

**SFWMD Water Use Permit
End User Evaluation**

for



**Highpointe – Phase I
Martin County, FL**

Prepared By:

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Board of Professional Engineers Certificate of Authorization Number 9935

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Project Description & History

The proposed project is located approximately 1.3 miles from the intersection of SW Kanner Highway and Pratt Whitney Road on the east side of Pratt Whitney Road, west of South Fork High School in Martin County, Florida. The 321 acre site is currently composed of multiple parcels owned by Christ Fellowship Church Inc. This program/permit excludes approximately 28.3 acres consisting of the existing Christ Fellowship worship center and its associated stormwater management system. This program/permit also excludes 20.1 acres of property will be conveyed to Operation 300, a registered 501(c)3 not for profit organization which hosts adventure camps for children who have lost their fathers as a result of military action. The remaining undeveloped portion of this property will be sold to Pulte Land Company for construction of a proposed 272.6-acre residential development with an amenity center to be known as Highpointe. Highpointe will be constructed in two (2) distinct Phases (I & II).

Phase I of the project includes the construction of an irrigation system serving 25.63 acres of landscape area consisting of single-family lot, roadways (private right-of-way), and common use areas. The applicant proposes to install a new surface water pump to withdrawn irrigation water from the proposed stormwater lake system, and a recharge well system. Only Phase I will be constructed at this time. This application request is intended to separate the purchased property from Christ Fellowship existing WUP 43-02122-W and the donated Operation 300 tract such that it may stand alone. This request does not propose modifications to any permitted/existing allocations, demand, or specifications to the wells currently serving the Christ Fellowship Church. The proposed allocation and withdrawal facilities shall serve only Phase I of the Highpointe development. This request will supercede any previous approvals associated with the Martin Preserves development. Any existing wells (known or unknown) within the footprint of the project shall be abandoned in accordance with state law.

End User Evaluation

The District shall require the use of reclaimed water in place of higher quality water sources when it is readily available and environmentally, economically, and technically feasible. As such, the following criteria have been evaluated to demonstrate feasibility:

Local Reclaimed Water Service Provider: Martin County Utilities

Technical Feasibility

i. Is a reclaimed water distribution line located at the applicant's project boundary?

RESPONSE: No

ii. If a reclaimed water distribution line is not at the project boundary, then:

1. Estimate the distance in feet from the applicant's project to the nearest potential connection point to a reuse line.

RESPONSE: The closest potential point of connection to a Martin County reclaimed main is located off-site, 0.68 miles north of the closest project boundary.

2. The date the reuse utility anticipates bringing the connection to the applicant's project boundary.

RESPONSE: There is no determined or known date to bring reclaimed water service to this project boundary.

iii If reclaimed water is available at the project boundary, then:

1. The minimum quantity in gallons per day of reclaimed water supply available from the nearest potential connection point under a 1-in-10 year drought condition.

RESPONSE: Reclaimed water is not available at the project boundary.

2. The reliability of the potential reclaimed water supply (i.e., on-demand 24/7, or bulk-interruptible diurnal or seasonal, length of supply agreement, or other basis).

RESPONSE: Reclaimed water is not available at the project boundary. Martin County Utilities does not provide on-demand reclaimed water for individual home's uses, so in order to accept reclaimed water, the developer would need to construct an on-site storage pond along with a metering station. Due to issues related to Senate Bill 64 (2021), 403.086 F.S., the storage pond must be separate from stormwater facilities. This is cost prohibitive and technically not feasible at this time.

3. The typical operating pressures at which the reuse utility will provide reclaimed water at the nearest connection point to the applicant's project, including any typical seasonal or other fluctuations in the operating pressure.

RESPONSE: Reclaimed water is not available at the project boundary.

4. The water quality parameters of the reclaimed water for the constituents that the applicant has identified as pertinent to the intended use.

RESPONSE: The proposed project discharges off-site to a downstream series of conveyances that ultimately discharge to the St. Lucie River which is designated impaired for nutrients. Reclaimed water is typically associated with elevated levels of nitrogen and phosphorus. Irrigation with such water would likely elevate the nitrogen and phosphorus concentrations entering the proposed drainage system from the landscape areas. The proposed stormwater design is capable of providing a net improvement for nitrogen and phosphorus loads leaving the project site. Irrigation with reclaimed water can potentially cause nitrogen and phosphorus levels to be elevated to concentrations that are technically infeasible to treat to the required level for net improvement. Reclaimed water will potentially cause or contribute to ongoing water quality problems in the St Lucie basin.

Economic Feasibility

i. The reclaimed water rate(s) the reuse utility would charge the applicant (e.g., the cost per/1000 gallons) and any other periodic, fixed, or minimum charges for use of reclaimed water by the applicant.

RESPONSE: Reclaimed water is not available at the project boundary. The current Martin County Utilities reclaimed water rates are \$0.52 per 1,000 gallons.

ii. The reclaimed water availability charges the reuse utility would charge the applicant in lieu of connection to the reclaimed system.

RESPONSE: Not Required.

iii. Other one-time charges for the connection to the reuse.

RESPONSE: Not Required.

iv. Whether the reuse utility helps fund potential reclaimed customers' costs to connect to the reclaimed line or convert its operation to use reclaimed water.

RESPONSE: Not specified by utility provider.

Other Cost/Economic Considerations:

To utilize reclaimed water to meet the projects irrigation needs (assuming Martin County could provide sufficient volume) the developer would be responsible for constructing a reclaimed water main extension 0.68 miles north of the project boundary. This construction would cause disturbances for installation of the line requiring restoration of existing county right-of-way on Kansas Ave. This cost for design, permitting, and construction would be excessive. The main extension piping would add tremendous cost to the project. In order to accept Martin County Utilities reclaimed water the developer would need to construct an on-site storage pond along with a metering station (due to not having "on-demand" service). Not only is these additional costs for infrastructure, but reduces the developers allowable residential density for constructing homes as the reclaimed storage ponds would require considerable area. Operation and maintenance costs would be associated with the required monitoring station. Finally, costs would be required for extension of the main through the community to the point of service.

Enclosures:

Appendix A – Martin County Utilities Map

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Martin County Utilities Map

Nearest accessible point of service, 0.68 miles north of proposed project boundary

OPERATION 300 TRACT

NORTHERN BOUNDARY OF PROJECT (IRRIGATED ACREAGE)

0 975 Feet

Date: 7/23/2021

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Author: Martin County GIS
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- Vacuum Building
- Pump Station
- Sewer Holding Tank
- Other Plant Assets
- Sewer Lift Stations**
 - Sewer Liftstation
 - Grinder Pump
 - Irrigation Pump Station
 - Vacuum Valve Pit
- Private Sewer Liftstations**
 - Sewer Liftstation
 - Grinder Pump
 - Irrigation Pump Station
 - Vacuum Valve Pit
- Sewer Mains**
 - Sewer Forcemain
 - Gravity Sewer Main
 - Vacuum Sewer Main
 - Irrigation Main
 - Reclaim Main
 - Effluent Main
 - Drain Pipe
 - Master Metered Areas
- Utility Service Areas**
 - MCU Service Area
 - City of Stuart Service Area
- Roads**
 - EXP
 - MAA; MAC; MIA; PKY
 - MIC
 - RES; RMP
 - Airport
 - Blocks
 - Parcel Polygons
 - Subdivision
 - Red: Red
 - Green: Green
 - Blue: Blue