

CHALLENGE

In Poland in 2017, there were 2,355,000 small scale (single household) treatment plants in operation, of which > 90% were septic tanks. 86% of single household treatment plants are located in rural areas. The sludge from such installations are very often delivered to a municipal WWTP, unfavorably affecting their work. Delivering a large amount of sewage with an increased concentration and rotten material (too concentrated /old sludge) to WWTP causes significant disruption of the treatment process. Systems based on activated sludge are particularly exposed to sudden changes in the concentration of the sludges).

SOLUTION: FLYERS TO TRUCK DRIVERS delivering sludges from SEPTIC TANKS

The actions taken by GWF in Poland on development of flyer to Truck Drivers bringing septic sludges is an example of good practice on how to make an attempt and communicate with industry and how to improve treatment and management of industrial wastes.

Impact of sludges delivered to the municipal WWTP

The sludge from septic tanks is transported to the area of the wastewater treatment plant (WWTP) on an irregular basis, both in terms of the quantity and frequency of the delivery courses.

The sludges are usually delivered in a rotten state, which makes them similar in composition to sludge with a very high water content with an average nitrogen concentration up to 48% higher than the literature values.

Research shows that with an increase of 1% of delivered septic tank sludge in the mixture of wastewater inflowing and delivered to a WWTP:

- the concentration BOD increases by 14.6 mg O₂/dm³.
- the concentration COD increases by 40.2 mg O₂/dm³.
- the concentration BOD increases by 14.6 mg O₂/dm³.

Municipal WWTPs are very sensitive to any load fluctuations.

The most common reasons for their incorrect functioning are:

- **fluctuations of inflow load** – through sewage inflow from a pressure system (long distances), often rotten material, but much more often delivering sludges from septic tanks;
- **Inflow of toxic sewage** (industrial sewage, but also discharges of toxic substances from households).

BE RESPONSIBLE!

What you bring to the WWTP influences the treatment processes and consequently affects the environment!



For more info: www.bestbalticproject.eu
Project BEST- Better Efficiency for Industrial Sewage Treatment

