

# **SOUTHWEST WRF** **PHASE II EXPANSION** **PRELIMINARY** **DESIGN REPORT**

West Villages Improvement District



# Kimley-Horn Background



Kimley-Horn has supported this development since the 2000s, when it was known as Taylor Ranch.



Our team designed, permitted, and constructed most of the WVID water/wastewater infrastructure, including the WTP and WRF.



We also prepare biennial water and wastewater master plans to evaluate system performance and growth.

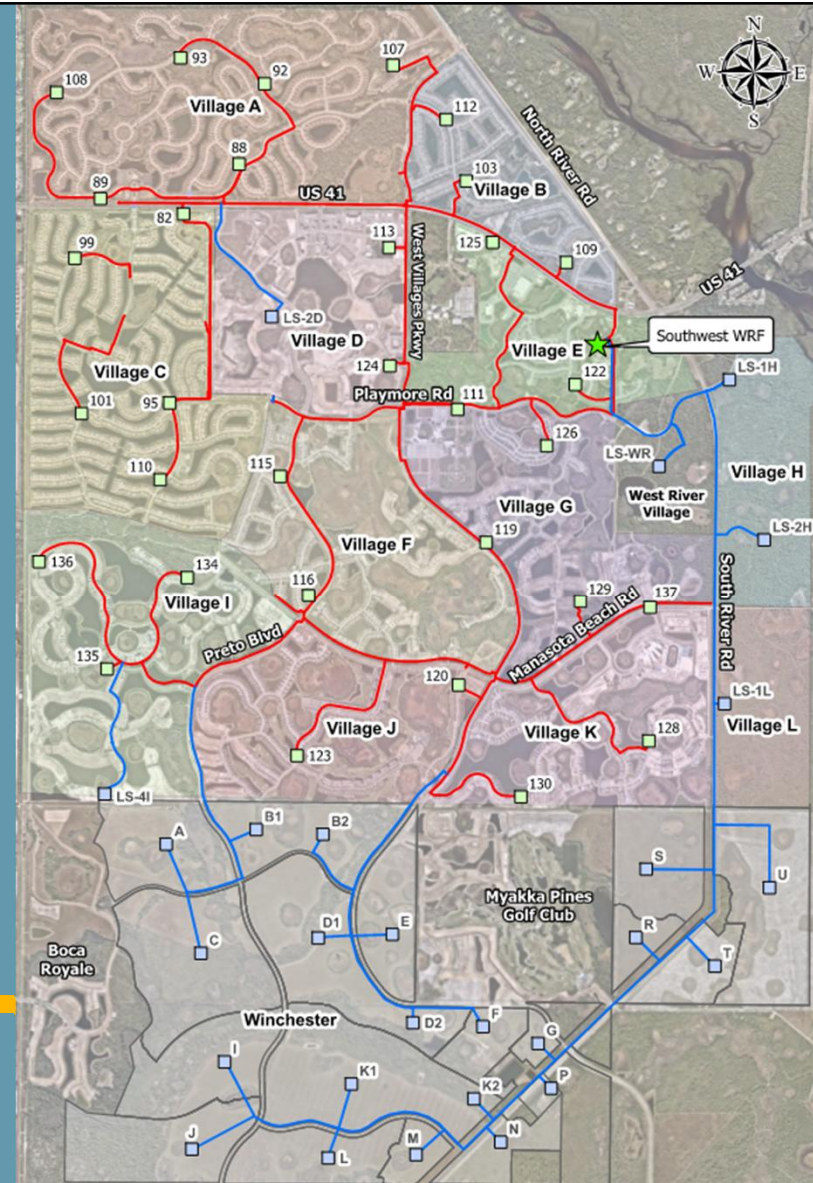


## Existing Wastewater System

- The existing wastewater system consists of a gravity system, lift stations and pressurized force mains that go to the SWWRF
- All wastewater from Wellen Park is treated at SWWRF

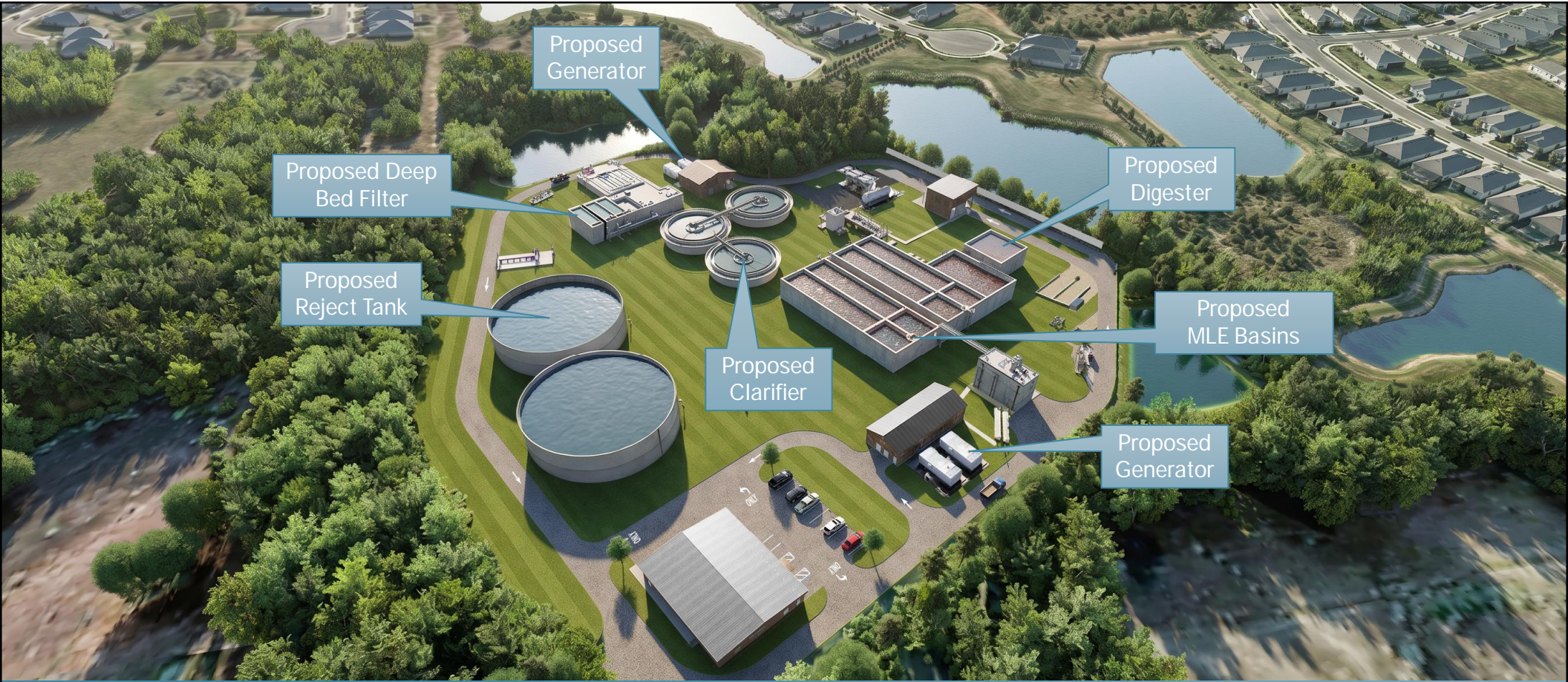
## Wastewater System Future Build Out

- Planned improvements were identified for 2030 and 2035 to accommodate future growth.
- Most improvements consist of infrastructure to the south and along River Road
- There were no recommendations to change any of the existing infrastructure



# EXISTING SOUTHWEST WRF

- Constructed in 2020 as a 2.0 MGD AADF WRF
- Consists of a Modified Ludzack-Ettinger (MLE) Process
- Provisions were made for a Phase II Expansion of 4 MGD AADF
- Recommendations for Phase II to be online mid-year 2029



# SOUTHWEST WRF PHASE II EXPANSION

# SWWRF Phase II Preliminary Design Report



Outlines goals and objectives of the expansion



Identifies risks and challenges



Confirms design criteria including confirmation of

- Process tank and equipment sizing
- Site conditions including environmental constraints



Ensures regulatory compliance and permitting challenges



Reviews best available technologies



Establishes guidelines for stakeholders

# Thank You!

Questions?



