



## Warren County, MO - Wastewater

**Project Location:** Warren County, MO

**Team Members Needed:** A full team has already been recruited, and is actively working on the project. However, as all current members of the team are remote, Community Engineering Corps is looking to add one or more volunteers local to the Warren County area to the project. It is not imperative to be located in Warren County, but volunteers should be able to get to the County an estimated 1 - 2 times throughout the course of the project. Potential volunteers include advanced students and professionals familiar with wastewater and the issues listed below.

If interested, please reach out directly to Tate Howes, contact information provided below.

**Project Background:** A nonprofit wastewater utility association provides wastewater treatment services to approximately 20 households in a rural Missouri community. The treatment facility is a single cell lagoon system, with a 1-acre lagoon located on a 1.5 acre lot. The utility has been regularly issued orders of noncompliance from their primacy agency (Missouri Department of Natural Resources) for exceeding the maximum levels of ammonia allowed under what is identified on their NPDES permit.

The utility has a chlorination/dechlorination system to maintain compliance with their NPDES permit E.coli limits, but does not have the technical or financial capacity required to add the required treatment for ammonia, resulting in ongoing notices of violation.

**Description of the Community:** This rural, underserved community is located in Warren County, MO. 40 percent of residents are listed as low-income, and 37 percent holding less than a high school diploma. The community's per capita income is \$28,826.

**Project Scope of Work:** The community is requesting engineering assistance to conduct an assessment of their existing lagoon system, and make recommendations on an ammonia treatment alternative that will bring their system into compliance with the Missouri Department of Natural Resources.

The scope of this project is expected to include the development of a Preliminary Engineering Report to be used in an application for funding for capital improvements, including an alternatives analysis identifying ammonia treatment technologies, and cost estimates.

**Timeline:** There is no set timeline, but we are actively working toward the project's completion, and are hoping to finish as fast as possible.

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