

NORA DECENTRALIZED SEWER PROJECT

DICKENSON COUNTY PUBLIC SERVICE AUTHORITY

CUMBERLAND PLATEAU Planning District

Project Background

There are some straight pipe discharges from this community into the McClure River. Most are older homes located too close to the river to accommodate onsite treatment and disposal.

Proposed Facilities

The proposed facilities include approximately 2,500 linear feet of 3-inch, 20 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 conventional trenches. The proposed disposal site is located behind the store and across the river. This treatment 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 Nora Decentralized Sewer Project are \$224,560 and \$4,800, respectively. These costs result in an approximate present worth of \$13,930 per equivalent connection.

NORA DECENTRALIZED SEWER PROJECT
DICKENSON COUNTY PUBLIC SERVICE AUTHORITY
Cumberland Plateau Planning District

PRELIMINARY PROBABLE PROJECT COST

Construction Cost

| | | | | |
|-------------------------|------|-------------------|--------------|-----------|
| 2,540 | L.F. | 3-inch Sewer Line | \$10 /L.F. | \$25,400 |
| 10 | EA. | STEP System | \$3,500 /EA. | \$35,000 |
| 10 | EA. | STEG System | \$2,000 /EA. | \$20,000 |
| 2 | EA. | Road Crossing | \$1,500 /EA. | \$3,000 |
| 1 | EA. | River Crossing | \$5,000 /EA. | \$5,000 |
| 4,000 | GAL. | Treatment System | \$10 /GAL. | \$40,000 |
| 4,000 | GAL. | Disposal System | \$8 /GAL. | \$32,000 |
| Total Construction Cost | | | | \$160,400 |

Related Cost

| | | |
|------|--------------|----------|
| 40 % | Related Cost | \$64,160 |
|------|--------------|----------|

TOTAL PROJECT COST \$224,560

OPERATION AND MAINTENANCE (O&M) COST

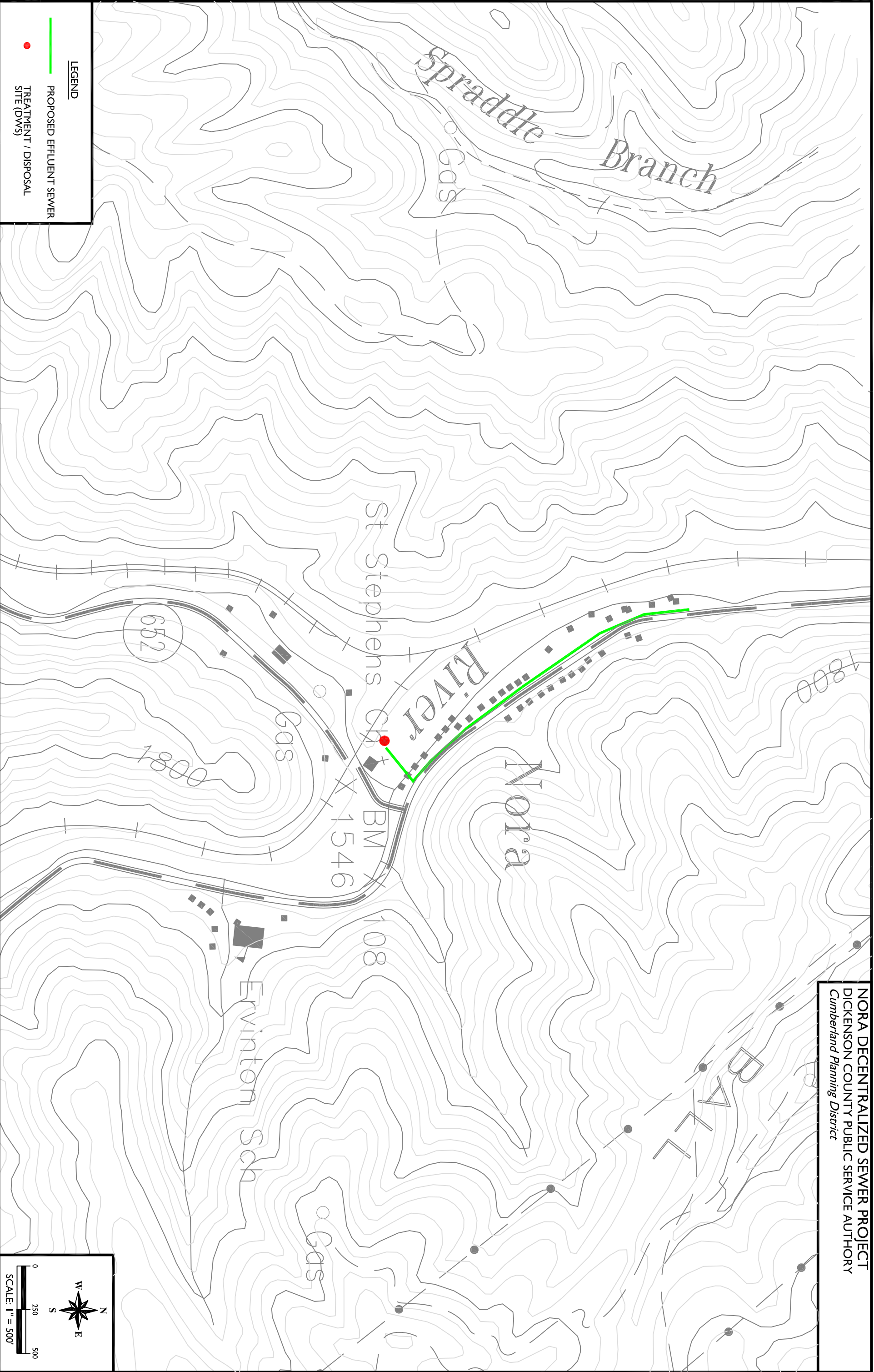
| <u>CONN.</u> | <u>UNIT</u> | <u>DESCRIPTION</u> | <u>MONTHLY</u> | <u>ANNUALLY</u> |
|----------------|-------------|-----------------------------|----------------|-----------------|
| 20 | EA. | Routine Maint. & Monitoring | \$10.00 | \$2,400 |
| 20 | EA. | Pump Septic Tanks | \$2.50 | \$600 |
| 20 | EA. | Power & Telephone | \$3.50 | \$840 |
| 20 | EA. | Sampling | \$2.00 | \$480 |
| 20 | EA. | Breakdown Maintenance | \$2.00 | \$480 |
| TOTAL O&M COST | | | \$20.00 | \$4,800 |

PRESENT WORTH OF ANNUAL O&M COST (30 YEARS, 8%) \$54,037

TOTAL PROJECT PRESENT WORTH \$278,597

PRESENT WORTH PER CONNECTION (20 CONNECTIONS) \$13,930

NORA DECENTRALIZED SEWER PROJECT
DICKENSON COUNTY PUBLIC SERVICE AUTHORITY
Cumberland Planning District



LEGEND

- PROPOSED EFFLUENT SEWER
- TREATMENT SITE (DWS)

0 250 500
SCALE: 1" = 500'

A north arrow pointing upwards, with 'N' at the top, 'S' at the bottom, 'E' on the right, and 'W' on the left. Below the arrow is a scale bar with markings at 0, 250, and 500 feet.