

MINUTES

**HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT
SPECIAL MEETING HELD ON NOVEMBER 27, 2018 AT THE HEART OF THE
VALLEY MSD, 801 THILMANY ROAD, KAUKAUNA WI 54130**

Members Present: Dave Casper - President
Bruce Siebers - Vice President
Pat Hennessey - Secretary
John Sundelius - Commissioner
Kevin Coffey - Commissioner

Absent: None

Also Present: Brian Helminger, District Director HOVMSD
Kevin Skogman, Director of Operations & Maintenance HOVMSD
Scott Schramm, Strategic Municipal Services
Kent Taylor, Village of Little Chute

1. 7:00 PM. Call to Order – Roll Call

President Casper called the meeting to order at 7:00 PM.

2. Interceptor Action Plan

a) Action Items

Scott reviewed the 2017 flow data that originates from meter station 4/7 and flows through the siphons crossing the Fox River to the HOVMSD interceptor. The data was categorized into several scenarios to determine the flow velocity in each of the siphons in comparison to the 3 foot per second NR code requirement. The following comparisons were calculated: peak daily flow; 10 peak flow days; 20 peak flow days; and 30 peak flow days measured at the 4/7 metering station.

The 6-inch siphon capacity was found to be insufficient to be the primary siphon under all of the flow scenarios. The calculated flow velocities in the 34-inch siphon all fell short of the 3 foot per second desired velocity to keeps solids and grit from settling in the siphon.

The estimated flow velocities in the 16-inch siphon came in closest to the desired 3 fps target. Scott explained that with normal daily diurnal flow fluctuations the siphon would be self-cleaning and recommended operational changes be made to make it the primary siphon.

No major capital expenditures are necessary in order to optimize the siphon crossing. Two stainless steel weir plates would be installed to allow flow in excess of what the 16-inch siphon can pass would overflow and pass through the other siphon structures to the interceptor. Measurements and elevations are necessary in order to make certain that the weir plates are sized correctly before permanent operational changes are designed and installed in the siphon crossing manholes.

b) Sulfides Study/Mitigation Alternatives

The attack on the concrete manholes and interceptor pipes has been the genesis of the necessary improvements to protect the interceptor from further attack by MIC. Scott reviewed the major factors that contribute to the MIC and what can be done to create conditions in the interceptor to discourage MIC and protect the concrete structures that make up the interceptor. Conditions that encourage MIC include: low dissolved oxygen levels or septicity; turbulence in the interceptor; low flow/long detention time operating conditions; high sulfides concentrations; higher temperatures and a pH range between 7.5-8 s.u.

Scott presented data collected by HOVMSD staff that included: D.O, pH, temperature, and sulfide and sulfate levels in the sewage. The data was collected from March until August of 2018 and run on all 9 remote meter stations. A trend showed a general increase across the board on H₂S levels in the warmer summer months. The interceptor also has numerous drop manholes creating turbulence that favors rather than inhibits MIC in the system.

After a lengthy discussion on MIC and the current interceptor conditions, it was decided to cover MIC mitigation alternatives and the public finance and rates discussion at the next special meeting.

c) Introduction to Public Finance & Rates

This item will be placed on the agenda for the December 19th special meeting.

3. General Old or New Business

There was nothing to report under General Old or New Business.

4. Adjournment

With no further business before the Commission, a motion was made by Commissioner Sundelius and seconded by Commissioner Siebers to adjourn the meeting. Motion carried. (Time: 8:17 PM)

SIGNED _____
Patrick E. Hennessey, Secretary