

**WWTP of tourist areas of periodic use:
Design features and methods of efficient operation
during seasonal operation of WWTP**

Aim:

- to provide suggestions for wastewater treatment for non-permanent use WWTP

Tasks:

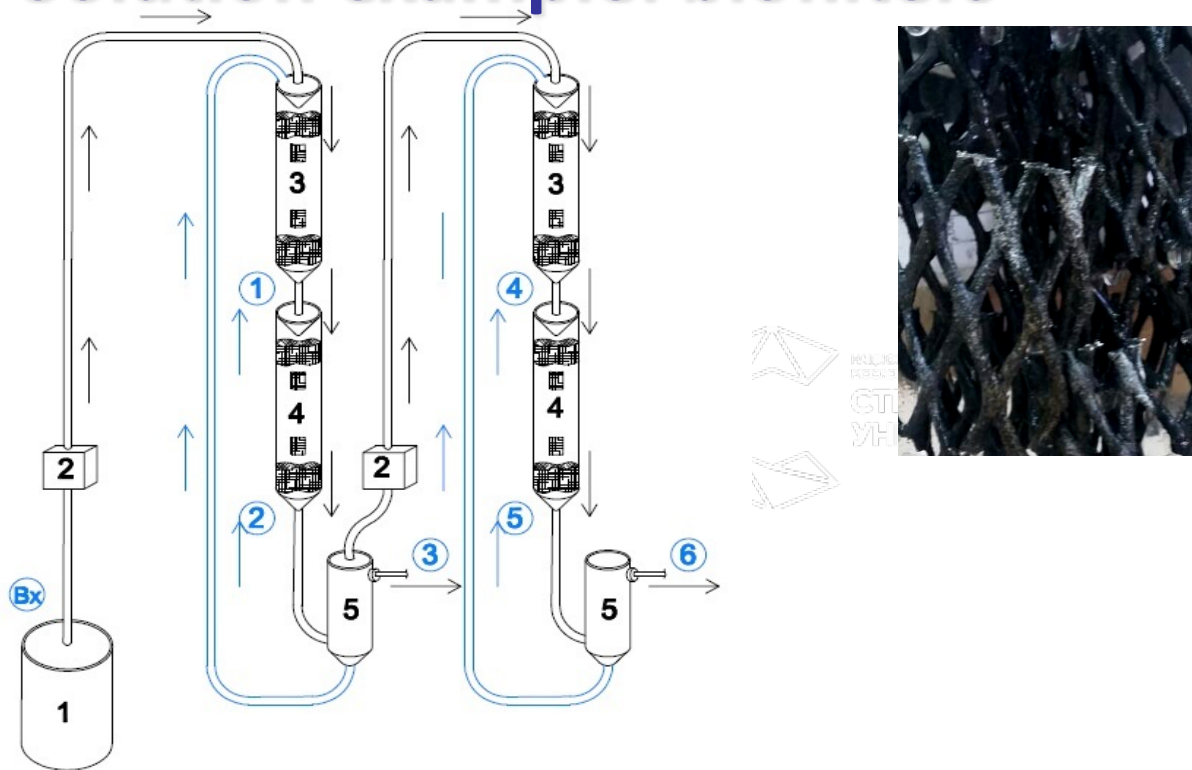
- to assess what these objects may be
- how non-permanent use affects wastewater treatment?
- what methods can be used in this case?
- economic evaluation of the proposed methods



Suggested solutions:

- WWTP with biofilters (simple and disc)
- Wetland
- Various bioreactors with attached biofilm
- And so on

Solution example: biofilters

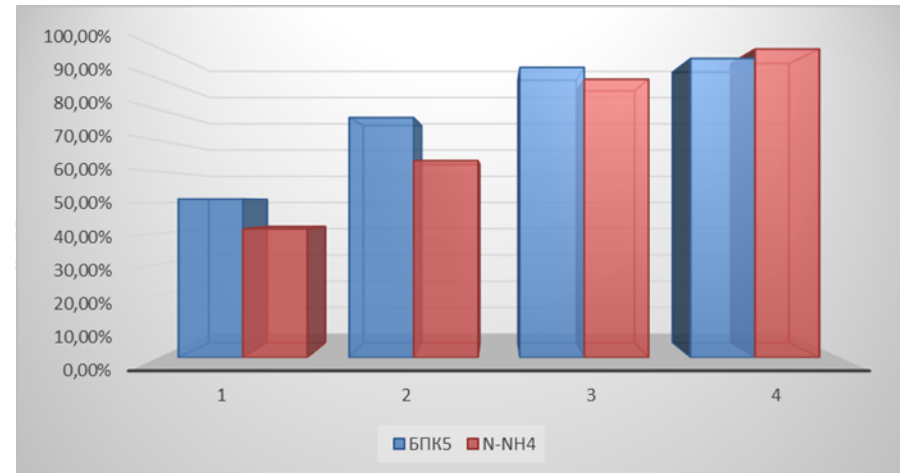
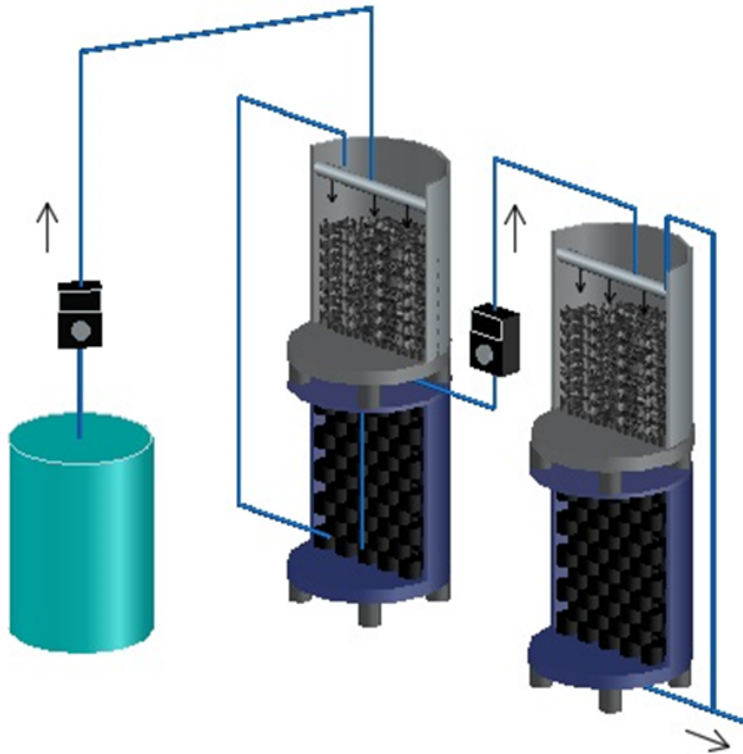


Sample №	NH ₄ ,	BOD ₅
	dm ³ /l	dm ³ /l
entrance	24,82	107,4
1	30,36	61,96
2	19,37	36,53
3	21,78	26,35
4	6,38	11,76
5	2,13	8,68
6	0,74	3,11

1- wastewater supply tank; 2- doing pump; 3- anoxic (anaerobic) zone; 4-aerobic zone; 5-secondary sedimentation tank

Sampling points: En-at the entrance; from the wastewater supply tank; 1-after the 1st anaerobic zone 2-after the 1st aerobic zone 3-at the outlet of the 1st secondary sedimentation tank 4-after the 2nd anaerobic zone 5-after the 2nd aerobic zone 6-after the 2nd secondary sedimentation tank

Solution example: biofilters



Treatment efficiency

Thank you for your attention!

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