

North Plant High Service Pumps

Category Non-concurrency
Project Number 3162
Location North Water Plant
District 1

Project Limits North Water Plant

Related Projects
Lead Dept/Division Utilities
Year Project Initiated Proposed during FY24 CIP Workshop



Project Life Cycle 25 _____ Years
Resilience Requirements 2040 Vulnerability 2070 Vulnerability 2100 Vulnerability



DESCRIPTION

Replacement of current soft start electrical equipment with variable frequency drives (VFDs) for high service pumps 1 and 2 at the North Water Treatment Plant (NWTP). Project also includes demolition of a hydropneumatic pressure tank and associated piping. Design and construction proposed in FY24.

BACKGROUND

The NWTP has five high service pumps that supply potable water to Martin County Utilities water customers. Three of the five pumps currently have VFDs and the two remaining pumps do not.

PROJECT ORIGATION

Infrastructure Needs

JUSTIFICATION

VFDs give the pumps the ability to speed up or slow down based off pressure, flow, or other factors that are decided by the plant operations team. Currently only three of the five pumps have the ability to regulate speed, and in turn flow. The other two pumps must be operated with a constant speed which during low flow periods can be difficult or impossible to operate. Also, with all five pumps being operated on VFDs, the hydropneumatic tank can be demolished as it would now be obsolete.

Expenditures	Total	To Date		Funded					Unfunded
				FY24	FY25	FY26	FY27	FY28	FY29-FY33
Construction	950,000			950,000					
Expenditure Total	950,000	0		950,000	0	0	0	0	0
Revenues	Total	To Date	Carryover	FY24	FY25	FY26	FY27	FY28	FY29-FY33
Utilities R&R	950,000			950,000					0
Revenue Total	950,000	0	0	950,000	0	0	0	0	0
Total Unfunded									0

OPERATING BUDGET IMPACT

There will be a minimal impact to the operating budget as there was already maintenance associated with the soft start drives on the current pumps.