

Projects That Promote Regionalization

The current wastewater system is a regional facility serving a large portion of Franklin County. There are five privately owned permitted wastewater discharges located inside the Planning Area. **In keeping with the Division of Water’s goal for regionalization, the permitted discharges at Capital Mobile Home Estates and Elkhorn Mobile Home Park are planned to be eliminated in the last half of the planning period.** Regrettably, the “No-Action” alternative is chosen for the other three discharges. However, those three wastewater discharges will be considered for elimination during the next planning period that begins in 2034.

An analysis of alternatives was made to determine the most economical way to extend sewer service from the Elkhorn Mobile Home Park to the Capital Mobile Home Estates. Two design alternatives were analyzed for this project. They are:

- A force main from Capital Mobile Home Estates to the Elkhorn Mobile Home Park. This project includes a 4” force main along US 460, a new gravity collection system throughout the Capital Mobile Home Estates, as well as an upgrade to the pump station at the Capital Mobile Home Estates. Table 8-1 contains a project estimate and Table 8-2 contains a present worth analysis of the project costs, along with the operational, maintenance and salvage value for this system.
- An 8” gravity collection line from Capital Mobile Home Estates to the Elkhorn Mobile Home Park. This project also includes construction of a new collection system throughout the Capital Mobile Home Estates, as well as a siphon across Elkhorn Creek. Table 8-3 contains a project estimate and Table 8-4 contains a present worth analysis of the project costs, along with the operational, maintenance and salvage value for this system.
- A project estimate was made for a new pump station and force main that will pump the wastewater from the Elkhorn Mobile Home Park and Capital Mobile Home Estates to the existing pump station at the Jim Beam Distillery. The elevation of the existing Jim Beam pump station is higher than the elevation at the Elkhorn Mobile Home Park, therefore a gravity line alternative was not analyzed as an alternative.

Analysis of Other Alternatives

There are seven wastewater collection system extensions planned in the next twenty years. Three of these extensions, Springhill Subdivision, Inverness Subdivision and Hawkheegan Drive, are under design. The best design alternative has been selected, therefore no design analysis will be made for those three projects.

Two other wastewater collection system extensions, Old Soldiers Lane and Strathmore Drive, are confined to small areas that are located within a large subdivision that is served by existing sewers. Each of these extensions will serve five homes. Since those properties were not served by gravity collection lines when the subdivision was initially developed, it is safe to assume that wastewater from these properties will have to be pumped to the adjacent gravity collection system. In these types of instances, individual grinder pumps connected to small-diameter force mains are the most economical method of serving these areas. No other alternatives will be analyzed for these two areas.

Recommendations

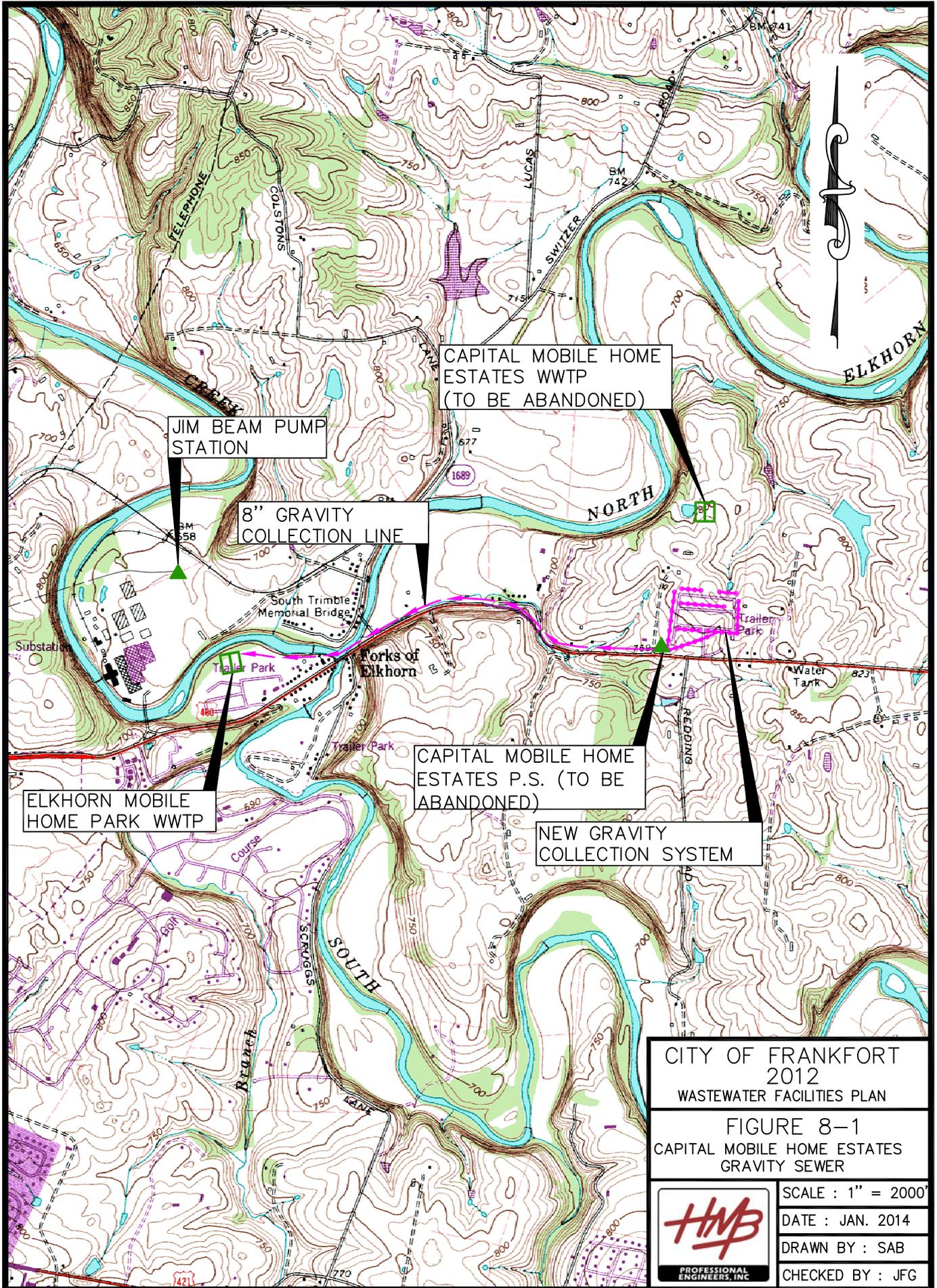
The recommended alternate for extending sewers from the existing pump station at the Jim Beam distillery to the Capital Mobile Home Estates is a force main and pump station. This recommendation is based on present worth analysis of the force main project having a lower cost than the gravity sewer alternative. This project is scheduled to occur in the last half of the planning period.

The large majority of projects planned by the Frankfort Sewer Department are maintenance projects that will replace or rehabilitate portions of the existing wastewater collection system. There was no analysis of alternates for these maintenance projects because of the nature of the project. Table 10-2 in Section 10 contains a prioritized list of these maintenance projects that, when completed, should substantially move the City into compliance with the AO. The majority of these projects are expected to be completed over the next five years. These projects fall into one of three categories:

- Rehabilitation, repair or replacement of existing wastewater infrastructure. Other than “No Action”, there are no alternatives, so no alternative analysis was done for these projects. These projects are marked with an “**(R)**” in the prioritized projects listed in Table 10-2.
- Projects that are currently under design and the best alternative has been determined. These projects are marked with an “**(D)**” in the prioritized projects listed in Table 10-2.
- Combined Sewer Overflow (CSO) projects that are part of the Long Term Control Plan (LTCP). These projects consist of separating combined sewers or constructing capacity upgrades. The analysis of these alternatives was done in the CSO Plan. These projects are marked with an “**(C)**” in the prioritized projects listed in Table 10-2.

There are forty (40) projects proposed to be completed in the first 5 years of the planning period. All of the projects are rehabilitation, repair or replacement of existing wastewater infrastructure (R), or currently under design (D), or CSO projects that are part of the LTCP (C). Since all of these projects fall into one of those three categories, there was no alternative analysis done for any of those projects.

In addition to the improvements listed in Table 10-2, the Frankfort Sewer Department will continue to evaluate, upgrade and rehabilitate each process in the wastewater treatment plant, as conditions and operations dictate.



JIM BEAM PUMP STATION

8" GRAVITY COLLECTION LINE

CAPITAL MOBILE HOME ESTATES WWTP (TO BE ABANDONED)

ELKHORN MOBILE HOME PARK WWTP

CAPITAL MOBILE HOME ESTATES P.S. (TO BE ABANDONED)

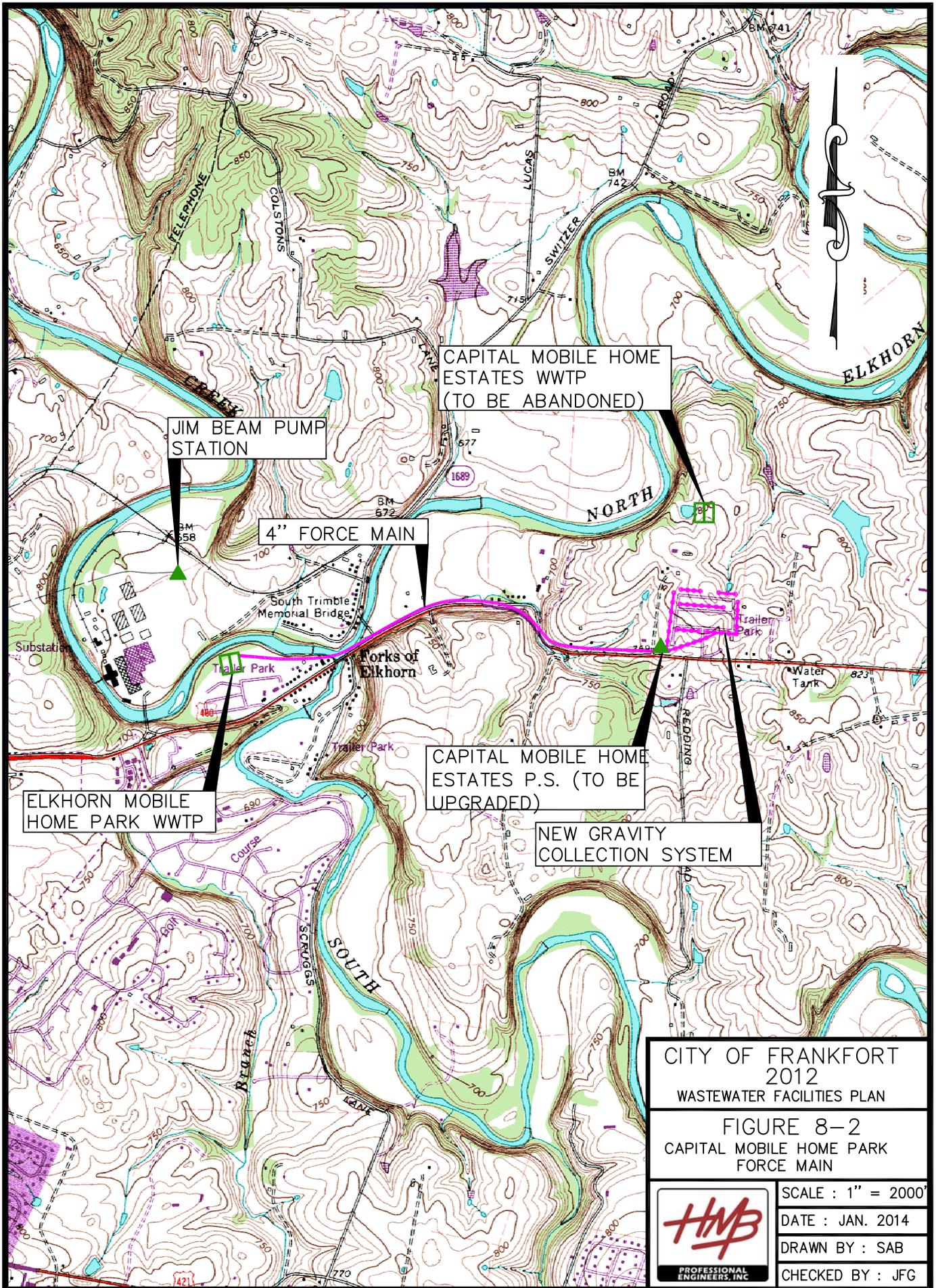
NEW GRAVITY COLLECTION SYSTEM

CITY OF FRANKFORT
2012
WASTEWATER FACILITIES PLAN

FIGURE 8-1
CAPITAL MOBILE HOME ESTATES
GRAVITY SEWER



SCALE : 1" = 2000'
DATE : JAN. 2014
DRAWN BY : SAB
CHECKED BY : JFG



JIM BEAM PUMP STATION

CAPITAL MOBILE HOME ESTATES WWTP (TO BE ABANDONED)

4" FORCE MAIN

ELKHORN MOBILE HOME PARK WWTP

CAPITAL MOBILE HOME ESTATES P.S. (TO BE UPGRADED)

NEW GRAVITY COLLECTION SYSTEM

CITY OF FRANKFORT
2012
WASTEWATER FACILITIES PLAN

FIGURE 8-2
CAPITAL MOBILE HOME PARK
FORCE MAIN



SCALE : 1" = 2000'

DATE : JAN. 2014

DRAWN BY : SAB

CHECKED BY : JFG