

TITLE: Hirst Reservoir Improvements (31495230)

STATUS: Ongoing **PROJECT RANKING:** High Priority

PROJECT MANAGER: Buster Nicholson & Dale Lehnig

PROGRAM DESCRIPTION: The Hirst Reservoir was constructed with a multi-level intake structure to allow operators to withdraw water from different levels in the reservoir. This ability gave operators the flexibility to withdraw water with the best quality (least affected by algae or turbidity). Several years ago, the dock leading to the intake structure and the top of the structure became structurally unstable, collapsed and the dock and the top portion of the pipe fell to the bottom of the reservoir. Currently, a simple mesh screen is installed at the top of the intake pipe. Water is always withdrawn from the top portion of the intake; several of the gates and valves in the structure are considered inoperable. Additionally, the sluice gate that would allow operators to remove sediment from the bottom of the reservoir has not been operated for many years and is considered inoperable. This has allowed sediment laden with algae to build up in the reservoir, which further affects the water quality. This project involves the design and installation of a new intake structure and sluice gate to replace the broken and inoperable structures to allow operators to properly manage the reservoir and maximize water quality.



OPERATING IMPACT: No increase in operating costs. Would allow operators the flexibility to withdraw water at various levels to maximize water quality, which could decrease costs for chemicals needed to control taste and odor issues.

GOAL ADDRESSED: 2025 Comprehensive Plan

- **Public Utilities and Transportation** - Purcellville will set the regional standard for effective, integrated utility planning and growth management. Water and sewer facilities will be planned and designed to appropriately address desired future land use patterns.
- **Public Services** - Purcellville will provide its citizens with the highest quality public services and facilities to effectively and equitably meet the public needs.

Significant Dates

Engineering/Design Start	Construction Start	Estimated Completion
2019	2022	2023

Capital Improvement Program**Water Fund****TITLE:** Hirst Reservoir Improvements (31495230)**Funding Sources**

Sources	Total Required Project Funding	Funded through 6/30/19	Adopted FY20	Proposed					Total for 5-Yr CIP
				FY21	FY22	FY23	FY24	FY25	
Cash	1,430,000	-	80,000	100,000	400,000	850,000	-	-	1,350,000
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	1,430,000	-	80,000	100,000	400,000	850,000	-	-	1,350,000

Planned Uses

Uses	Total Project Cost	Expended through 6/30/19	Adopted FY20	Proposed					Total for 5-Yr CIP
				FY21	FY22	FY23	FY24	FY25	
Land/ROW/Legal	-	-	-	-	-	-	-	-	-
Engineering/Design	80,000	-	80,000	-	-	-	-	-	-
Construction	1,350,000	-	-	100,000	400,000	850,000	-	-	1,350,000
Professional Services	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-
	1,430,000	-	80,000	100,000	400,000	850,000	-	-	1,350,000

Operating Impact

Operating/Maintenance	Adopted FY20	Proposed					Total for 5-Yr CIP
		FY21	FY22	FY23	FY24	FY25	
Maintenance	-	-	-	-	500	500	1,000