

1/23/06 - (1)



## **INTERDEPARTMENTAL COMMUNICATION**

Acton Board of Health - Telephone 978-264-9634 - Fax 978-264-9630

January 20, 2006

TO: Don Johnson, Town Manager

FROM: Doug Halley, Health Director

SUBJECT: Charter Road Pump Station

On January 18<sup>th</sup> the Health Department received a report from Woodard and Curran that the pumps at the Charter Road pump station had lost prime, and were not operating properly. Woodard & Curran had responded to the station due to prolonged run times on the pumps. They found the check valves stuck open and both pumps had lost prime. In addition, the wet well level was at a low storage capacity. As a precaution, they made a phone call to Forrest Hill Pumping, making them aware of the situation, in case they needed them to pump and haul wastewater. They were able to get one of the pumps running again by the time the wet well level reached the pump on level. They pumped the wet well down to the pump off level with that pump. They then re-primed the other pump while the wet well was filling again, and were able to get it running as well.

They then took one pump offline at a time, disassembling the components of each pump to find the cause of the problem. Through this process they determined sanitary products and pieces of mop heads had stuck in the discharge check valves, holding them open. This situation caused the force main to siphon the liquid out of the pump, and subsequently caused the suction check to open and drain the pump and suction line completely. They cleaned out the suction checks as well. While there was not as much debris on the suction end, anything stuck in that check valve eliminated the vacuum on the suction line and also contributed to draining the pump and suction line completely. Both pumps may have lost prime due to both or either of these scenarios.

After they cleaned out the pumps and confirmed all the components were functioning properly, they removed the cover of the wet well to do a visual inspection of the contents. During this time, the wet well reached the pump on level and 1 pump started; normal operation at this point. While watching the wet well fill they saw two trash bags fall out of the inlet line into the wet well. If those trash bags somehow sank and made it into the line, they potentially would have disabled the pumps, or damaged them. If the pumps had passed them, it could have led to more serious issues with the force main. Other debris in the wet well includes pencils, pens, rags, feminine hygiene products, and some unidentifiable objects.

The pump running finished pumping to the pump off level and stopped. Immediately, that pump lost prime. They disassembled the components again and found a pencil stuck in the suction check valve. As stated above, if that check valve stays open, the pumps lose the vacuum on the suction line and the pump and line are drained.

Woodard & Curran stayed at the station for two more pump runs, confirming normal and proper operation, and returned to the plant. They then called and informed the Health Department of the situation. In turn we contacted the School Department informed them of the situation and within 5 minutes, Woodard and Curran were contacted by the school. They met with J.D. Head and another school employee and talked about some possible causes for the debris. At that time, a pump was running. While they were explaining the issue the debris causes, the pump finished running and stopped. The School was able to witness with Woodard & Curran, the check valve staying open and siphoning starting. They again dealt with that issue on the spot.

The School stated the mop heads may come from the janitors sinks. The drain screens at the slop sinks are commonly removed so the drain does not plug when mop buckets are dumped into them. This means the waste water and anything else in the bucket flows to the pump station. Their thought on the trash bags was that a contractor may have used them to plug an old line and they broke loose and found their way to the station. No definitive cause was pinpointed.

Woodard and Curran made arrangements to have this station cleaned out by a hauler. They wanted to get rid of the trash bags and get as much of the other debris out as soon as possible.

Attached with this memo is a listing of the costs incurred due to the inappropriate discharges from the School System. The Sewer Use Regulations prohibit solid materials of a size capable of causing obstruction of the flow in the sewers. It also states that the liability of any violation of the regulations would be the payment to the Town for any expense, loss or damage incurred by the Town. Based on the detailed report above the department recommends that the School Department be assessed a penalty of \$2,091.69 and be put on notice that they may be responsible for parts that may have to be prematurely replaced.

## Doug Halley

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**From:** Brian Bourque [bbourque@woodardcurran.com]  
**Sent:** Friday, January 20, 2006 2:59 PM  
**To:** Doug Halley  
**Subject:** Costs for pump station # 5

Doug,

Item Description	Cost
3 days other than Scheduled days for Jeff Budrow (emergency call in)	\$1268.14
Replacement parts shipping charges	\$552.30 without overnight
Pumper Truck for well Cleaning	\$271.25
Total cost	\$2091.69

Comments: parts replaced are parts that are commonly replaced for wear and tear. I have to investigate how long these parts are supposed to last under these conditions before I can be certain they were subject to abnormal wear and tear. The emergency call in costs and pumper truck costs are definitive.

Thanks,  
Brian