## APPENDIX E3: WASTEWATER PROJECTS

Project Title	Project Sponsor	County Served	Description	То	otal Project Cost
Frojekt fille	Project Sponsor	County Serveu	·		Cost
Leesville North Fork Marina WWTP and Collection System Upgrades	Muskingum Watershed Conservancy District	Carroll	Packaged wastewater treatment plant (flow equalizations, extended aeration, fixed media clarifiers, slow sand filters, and UV disinfection) to replace aging septic-based system and sanitary sewers for cabins, central public restroom/shower building, marina, and service building. Project also includes replacement of existing vault style public restroom with new ADA accessible four family flush type toilet/shower building.	Ś	867,000
	,	Carron	Packaged wastewater treatment plant (flow equalizations, extended aeration, fixed media clarifiers, slow sand filters, and UV disinfection) to replace aging septic-based system and sanitary sewers for cabins, marina building, launch ramp	7	007,000
Leesville South Fork Campground and Marina WWTP and Collection System Upgrades	Muskingum Watershed Conservancy District	Carroll	restroom, and service building. Project also includes replacement of existing flush/holding tank with a new flush style restroom.	\$	840,000
Hanoverton Sanitary Sewer System	Columbiana County	Columbiana	The proposed project will eliminate failing on-site septic systems in the Village of Hanoverton. Wastewater will be transported by force main to the existing Kensington WWTP which will be expanded for treatment. Specific components include: 33,000 LF of 8" sanitary sewer; 126 manholes, one pump station with generator, 3,300 LF of 4" force-main, and 3,200 LF of 6" service laterals. This project will satisfy Ohio EPA Final Findings and Orders.	\$	6,061,800
Columbiana County Sanitary Sewer Pump Station	Columbiana County	Columbiana	The purpose of this project is to install a sanitary sewer pump station, force-main and oil-water separator. We will connect the Engineering office building and the County Maintenance Garage to the sanitary sewer system operated by the Village of Lisbon. We will then eliminate the septic tanks currently used by our facilities. This project is also a response to Ohio EPA NOV.	\$	233,146
Dresden Ave / Calcutta CIPP Sanitary Sewer Trunk			The purpose of this project is to install 7,150 line-ft of slip-lining in the sanitary sewer main trunk line along Dresden Avenue with cured-in-place pipe (CIPP) servicing the Calcutta residential and business area. This sewer line rehabilitation will eliminate inflow and infiltration (I&I) in wet seasons and prevent raw sewage from entering the groundwater in dry seasons. Eliminating (I & I) will essentially increase the hydraulic capacity of the East Liverpool WWTP and collection lines. This project is phase three of a 5-year plan to reduce inflow and infiltration from the sanitary sewer systems and also		
Line Rehab Project III	Columbiana County	Columbiana	eliminate treating clear ground water at the waste water treatment plants.  The purpose of this project is to install a sanitary sewer main and gravity collection system along SR-267 through the LaCroft area and connecting the main line to the sanitary sewer system at the East Liverpool City Limits. The sewage from LaCroft will be conveyed to the East Liverpool Wastewater Treatment Plant (WWTP) for treatment. This project should	\$	651,900
Glenmoor / LaCroft Sanitary Sewer System	Columbiana County	Columbiana	satisfy the Ohio EPA Director's Final Findings and Orders.  The purpose of this project is to install Supervisory Control and Data Acquisition (SCADA) at the Elkton WWTP, Guilford Lake WWTP and at our critical pump stations in our water and sewer district. This project will allow monitoring and remote control of processes at the treatment plants and our main pump stations reducing call-outs and overtime to employees and also reducing employees / operators closely working together during pandemics and social distancing	\$	4,000,000
SCADA Upgrades at WWTP's and major Pump Stations	Columbiana County	Columbiana	mandates.	\$	590,000
			The purpose of this project is to rehabilitate/upgrade a critical pump station that is at the end of its useful life by installing a new wet-well and valve-box including industry-standard submersible pumps, which will eliminate the need for our employees to enter a dangerous "confined-space" on a much too regular basis to unclog and prime the existing pumps that are located at the bottom of a deep "dry-well". This pump station serves the majority of the Calcutta residential		
Calcutta Pump Station Rehab / Upgrade	Columbiana County	Columbiana	users as well as the Calcutta Business District.  The purpose of this project is to install an emergency generator for emergency, backup electricity at the existing Cross	\$	385,000
Cross Roads Sanitary Sewer Pump Station Emergency Generator	Columbiana County	Columbiana	Roads Sanitary Sewer Pump Station. The pump station currently does not have a source of back-up electricity during power outages.	\$	49,950
Elkton WWTP Flow Equalization Tank Upgrade	Columbiana County	Columbiana	The purpose of this project is to install flow equalization tanks and aeration blowers at the Elkton WWTP to allow metering of septic loads and sewage into the headworks of the treatment plant. Current conditions result in a "slug load" of septage entering the plant. This upgrade will enable a more efficient biological process of our treatment plant.	\$	415,000
Turkana Sanitary Sewer Pump Station Emergency			The purpose of this project is to install a 40kW emergency generator and an automatic transfer switch for emergency, backup electricity at the existing Turkana Sanitary Sewer Pump Station. The pump station currently does not have a		
Generator  Calcutta Woods Sanitary Sewer Pump Station	Columbiana County	Columbiana	source of back-up electricity during power outages.  The purpose of this project is to install an emergency generator and an automatic transfer switch for emergency, backup electricity at the existing Calcutta Woods Sanitary Sewer Pump Station. The pump station currently does not have a	\$	40,242
Emergency Generator	Columbiana County	Columbiana	source of back-up electricity during power outages.	\$	35,300

## APPENDIX E3: WASTEWATER PROJECTS

Project Title	Project Sponsor	County Served	Description	To	otal Project Cost
r roject ritie	Troject Sponsor	county served	The purpose of this project is to upgrade/replace the existing pump station located at McCoy Ave in Calcutta that is at the		
			end of its useful life by installing a new wet-well and valve-box. The project also includes new submersible pumps and		
McCoy Avenue Pump Station Upgrade / Replacement	Columbiana County	Columbiana	control panel. The current wet-well is old, corroded and collapsing.	\$	95,000
Carpenter Run Sanitary Sewer Replacement	City of East Liverpool	Columbiana	, and the state of	\$	5,000,000
, , , , , , , , , , , , , , , , , , , ,	,			T	-,,,,,,,,,
Wastewater Treatment Plant Improvements, Phase 1	City of East Liverpool	Columbiana		\$	5,000,000
Combined Sewer Separation	Village of Wellsville	Columbiana		\$	4,500,000
•			The project will eliminate failing on-site septic systems and satisfy Ohio EPA violations for raw sewage discharging from	Ť	, ,
Freeport Sanitary Sewer System	Harrison County	Harrison	storm sewers within the Village of Freeport.	\$	8,626,000
Wastewater Treatment Plant and Collection System	·		New wastewater treatment plant to replace outdated failing system and collection system improvements to reduce wet		
Improvements	Village of Cadiz	Harrison	weather infiltration and inflow.	\$	16,425,500
Wastewater Treatment Plant Improvements	Village of Harrisville	Harrison	Automatic bar screen and replacement of UV System.	\$	461,500
·			Packaged wastewater treatment plant (flow equalizations, extended aeration, fixed media clarifiers, slow sand filters, and		,
Clendening Marina WWTP and Collection System	Muskingum Watershed		UV disinfection) to replace aging septic-based system and sanitary collector sewers for cabins, motel, four RV sites,		
Improvements	Conservancy District	Harrison	marina, and service building.	\$	851,500
•	Holmes County Sewer				
	District - Holmes County		This project will provide sanitary sewer to 30 residences and 18 businesses in the Winesburg area and will include a		
Winesburg Area Wastewater Facilities	Commissioners	Holmes	treatment plant upgrade.	\$	4,500,000
•					
Smithfield Area Sewer System	Jefferson County	Jefferson	The proposed project will consist of improvements to the existing wastewater treatment plant located in Smithfield.	\$	5,475,000
Reeds Mill Pump Station & Belvedere Sewer					
Replacement	Jefferson County	Jefferson		\$	2,088,200
Ridgeland Subdivision STP Replacement	Jefferson County	Jefferson		\$	1,415,700
Sanitary Sewer Evaluation and Survey Sewershed A	Village of Wintersville	Jefferson	wastewater system. The collection system suffers from excessive infiltration and inflow (due to age and condition) which has resulted in sanitary sewage overflows in the past. The Village's current NPDES permit includes a Schedule of Compliance for infiltration and inflow reduction work. In addition, this project includes demolition work, rehabilitation work, site improvements, pump and appurtenances replacements, valves and meters and appurtenances, electrical and controls (including SCADA) and miscellaneous improvements to several existing pump stations (Woody Acres, Powells Lane, Motifs, Cara Place, Cemetary and Morelli Complex) in the Village.	\$	4,548,000
Sanitary Sewer Evaluation and Survey Sewershed C	Village of Wintersville	Jefferson	This project for Phase 6 (design and construction) is a continuation of a string of phased projects to improve the Village's wastewater system. The collection system suffers from excessive infiltration and inflow (due to age and condition) which has resulted in sanitary sewage overflows in the past. The Village's current NPDES permit includes a Schedule of Compliance for infiltration and inflow reduction work. In addition, this project includes demolition work, rehabilitation work, site improvements, pump and appurtenances replacements, valves and meters and appurtenances, electrical and controls (including SCADA) and miscellaneous improvements to several existing pump stations (Woody Acres, Powells Lane, Motifs, Cara Place, Cemetary and Morelli Complex) in the Village.	\$	1,659,500
Sanitary Sewer Evaluation and Survey Sewershed D  WWTP Tertiary Treatment Unit Replacement	Village of Wintersville  Village of New Concord  Twin City Water and Sower	Jefferson Muskingum	This project for Phase 6 (design and construction) is a continuation of a string of phased projects to improve the Village's wastewater system. The collection system suffers from excessive infiltration and inflow (due to age and condition) which has resulted in sanitary sewage overflows in the past. The Village's current NPDES permit includes a Schedule of Compliance for infiltration and inflow reduction work. In addition, this project includes demolition work, rehabilitation work, site improvements, pump and appurtenances replacements, valves and meters and appurtenances, electrical and controls (including SCADA) and miscellaneous improvements to several existing pump stations (Woody Acres, Powells Lane, Motifs, Cara Place, Cemetary and Morelli Complex) in the Village.  The tertiary filters are old and can no longer remove suspended solids at the mandated OEPA level resulting in OEPA permit violations.	\$	2,026,500 652,600
	Twin City Water and Sewer	L			
Headworks Improvements	District	Tuscarawas	New structure and screen channel	\$	600,000

## APPENDIX E3: WASTEWATER PROJECTS

Project Title	Project Sponsor	County Served	Description	To	otal Project Cost
			This project includes a new emergency standby generator, replacement of existing chlorine gas disinfection system with UV disinfection, a septage receiving station for handling disposal of septage from the County's variable grade sewer		
Wilkshire Hills WWTP Upgrade - Phase 2	Tuscarawas County	Tuscarawas	system in Midvale/Barnhill, and replacement of sludge storage tanks that are beyond end of life.	\$	1,800,000
Wastewater Collection and Treatment System	Village of Roswell	Tuscarawas	This project will eliminate failing on-lot systems.	\$	5,000,000
			Phase 1 includes improvements to the headworks, mechanical fine screen, grit chamber, aeration tank, anoxic tank, and		
Wastewater Treatment Plant Improvements	Village of Gnadenhutten	Tuscarawas	other miscellaneous improvements. Phase 2 will include membrane replacement.	\$	1,904,000
TOTAL				\$	86,798,338