

ClearPod Case Study: Advanced Pump Chamber

Location: Ontario, Canada

Partner Installer : ESSE

Installation: Summer 2015



Problem:

Our on-site partners at ESSE identified a client with a hydraulically overloaded sand filter bed (15 - 20 year old system).

The client was looking at a \$35,000 cost to replace the existing filter bed.



ClearPod Solution:

ClearPod was incorporated as part of a complete upgrade of the existing installed system. This existing system included a septic tank and a subsequent 1000 gal pump chamber. As part of the upgrade the pump chamber was retrofitted with a filtered effluent pump and a time dosing control panel. The ClearPod unit was placed in the first compartment of the pump chamber to polish the septic tank effluent before it is pumped to the sand filter bed.

Results:

Sample date	Lab ID	Parameter	Results	Unit	RDL	Date	Method Analyzed
2016-03-11	445793	cBOD	28.8	mg/L	2.0	2016-03-14	APLHA 5210 B
		TSS	22.0	mg/L	1.0	2016-03-17	APLHA 2540 D

Performance - Recent wastewater sampling from this test site has indicated effluent from the pump chamber of 28.2 mg/L cBOD and 22 mg/L TSS. This results indicate an approximate removal rate of **BOD / TSS of 80 - 90% and significantly reduced load to the subsequent sand filter bed.** Hydraulic performance of the sand filter bed has been restored with no ponding.

Upgrade Opportunity - This clearly demonstrates the **benefit of a wastewater polishing process** after the septic tank when incorporated with a large time dosed pump chamber. This "advanced pump chamber" solution can incorporate the drop-in ClearPod technology to a 1000 - 1500 gallon tank and time dose flow to the existing leaching field infrastructure.

Cost Benefit - The upgrade solution came in at **30% the cost of replacing the existing leach field** with the entire project incorporating new risers, effluent filter, pumps, time dosing panels, leach field bioremediation and the ClearPod unit.



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