

STEPHENS DECENTRALIZED SEWER PROJECT

WISE COUNTY PUBLIC SERVICE AUTHORITY

LENOWISCO Planning District

Project Background

Sepulcher Creek, an impaired stream, runs through this community of 200 homes. The homes are located along the highway and railroad and are tightly clustered in some areas. Small lot size and the type of soils in the vicinity preclude the use of conventional onsite treatment and disposal systems.

Proposed Facilities

The proposed facilities include over 14,000 linear feet of 3-inch, 3,000 linear feet of 4-inch, and 3,000 linear feet of 6" sewer lines, 200 watertight septic tanks with pumps (STEP systems), and 40,000 gallons of treatment capacity and disposal field. The proposed treatment unit is the AdvanTex AX100 treatment module, same as the treatment used at Imboden. This treatment system will treat domestic wastewater to advanced secondary standards before disposing of it into the soil using either conventional trenches or drip disposal.

Project Costs

The preliminary probable project cost and annual operation and maintenance costs associated with the Stephens Decentralized Sewer Project are \$2,382,800 and \$38,400, respectively. These costs result in an approximate present worth of \$14,076 per equivalent connection.

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PRELIMINARY PROBABLE PROJECT COST

Construction Cost

14,000	L.F.	3-inch Sewer Line	\$10 /L.F.	\$140,000
4,000	L.F.	4-inch Sewer Line	\$14 /L.F.	\$56,000
4,000	L.F.	6-inch Sewer Line	\$18 /L.F.	\$72,000
200	EA.	STEP System	\$3,500 /EA.	\$700,000
5	EA.	Road Crossing	\$1,500 /EA.	\$7,500
1	EA.	Stream Crossing	\$1,500 /EA.	\$1,500
1	EA.	Railroad Crossing	\$5,000 /EA.	\$5,000
40,000	GAL.	Treatment System	\$10 GAL	\$400,000
40,000	GAL.	Disposal System	\$8 GAL	\$320,000

Total Construction Cost \$1,702,000

Related Cost

40 % Related Cost \$680,800

TOTAL PROJECT COST \$2,382,800

OPERATION AND MAINTENANCE (O&M) COST

<u>CONN.</u>	<u>UNIT</u>	<u>DESCRIPTION</u>	<u>MONTHLY</u>	<u>ANNUALLY</u>
200	EA.	Routine Maint. & Monitoring	\$8.00	\$19,200
200	EA.	Pump Septic Tanks	\$2.50	\$6,000
200	EA.	Power & Telephone	\$3.50	\$8,400
200	EA.	Sampling	\$0.50	\$1,200
200	EA.	Breakdown Maintenance	\$1.50	\$3,600
		TOTAL O&M COST	<u>\$16.00</u>	<u>\$38,400</u>

PRESENT WORTH OF ANNUAL O&M COST (30 YEARS, 8%) \$432,300

TOTAL PROJECT PRESENT WORTH \$2,815,100

PRESENT WORTH PER CONNECTION (200 CONNECTIONS) \$14,076

