

FPB – Alternative B

FPB draws water from the Kentucky River's Pool 4 in Frankfort and serves customers in Woodford, Anderson, Shelby, Scott, Henry, and Spencer Counties from an 18 MGD WTP (see Figure 4-6) built in 1975. FPB currently provides auxiliary water supply to GMWSS on a minimum purchase basis via two transmission mains to the Scott County line along Elkhorn Creek at Woodside Road (KY 1685).

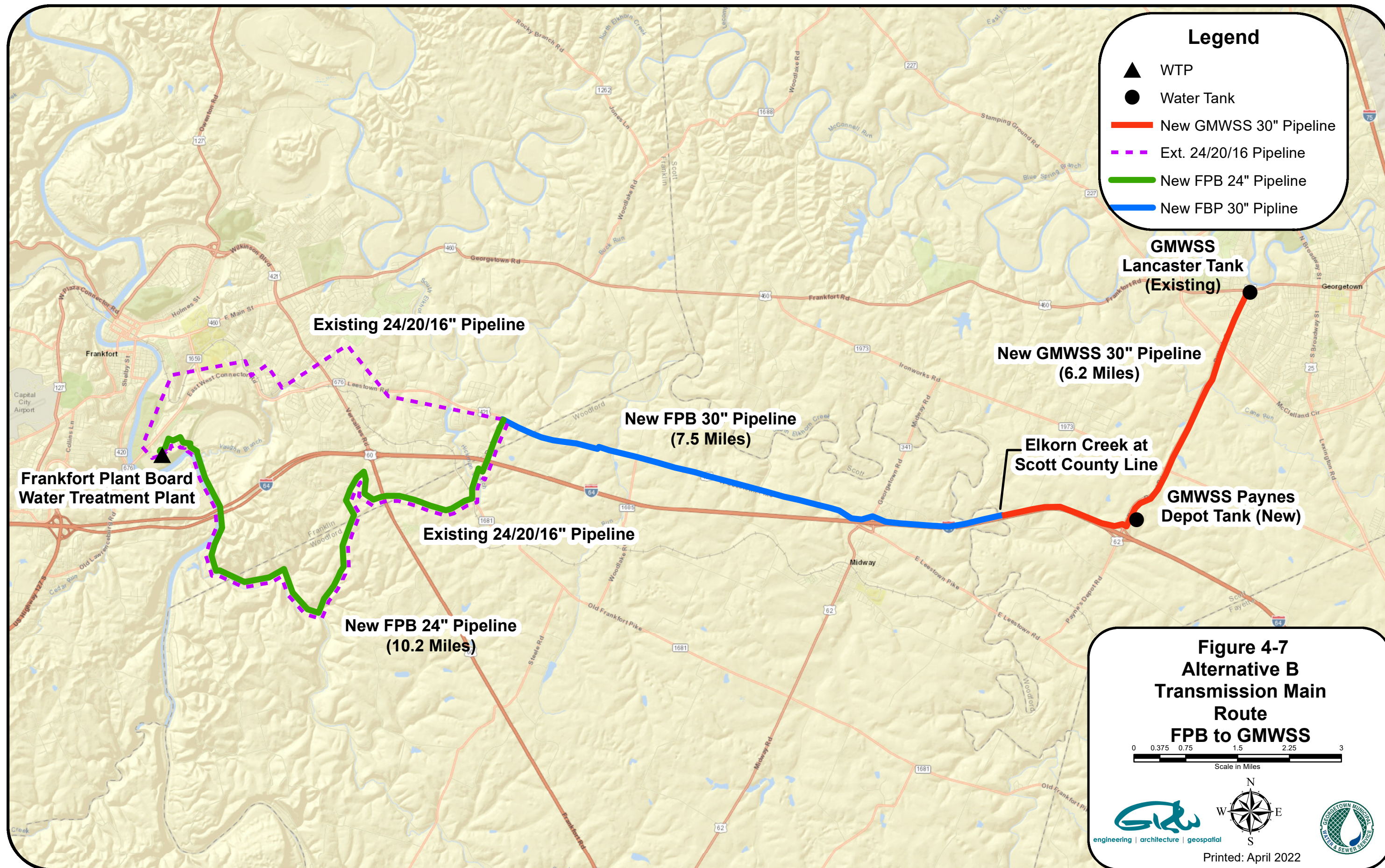
Under Alternative B, FPB and GMWSS will enter into a new purchase agreement for the purchase of all water needed to meet the future demands of the WSSA, the existing WTP and spring will be taken out of service and the plant site will be re-purposed as a park or similar use.



Figure 4-6
Alternative B – Frankfort WTP Site

Alternative B (see Figure 4-7) consists of improvements at the FPB WTP, a new 10.2-mile-long, 24-inch water transmission main from the WTP to Woodside Road at US 421 in Franklin County (parallel to the southern-most existing transmission main) and a 7.5-mile long, 30-inch transmission main from Woodside Road to the Scott County line at US 421. The 30-inch main will begin at the WTP and parallel the river along Glenn's Creek Road (KY 1659), cross under I-64, continue along McCracken Pike and Duncan Road, cross Frankfort Road (US 60), Old Frankfort Pike (KY 1681), Duckers Road, and then follow US 421 to the Scott County line.

In Scott County, the 30-inch main will extend 6.2 miles from the Scott County line, along US 62 into Georgetown, cross the US 460/US 62 Bypass at Frankfort Pike and terminate at the Lancaster water storage tank. Some water main tie-ins along the route in Scott County are included in this alternative. A new booster pump station and a new water storage tank will be needed at Paynes Depot. The transmission line will terminate at the existing Lancaster water storage tank.



KAW – Alternatives C1 and C2

Under this approach, the existing spring and WTP will no longer be used. All future GMWSS water demands will be met via a purchase agreement with KAW. KAW, which is a subsidiary of a publicly traded water utility, built a 20 MGD WTP adjacent to Pool 3 of the Kentucky River at Hardin's Landing along US 127 south of Owenton (see Figure 4-



Figure 4-8 – Alternative C – KAW Owenton WTP Site

8) in 2010 to augment the water supplied to customers from its two Lexington WTPs. A tee and valve are provided on the plant's existing 42-inch treated water transmission line at the intersection of US 62 and Ironworks Pike.

Water needed to meet the GMWSS future demand can be provided by KAW under two concepts. One approach (Alternative C1) calls for KAW to increase the capacity of its Owenton WTP and convey water via its existing 42-inch KAW transmission main to the tee and valve at Ironworks Pike. For Alternative C1 (see Figure 4-9), the existing 42-inch main will be used to convey water from the Owenton WTP to Scott County. In Scott County, GMWSS will connect to the main, provide a 4.1-mile-long, 30-inch transmission main along US 62 to the US 460/US 62 Bypass, then to US 460, where it will terminate at the Lancaster water storage tank on West Main Street.

Under the second approach, Alternative C2, the capacity of the Owenton WTP will also be increased by KAW. KAW will need to verify that the 42-inch main can deliver the GMWSS water demands to the Scott County line. In the event it cannot, Alternative C2 (see Figure 4-10) calls for KAW to install a new 24.5-mile-long, 30-inch transmission main from the plant to Ironworks Pike, then to US 62 at the Scott County line. In Scott County, a 4.1-mile-long, 30-inch transmission line (as in Alternative C1) will be provided by GMWSS to the Lancaster water storage tank. The route of the KAW transmission line will be difficult and expensive to construct, as it will run along the sides of narrow roads, within limited right-of-way, and cross hilly terrain and creeks.

