

Preliminary Project Discussion for Sewage Works Construction Projects  
Background Information  
East Hickman WRF

Project Name: East Hickman Water Reclamation Facility

NPDES or SOP Number (if existing): new NPDES permit

- A. Identification of parties
  - a. Applicant: Water Authority of Dickson County
  - b. Permittee: Water Authority of Dickson County
  - c. Consulting Engineer: Water Management Services
  - d. Funding Agencies (if applicable): TBD
  - e. Entity to sign off on compliance with local codes (i.e. building inspector)
- B. Project Purpose and Objectives

Purpose of the project is to provide sewer service for areas south of I-40 and to treat some of the flow from the existing service areas of the Jones Creek WWTP and the Fairview WWTP to provide some recovered capacity at those facilities for growth. The project will allow needed growth in Hickman County, which is economically depressed. This project involves construction of a greenfield water reclamation facility with a new discharge into Lick Creek at approximate km 17.1, which is near the Highway 7 bridge, along with associated interceptors and pump stations.
- C. Map of general service area – see attached map. Location are all preliminary. Exact location of WRF TBD, but we are looking for a minimum of 50 acres.
- D. Existing Inflow and Infiltration – much of the system will be new
- E. Influent characteristics – this is a new WRF, so no existing information available. We will use the Jones Creek WWTP data to develop the influent design basis.
- F. System capacity – to be determined by PER, but we expect 4 mgd for Phase 1, 8 mgd for Phase 2 and 12 mgd for Phase 3. Effluent design basis is as follows.

Proposed Effluent Limits Discharge at Lick Creek KM 17.1				
Parameter	Units	4 mgd Discharge	8 mgd Discharge	12 mgd Discharge
CBOD <sub>5</sub>	mg//L	10	7	5
Total Suspended Solids	mg/L	10	10	10
Ammonia	mg/L	2.6	1.5	1
Nitrogen, total	mg/L	8	8	5
Phosphorus, total	mg/L	1	0.5	0.5
Dissolved Oxygen	mg/L	6.0	6.0	6.0

- G. Procurement methodology – design-bid build
- H. Reliability class of components and electrical service - TBD
- I. Proposed project schedule – submit PER in July