2. Connection of several settlements to one sewer system with joint treatment facilities.
3. Construction of individual treatment facilities for each settlement
4. Construction of autonomous treatment facilities for individual buildings [2].

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The modern method for calculating the maximum river runoff on the Vistula River Basin within Ukraine

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An important step in the implementation of the EU Water Directives - EU Water Framework Directive (2000/60 / EC) and the EU Flood Directives (2007/60 / EC) is the identification of the flood risk areas, and therefore arises the task of study of the maximum runoff of rivers, especially the rare probability of excess.

The Vistula river basin is cross-border and located in Poland, Ukraine, Belarus, and Slovakia. The Polish part of the Vistula River basin, now assessed the flood zones and built flooding maps, so similar studies for the Ukrainian part of the basin are an urgent problem.

One of the main problems for today is an insufficient hydrological study of river basins, in particular, this problem exists in the Vistula River basin within Ukraine, where the number of the water gauging stations (WGS) is insufficient and they are unevenly distributed, that, in particular, creates statistical instability of parameters, which can be effectively compensated by additional information about the spatial patterns of distribution of the considered characteristics of runoff. Background for the spatial generalization of the characteristics of maximum floods runoff is the study of the influence of zonal and azonal factors on the studied characteristics

To study the characteristics of the maximum runoff of rain floods and spring floods in the territory of the Vistula basin, long-term observation data for 14 WGS were selected for the period from the

beginning of observations to 2015. Since the number of hydrological posts in the studied area is rather limited, the data used for generalizations also 5 WGS in the Pripyat River basin, which borders on the studied basin.

One of the first stages of the work was the study of the cyclicity of the maximum runoff of spring and rain floods of the Vistula river basin. If the water cycles coincide with each other, which indicates that the selected observation points have synchronous fluctuations of the annual runoff, so they can be used for further calculations and compare with each other.

The second stage of the research was to perform statistical processing of series of data of maximum runoff of rain floods and spring floods. As a result, standard statistical parameters of theoretical distribution curves, as well as rain and spring floods depths of runoff and a rare probability of excess are calculated.

- For the future study authors proposed to use a new modified version of the operator model for determining the maximum runoff of spring floods, which allows taking into account the possible impact of climate change on the estimated values of the maximum modules 1% probability of exceeding .
- The next task is to assess the risks from the passage of floods of a rare probability of exceeding in the study area.