

Mahoning Valley Sanitary District  
Contract No. G-041  
Removal and Land Application/Beneficial Reuse  
Of Lime Sludge  
Fact Sheet

Project Need

The Mahoning Valley Sanitary District (MVSD) is seeking \$1,785,000.00 from the Ohio Water Pollution Control Loan Fund (OWPCLF), the state revolving loan fund for qualifying projects to protect or improve the quality of Ohio's water resources. This loan shall be used to remove lime sludge from two-7 acre lagoons (Lagoons E & G) and one-smaller lagoon (C) that has been dried in earthened basins. This material shall be excavated and loaded onto trucks for disposal onto farm lands. The material is located west of the water plant at 1181 Ohltown-McDonald Road in Mineral Ridge, Trumbull County. The Water Purification and Pumping Works, is a 16 acre facility located between the Cities of Niles and Youngstown, treats water drawn from the Meander Creek Reservoir by chemical (addition of lime) softening, disinfection fluoridation, taste & odor control, mixing, settling and filtration. The plant is designed to treat 60 million gallons a day, but is currently treating about 25 MGD. Water is pumped to Niles, Youngstown and McDonald, which in turn distributes water to their own customers and surrounding areas.

Daily the District wastes sludge collected from the settling treatment tanks to four (4) lagoons (Lagoons E, F, G & H) to the west of the plant. A fifth lagoon is used for sludge disposal from plant cleanouts (Lagoon C). This material is from different parts of the plant with different sludge characteristics and must be removed so as to not affect the plant operations. Due to volume and costs to dispose of this material the District is utilizing an Ohio WPCLF account to expedite the cleaning of these lagoons and make room for the future disposal of Lime Sludge from the settling basins and the plant. Current conditions exist where such a large volume of sludge has accumulated over the years that Capital funding is required to expedite the disposal of this material and to provide needed storage.

The cleaning of the lagoons is part of a capital improvement plan modified in 2007, which recommended that the District pursue this cleaning.

Proposed Project

The District operates four (4) 7 acre lagoons. Three (3) of these lagoons are currently full. The fourth lagoon is empty, the fifth lagoon used for plant cleanouts is also full.

A contractor will excavate and truck the material from the lagoons to local farm lands. From there it will be spread on farmland to aid in adjusting the pH of the soil and provide nutrients to the land. All amounts removed and spread on farm fields will be logged for record purposes. Approximately 121,000 cubic yards of lime sludge should be

disposed of on farmland. A layer of sand shall be placed in the bottom of Lagoons E & G after they are cleaned to permit water from the sludge to filter out through the Lagoon underdrain system.

Contractor bids were opened on August 14, 2007. The sum of \$1,785,000 represents the lowest total as-bid cost plus a contingency. MVSD plans to borrow this amount from the OEPA's Ohio Water Pollution Control Loan Fund at the standard rate of 3.25 percent. Removal is scheduled to commence late this fall.

On July 1, 2007 MVSD adjusted their revenue request with the Cities of Niles and Youngstown and the Village of McDonald for the next three (3) fiscal years to repay in part the debt associated with this sludge lagoon work over the next ten (10) years. It is expected that the costs associated with this work will equate to \$0.03 per thousand gallons of water sold to the Cities of Niles and Youngstown and the Village of McDonald. Niles, Youngstown and McDonald in turn shall recover this cost from their own customers and through the resale of water to other governmental entities.

For further information please contact

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