

# Water Accounting

## Emission Accounts

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# What do water emission accounts measure?

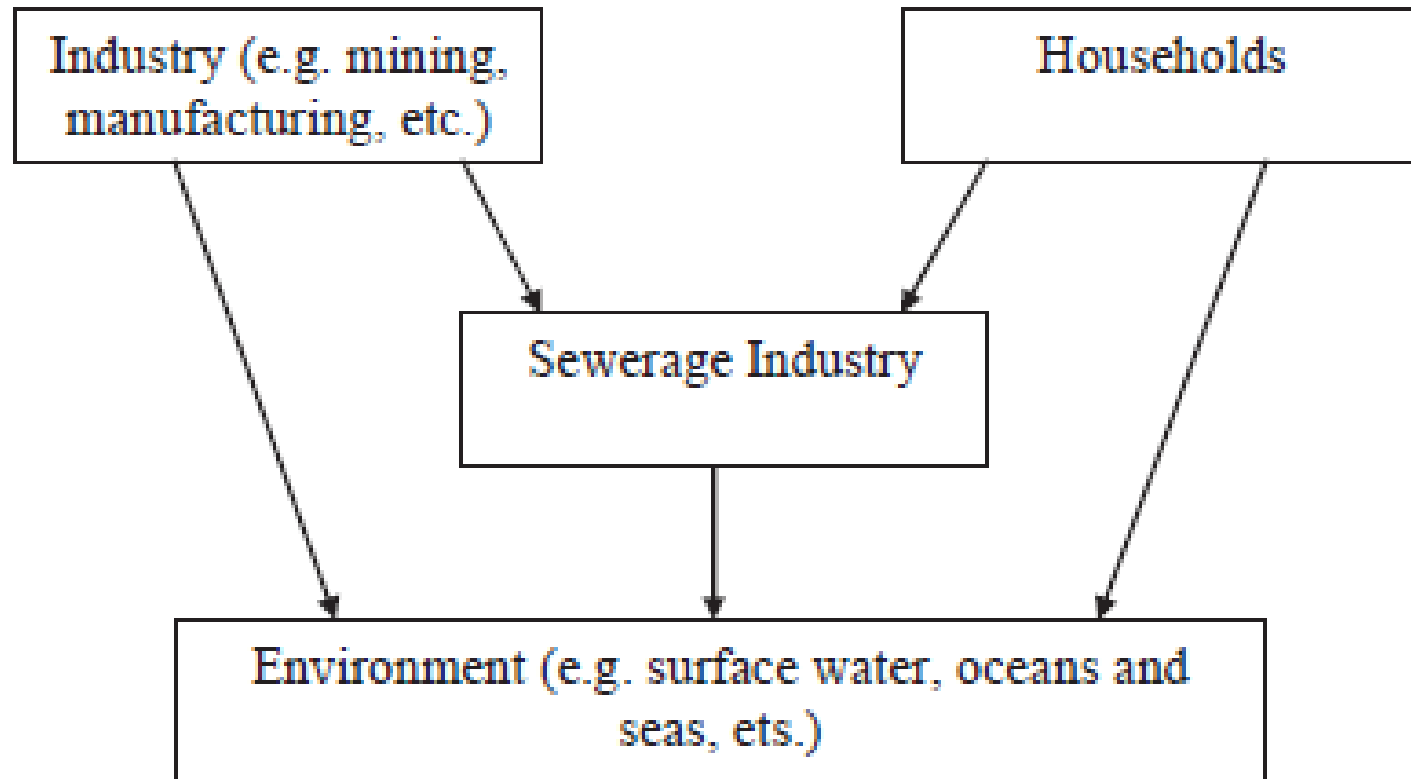
- Quantity of substances added to water by establishments and households during an accounting period.
- Quantities expressed in terms of mass (kilograms or tonnes)
- Water emission accounts cover:
  - a) Substances added to wastewater and collected in the sewerage system
  - b) Substances added to wastewater discharged directly to water bodies
  - c) Substances from non-point sources, for example, emissions and releases from urban runoff and emissions from agriculture



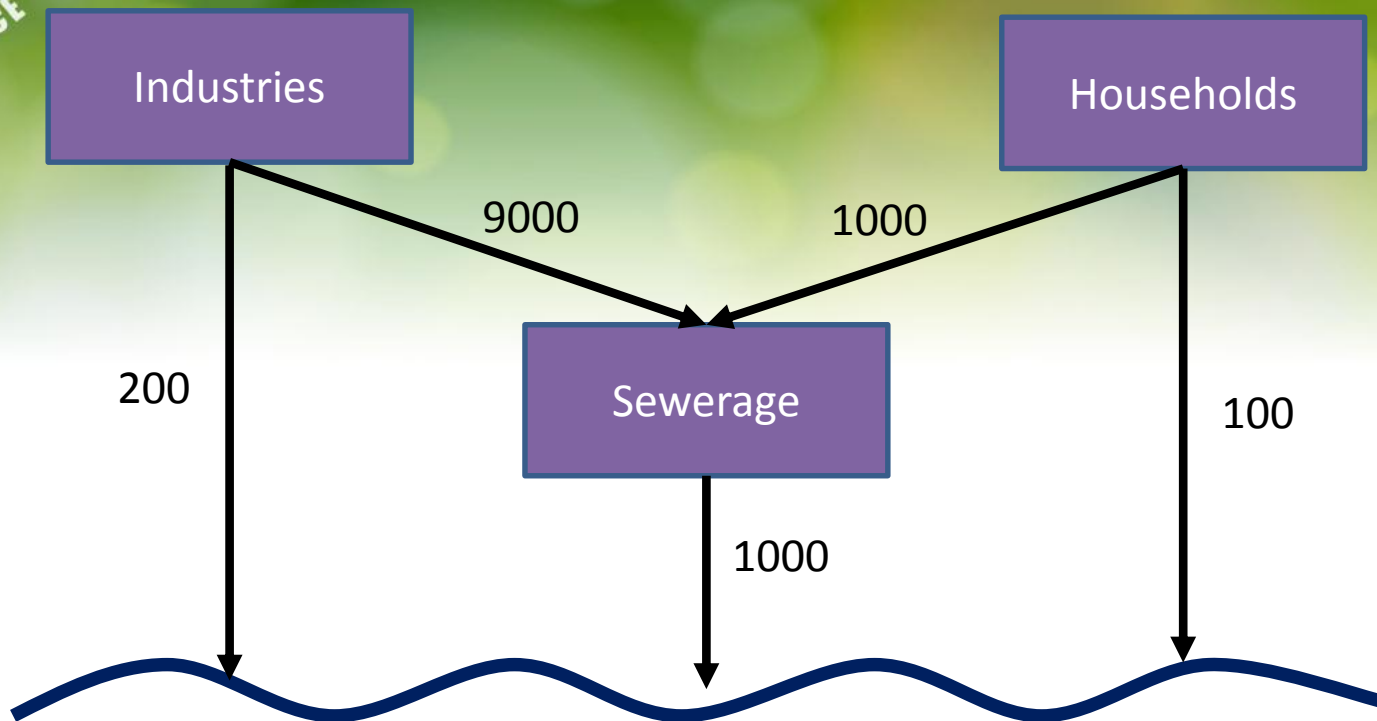


# Water Emissions Account

**Emissions to water are substances released to water resources by establishments and households as a result of production, consumption and accumulation processes.**



# Emission Accounts: simplified example ( e.g. Nitrogen)



## Indicator examples:

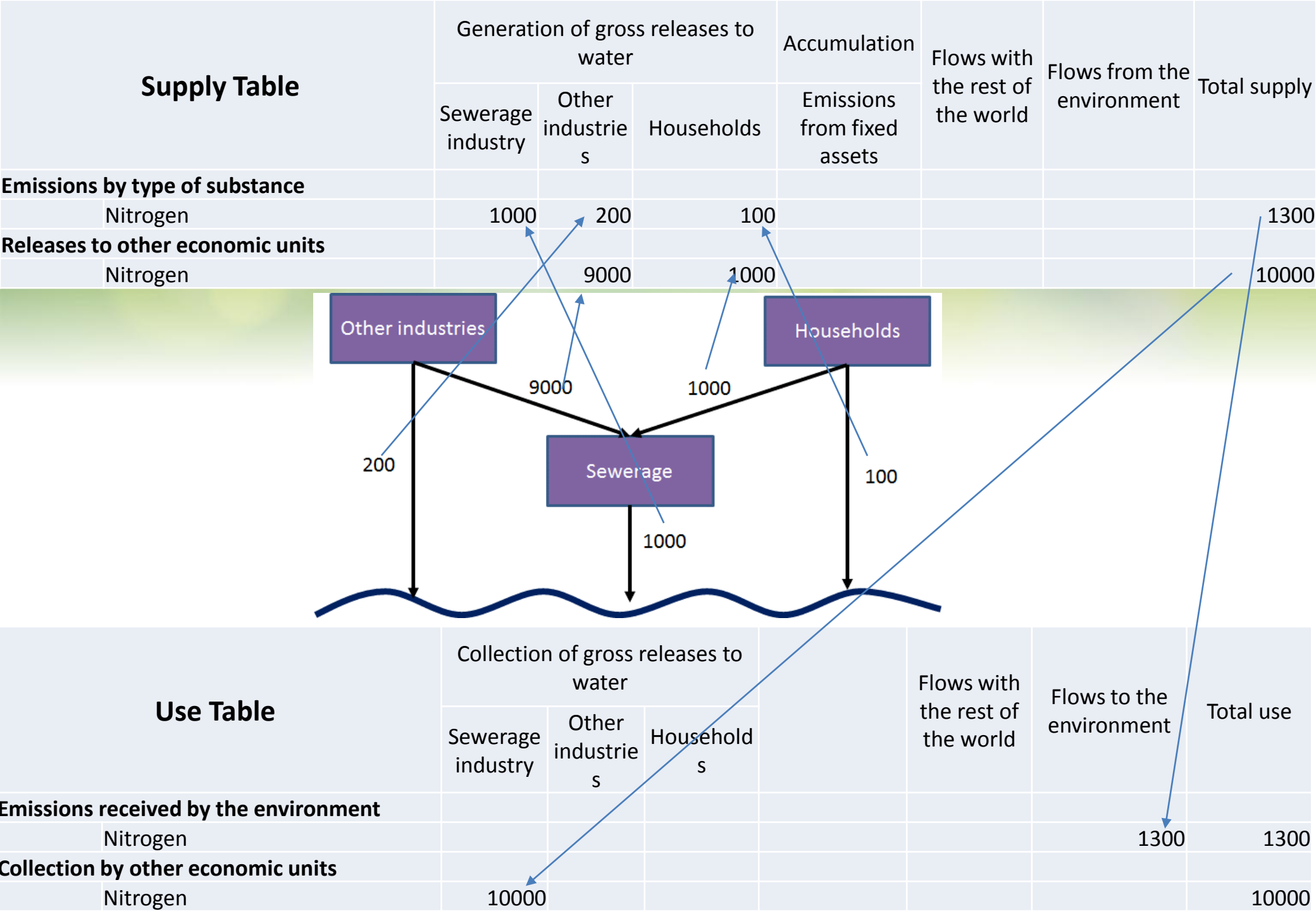
Treatment efficiency of sewerage industry: 90%

Net emissions households:  $100 + 1000 \times (1 - \text{treatment efficiency}) = 200$

Net emissions industries:  $200 + 9000 \times (1 - \text{treatment efficiency}) = 1100$

Total emissions:  $100 + 1000 + 200 = 1300$







# Water Emissions: Supply Table

**Physical supply table for gross releases of substances to water**

	Generation of gross releases to water			Accumulation	Flows with the rest of the world	Flows from the environment	Total supply
	Sewerage industry	Other industries	Households	Emissions from fixed assets			
<b>Emissions by type of substance</b>							
BOD/COD <sup>a</sup>	5 594	11 998	2 712				20 304
Suspended solids							
Heavy metals							
Phosphorus	836	1 587	533				2 956
Nitrogen	10 033	47 258	1 908				59 199
<b>Releases to other economic units</b>							
BOD/COD <sup>a</sup>		7 927	8 950				16 877
Suspended solids							
Heavy metals							
Phosphorus		814	6 786				7 600
Nitrogen		15 139	30 463				45 602

# Water Emissions: Use Table

**Physical use table for gross releases of substances to water**

	Generation of gross releases to water			Flows with the rest of the world	Flows to the environment	Total Use
	Sewer-age Industry	Other Industries	Households			
Emissions received by the environment						
BOD/COD <sup>a</sup>					20 304	20 304
Suspended solids						
Heavy metals						
Phosphorus					2 956	2 956
Nitrogen					59 199	59 199
Collection by other economic units						
BOD/COD <sup>a</sup>	16 877					16 877
Suspended solids						
Heavy metals						
Phosphorus	7 600					7 600
Nitrogen	45 602					45 602



Thank you for your attention!

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