



# SIMPLE, YET EFFECTIVE

Steven Grimm | Wastewater Technician

Have you ever had one of those mornings where you wish you could just lock the gate and go home? It snowed several inches last night, the clarifier drive tripped out over night, the bar screen is loaded and, oh yes, the RAS pump is clogged. AGAIN!

Ragging and clogging of pumps is nothing new. It doesn't matter what you have for influent screening, mechanical or manual, fine screen or whatever, those little pieces of rags still get through and clog your pumps. The Village of St. Johnsville was having RAS pump clogging issues and came up with a simple, yet effective, way to reduce the amount of rags that were clogging the pumps.



**Rag Catcher**

DPW superintendent and Chief Operator Bill Vicciarelli and Assistant Operator Frank Erno were spending valuable time



**Simple Construction**

unclogging the pumps on an almost daily basis. There had to be a way to remove more of the rags from the waste stream without spending a fortune. Bill,

Frank and Darrin Battisti from the DPW began looking at different options for removing the rags. They first looked at the headworks but decided that was not feasible. They looked at the aeration tanks and a light bulb went off. Why not try to capture the rags as the mixed liquor flowed over the overflow weir on its way to the final clarifier. After a little head scratching, a basic design was developed. Darrin, a welder, took a piece of 2" x 2" square street sign stock and welded 5/16" round stock into the pre-drilled holes

creating a rake like device. This was installed as a pilot and the amount of rags it captured was amazing. A full scale "rake" was then constructed and installed in the full length of the weir.

This simple, yet effective, device is cleaned off at least twice a day using an ordinary leaf rake. Bill and Frank estimate about a five gallon pail of rags are removed every two days. This has reduced the RAS pump clogging from almost daily to once every two weeks. This simple yet effective device was inexpensive to build, fairly easy to install and has not only reduced the frequency of pump clogs but also potential process problems associated with RAS blockages. Well done guys! 💧💧



**(Left to Right) Bill Vicciarelli, Mayor Bernie Barres, Frank Erno, Darin Battisti**