Performance of water utilities beyond compliance

Sharing knowledge bases to support environmental and resource-efficiency policies and technical improvements

Appendix 3

Visualisation of nutrient emissions from urban wastewater treatment plants

Examples of presentation of data on emissions from urban wastewater treatment plants reported by countries under the Urban Waste Water Treatment Directive (UWWTD) using the visualisation tool DaViz.



Underlying data source is Waterbase UWWTD:

http://www.eea.europa.eu/data-and-maps/data/waterbase-uwwtd-urban-waste-water-treatmentdirective-3

All charts are in the gallery http://www.eea.europa.eu/data-and-maps/daviz/uwwtd-data

The charts are interactive-i.e. it is possible to use filters (either MS or type of treatment and capacity). 1.Charts with filtering by MS and capacity:

1.a. <u>Specific Ntot emission load from UWWTPs with N and P removal</u> -shows specific N emission load for UWWTPS ≤ 10000 p.e. with nitrogen and phosphorus removal

1.b. Specific Ntot emission load from UWWTPs with N and P removal and other treatment -shows specific N emission load for UWWTPS ≤ 10000 p.e. with nitrogen and phosphorus removal and other treatment (other treatment is aggregated due to size of file)

Similar interactive charts are available for Ptot emission"

1.c. Specific Ptot emission load from UWWTPs with N and P removal

1.d. Specific Ptot emission load from UWWTPs with N and P removal and other treatment

2.Summary charts –statistics of specific emission load for UWWTPS with NP removal (with or without other treatment)

2.a <u>Summary statistics of specific Ntot emission load from UWWTPs with NP removal and other</u> treatment

2.b <u>Summary statistics of specific Ptot emission load from UWWTPs with NP removal and other</u> treatment

3.Interactive charts displaying all data on specific emission load- enabling filtering according to type of treatment and capacity

3.a Specific Ntot emission load from UWWTPs by treatment type3.b Specific Ptot emission load from UWWTPs by treatment type

Default visualization shows all MS and all treatment plants reported and published in Waterbase UWWTD.



1.a. Specific Ntot emission load from UWWTPs with N and P removal



Chart 1.b Specific Ntot emission load from UWWTPs with N and P removal and other treatment



Chart 1.c Specific Ptot emission load from UWWTPs with N and P removal



Chart 1.d Specific Ptot emission load from UWWTPs with N and P removal and other treatment



Chart 2.a Summary statistics of specific Ntot emission load from UWWTPs with NP removal and other treatment



Chart 2.b Summary statistics of specific Ptot emission load from UWWTPs with NP removal and other treatment



Chart 3.a Specific Ntot emission load from UWWTPs by treatment type



Chart 3.b Specific Ptot emission load from UWWTPs by treatment type