



## **GAC Filter in Kretinga WWTP**

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## LOCATION

KRETINGA - a city in Lithuania,  
near the Baltic sea

Population – 38 000;

WWTP capacity – 158 m<sup>3</sup>/h.



## JSC „KRETINGA WATER“COMPANY

- 43 WTP;
- 12 WWTP;
- 52 pumping stations;
- About 200 km of  
wastewater pipelines.





## ROLE IN THE PROJECT

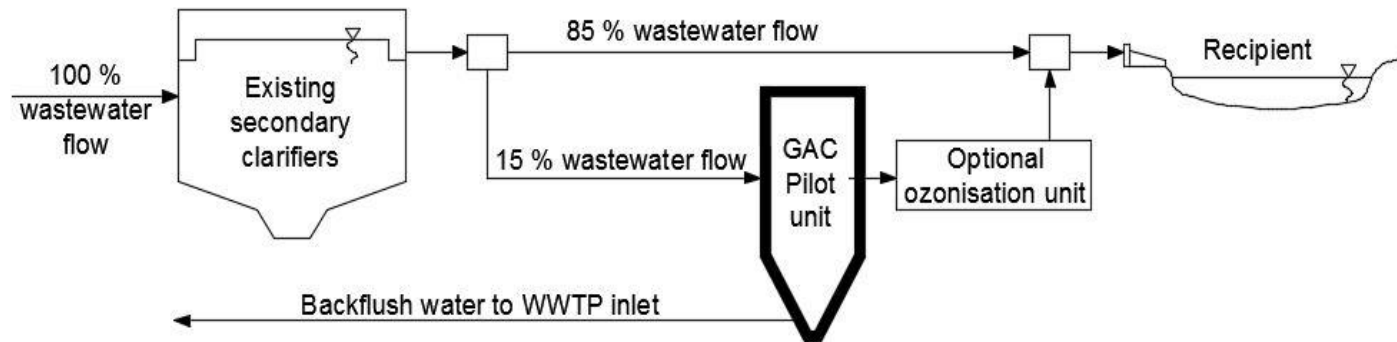
Granulated activated carbon (GAC) filter demonstration plant (pilot unit)

Main goal – advanced removal of micro-pollutants from wastewater



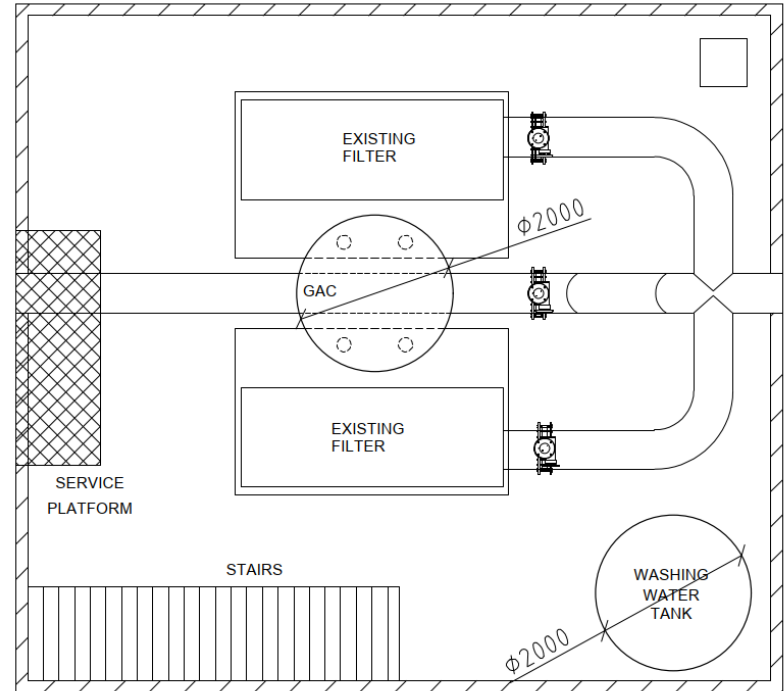
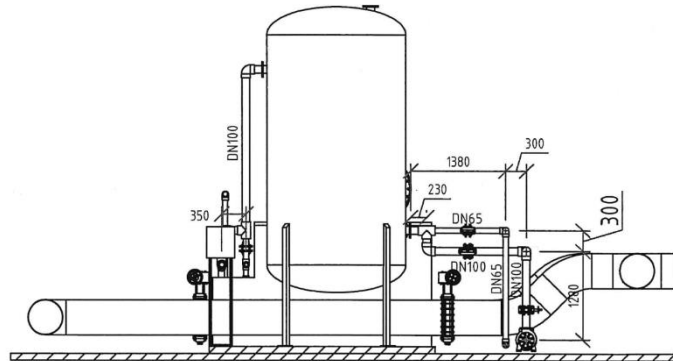
## CONCEPTUAL DESIGN OF PILOT UNIT

- GAC filter built indoors of existing tertiary treatment building (microstrain filters);
- Flow – 22 m<sup>3</sup>/h;



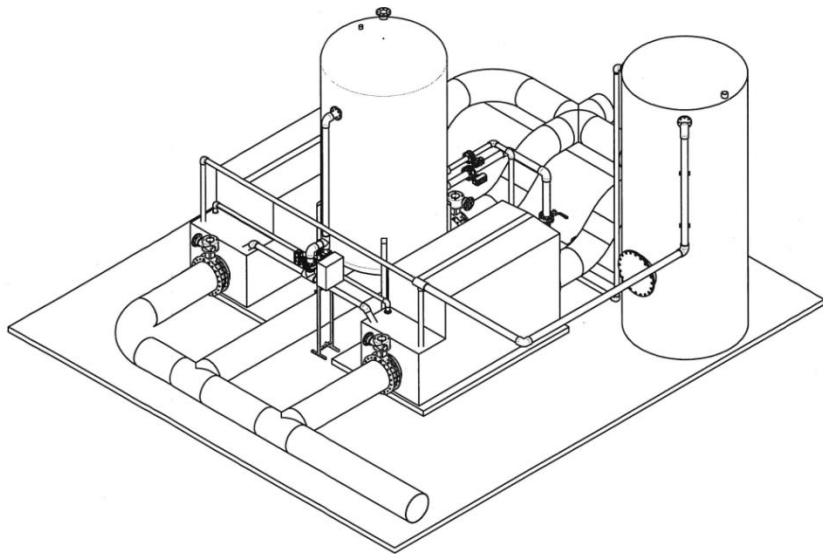
## PILOT UNIT INSTALATION

- Space requirements;
- Connection to existing system;



## PILOT UNIT EFFICIENCY

| 10k bed volumes | Ibuprofen | Atenolol | Diclofenac | Paracetamol |
|-----------------|-----------|----------|------------|-------------|
| Influent, ng/l  | 4000.0    | 400.0    | 5000.0     | 30500.0     |
| Efluent, ng/l   | 0.0       | 0.0      | 2.0        | 0.0         |





## THINGS TO CONSIDER

- Investment/operational costs;
- Excellent quality of treated wastewater;
- Easy control of the unit;
- Additional benefits for your own plant?
  - Increasing water quality during peak pollution periods;
  - Possible use for high quality treated water;
  - Planning for more strict future effluent requirements.



THANK YOU FOR YOUR ATTENTION!

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ENERGY-EFFICIENT  
TECHNOLOGIES FOR  
REMOVAL OF  
PHARMACEUTICALS  
AND OTHER  
CONTAMINANTS  
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