

GLOSSARY

WASTEWATER TREATMENT

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GLOSSARY – WASTEWATER TREATMENT

ACTIVATED SLUDGE

Sludge that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment

ADVANCED WASTEWATER TREATMENT

Wastewater treatment beyond the secondary or biological stage that includes the removal of nutrients such as phosphorus and nitrogen and a high percentage of suspended solids

AEROBIC

Life or processes that require, or are not destroyed by, the presence of free elemental oxygen

ANAEROBIC

Life or processes that require, or are not destroyed by, the absence of free elemental oxygen

BIOCHEMICAL OXYGEN DEMAND (BOD)

A measure of the amount of oxygen consumed in the biological process breaking down organic matter in water – the greater the BOD, the greater the degree of pollution

BIOSOLIDS

Primarily organic solid product, produced by wastewater treatment processes that can be beneficially recycled

COMBINED SEWER

A sewer system that carries both sanitary sewage and stormwater (SW) runoff

DENITRIFICATION

Reduction of nitrate nitrogen to nitrogen gas

EFFLUENT

Wastewater – treated or untreated – that flows out of a treatment plant, sewer, or industrial outfall

INDUSTRIAL PRETREATMENT

Treatment of industrial wastewater at its source before discharge to municipal collection systems

INFILTRATION

Entry of water into a sewer system from sources other than infiltration – such as defective pipes, pipe joints, connections, or manhole walls

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INFLOW

Entry of water into a sewer system through such sources as defective pipes, pipe joints, connections, or manhole walls

INFLUENT

Water, wastewater, or other liquid flowing into a reservoir, basin, treatment plant, or treatment process

LAND APPLICATION

Treatment or disposal of wastewater or wastewater solids by spending it on land under controlled conditions

MICROORGANISMS

- Microscopic organisms, either plant or animal, invisible or barely visible to the naked eye
- Examples: algae, bacteria, fungi, protozoa, and viruses

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)

Permit process established under section 402 of the Clean Water Act to define the allowable quantity of and quality of discharges to receiving streams

NITRIFICATION

Oxidation of ammonia nitrogen to nitrate nitrogen in wastewater by biological or chemical reactions

NUTRIENTS

Any substance that is assimilated by organisms and promotes growth; generally applied to nitrogen and phosphorus in wastewater, but also applied to other essential and trace elements

NITRIFICATION

Oxidation of ammonia nitrogen to nitrate nitrogen in wastewater by biological or chemical reactions

OPERATION AND MAINTENANCE (O&M)

Organized procedure for causing a piece of equipment or a treatment plant to perform its intended functions and for keeping the equipment or plant in such a condition that it is able to continually and reliably perform its intended function

POTW

Publicly owned treatment works - term used in the *Clean Water Act* to refer to municipal wastewater treatment facilities which may be constructed with the help of federal grants

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PERMIT

A legal document issued by the government agency. In wastewater treatment, a discharge permit requires that the plant operator achieve specific water quality standards and discharge limits by a certain date, and also establishes monitoring and reporting requirements

RECEIVING STREAM

A river, lake, ocean, or other water course into which wastewater or treated effluent is discharged

SANITARY SEWER

A sewerage system that carries only household and commercial wastewater / sewage

SECONDARY TREATMENT - CONVENTIONAL

Generally, a level of treatment that produces removal efficiencies of 85 percent for BOD and suspended solids – sometimes used interchangeably with the concept of biological wastewater treatment, where wastewater is mixed with air or oxygen and sludge to encourage the growth of bacteria that “eat” organic pollutants

SLUDGE

Accumulated solids separated from liquids – such as wastewater

SUSPENDED SOLIDS (SS)

Solid pollutants that either float on the surface of, or are suspended in, wastewater

TRICKLING FILTER

A filter of natural or synthetic material used to support bacterial growth and provide secondary treatment of wastewater

USER CHARGES

Charges made to users of water and wastewater systems for services supplied

WASTEWATER

Spent or used water from a community or industry that contains dissolved and/or suspended matter

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