

MOREFIELD BOTTOM DECENTRALIZED SEWER PROJECT

RUSSELL COUNTY WATER & SEWAGE AUTHORITY
CUMBERLAND PLATEAU Planning District

Project Background

The homes in this area are closely spaced along two streets. Inadequately treated sewage is present throughout the neighborhood causing health hazards and odors. These unsanitary conditions prevent drainage ditches from being cleaned, thus making this community a prime candidate for public sewer system.

Proposed Facilities

The proposed facilities include approximately 4,000 linear feet of 3-inch and 4-inch sewer line, 42 watertight septic tanks, and a community treatment system. The treatment would be provided by an AdvanTex AX100 system, similar to the one used at Imboden. This treatment system would treat the wastewater to advanced secondary standards and dispose of it into the soil using either conventional trenches or a drip disposal system. This system would be monitored and controlled remotely to minimize labor costs.

Project Costs

The preliminary probable project cost and annual operation and maintenance costs associated with the Morefield Bottom Decentralized Sewer Project are \$419,860 and \$10,080, respectively. These costs result in an approximate present worth of \$12,699 per equivalent connection.

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PRELIMINARY PROBABLE PROJECT COST

Construction Cost

2,700	L.F.	3-inch Sewer Line	\$10 /L.F.	\$27,000
1,300	L.F.	4-inch Sewer Line	\$14 /L.F.	\$18,200
32	EA.	STEG System	\$2,000 /EA	\$64,000
10	EA.	STEP System	\$3,500 /EA	\$35,000
2	EA.	Road Crossing	\$1,500 /EA	\$3,000
1	EA.	Stream Crossing	\$1,500 /EA	\$1,500
8,400	GAL.	Treatment System	\$10 /GAL.	\$84,000
8,400	GAL.	Disposal System	\$8 /GAL.	\$67,200
Total Construction Cost				\$299,900

Related Cost

40 %	Related Cost	\$119,960
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TOTAL PROJECT COST \$419,860

OPERATION AND MAINTENANCE (O&M) COST

CONN.	UNIT	DESCRIPTION	MONTHLY	ANNUALLY
42	EA.	Routine Maint. & Monitoring	\$11.00	\$5,544
42	EA.	Pump Septic Tanks	\$2.50	\$1,260
42	EA.	Power & Telephone	\$4.00	\$2,016
42	EA.	Sampling	\$1.00	\$504
42	EA.	Breakdown Maintenance	\$1.50	\$756
TOTAL O&M COST			<u>\$20.00</u>	<u>\$10,080</u>

PRESENT WORTH OF ANNUAL O&M COST (30 YEARS, 8%) \$113,479

TOTAL PROJECT PRESENT WORTH \$533,339

PRESENT WORTH PER CONNECTION (42 CONNECTIONS) \$12,699

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