

**TRI-CITIES NORTH REGIONAL WATER AUTHORITY** WASTEWATER TREATMENT PLANT PLANNING AND ALTERNATIVES STUDY

**TRI-CITIES NORTH REGIONAL WATER AUTHORITY, OH** 

ASSOCIATES

A. MAIN PUMP BUILDING WITH ROUGH BAR SCREENS

- D. RANDOM MEDIA TRICKLING FILTERS

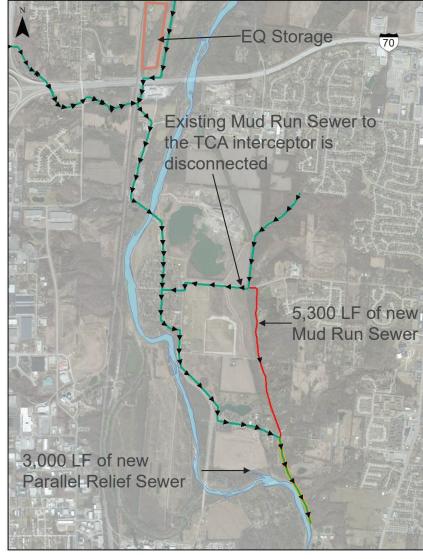
Recommendation	Opinion of Capital Cost <sup>b</sup>
Replace screen and add building	\$1,733,000
Replace two small pumps with larger pumps <sup>a</sup> ; replace piping	\$2,199,000
New fine screens in new building	\$7,359,000
New vortex grit basins and new grit dewatering	\$4,082,000
Replace mechanisms and drives	\$2,919,000
Replace existing aeration with submersible mixers	\$2,141,000
Replace 2-stage filters with BNR activated sludge	\$44,109,000
New GBTs, WAS and TWAS storage	\$14,097,000
New boiler in cogen room	\$1,752,000
New heat exchanger in digester building	\$1,167,000
	<mark>\$81,558,000</mark>

## **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



## Hazen