It is natural to assume that the more septic water infiltrates into the ground, the greater the chance for groundwater deterioration. It should be noted that most of Jefferson County is underlain by carbonate bedrock which has undergone karsification. Chemicals can be quickly carried from the surface through conduits in the bedrock to the groundwater. From there, they can move quickly to streams, springs and water wells.

Due to the karst geology of Jefferson County, ground-water is easily susceptible to contamination from sources such as failing septic systems, fertilizers and insecticides. Currently, nearly sixty percent of the county's homes use septic systems for wastewater disposal and over half of the county is farmed (possibly as much as 75 percent). A number of government agencies have designated areas with septic system problems. The County Comprehensive Plan states that "while the greatest usage at present is surface-water, the greatest potential for future use is ground-water."

Numerous individual ground-water wells are operated by individuals to supply their potable water needs. The 1990 census reported that 46.50% of Jefferson County utilized wells for their potable water supplies. "The Jefferson County Comprehensive Plan"(page III-17) states that 41.5% of the residents rely on ground-water.

Implementation of this project will provide positive benefits with the elimination of septic systems in a high density areas of Jefferson County. The elimination of the septic systems will help assure a safe groundwater supply for the communities.

**F. EVIDENCE OF FILING**

See attached Public Service Commission of West Virginia Order,  
Case Number 05-395-PSD-30B (next pages)

**G. EVIDENCE OF COMPLIANCE**

See documentation in Section 10

**JEFFERSON COUNTY**  
**2005 JEFFERSON COUNTY PUBLIC SERVICE DISTRICT**  
**WASTEWATER FACILITY PLAN**

**BUILD A FLOWING SPRINGS PLANT**  
**ANALYSIS**

**\$7500 WWCIF, \$1.5 million Grant, \$7.3 million 0%-40 yr “Wrapped” Loan**  
**\$12,830,940 5%-20 yr BAN Paid off in 10 Years**

**For**

**Jefferson County Public Service District**

**March 15, 2006**

Prepared by:

Pentree, Incorporated  
1428 Main Street  
P. O. Box 1309  
Princeton, WV 24740

**Table 1 - Project Costs**

<b>Flowing Springs WWTP:</b>	<b>Construction Cost</b>
Divert Flow from Route 9 PS System (3 Grinders)	\$1,163,500
Divert Flow from Upper Jefferson Avenue	\$171,500
Divert Flow from Orchard Hills (3 Pump Stations)	\$831,000
Flowing Springs Interceptor	\$1,622,190
Sub Total	\$3,788,190
Contingencies @ 10%	\$378,819
<b>Total Collection System Project Cost</b>	<b>\$4,167,009</b>
Flowing Springs WWTP w/o property cost	\$12,718,515
Contingencies Plant @ 5%	\$635,926
<b>Total Plant Construction Cost</b>	<b>\$13,354,441</b>
<b>Total Project Construction Costs</b>	<b>\$17,521,450</b>
Plant Site Cost	\$90,000
Contingencies Plants @5%	\$4,500
<b>Plant Site Costs</b>	<b>\$94,500</b>

**Table 2 - Project Soft Costs**

<b>Projected Soft Costs</b>	<b>Soft Costs</b>
Legal and Fiscal Services	\$225,000
Administrative	\$100,000
Planning	\$7,500
Engineering (Design)	\$1,980,800
Engineering Construction Services	\$1,155,500
Start Up/Overview/Certification	\$100,000
Right-of-Ways	\$55,000
Bond Counsel	\$100,000
Interim Financing	\$100,000
Sub Total	\$3,823,800
Contingencies @ 5%	\$191,190
Total Soft Costs	\$4,014,990
<b>Total Project Costs</b>	<b>\$21,630,940</b>

The following tables details the projected users of the plant from existing residences and Developer build-out schedules. The 148 gal/F-EDU/day flow is without the required infiltration allowance and the 222 gal/D-EDU/day includes an approximated infiltration allowance based on other developments of similar density. The users are the new users plus the existing District customers who will be moved to the plants. Flow monitoring will determine when the plant reaches 90% capacity and requires an upgrade.

**Table 3 - Proposed Development and Existing District Users in the Flowing Springs Drainage Shed (Plant Flow)**

USER	DAY 1	END YEAR 1	END YEAR 2	END YEAR 3	END YEAR 4	END YEAR 5	END YEAR 6	END YEAR 7
Existing Users of Pump Station 3-7 (Breckenridge PS)	677							
Robelei	31							
Orchard Hills Users	268							
Burr Industrial Park	286							
Jefferson Avenue Users	100							
Daniels Forest		25	25	25	25	25	25	25
Forest View		28	28	28	28	28	28	24
Aspen Green		20	20	20	20	20	20	20
Butler Lands				30	30	30	30	12
Breckenridge Subdivision		100	100	100	100	100	100	100
Briar Run		50	50	50	50			
Harvest Hills		30	100	100	100	86		
From Ranson Annexation Area								
Locust Knoll* (175 EDU Total)	0	25	25	25	25	25	25	25
Sub-Total	1362	278	348	378	378	314	228	206
Cumulative	1362	1,640	1,988	2,366	2,744	3,058	3,286	3,492
New Users to Contribute to Plant	0	278	626	1,004	1,382	1,696	1,924	2,130
Projected Water Usage @ 148 Gal/EDU/Day	201,576	242,720	294,224	350,168	406,112	452,584	486,328	516,816
Projected Flow to Plant @ 222 Gal/EDU/Day	302,364	364,080	441,336	525,252	609,168	678,876	729,492	775,224

Estimate 200 New EDU's per year for years 8, 9 and 10. The projected flow to the plant will be 819,624, 864,024 and 908,424 respectfully.



## **ESTIMATED ANNUAL O & M & R COST:**

Labor: 1 Operator @ \$40,000 and Helper @ \$28,000 w/benefits @ 25% \$85,000

\$43,670 annual electric bill for 25 pump stations = \$1,747 per year each

\$78,315 labor for 25 pump stations = \$3,133 per year each

\$49,111 maintenance and supplies expense for 25 pump stations = \$1,964 per year each

Materials at plant based upon number of EDU's flowing to plant and the unit cost is inflated at 3% per year, base year materials @ \$30.00 per EDU

Outside Services for independent laboratory testing services @ \$15,000.00 per year per plant with inflation at 3% per year

Maintenance expenses at plant based upon number of EDU's flowing to plant

Collection line maintenance based upon number of new EDU's based on existing collection line maintenance expense of \$35,353 for 1,827 customers or \$19.35 per new user

Billing and Collection expenses for the District for the year ending June 30, 2005 was \$65,205 for 1827 customers or \$35.69 each (Inflate at 3% per year)

Reserves based upon number of new EDU's

Chemicals inflation at 3% per year:

- Alum @ 5 lbs/ day per 0.5 MGD x \$0.10/(50% sol) x 2(for 50% solution) x 365 days / yr = \$365.00 per year

Membrane cleaning chemicals @ \$1,486 per year (Sodium Hypo & Oxalic Acid)

Hunt Field customers removed from calculations, therefore deduct 137 residential and 10 commercial users (builders = 1 EDU each) as of June 30, 2005. In addition, remove the bond payment for the Hunt Field development (\$10,803.32 per month) therefore annual debt service will be \$314,734.

Sludge Disposal assumes land filling of sludge at \$50.00 per ton and 622.47 lbs per EDU per year sludge generation inflation at 3% per year

The following calculations show the cost of operating the proposed waste water treatment plant. The other District users will be treated at the Charles Town WWTP at the prevailing bulk rate, currently \$3.66 per 1,000 gallons.

**Table 4 Disinfection Costs**

Ozonation for 1.0 MGD Flow	
Item	Cost
Liquid Oxygen (@ \$100/ton and 7 tons/mo)	\$8,400
Liquid Oxygen Tank and Maintenance Agreement (\$500 / Month)	\$6,000
Electric	\$10,690
Labor (Inspect, Monitoring and Maintenance) 2 hr/day @ \$17.50	\$12,775
Other (filter replacement, compressor oil, spare dielectric, etc)	\$6,500
Total annual O & M Cost	\$44,365

**Energy Consumption at Plants:**

The estimated plant energy cost is \$120,000 per year for a 1.0 MGD flow plant. The plant design will incorporate 4 MBR basins (aeration chambers) and have two sets of biological reaction chambers. The biological chambers only use mixing, therefore each plants energy costs will be somewhat proportional to the flow. Calculated base of \$60,000 for up 0.25 MGD, \$90,000 for up to 0.5 MGD , \$120,000 for up to 0.75 MGD and \$150,000 for over 0.75 MGD. Energy cost per plant is based on the tables on page 4 of this report. The following table shows the projected energy cost allowing for 3% inflation per year.

**Table 5 - Plant Energy Costs**

Year	up to 0.25 MGD	0.25 to 0.50 MGD	0.5 to 0.75 MGD	0.75 to 1.0 MGD
1	\$48,000	\$72,000	\$96,000	\$120,000
2	\$49,440	\$74,160	\$98,880	\$123,600
3	\$50,923	\$76,385	\$101,846	\$127,308
4	\$52,451	\$78,676	\$104,902	\$131,127
5	\$54,024	\$81,037	\$108,049	\$135,061
6	\$55,645	\$83,468	\$111,290	\$139,113
7	\$57,315	\$85,972	\$114,629	\$143,286
8	\$59,034	\$88,551	\$118,068	\$147,585
9	\$60,805	\$91,207	\$121,610	\$152,012
10	\$62,629	\$93,944	\$125,258	\$156,573

## Membrane Replacement Schedules:

Complete membrane plate replacement every fifteen years with only 0.13% of the membranes needing replaced annually during the first 9 years of operation. Plates at \$40 each and inflated at 3% per year. 9600 plates each per 1,000,000 GPD capacity. Funding to be placed into special account until needed. As with the energy consumption, the plates will not wear out until placed into production. For 0.25 MGD flow,  $(2,400 \text{ plates} / 15 \text{ years}) = 160 \text{ plates per year} \times \$40 \text{ per plate} = \$6,400.00$  per year MBR Plate Replacement reserve per 0.25 MGD flow. The following table shows the plate replacement cost over time with 3% inflation.

**Table 6- MBR Replacement Costs**

Year	up to 0.25 MGD	0.25 to 0.50 MGD	0.5 to 0.75 MGD	0.75 to 1.0 MGD
1	\$6,400	\$12,800	\$19,200	\$25,600
2	\$6,592	\$13,184	\$19,776	\$26,368
3	\$6,790	\$13,580	\$20,369	\$27,159
4	\$6,993	\$13,987	\$20,980	\$27,974
5	\$7,203	\$14,407	\$21,610	\$28,813
6	\$7,419	\$14,839	\$22,258	\$29,677
7	\$7,642	\$15,284	\$22,926	\$30,568
8	\$7,871	\$15,742	\$23,614	\$31,485
9	\$8,107	\$16,215	\$24,322	\$32,429
10	\$8,351	\$16,701	\$25,052	\$33,402

**Table 7.1 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (1,640 Total EDU'S -End Year 1)</b>	
<b>Labor(Plant)</b>	<b>\$85,000</b>
<b>Labor (Pump Station) 3 @ \$3,133 ea</b>	<b>\$9,399</b>
<b>Utilities (Plants)</b>	<b>\$72,000</b>
<b>Utilities (Pump Station) 3 @ \$1,747 ea</b>	<b>\$5,241</b>
<b>Utilities (Grinders) 3 @ \$250 ea</b>	<b>\$750</b>
<b>Materials (Plant) @ \$30.00 /EDU/Year (1,640)</b>	<b>\$49,200</b>
<b>Materials (Pump Station) 3 @ \$294 ea</b>	<b>\$882</b>
<b>MBR Plate Replacement</b>	<b>\$12,800</b>
<b>Outside Services (Plants)</b>	<b>\$15,000</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$10,184</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$1,964 ea</b>	<b>\$5,892</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$1,851</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$44,365</b>
<b>Collection Line Maintenance @ \$19.35 /edu/year (278 new users)</b>	<b>\$5,379</b>
<b>Sludge Disposal (\$15.57 per EDU)</b>	<b>\$25,535</b>
<b>Billing and Collection Expense (278 new users @ \$35.69 Ea.)</b>	<b>\$9,922</b>
<b>Total O &amp; M</b>	<b>\$353,400</b>
<b>Reserves @ 2½% gross receipts (1,640 EDU's Users)</b>	<b>\$25,461</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$378,861</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU 1,640 EDU's</b>	<b>\$4.28</b>

**Table 7.2 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (1,988 Total EDU'S - End Year 2)</b>	
<b>Labor (Plant)</b>	<b>\$87,550</b>
<b>Labor (Pump Station) 3 @ \$3,227 ea</b>	<b>\$9,681</b>
<b>Utilities (Plant)</b>	<b>\$74,160</b>
<b>Utilities (Grinders) 3 @ \$258 ea</b>	<b>\$774</b>
<b>Utilities (Pump Station) 3 @ \$1,799 ea</b>	<b>\$5,397</b>
<b>Materials (Plant) @ \$30.90 /EDU/Year (1,988)</b>	<b>\$61,429</b>
<b>Materials (Pump Station) 3 @ \$303 ea</b>	<b>\$909</b>
<b>MBR Plate Replacement</b>	<b>\$13,184</b>
<b>Outside Services (Plant)</b>	<b>\$15,450</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$12,345</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2023 ea</b>	<b>\$6,069</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$1,907</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$45,696</b>
<b>Collection Line Maintenance @ \$20.28 /edu/year (626 new users)</b>	<b>\$12,695</b>
<b>Sludge Disposal (\$16.04 per EDU)</b>	<b>\$31,888</b>
<b>Billing and Collection Expense (626 new users @ \$36.76 Ea.)</b>	<b>\$23,012</b>
<b>Total O &amp; M</b>	<b>\$402,146</b>
<b>Reserves @ 2½% gross receipts (1988)</b>	<b>\$30,864</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$433,009</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.03</b>

**Table 7.3 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (2,366 Total EDU'S - End Year 3)</b>	
<b>Labor (Plant)</b>	<b>\$90,177.00</b>
<b>Labor (Pump Station) 3 @ \$3,324 ea</b>	<b>\$9,972.00</b>
<b>Utilities (Plant)</b>	<b>\$101,846.00</b>
<b>Utilities (Grinders) 3 @ \$265 ea</b>	<b>\$795.00</b>
<b>Utilities (Pump Station) 3 @ \$1853 ea</b>	<b>\$5,559.00</b>
<b>Materials (Plant) @ \$31.83 /EDU/Year (2,366)</b>	<b>\$75,309.78</b>
<b>Materials (Pump Station) 3 @ \$312 ea</b>	<b>\$936.00</b>
<b>MBR Plate Replacement</b>	<b>\$20,369.00</b>
<b>Outside Services (Plant)</b>	<b>\$15,913.50</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$14,692.86</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2084 ea</b>	<b>\$6,252.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$1,963.50</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$47,067.00</b>
<b>Collection Line Maintenance @ \$20.88 /edu/year (1,004 new users)</b>	<b>\$20,963.52</b>
<b>Sludge Disposal (\$16.52 per EDU)</b>	<b>\$39,086.32</b>
<b>Billing and Collection Expense (1,004 new users @ \$37.86 Ea.)</b>	<b>\$38,011.44</b>
<b>Total O &amp; M</b>	<b>\$488,913.92</b>
<b>Reserves @ 2½% gross receipts (2,366 Users)</b>	<b>\$36,732.15</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$525,646.07</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.11</b>

**Table 7.4 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (2,744 EDU's - End Year 4)</b>	
<b>Labor (Plant)</b>	<b>\$92,882.00</b>
<b>Labor (Pump Station) 3 @ 3,424ea</b>	<b>\$10,272.00</b>
<b>Utilities (Plant)</b>	<b>\$104,902.00</b>
<b>Utilities (Grinders) 3 @ \$273 ea</b>	<b>\$819.00</b>
<b>Utilities (Pump Station) 3 @ \$1909 ea</b>	<b>\$5,727.00</b>
<b>Materials (Plant) @ \$32.78 /EDU/Year (2,744)</b>	<b>\$89,948.32</b>
<b>Materials (Pump Station) 3 @ \$321 ea</b>	<b>\$963.00</b>
<b>MBR Plate Replacement</b>	<b>\$20,980.00</b>
<b>Outside Services (Plant)</b>	<b>\$16,391.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$17,040.24</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2146 ea</b>	<b>\$6,438.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,022.50</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$48,479.00</b>
<b>Collection Line Maintenance @ \$21.52 /edu/year (1,382new users)</b>	<b>\$29,740.64</b>
<b>Sludge Disposal (\$17.01 per EDU)</b>	<b>\$46,675.44</b>
<b>Billing and Collection Expense (1,382 new users @ \$39.00 Ea.)</b>	<b>\$53,898.00</b>
<b>Total O &amp; M</b>	<b>\$547,178.14</b>
<b>Reserves @ 2½% gross receipts (2,744 EDU's)</b>	<b>\$42,600.60</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$589,778.74</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$3.98</b>

**Table 7.5 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (3,058 EDU'S - End Year 5)</b>	
<b>Labor (Plant)</b>	<b>\$95,668.00</b>
<b>Labor (Pump Station) 3 @ \$3,526 ea</b>	<b>\$10,578.00</b>
<b>Utilities (Plant)</b>	<b>\$108,049.00</b>
<b>Utilities (Grinders) 3 @ \$281 ea</b>	<b>\$843.00</b>
<b>Utilities (Pump Station) 3 @ \$1966 ea</b>	<b>\$5,898.00</b>
<b>Materials (Plant) @ \$33.77 /EDU/Year (3058)</b>	<b>\$103,268.66</b>
<b>Materials (Pump Station) 3 @ \$331 ea</b>	<b>\$993.00</b>
<b>MBR Plate Replacement</b>	<b>\$21,610.00</b>
<b>Outside Services (Plant)</b>	<b>\$16,882.50</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$18,990.18</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2210 ea</b>	<b>\$6,630.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,083.50</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$49,933.00</b>
<b>Collection Line Maintenance @ \$22.16 /edu/year (1696 new users)</b>	<b>\$37,583.36</b>
<b>Sludge Disposal (\$17.52 per EDU)</b>	<b>\$53,576.16</b>
<b>Billing and Collection Expense (1696 new users @ \$40.17 Ea.)</b>	<b>\$68,128.32</b>
<b>Total O &amp; M</b>	<b>\$600,714.68</b>
<b>Reserves @ 2½% gross receipts (3,058 EDU's Users)</b>	<b>\$47,475.45</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$648,190.13</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$3.93</b>



**Table 7.6 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (3,286 EDU'S - End Year 6)</b>	
<b>Labor (Plant)</b>	<b>\$98,538.00</b>
<b>Labor (Pump Station) 3 @ \$3,632 ea</b>	<b>\$10,896.00</b>
<b>Utilities (Plant)</b>	<b>\$139,113.00</b>
<b>Utilities (Grinders) 3 @ \$290 ea</b>	<b>\$870.00</b>
<b>Utilities (Pump Station) 3 @ \$2025 ea</b>	<b>\$6,075.00</b>
<b>Materials (Plant) @ \$34.78 /EDU/Year</b>	<b>\$114,287.08</b>
<b>Materials (Pump Station) 3 @ \$341 ea</b>	<b>\$1,023.00</b>
<b>MBR Plate Replacement</b>	<b>\$29,677.00</b>
<b>Outside Services (Plant)</b>	<b>\$17,389.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$20,406.06</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2277 ea</b>	<b>\$6,831.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,146.00</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$51,431.00</b>
<b>Collection Line Maintenance @ \$22.83 /edu/year (1,924 new users)</b>	<b>\$43,924.92</b>
<b>Sludge Disposal (\$18.05 per EDU)</b>	<b>\$61,478.30</b>
<b>Billing and Collection Expense (2,044 new users @ \$41.37 Ea.)</b>	<b>\$84,560.28</b>
<b>Total O &amp; M</b>	<b>\$688,645.64</b>
<b>Reserves @ 2½% gross receipts (3,286 EDU's)</b>	<b>\$51,015.15</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$739,660.79</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.17</b>

**Table 7.7 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (3,492 EDU'S - End Year 7)</b>	
<b>Labor (Plant)</b>	<b>\$101,494.00</b>
<b>Labor (Pump Station) 3 @ \$3,741 ea</b>	<b>\$11,223.00</b>
<b>Utilities (Plant)</b>	<b>\$143,286.00</b>
<b>Utilities (Grinders) 3 @ \$299 ea</b>	<b>\$897.00</b>
<b>Utilities (Pump Station) 3 @ \$2086 ea</b>	<b>\$6,258.00</b>
<b>Materials (Plant) @ \$35.82 /EDU/Year</b>	<b>\$125,083.44</b>
<b>Materials (Pump Station) 3 @ \$351 ea</b>	<b>\$1,053.00</b>
<b>MBR Plate Replacement</b>	<b>\$30,568.00</b>
<b>Outside Services (Plant)</b>	<b>\$17,911.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$21,685.32</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2345 ea</b>	<b>\$7,035.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,210.00</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$52,974.00</b>
<b>Collection Line Maintenance @ \$23.51 /edu/year (2,130 new users)</b>	<b>\$50,076.30</b>
<b>Sludge Disposal (\$18.59 per EDU)</b>	<b>\$64,916.28</b>
<b>Billing and Collection Expense (2130 new users @ \$42.62 Ea.)</b>	<b>\$90,780.60</b>
<b>Total O &amp; M</b>	<b>\$727,450.94</b>
<b>Reserves @ 2½% gross receipts (3,492 EDU's)</b>	<b>\$54,213.30</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$781,664.24</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.15</b>

**Table 7.8 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (3,692 EDU'S - End Year 8)</b>	
<b>Labor (Plant)</b>	<b>\$104,539.00</b>
<b>Labor (Pump Station) 3 @ \$3,853 ea</b>	<b>\$11,559.00</b>
<b>Utilities (Plant)</b>	<b>\$147,585.00</b>
<b>Utilities (Grinders) 3 @ \$308 ea</b>	<b>\$924.00</b>
<b>Utilities (Pump Station) 3 @ \$2149 ea</b>	<b>\$6,447.00</b>
<b>Materials (Plant) @ \$36.89 /EDU/Year</b>	<b>\$136,197.88</b>
<b>Materials (Pump Station) 3 @ \$362 ea</b>	<b>\$1,086.00</b>
<b>MBR Plate Replacement</b>	<b>\$31,485.00</b>
<b>Outside Services (Plant)</b>	<b>\$18,448.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$22,927.32</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2415 ea</b>	<b>\$7,245.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,276.00</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$54,563.00</b>
<b>Collection Line Maintenance @ \$23.51 /edu/year (2,330 new users)</b>	<b>\$54,778.30</b>
<b>Sludge Disposal (\$19.15 per EDU)</b>	<b>\$70,701.80</b>
<b>Billing and Collection Expense (2330 new users @ \$43.90 Ea.)</b>	<b>\$102,287.00</b>
<b>Total O &amp; M</b>	<b>\$773,049.30</b>
<b>Reserves @ 2½% gross receipts (3,692 EDU's)</b>	<b>\$57,318.30</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$830,367.60</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.17</b>

**Table 7.9 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (3,892 EDU'S - End Year 9)</b>	
<b>Labor (Plant)</b>	<b>\$107,675.00</b>
<b>Labor (Pump Station) 3 @ \$3,969 ea</b>	<b>\$11,907.00</b>
<b>Utilities (Plant)</b>	<b>\$152,012.00</b>
<b>Utilities (Grinders) 3 @ \$317 ea</b>	<b>\$951.00</b>
<b>Utilities (Pump Station) 3 @ \$2213 ea</b>	<b>\$6,639.00</b>
<b>Materials (Plant) @ \$38.00 /EDU/Year</b>	<b>\$147,896.00</b>
<b>Materials (Pump Station) 3 @ \$372 ea</b>	<b>\$1,116.00</b>
<b>MBR Plate Replacement</b>	<b>\$32,429.00</b>
<b>Outside Services (Plant)</b>	<b>\$19,002.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$24,169.32</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2488 ea</b>	<b>\$7,464.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,345.00</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$56,200.00</b>
<b>Collection Line Maintenance @ \$23.51 /edu/year (2,530 new users)</b>	<b>\$59,480.30</b>
<b>Sludge Disposal (\$19.72 per EDU)</b>	<b>\$76,750.24</b>
<b>Billing and Collection Expense (2530 new users @ \$45.22 Ea.)</b>	<b>\$114,406.60</b>
<b>Total O &amp; M</b>	<b>\$820,442.46</b>
<b>Reserves @ 2½% gross receipts (3,892 EDU's)</b>	<b>\$60,423.30</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$880,865.76</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.19</b>

**Table 7.10 - 2005 Jefferson County Public Service District Wastewater Facility Plan**

<b>ESTIMATED ANNUAL O &amp; M &amp; R COST FOR FLOWING SPRINGS AREA WWTP (4,092 EDU'S - End Year 10)</b>	
<b>Labor (Plant)</b>	<b>\$113,059.00</b>
<b>Labor (Pump Station) 3 @ \$4088 ea</b>	<b>\$12,264.00</b>
<b>Utilities (Plant)</b>	<b>\$156,573.00</b>
<b>Utilities (Grinders) 3 @ \$327 ea</b>	<b>\$981.00</b>
<b>Utilities (Pump Station) 3 @ \$2279 ea</b>	<b>\$6,837.00</b>
<b>Materials (Plant) @ \$39.14 /EDU/Year</b>	<b>\$160,160.88</b>
<b>Materials (Pump Station) 3 @ \$384 ea</b>	<b>\$1,152.00</b>
<b>MBR Plate Replacement</b>	<b>\$33,402.00</b>
<b>Outside Services (Plant)</b>	<b>\$19,572.00</b>
<b>Maintenance Expenses (Plant) @ 1% gross receipts</b>	<b>\$25,411.32</b>
<b>Maintenance Expenses (Pump Station) 3 @ \$2562 ea</b>	<b>\$7,686.00</b>
<b>Chemical cost at plant rated capacity</b>	<b>\$2,415.00</b>
<b>Ozonation O &amp; M (See Table 4 on page 6)</b>	<b>\$57,886.00</b>
<b>Collection Line Maintenance @ \$23.51 /edu/year (2,730 new users)</b>	<b>\$64,182.30</b>
<b>Sludge Disposal (\$20.31 per EDU)</b>	<b>\$83,108.52</b>
<b>Billing and Collection Expense (2730 new users @ \$46.57 Ea.)</b>	<b>\$127,136.10</b>
<b>Total O &amp; M</b>	<b>\$871,826.12</b>
<b>Reserves @ 2½% gross receipts (4,092 EDU's)</b>	<b>\$63,528.30</b>
<b>Total O &amp; M &amp; R Expense</b>	<b>\$935,354.42</b>
<b>Cost to Treat 1,000 Gallons @ 4,500 gal per EDU</b>	<b>\$4.23</b>

The following formulas were used to calculate the figures shown in the financial capability worksheets (FINCAPs) and summary tables:

A = ADDITIONAL REVENUE REQUIRED FOR DEBT SERVICE

B = SIZE OF BOND ISSUE (see Table 2)

C = RESIDENTIAL CUSTOMERS

E = EQUIVALENT CUSTOMERS (at 4,500 gallons per month each, 148 GPD)

I = INCOME AVAILABLE FOR DEBT SERVICE

R = RATE INCREASE NEEDED

U = COMMERCIAL/INDUSTRIAL/SCHOOL EDUs (based on 4,500 gallons per month)

$E = C + U$

$I = (\text{Annual Revenues} + \text{Other Income}) - (\text{Existing O\&M} + \text{Proposed Additional O\&M})$

$A = \text{Existing Debt Service w/coverage} + P \text{ (w/coverage)} - I$  (note a negative value indicates no additional revenue is required)

$R = A \div (E \times 4.5 \times 12 \text{ months})$

Existing O & M from the Annual Report for the year ending June 30, 2005 was \$1,124,416  
Reserves @  $2\frac{1}{2}\%$  gross receipts:

**Table 8 2005 Jefferson County PSD Wastewater Facility Plan - USERS**

SCENARIO (USERS)	C	C*	U	U*	E
Average Users July 1, 2004 through June 30, 2005	1665	0	584	0	2249
Current Situation	1703	0	584	0	2287
End Year 1*	1556	278	584	0	2418
End Year 2*	1556	626	584	0	2766
End Year 3*	1556	1004	584	0	3144
End Year 4*	1556	1382	584	0	3522
End Year 5*	1556	1696	584	0	3836
End Year 6*	1556	1924	584	0	4064
End Year 7*	1556	2130	584	0	4270
End Year 8*	1556	2330	584	0	4470
End Year 9*	1556	2530	584	0	4670
End Year 10*	1556	2730	584	0	4870

C\* & U\* - This Project (Existing EDU values from the Districts average usage report)

\*Less 147 EDU's for the Hunt Field divestiture

The District maintains a data base detailing the water usage of their customers. For the year of July 2004 through June 2005, the average residential customer used 4,492 gallons of water based on meter readings and allowing 4,500 gallons per user for the 84 users that do not have water meters. Therefore, an EDU equals 148 gallons per day for billing and 222 gallons per day for flow projections.

**Projected Revenues** - 147 EDU's have been deleted from the analysis to reflect Charles Town acquiring the Hunt Field development.

For the year ending June 30, 2005 the District collected \$1,430,126 for sewage service. The average residential customer used 4,500 gallons per month. The District reported having 1,703 residential, 116 Commercial and 9 Public Authority customers at the end of the year ending June 30, 2005. The non residential users represented an average of 584 EDU's for the year.

Example End of Year 1 Calculation:

$(2,140 \text{ EDU's existing} + 604 \text{ proposed}) \times (4.5 \text{ 1000gal/EDU/mo}) \times \$11.50 \text{ per 1000 gal} \times 12 \text{ mo/yr} = \$1,704,024 / \text{year (End Year 1)}$

**Table 9 2005 Jefferson County PSD Wastewater Facility Plan - INCOME**

SCENARIO (INCOME)	EDU's	INCOME	Year
<b>Current Situation*1</b>	<b>2287</b>	<b>\$1,430,126</b>	<b>*as of 6-30-05</b>
<b>End Year 1</b>	<b>2418</b>	<b>\$1,501,578</b>	
<b>End Year 2</b>	<b>2766</b>	<b>\$1,717,686</b>	
<b>End Year 3</b>	<b>3144</b>	<b>\$1,952,424</b>	
<b>End Year 4</b>	<b>3522</b>	<b>\$2,187,162</b>	
<b>End Year 5</b>	<b>3836</b>	<b>\$2,382,156</b>	
<b>End Year 6</b>	<b>4064</b>	<b>\$2,523,744</b>	
<b>End Year 7</b>	<b>4270</b>	<b>\$2,651,670</b>	
<b>End Year 8</b>	<b>4470</b>	<b>\$2,775,870</b>	
<b>End Year 9</b>	<b>4670</b>	<b>\$2,900,070</b>	
<b>End Year 10</b>	<b>4870</b>	<b>\$3,024,270</b>	

\*Calculations in tables and the rest of this document reflect the current \$11.50 per 1,000 gallons rate. A rate increase was implemented during the year. The current situation income reflects the

income from sewer service sales for the year ending June 30, 2005.

\*1 - Income from Audit Report for year ending June 30, 2005

Other income is customers forfeited discounts and penalties and miscellaneous revenues. The following table shows the Other income for the last 5 years. These calculations uses the average of the last five years of data. No projections of future forfeited discounts and penalties or interest has been made.

**Table 10 2005 Jefferson County PSD Wastewater Facility Plan - OTHER INCOME**

Item	Year ending June 30. 2000	Year ending June 30. 2001	Year ending June 30. 2002	Year ending June 30. 2003	Year ending June 30. 2004	Year ending June 30. 2005	Average
Customers forfeited discounts and penalties	\$26,004	\$26,475	\$30,155	\$35,753	\$41,074	\$42,009	\$33,578
Interest Income	\$35,425	\$41,379	\$19,319	\$15,211	\$7,361	\$16,481	\$22,529
Total	\$61,429	\$67,854	\$49,474	\$50,964	\$48,435	\$58,490	\$56,108

The auditors report for the year ending June 30, 2005 showed \$186,073 in other revenues which includes payments by the Hunt Field group to cover the debt service until the development users fees cover that expense as per the mainline extension agreement.



## INCOME AVAILABLE FOR DEBT SERVICE

$I = (\text{Annual Revenues} + \text{Other Income}) - (\text{Existing O\&M} + \text{Proposed Additional O\&M})$

**Table 11 2005 Jefferson County Public Service District Wastewater Facility Plan**

SCENARIO	Annual Revenue Sales to Customers	Existing O&M (2005)*	Reserve @ 2½% gross	Proposed Additional O&M Tables 7.1 to 7.10	Other Income See Table 10*1	Income Available for Debt Service and Coverage
Current Situation 2287 EDU's	\$1,430,126	\$1,095,654	\$35,753	\$0	\$186,073	\$520,545
End Year 1	\$1,501,578	\$1,005,265	\$37,539	\$353,400	\$56,108	\$199,020
End Year 2	\$1,717,686	\$1,005,265	\$42,942	\$402,146	\$56,108	\$366,383
End Year 3	\$1,952,424	\$1,005,265	\$48,811	\$488,914	\$56,108	\$514,353
End Year 4	\$2,187,162	\$1,005,265	\$54,679	\$547,178	\$56,108	\$690,827
End Year 5	\$2,382,156	\$1,005,265	\$59,554	\$600,715	\$56,108	\$832,284
End Year 6	\$2,523,744	\$1,005,265	\$63,094	\$688,646	\$56,108	\$885,941
End Year 7	\$2,651,670	\$1,005,265	\$66,292	\$727,451	\$56,108	\$975,062
End Year 8	\$2,775,870	\$1,005,265	\$69,397	\$773,049	\$56,108	\$1,053,663
End Year 9	\$2,900,070	\$1,005,265	\$72,502	\$820,442	\$56,108	\$1,130,470
End Year 10	\$3,024,270	\$1,005,265	\$75,607	\$871,826	\$56,108	\$1,203,287
End Year 11	\$3,024,270	\$1,005,265	\$75,607	\$897,981	\$56,108	\$1,177,132

\* Existing O&M from Annual Audit Report, Page 7, "Operating Expenses".

\*1 Current Situation other income from auditors report

O&M for year 11 projected at 103% of year 10.

The \$1,005,265 existing O&M value in Table 10 reflects \$851,501 plus \$153,764 payment for sewage being treated at the Charles Town waste water treatment plant.

2,140 existing users (w/o HF) - 1,362 existing users to Flowing Springs WWTP = 778 users to CT

778 EDU's x 12 (mo/yr) x 4.5 (1,000 gal/EDU/Mo) x \$3.66 (per 1,000 gal) = \$153,764 for treatment at CTWWTP

Proposed additional O&M for years 8 thru 10 = Year 7 O&M + (200 EDU's x \$210 per EDU/yr) for each additional year (Yr 8 = 200, Yr 9 = 400, Yr 10 = 600 EDU's)

Income Available for Debt Service and Coverage = { Annual Revenue (Sales to Customers) +

other income} - {(Existing O&M + Proposed Additional O&M)}

**Table 12 Loan Payments**

Loan Amount	Interest Rate/Yrs	Capital Recover Factor	Annual Payment w/ 15% coverage
See Attached Spreadsheet for 40 year wrapped loan			
\$12,830,940	5%/20	0.08024	\$1,183,988
Half of 5% Loan	Payoff @ Yr. 10	Compound Amount Factor	Payment
\$6,415,470	5% / 10yr	1.6289	\$10,450,159

### ADDITIONAL REVENUE REQUIRED FOR DEBT SERVICE

A = Existing Debt Service w/coverage + Proposed Debt Service w/coverage - Income Available for Debt Service

(note a negative value indicates no additional revenue is required)

**Table 13 2005 Jefferson County Public Service District Wastewater Facility Plan**

	Existing Debt Service*	Existing Coverage @ 15%	Income Available for Debt Service and Coverage See Table 11	New Debt Service with 15% Coverage	WWCIP @ \$7500	Additional Revenue Required for Debt Service
<b>Current Situation</b>	\$423,691	\$63,554	\$520,545	\$0		(\$33,300)
<b>End Year 1</b>	\$314,734	\$47,210	\$199,020	\$1,183,988	\$2,085,000	(\$738,088)
<b>End Year 2</b>	\$314,734	\$47,210	\$366,383	\$1,183,988	\$2,610,000	(\$1,430,451)
<b>End Year 3</b>	\$314,734	\$47,210	\$514,353	\$1,183,988	\$2,835,000	(\$1,803,421)
<b>End Year 4</b>	\$314,734	\$47,210	\$690,827	\$1,187,192	\$2,835,000	(\$1,976,691)
<b>End Year 5</b>	\$314,734	\$47,210	\$832,284	\$1,187,130	\$2,355,000	(\$1,638,210)
<b>End Year 6</b>	\$314,734	\$47,210	\$885,941	\$1,187,406	\$1,710,000	(\$1,046,591)
<b>End Year 7</b>	\$314,734	\$47,210	\$975,062	\$1,212,180	\$1,545,000	(\$945,938)
<b>End Year 8</b>	\$314,734	\$47,210	\$1,053,663	\$1,232,454	\$1,500,000	(\$959,266)
<b>End Year 9</b>	\$314,734	\$47,210	\$1,130,470	\$1,239,048	\$1,500,000	(\$1,029,478)
<b>End Year 10</b>	\$314,734	\$47,210	\$1,203,287	\$1,230,642	\$1,500,000	(\$1,110,701)
<b>Sub-Total</b>						(\$12,678,835)
<b>Maximum Payment</b>	\$314,734	\$47,210	\$1,177,132	\$410,837	\$0	(\$404,351)

\*Existing Debt Service as of June 30, 2005 without the Hunt Field debt that will be taken over by Charles Town with the Hunt Field divestiture. An audit for the period showed 119% loan coverage. Hunt field Debt Service and Income has been eliminated from the modeling years and does not affect the analysis.

Note:

91,576 GPD Capacity remaining in the WWTP @ end of 10 years.

The project would generate \$2,228,6764 in excess funds collected from a \$7,500 WWCIF if development growth develops as projected. The excess funds would allows for 297 users not coming online during the 10 years of the project.

**Future savings from not having sewage treated at Charles Town WWTP:**

From the annual report for the period ending June 30, 2005 the District paid Charles Town \$244,153

During 2005, the PSC of WV changed the way the District pays for waste water treatment at Charles Town Plant. The District now pays \$3.66 per 1,000 gallons. Based on that value, the following projects the cost of wastewater treatment at Charles Town for the District after the Flowing Springs WWTP is online.

$1,362 \text{ EDU's} \times 12 \text{ (mo/yr)} \times 4.5 \text{ (1,000 gal/EDU/Mo)} \times \$3.66 \text{ (per 1,000 gal)} = \$269,186$

The plant will require upgrading after year 10 to accept additional users as it is predicted to be handling a flow of 908,424 gallons per day.



AFFIDAVIT OF PUBLICATION

9-4-21-20

**PUBLIC NOTICE  
JEFFERSON COUNTY PUBLIC  
SERVICE DISTRICT  
REQUEST FOR ENGINEERING  
PROPOSAL**

On May 3, 1996, the Jefferson County Public Service District published Public Notice of its Request For Engineering Proposal for the project described herein. In order to comply with the publication requirements set forth in West Virginia Code 5G-1-3 The District is republishing the notice as follows:

The Jefferson County Public Service District is in the process of obtaining engineering services to provide feasibility studies and cost estimates, design and construction services necessary for the design and preparation of funding applications to various Federal, State, and Local sources as well as implementation of projects for water and sewer.

Professional services will include: (1) Feasibility Studies, (2) Cost estimates along with advice and information necessary in order to prepare competitive and programs eligible applications, (3) if funded, design in accordance with all State, Federal and Local regulations that pertain to the District's water and sewer systems, (4) Preparation of bidding and contracting documents, (5) Participation in the evaluation of bids received, (6) Monitor and inspect construction activities on a daily basis to ensure compliance with plans and specifications and (7) Provide construction management services.

Final plans, specifications and bid documents will be completed after the project is funded. Procurement of said services shall be in accordance with 24 CFR Part 85 and West Virginia Code Chapter 5G. All consultants interested in being considered for this project must submit a proposal detailing qualification, technical expertise, management and staffing capabilities and related experience.

The object of the competitive process is to objectively select the firm who will provide the highest quality of service. Accordingly, technical qualifications and experience will be weighed heavily. Selected respondents will be interviewed and the firm judged most qualified will be selected.

Please submit all requested information to:

William B. Stone, Jr.  
General Manager  
Jefferson County Public  
Service District

210 West 3rd Avenue  
Randall, West Virginia 25438

Proposals will be accepted until 5:00 p.m. on October 1, 1996. Those engineering firms which submitted proposals in response to the May 3, 1996 Public Notice need not resubmit the materials, as those proposals will be considered by the District in addition to any proposals received in response to this Notice.

Attention is directed to the fact that funding sources for the proposed project may include, but not be limited to, West Virginia Infrastructure, Rural Utilities Service, SRF, EDA, ARC, or HUD SCBG funding. All work will be performed in accordance with the regulations issued by these agencies and the State of West Virginia as pertaining hereto. The selected firm will be required to comply with Title VI of the Civil Rights Act of 1964, Executive Order 11246, Urban Development Act of 1974, Section 8 of the Housing and Urban Development Act of 1968, Conflict of Interest Statement and Access to Records provisions, where applicable.

The District will afford opportunity for minority business enterprise to submit a show of interest in response to this invitation and will not discriminate against any interested firm or individual on the grounds of race, creed, color, sex, age, handicap or national origin in the contract award.

The District reserves the right to accept or reject any and/or all proposals.

STANLEY E. ZIMBRO.

*Certificate of Publication*

This is to certify the annexed advertisement

Robert R Rodecker

Jefferson County Public Service  
Dist. Request for engineering  
proposal

appeared for 2 consecutive  
days/weeks in The Journal Publishing  
Company, a newspaper published in  
the City of Martinsburg, WV in its  
issue beginning

9/14

and ending

9/21

**The Journal**

207 W. King Street  
Martinsburg, WV 25401

Fee \$ 96.71



OFFICIAL SEAL  
NOTARY PUBLIC  
STATE OF WEST VIRGINIA  
SANDRA B. SPERRY  
ROUTE 4, BOX 298  
HEDGEVILLE, WV 25427  
My Commission Expires August 18, 2008

MINUTES OF  
ENGINEER SELECTION COMMITTEE  
MEETING HELD ON OCTOBER 23, 1996

# Jefferson County Public Service District

Engineer Selection Committee  
October 23, 1996  
Minutes

The Engineer Selection Committee of the Jefferson County Public Service District met at 10:00 A.M. on October 23, 1996 to interview engineers for the County-Wide Sewer and Water Feasibility Study. The committee members were Stanley E. Zombro, Thomas M. West, Carole A. Hall and William B. Stine, Jr..

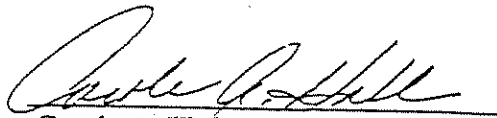
The following firms were interviewed:

Buchart Horn, Inc.

Anderson & Associates, Inc.

Pentree, Inc.

The Committee agreed to make the selection at the next PSD Board Meeting.



Carole A. Hall, Secretary



MINUTES OF  
MEETING HELD ON NOVEMBER 12, 1996

Jefferson County  
Public Service District

Regular Meeting  
November 12, 1996  
Agenda

**Unfinished Business:**

Charles Town/Ranson

PSC Hearing - Walnut Grove/Jefferson Utilities - Transfer of Ownership

The Hearing is scheduled for November 13, 1996. The General Manager will be meeting Mr. Rodecker in Charleston prior to the hearing.

- Walnut Grove/Jefferson Utilities Agreement

Mr. Rodecker discussed with the board a meeting with the Walnut Grove Homeowners Association and Jefferson Utilities. Mr. Rodecker made an offer for the Walnut Grove Sewer. The Board instructed Mr. Rodecker how to proceed if the offer was rejected.

Sanitary Associates

The Board discussed Sanitary Associates Water and Sewer. Mr. Rodecker was instructed to report to Jefferson Utilities that the District has every intention of pursuing the acquisition of Sanitary Associates Sewer.

Discussion was also held concerning SRF funding for the connection of Sanitary Associates and for the purchase of Walnut Grove Utilities.

- Complaint Hearing- Mose

The General Manager reported that the hearing date had been changed to November 21, 1996. Discussion followed.

- KOA

The General Manager reported that the surveying is to be done to find the sewer sleeve and its elevations.

- John Skinner - Contingency Fee

John Skinner and the Board discussed retaining his legal services on a contingency basis.

Mr. Skinner also reported that he had appealed the unemployment Law Judges decisions concerning the unemployment status for Timothy Mose.

Blue Ridge Water Project

Discussion of this project was held. Tom West made a motion to instruct Will Smith of Pentree Inc. to present the application to the Infrastructure Council for funding approval. Carole Hall seconded the motion, motion carried.

- Facility Plan- Selection

SEE ATTACHED MINUTES OF SELECTION COMMITTEE

Tom West made a motion to hire Pentree Inc. to do engineering services to provide feasibility studies and cost estimates for the design and construction services necessary for the design and preparation of funding applications to various federal, state and local sources as well as implementation of projects for water and sewer.

### New Business:

Charles Town/Ranson

- DEP Inspection of Treatment Plant

The General Manager reported on a meeting he attended at the City of Charles Town concerning the Sewage Treatment Plant. The DEP inspection showed several areas that need to be corrected. Discussion followed. The General Manager was instructed to keep the Board informed on further developments.

- Disbursements

The General Manager presented the Board with the current bills. Carole Hall made motion instructing the General Manager which bills to pay. Tom West seconded the motion, motion carried.

Keyes Ferry Acres

- Disbursements

The General Manager presented the Board with the current bills. Tom West made a motion instructing the General Manager which bills to pay. Carole Hall seconded the motion, motion carried.

Glen Haven

- Disbursements

The General Manager presented the Board with the current bills. Tom West made a motion instructing the General Manager which bills to pay. Carole Hall seconded the motion, motion carried.

Cavaland

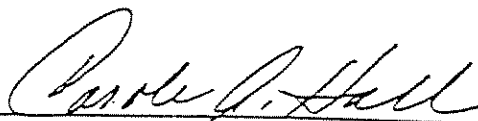
- Disbursements

The General Manager presented the Board with the current bills. Tom West made a motion instructing the General Manager which bills to pay. Carole Hall seconded the motion, motion carried.

Burr Industrial Park

- Disbursements

The General Manager presented the Board with the current bills. Carole Hall made a motion instructing the General Manager which bills to pay. Carole Hall seconded the motion, motion carried.

A handwritten signature in cursive script, reading "Carole A. Hall", written over a horizontal line.

Carole Hall, Secretary

Next Meeting:

November 27, 1996

December 11, 1996