



HELLENIC REPUBLIC

UNIVERSITY OF CRETE

Academic English

Section: Water treatment Listening students

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Note-taking: Water Treatment Process

Listen to the lecture and complete the missing information.

Rainfall is seasonal and unpredictable so we often useto make sure thefor treatment is regular and sufficient.

Removal ofobjects is achieved by passing water through a

The first major process at the treatment plant is aeration which involves bringing water andinto close contact in order to increase oxygen saturation in water. This way, dissolved gases are removed and dissolved metals are oxidized.

After the source water has been screened,matter and bacteria are still present in it, so the next processes are coagulation and flocculation. First, we addsuch as ferric or..... Then, water is mixed quickly, violently andin a device called a..... The purpose of this step is to evenly distribute the chemicals through the water. When the coagulants react with the materials in water, they make them all stick together, i.e. flock.

Flocculation involves waterand removal any turbidity or colour so that the water is clear and colourless. Clarification is achieved as the water and the floc particles progress through the treatment process, they move into sedimentation basins where the water moves slowly, causing the heavy floc particles to to the bottom. Floc which collects on the bottom of the basin is called....., and is piped out for further processing.

Then, water flows through amade of layers ofand gravel, and in some cases, crushed anthracite. Filtration collects the suspended impurities in water and enhances the effectiveness of disinfection. The filters are routinely cleaned by....., i.e. pumping water backwards through the filters.

At times, in conjunction with filtration, ozone gas injection ortreatments are used in order to removenatural organic materials.

The most effective method ofis chlorination, in which chlorine has to be added in water for some time to render it germ-free.

The last stage involves ph..... pH is an indicator of the orcondition of water. The pH scale ranges from 0-14; 7 indicates the neutral point. Water with a value greater than 7 indicatesand tends to affect the taste of the water.

When water is clean and safe, it is fed into the pipes network and eventually your house.

Notes

Reference Note

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