Comprehensive evaluation of potential recharge sites

Evaluation of recharge sites should include the following actions:

- Conduct a hydrogeological evaluation considering potential recharge rates, travel times to springs, and potential for impacts such as sinkholes. Estimate residence times in the Upper Floridan aquifer for alternatives with less than continuous availability of water at the source.
- Conduct hydrogeological studies to identify optimal recharge sites throughout the delineated recharge vicinity, and to refine estimates of recharge efficiency and limitations for RIBs and wetland recharge approaches.
- Identify land area requirements for various recharge technologies considering hydrogeologic conditions and recharge flow rates.
- Confirm that benefits to the MFL, currently calculated using the NFSEG model and averaged over effective recharge areas for this study, are accurate and appropriate.
- Estimate the potential benefits of recharge on the proposed Upper and Middle Suwannee River MFLs.
- Determine necessary parcel size(s) for recharge projects from three to 40 MGD using recharge wells, RIBs, and wetlands, with the understanding that these may vary based on soil permeability.
- Consider current and historic land uses, land ownership, and potential acquisition costs.
- Identify restricted areas within the delineated area based on ownership, land use or designation, hydrogeologic connectivity, or other factors.

Environmental and permitting considerations

Evaluate the existing and proposed regulatory requirements associated with each water source, recharge location, and recharge technology, including:

- FDEP requirements for reclaimed water recharge, including aquifer water quality, BMAPs, nutrients, and potential emerging contaminants.
- Regulations and guidelines applicable to withdrawals from natural water bodies to prevent harm to the river or otherwise impact MFLs.
- Confirm that the recharge does not create other issues, such as flooding.

Refinement of potential project costs

Perform additional refinement of cost estimates for each alternative, including:

- Pipeline and pump system concepts, pipeline routes, peaking needs, advanced treatment options, recharge site development, land acquisition, permitting, outreach, etc.
- Consider modular, phased, spatially distributed, or hybrid designs to maximize flexibility and cost efficiency.