**SEWAGE DISPOSAL-LESSON PLAN**

* Sewage or wastewater results from the waste matter that enters water. It originates mainly from sources known as:
* domestic (domestic sewage=βοθρολύματα)
* industrial (industrial waste)
* groundwater (infiltration)
* meteorological sources (storm-water drainage =βροχόνερα)
* Sewage disposal, or wastewater disposal means:
* collection
* treatment
* sanitary disposal of liquid and water-carried wastes from households and industrial plants.

Wastewater is carried from its source to treatment facility pipe systems.

* If the system carries both domestic and storm-water sewage, it is called a ***combined system***.
* Such systems are used in the older sections of cities and towns.
* As cities expanded and began to provide treatment of sewage
* Sanitary sewage was separated from storm sewage to permit flexibility

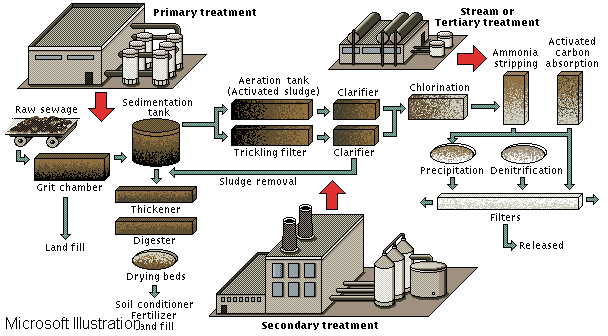
in the operation of the plant and prevent pollution.

Sewage disposal requires various processes.

In municipal wastewater treatment plants these processes are known as:

* primary treatment
* secondary treatment
* tertiary treatment

During primary treatment, the wastewater that enters a treatment plant is cleaned from the debris (μπάζα) it contains and then passes through a comminutor( συλλέκτης)/ (grinder/ συσκευή άλεσης) , where leaves and other organic materials are reduced in size for efficient treatment and removal later. After that, grit (αμμοχάλικο) is removed in a grit chamber(θάλαμος) and the wastewater passes into a sedimentation tank, in which organic materials settle out and are drawn off for disposal.



The secondary treatment that follows reduces biologically the organic material that remains in the liquid stream, whereas the third stage, tertiary treatment, is used for removing phosphorus. When the final effluent (υγρά λύματα) is intended for re-use advanced wastewater treatment (reverse osmosis, electrodialysis, ozone treatment etc.) is necessary in order to improve effluent quality by removing refractory(δύστηκτος) pollutants.

sludge =λάσπη precipitation=κατακρήμνιση/προώθηση

trickling= διάχυση chlorination=χλωρίωση

absorption=απορρόφηση clarifier=φίλτρο καθαρισμού

denitrification=απονιτροποίηση ammonia stripping=εξαγωγή αμμωνίας