



Legend

EXISTING LAYOUT

- A. MAIN PUMP BUILDING WITH ROUGH BAR SCREENS
- B. GRIT REMOVAL
- C. PRIMARY CLARIFIERS
- D. RANDOM MEDIA TRICKLING FILTERS
- E. INTERMEDIATE CLARIFIERS
- F. NITRIFICATION TOWERS
- G. FINAL CLARIFIERS
- H. CHLORINE CONTACT TANK
- I. FINAL EFFLUENT BUILDING
- J. SLUDGE THICKENER
- K. SLUDGE DIGESTORS

PROPOSED

- PROPOSED CHANGE
- PROPOSED DEMOLITION
- REPLACE EQUIPMENT

Proposed Upgrades

Item	Recommendation	Opinion of Capital Cost ^b
Coarse Screening + Building	Replace screen and add building	\$1,733,000
Influent Pump Station ^a	Replace two small pumps with larger pumps ^a ; replace piping	\$2,199,000
Fine Screening + Building	New fine screens in new building	\$7,359,000
Grit Removal	New vortex grit basins and new grit dewatering	\$4,082,000
Primary Clarification	Replace mechanisms and drives	\$2,919,000
Equalization Mixing	Replace existing aeration with submersible mixers	\$2,141,000
Biological Treatment	Replace 2-stage filters with BNR activated sludge	\$44,109,000
WAS Thickening and Storage	New GBTs, WAS and TWAS storage	\$14,097,000
Digester Heating Boiler	New boiler in cogen room	\$1,752,000
Digester Heat Exchanger	New heat exchanger in digester building	\$1,167,000
Opinion of Total Project Cost		\$81,558,000

^aAssumed firm capacity = 35 MGD; pending review by others.

^bAll costs are in 3rd quarter 2022 dollars.

Downstream Alternative Considerations

Alt. 1: EQ Storage Taylorsville + Rerouting of Mud Run

- Proposed EQ storage within Taylorsville MetroPark With a reduced Storage Volume
 - Diversion at MH44A
 - Eliminates Overflows in Metro Park
- Re-Route Mud Run Sewer
 - Divert at MH MR 6
 - Abandon Existing connection downstream to Interceptor
 - New sewer down Endicott Dr to MH NR 6
- Parallel Relief Sewer to WWTP
 - New parallel sewer between MH 6 and NRPS

Design Storm	EQ Volume (MG)	EQ Cost (\$ Millions)	Mud Run Sewer	Parallel Relief Size	Conveyance Cost (\$ Millions)	TOTAL Cost (\$ Millions)
2 yr.	2.45	\$8.11	27-Inch	24-Inch	\$8.61	\$16.72
5 yr.	3.88	\$9.19	27-Inch	27-Inch	\$8.89	\$18.08
10 yr.	5.10	\$10.18	27-Inch	27-Inch	\$8.89	\$19.07

