

Facilities Description

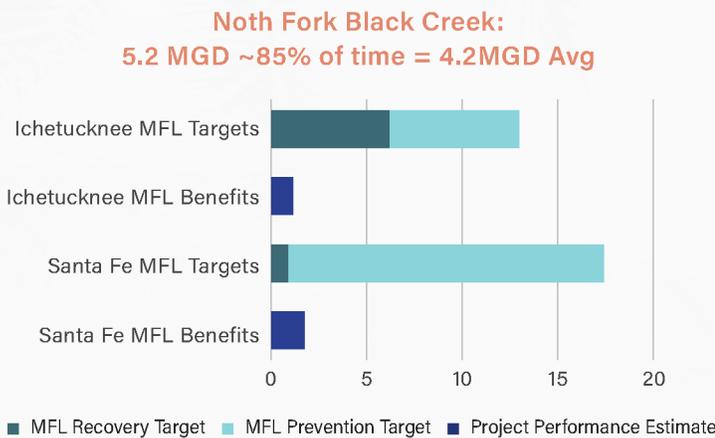
The following facilities have been identified as part of this project:

- Provide a pump station with intake structure at the North Fork of Black Creek. Treatment facilities for nutrients and PFAS could be co-located with the pump station to treat water prior to transmission.
- Provide transmission mains from the pump station at the north fork of Black Creek to target recharge area.
- Provide recharge wells at the selected recharge site.

Project Benefits to the LSFIR MFLS

The benefits calculated for this project are based on representative NFSEG influence factors for the Ichetucknee and Santa Fe River gages within the target recharge area. A recharge efficiency of 100% was assumed for this project based on using recharge wells discharging directly to the Upper Floridan Aquifer.

The graph below demonstrates the project’s ability to address MFLs at the Santa Fe River US Highway 441 gage near High Springs and the Ichetucknee River gage near Highway 27 in Hildreth.



	Ichetucknee River US Highway 27	Santa Fe River US Highway 441
Influence Factors	0.25	0.30
Recovery Target (cfs)	6.3	1.0
Prevention Target (cfs)	13.2	17.3
MFL Benefit Provided (cfs)	1.6	2.0

Ancillary Benefits

- This project could be used in conjunction with other projects to provide additional benefits at either or both MFL sites.

Potential for Regional Benefits

In recognition that there are additional MFLs under development in the same geographic area as the Ichetucknee and Santa Fe, the project was evaluated for potential to positively impact surrounding water bodies. Implementation of the project resulted in an average increase of approximately 0.21 cfs at the Suwannee River Ellaville gage.

Source Water Reliability

Unlike effluent from wastewater sources, this project is targeted at capturing a portion of the North Fork of Black Creek during periods of environmentally sustainable higher discharge. Based on withdrawal procedures established for the South Fork of Black Creek, a minimum flow threshold was established to protect base flows in the creek. A 30-year period of record for the North Fork of Black Creek is shown overlaid with the low flow criteria. Over the period of record, flows exceeded the minimum flow thresholds a total of 85% of the time. When minimum flow thresholds are met, peak discharges are sufficient to supply an average of 5.2 MGD for recharge. It is important to note that there were some extended periods in which minimum flow thresholds were not met. To function as a reliable source water for MFL recovery, this project will benefit from being paired with a more continuous water source or used in conjunction with other project efforts.