

FAQ – NPP Scanner results for AquaSAGE CZ/Phase 01

Q1] Currently available service levels

In service reports in PDF file service level is specified as 'Mixed scan service', while in Non-point Pollution (NPP) Scanner description there are mentioned certain service levels:

- 1. Risk analysis (European NPP-Scanner)*
- 2. Pollution Potentials (Regional NPP-Scanner)*
- 3. Status of discharge (NPQ-Logger)*
- 4. Analysis of sources and scenario calculation (NPQ-Calculator)*

Therefore what does the 'Mixed scan service' level means, which of the above mentioned levels are currently addressed (and mixed)?

Answer: The 4 service levels discussed in the NPP-Scanner description are differentiated with regard to offering the services in the future. The levelling was developed and introduced during the test-applications at Vltava and Unstrut-basins. The work on these prototyping sites was done with spatial data available and applicable. In the understanding of the mentioned levels the Vltava-service-reports are a mix of levels 1 and 2 (European and regional scanning modes), additionally using the GISAT landuse dataset, which is necessarily required for levels 3 and 4 (regional log and scenario services).

Q2] Service variable list with description

Service variable list is not present in documents provided. What are the service variables obtained as service-results?

Answer: The service variables obtained as service-results are the quantified emissions per model-catchment due to separable emission processes and the derived totals and subtotals (“non-point”, “total”, “agricultural areas”). These variables reflect the emission paths calculated in the NQT-model **MONERIS**. In the service reports the maps are presented for the catchment-area-specific values of these variables. In the “Service region summary” – diagrams the regional sums of all non-point path-variables are compared (see below). The path-based result variables (related to nutrients) are:

- a. Emissions through groundwater
- b. Emissions through drainage
- c. Emissions surface runoff
- d. Emission through erosive processes
- e. Emissions from sealed urban areas
- f. Non-point emissions from urban waste-water systems

Q3] Service levels/Service variables availability for particular subcatchments

Which service levels/service variables are currently available in study areas (which? where?)

Answer: All Service-levels are generally available for all catchment-structures relevant within the tasks of WFD, ranging from the scale of SWB to any aggregated catchment-structures (Aggregation starting from SWB-structures or sub-SWB-level is preferred). Services at levels 1 and 2 are available on per km²-basis, services at levels 3 and 4 are to be prepared dependent on required spatial and variable resolution and will be realised on project-mode. In next phase of our project the routine service reports all variables (not only 2 per service region as in example reports) and will be documented in full spatial resolution.

Q4] Level of detail

On which level (catchment level), the output service levels/service variables are available? and where? On which level (catchment level), the output service levels/service variables provided in PDF service reports are based on?

Answer: The Vltava and Ohre - pdf-service reports are conceptually “level2” (restrictions see point 1) and are based on SWB-catchment structures (“cz_upvhlgp”). In the test-phase the dataset “cz_pcorr” was used as spatial base too, resulting in a higher spatial resolution of relative emission intensities, enabling enhanced hotspot-indication.

5] Data availability

Beside PDFs reports provided, are data available for evaluation also in other way e.g. WMS WebService, GIS layers?

Answer: Besides in compiled pdf-modes the service results will be available as attribute-tables related to catchment geometries (catchment-Ids). The emissions (emission potentials) are given for every model-catchment in [t/a]¹. In levels 3 and 4 substance loads [t/a] resulting from emissions and including surface water retention are connected to outlet-nodes of the processed catchments. The physical realisation of the tables is either “xls”, “dbf” or “shape”. A web-service based viewing- and download-interface to the NPP-services at levels 1 and 2 is in discussion.

¹ or derived units [kg/a] or [kt/a]