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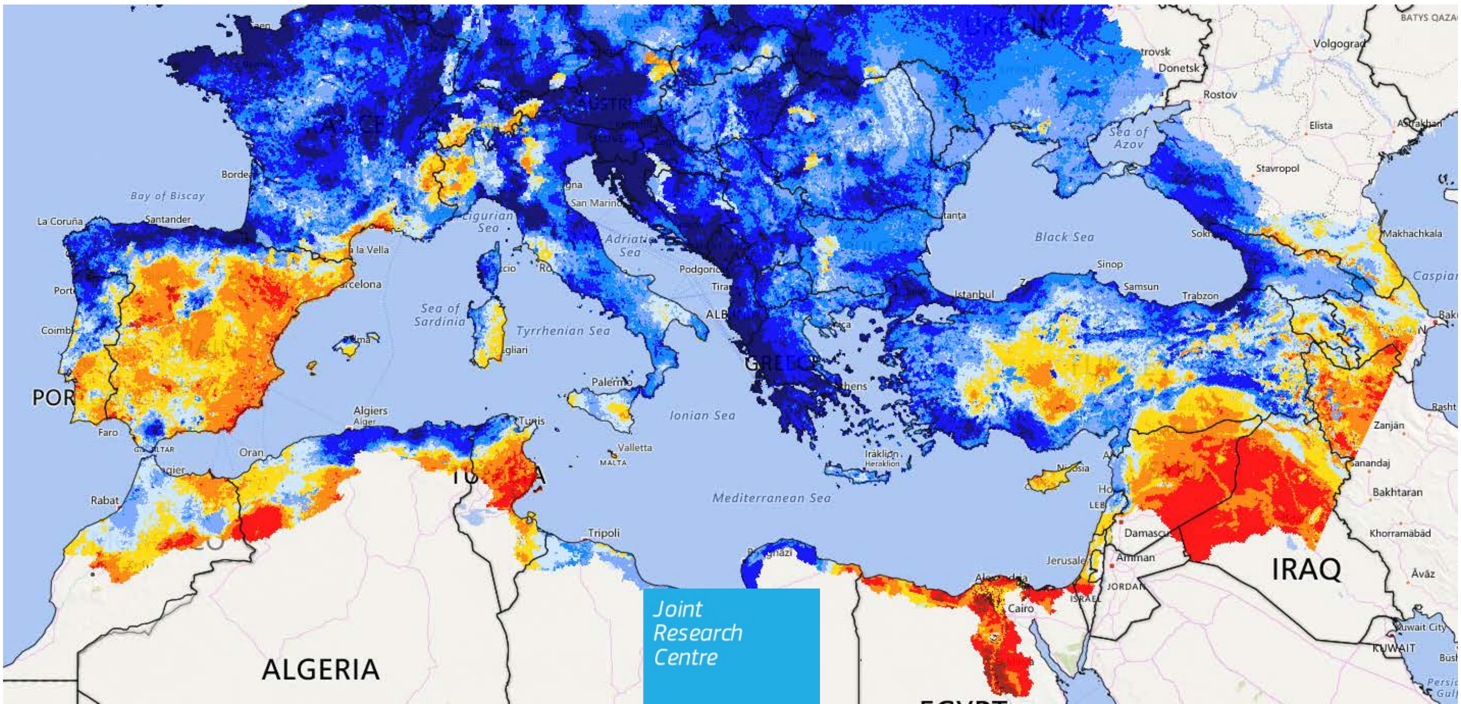
EFAS upgrade for the extended model domain

Technical documentation

2019



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1 Introduction

This document briefly describes all the relevant changes performed for the latest major upgrade of the operational European Flood Awareness System (EFAS); the operational implementation of the upgrade is planned for 5 April 2018.

Two main changes were conducted:

1) Change in the geographical projection used in EFAS to an INSPIRE-compliant projection;

2) Change in the geographical limits of the service, to include more river basins located in the eastern and southern neighbourhood countries of the EU.

As part of the upgrade, meteorological and static input, the hydrological model, the calibration and other EFAS products depending on a model climatology were also changed.

1.1 Geographical projection

The geographical projection was upgraded to the INSPIRE compliant ETRS89 Lambert Azimuthal Equal Area Coordinate Reference System (ETRS-LAEA). ETRS-LAEA is a single projected coordinate reference system for the pan-European area. It is based on the ETRS89 geodetic datum and the GRS80 ellipsoid, and is the recommended projection for pan-European statistical mapping at all scales or for other purposes where true area representation is required,

Its defining parameters can be found here: http://spatialreference.org/ref/epsg/3035/

Proj4 format:

Proj4js.defs["EPSG:3035"] = " +proj=laea +lat_0=52 +lon_0=10 +x_0=4321000 +y_0=3210000 +ellps=GRS80 +units=m +no_defs "

1.2 Geographical domain extension

The spatial coverage of the operational European Flood Awareness System was enlarged towards the east and the south (see green boundary box in **Error! Reference source not found.**), to include more river basins located near the eastern and southern borders of the EU.

Figure 1 shows the current and new limits of the EFAS domain, defined as:

- *Top: 5500000 (including Scandinavia)*
- *Left: 2500000 (including the Iberian Peninsula)*
- *Right: 7500000 (including Turkey)*
- *Bottom: 750000 (including coastal catchments of the southern shore of the Mediterranean Sea)*

The grey areas of Figure 1 show the hydrological modelling extent, and includes the most of the rivers within the new domain limits. Some river basins in the north-eastern corner and southern part of the model domain were excluded either due to a lack of data, or because part of their catchment area was outside the new domain limits (e.g. the Nile river).

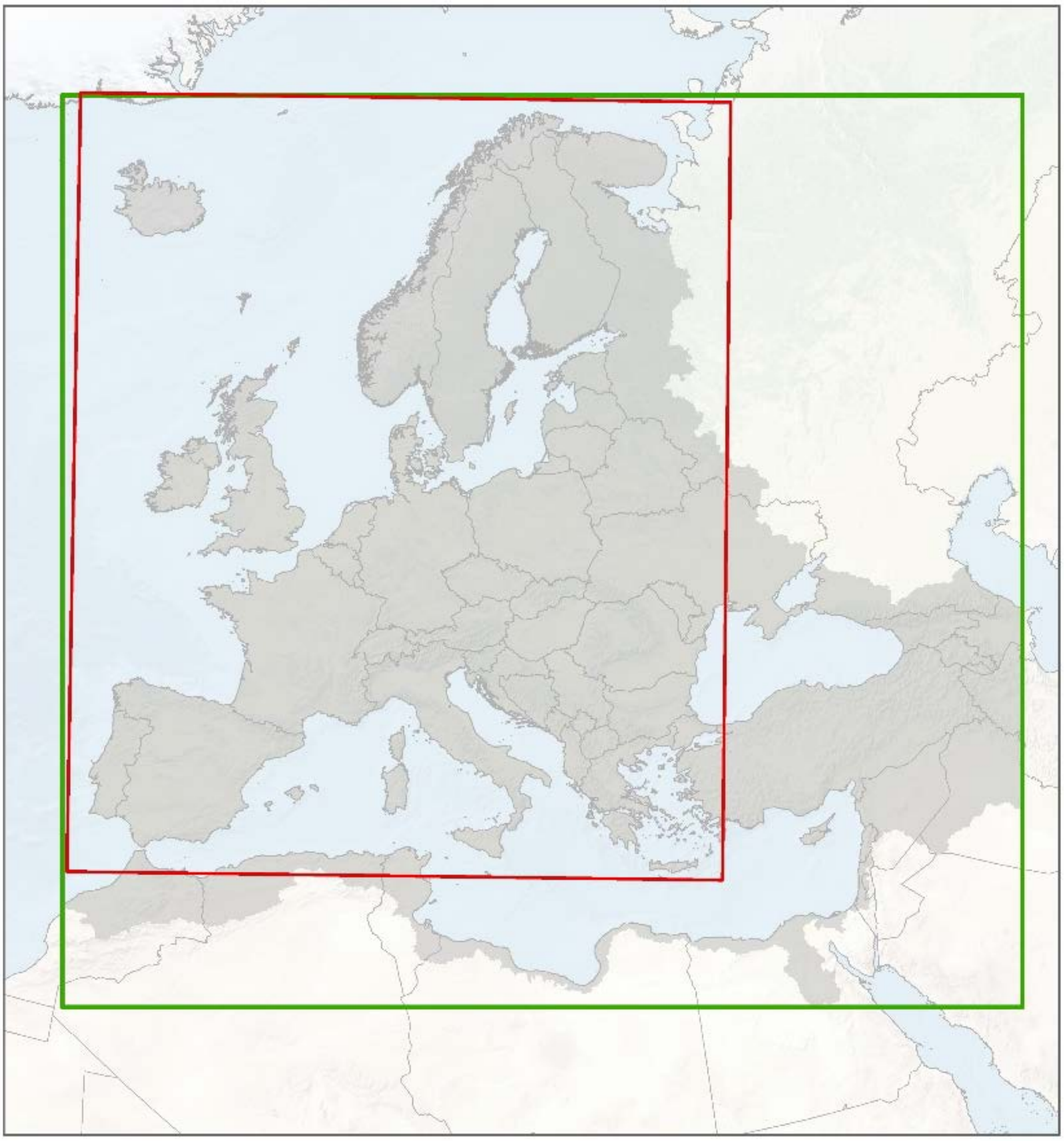

Figure 1: Green (new) and red (current) domain limits for EFAS, with in grey the limits of the hydrological modelling.

2 Upgrade in the meteorological input

Meteorological data are needed to drive the hydrological model LISFLOOD during calibration, the long-term run and to calculate the initial conditions for the forecasts. The following meteorological inputs with a daily time step were generated:

Parameter	Abbreviation of grid	Unit
Precipitation	PR	mm
Min temperature	TN	°C
Max temperature	TX	°C
Wind speed	WS	m/s
Solar radiation	RG	J / (m^2 d)
Vapor pressure	PD	hPa

The changes introduced in the meteorological input for the update to the extended domain are described in the sections below.

2.1 New interpolation scheme

The interpolation scheme SPHEREMAP is now used instead of the inverse distance weighting (IDW) in the extended domain. SPHEREMAP is the adaptation to spherical coordinates of Shepard's inverse distance weighting (Shepard, 1968), and an extension of the currently applied IDW. The interpolation weight equation depends on the distance and number of available input stations. In particular, the interpolation procedure takes into account the clustering of stations, so that weights of clustered stations were lower so that these data do not bias in the final product.

Although IDW requires more reduced computational effort, SPHEREMAP generates grids more reliably and with lower overall uncertainty, in particular compared with interpolation schemes such as ordinary kriging. In addition, SPHEREMAP procedure is robust to locally higher density of input data.

The uncertainty of gridded fields for all variables will be produced using an adaptation of Yamamoto's procedure (Yamamoto, 2000).

2.2 Historic meteorological input

The following gridded precipitation datasets have been included for the historic meteorological input, in addition to the station data:

- **EURO4M-APGD:** Pan-Alpine precipitation grid dataset with a spacing of 5 km and a daily time resolution from 01.01.1971 – 31.12.2008. For further details see Isotta et al. (2014).
- **INCA-Analysis Austria:** Precipitation grid with a spacing of 1 km and a 3 hourly time resolution from 01.01.2003 to present. For further details see http://www.inca-ce.eu/
- **ERA-Interim GPCP corrected:** Precipitation grid with a spacing of 0.75 degree and a 6 hourly time resolution from 01.01.1979 – 31.10.2016. For further details see https://www.ecmwf.int/en/forecasts/datasets/reanalysis-datasets/era-interim-land
- **Carpat-Clim:** Precipitation grid with a spatial resolution of 0.1° x 0.1° and a daily time resolution from 01.01.1970 – 31.12.2010. For more information visit http://www.carpatclim-eu.org/pages/home/.

Where necessary, the gridded datasets were aggregated to a daily time resolution. A subset of grid points were treated as "virtual" stations in the final interpolation procedure. ERA-Interim GPCP corrected was only used in the southern, the eastern border of the model domain and in Iceland due to a lack of meteorological observations (see Figure 2).

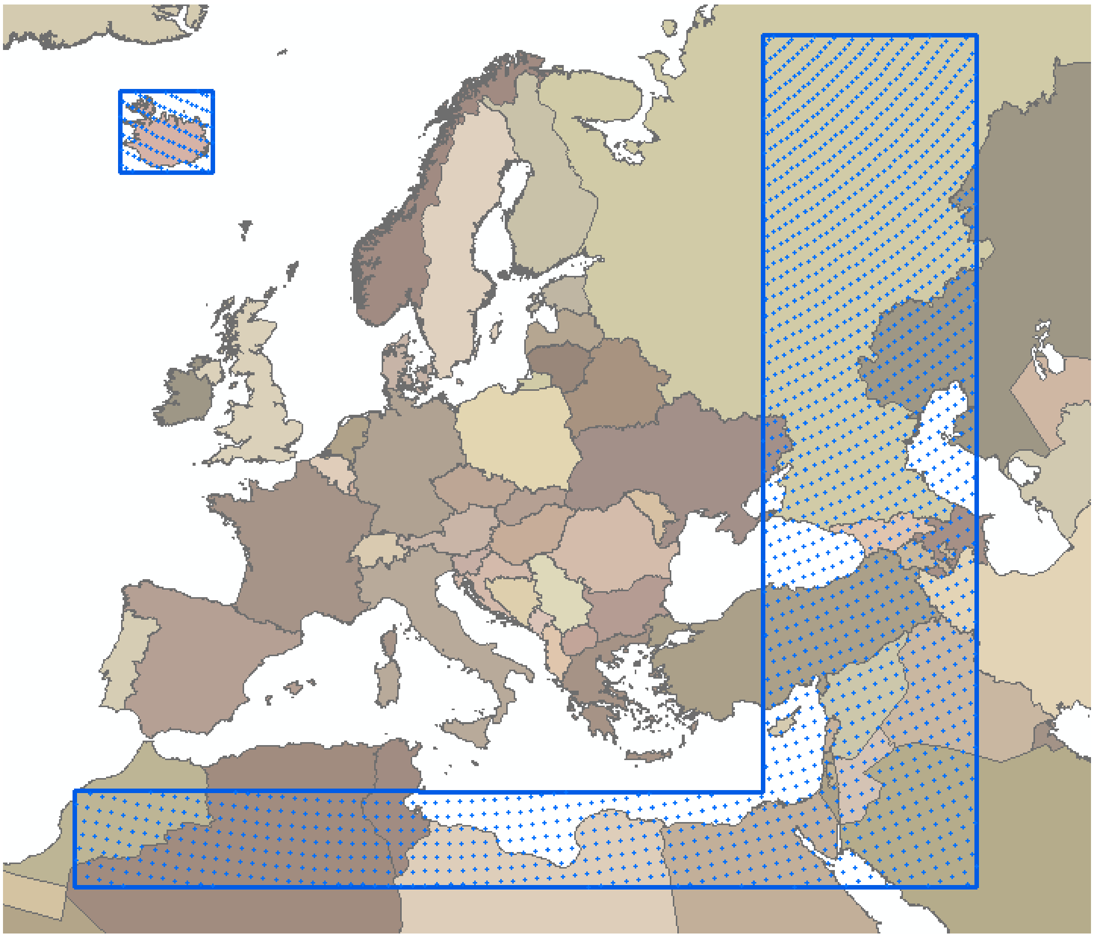

Figure 2: Only regions highlighted in blue used ERA-Interim GPCP-corrected in the interpolation of historic meteorological grids

In addition to these changes, all data providers have been checked for new /updated historic data, including Quality Assurance introduced (e.g. minimum temperature).

2.3 Real-time meteorological input

The overall number of stations for interpolation and gridding used for the real-time meteorological input was increased with:

- more data providers
- inclusion of the INCA Analysis Austria gridded dataset.

Figure 3 illustrates the precipitation observations used to produce the daily precipitation map for 10 February 2018. Table 2 shows the average number of observations per meteorological variables as currently available for the real-time meteorological grids. Note that the number of available meteorological stations can vary strongly especially for dates further in the past and that more data providers and stations are added continuously.

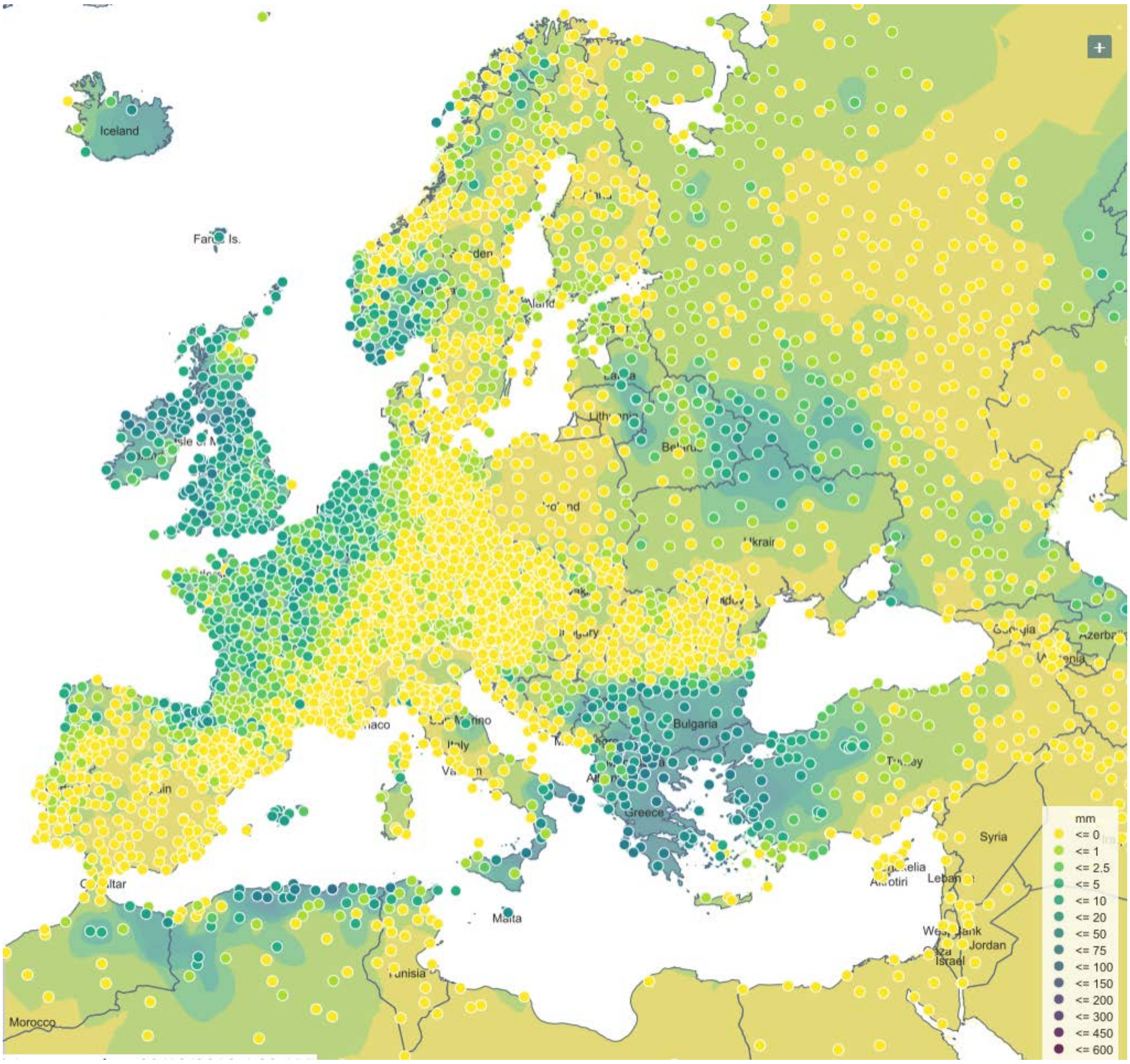

Figure 3: Overview of meteorological observations included for the daily precipitation grid from 10 February 2018.

Table 1: Approximate number of observations available for the production of the near real-time meteorological grids (example: 10 February 2018).

Parameter	Approximate number of observations for near real-time meteo grids
Precipitation	~ 5.600
Min temperature	~ 8.900
Max temperature	~ 8.900
Wind speed	~ 6.600
Solar radiation	~ 4.000
Vapor pressure	~ 3.700

3 Upgrade in LISFLOOD static input maps

Due to the change in projection and the extension of the model domain all static input maps required by LISFLOOD were upgraded or newly calculated as described below.

3.1 Land cover

To derive the necessary land cover information for the extended model domain the following datasets have been used:

- Corine land cover data set 2006 refined by Batista et al. 2012 based on Corine CLC 2006, version 13.
- Corine land cover 2000 - Version 16 (04/2012) - Raster data on land cover for the CLC2000, 100m resolution.
- GlobCover2009 (GC2009) database (Arino 2010) (to extend the missing areas of the European land cover database)
- Pan-European Forest/Non-Forest Map 2006 (Kempeneers et al. 2011)
- EEA Soil Sealing (or imperviousness) (EEA 2013, Kopecky and Kahabka 2009).

All three land cover datasets were merged into one to create a complete land cover dataset for the extended model domain. The spatially dominant value was used to upscale the information to a 5km grid. The merged land cover dataset, the forest/non-forest map and soil sealing maps were used to generate some of the necessary input maps for LISFLOOD:

- Percentage of forest coverage
- Percentage of impermeable surface
- Percentage of water coverage
- Crop coefficient
- Crop group number
- Manning’s roughness

3.2 Digital elevation model, channel network and related parameters

The following datasets were used as a digital elevation model and used as base information to derive parameters required for the calculation of the surface runoff in LISFLOOD such as slope, river network, channel length/gradient/bottom/Mannings’ roughness/bankful depth:

- Shuttle Radar Topography Mission (SRTM) version 4.1 at 90m resolution
- EU-DEM (Copernicus Land Monitoring Service)
- HydroSHEDS (Hydrological data and maps based on SHuttle Elevation Derivatives at multiple Scales) (Lehner et al., 2008)
- Pan-European River and Catchment Database was developed by the Catchment Characterisation and Modelling (CCM) activity of the Joint Research Centre (JRC) (Vogt et al. 2007a)

The digital elevation model was projected to LAEA ETRS89 with the bilinear resampling technique.

The local drain direction (LDD) is the essential component to connect the grid cells, express the flow direction from one cell to another, and form a river network from the river spring to their mouth. The LDD was derived from the digital elevation model using void filling and hydrological conditioning methods as outlined by Lehner et al. 2008, and the stream burning methods used by Hiederer and de Roo, 2003 and Vogt et al. 2007.

The river network was upscaled to a courser resolution (5km for LISFLOOD; and 1 km for the Flash Flood indicator ERIC) based on the tracing method 'Flexible Location of Waterways' (FLOW) from Yamazaki et al., 2009.

Channel geometry maps such as length, slope, width and depth of the main channel inside a grid cell were computed by combining the LDD map with the digital elevation maps using empirical relationships.

3.3 Soil and related parameters

Soil related parameters were derived by combining the following datasets:

- European Soil Database (ESDB) of the European Soil Bureau
- Harmonized World Soil Database 1.2 (HWSD) - Version 1.2 7 March, 2012
- HYPRES database (Wösten et al. 1999)

This includes maps for soil texture, bulk density, organic matter and soil depth.

3.4 Leaf area index

The Leaf Area Index (LAI) reflects the foliage density per ground surface, and plays an important role in the interception of water and evapotranspiration. Leaf area is not a static map but evolves during the year. The development of vegetation over time is accounted for in LISFLOOD by a stack of 36 LAI maps (each representing a time span of ~10 days).

Here we used reprocessed LAI products derived from SPOT-VGT data (CYCLOPES and geoland2) available at the World Data Center for Remote Sensing of the Atmosphere.

3.5 Water demand, abstraction and consumption maps

Irrigated areas were derived from the pan-European irrigation map of Wriedt et al (2009), based on regional European statistics, European land use and global irrigation maps. The map provides spatial information on the distribution of irrigated areas per crop type, allowing to determine irrigated areas at the level of spatial modelling units.

LISFLOOD differentiates the source of the abstracted water used for irrigation as a percentage from:

- surface water
- groundwater
- non-conventional sources (e.g. desalination plants)

These percentages were derived from the FAO/Aquastat website (http://www.fao.org/nr/water/aquastat/irrigationmap/index10.stm).

Water demands for the livestock sector, energy production and cooling, and the manufacturing industry are derived from downscaled Eurostat data mainly, as described by Vandecasteele et al (2013). Disaggregation was done using 100m land use data.

3.6 Reservoirs

The location of reservoirs was derived from the following sources:

- GRanD database (Global Reservoir and Dam database) (2011);
- Global Lakes and Wetlands Database (GLWD, Lehner & Doell, 2004)

A total of 1454 reservoirs were included (see Figure 4). For almost all reservoirs, only basic parameters as location and total volume of the reservoir are available. Many of the reservoir steering parameters were estimated, with some parameters included in the calibration procedure.

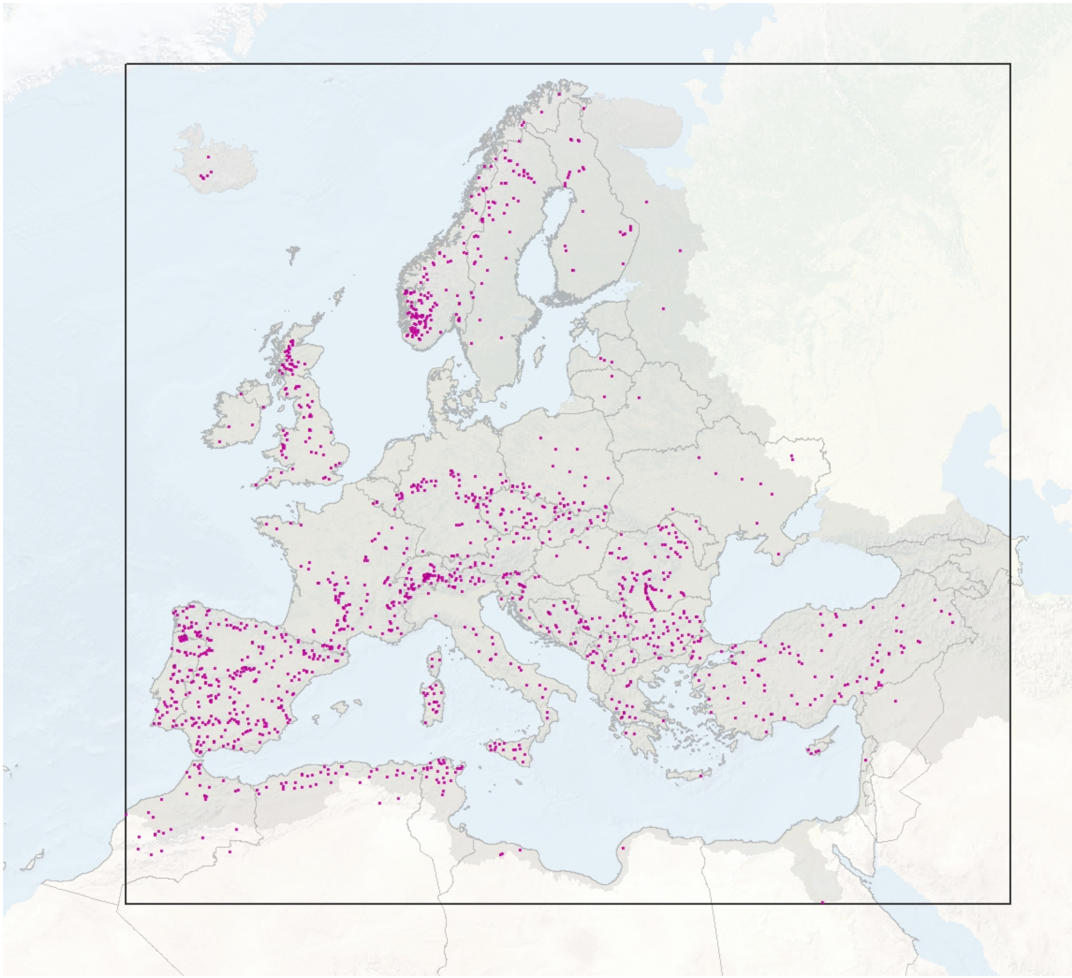

Figure 4: Reservoirs included in the hydrological modelling of the new extended domain

4 Upgrade in the hydrological model LISFLOOD

In comparison to the currently running LISFLOOD version in EFAS the following major changes have been introduced:

- Water infiltration into the soil is now parameterized using three soil layers instead of two
- Open water evaporation was added
- Water abstraction from livestock, agriculture, manufacturing industry, energy production (cooling water needs), and public sector water use. Actual water abstraction is calculated while checking if the demand can actually be met. Specifically, the model takes into account if the water is abstracted from groundwater, lakes or reservoirs. The remaining water is abstracted – if available – from the river surface water.
- Environmental flow option. Currently the 10% percentile of discharge is taken, calculated over the entire year. Abstraction can be limited if e-flow is to be respected.
- Inputs and outputs are now in NetCDF format, PCRaster maps are still possible, but will be phased out

A number of bug-fixes and minor modifications were introduced to the existing LISFLOOD modules.

5 Upgrade in the model calibration

5.1 Calibration algorithm

The calibration of the LISFLOOD model parameters was modified to use an Evolutionary Algorithm (EA). EA is a population-based optimization algorithm in which each individual (e.g. a vector of model parameters) in a large population represents a candidate solution for the optimization problem. EAs modify and improve the population through evolution over a range of generations, and ultimately identify the best performing individual.

The goodness-of-fit of each individual is evaluated based on selected objective functions. For the LISFLOOD calibration we used the modified Kling-Gupta efficiency criteria (KGE; Gupta et al., 2009) as objective function.

The KGE' is a performance indicator based on the equal weighting of three sub-components: linear correlation (*r*) [-], bias (*β*) [-] and variability (*γ*) [-], between simulated (s) and observed (o) discharge. It is defined as follows:

$$KGE' = 1 - \sqrt{(r-1)^2 + (\beta-1)^2 + (\gamma-1)^2}$$

$$\beta = \frac{\mu_s}{\mu_o}$$

$$\gamma = \frac{CV_s}{CV_o} = \frac{\sigma_s / \mu_s}{\sigma_o / \mu_o}$$

where *r* is the Pearson product-moment correlation coefficient, *μ* is the mean discharge [m^3/s], CV is the coefficient of variation [-] and *σ* is the standard deviation of the discharge [m^3/s]. The optimum of KGE', *r*, *β* and *γ* is at unity. The actual value of KGE' gives the lower limit of any of the three sub-components.

The reason for choosing KGE' over the often used Nash-Sutcliffe Efficiency (NSE) is that KGE' has been demonstrated to improve the bias and variability ratio considerably during calibration, while the correlation is only slightly decreased. In contrast, NSE has shown the tendency to underestimate the variability of flows and exhibit less efficiency in constraining the bias. For a full discussion of the advantages of using KGE over NSE see (Gupta et al., 2009).

5.2 Calibration parameters

LISFLOOD calibration parameters were selected based on prior expert knowledge. The selected parameters relate to groundwater processes, channel routing, snow melt and reservoir/lake simulation and are listed in Table 2.

*Table 2: Calibration parameters of LISFLOOD. Parameters with * are only calibrated if a lake or reservoir is in the relevant sub-catchment area.*

Parameter Name	Units	ID	Range Min	Range Max	Default Value
Upper Zone Time Constant	[d]	UZTC	3	40	10
Lower Zone Time Constant	[d]	LZTC	40	500	100
Groundwater Percolation Value	[mm/d]	GwPV	0.01	2	0.8
Groundwater Loss	[-]	GwLoss	0.0	0.5	0.0
Power in the infiltration's equation	[-]	b_Xinan	0.01	1	0.5
Power in the preferential flow equation	[-]	PPrefFlow	0.5	8	4
Multiplier applied to the Manning's roughness maps of the channel system	[-]	CCM	0.1	15	3
Multiplier applied to the Manning's roughness maps for the second line of routing	[-]	CCM2	0.1	15	3
Snow Melt Coefficient	[mm /°C d]	SMC	2.5	6.5	4
Lake Multiplier*	[-]	LM	0.5	2	1
Adjust Normal Flood*	[-]	ANF	0.01	0.99	0.8
Fraction of the reservoir normal outflow*	[-]	RNM	0.25	5	1

5.3 Hydrological observations and calibration / validation periods

Reliable discharge data is necessary in order to calibrate the model and to evaluation its skill. The following criteria was used to select calibration stations:

- Drainage area larger than >500 km2.
- A minimum of 5 years with daily discharge data within the period Jan-1990 up to Dec-2014. If the record length is greater than 10 years calibration and validation periods are split into equally long parts. If shorter than 10 years, 5 years were reserved for the calibration and the remaining used as for the validation.
- Station locations that would improve spatial coverage of the calibrated stations in Europe; exclusion of stations that are redundant for calibration purposes (i.e. located very close to another station on the same river).

However, in some exceptional cases, stations that did not fulfil all of the previous criteria were selected for calibration when no better alternative was available in the nearby area or based on specific request from the EFAS partner. This resulted in a total of 717 calibration stations presented in Figure 5.

Note that in regions where calibration station density is very low or no calibration station exists at all this was due to either insufficient historic data or no data available at all. Furthermore, data provided later than May 2016 was not included in this calibration. It is foreseen to increase the number of calibration points constantly in the forthcoming calibrations with new available data from the EFAS partners.

5.4 Calibration results

The hydrological skill of LISFLOOD is expressed by the Kling-Gupta Efficiency. Table 3 provides a brief summary on the KGE achieved during calibration and validation. 75 % of all stations score a KGE higher than 0.5 during calibration, and 57 % during validation.

Table 3: Brief summary on skill scores of calibration / validation

	calibration		**validation**	
KGE	**no. of stations**	**[%]**	**no. of stations**	**[%]**
> 0.75	303	42	174	24
> 0.5 – 0.75	240	33	235	33
> 0.2 – 0.5	91	13	172	24
> 0 – 0.2	36	5	44	6
≤0	47	7	73	10
	Σ 717		**Σ 698**	

Figure 5 shows the spatial distribution of the hydrological skill across the EFAS domain. It is clearly noticeable that the skill is not homogeneously distributed across Europe, with higher skills in large parts of Central Europe, and lower skill mostly in Spain caused by the strong influence of reservoirs. **Users should remember that a low score during calibration/validation is not necessarily an indicator for decreased forecast performance as EFAS forecasts are compared to model derived thresholds (see Section 6.1) which eliminates systematic bias that could lead to an overall lower score of the calibration/validation!** The updated EFAS forecast skill scores will be provided with the release of the new EFAS web interface.

Note that the hydrological skill will be available as separate layer with the EFAS web interface after the release of the extended domain. An example of the detailed information on calibration and validation is shown in Figure 5. A detailed list of stations used for calibration and validation as well as associated results can furthermore be found in Annex 1.

station information

ID	C709
station	Wolfsmuenster
river	Frankische Saale
basin	Rhine
lat	50.09
lon	9.74
ups	2425

skill scores

	calibration	validation
start	1/1/1995	1/1/1990
end	12/31/2000	12/31/1994
KGE	0.86	0.85
NSE	0.73	0.75
r	0.86	0.87
PBIAS %	3	-6.8

discharge statistics [m³/s]

	Qobs cal.	Qsim cal.	Qobs val.	Qsim val.
min	3	3	3	3
q25	7	7	6	4
mean	18	18	16	14
q95	51	53	50	49
q99	92	97	88	78
max	234	292	160	215

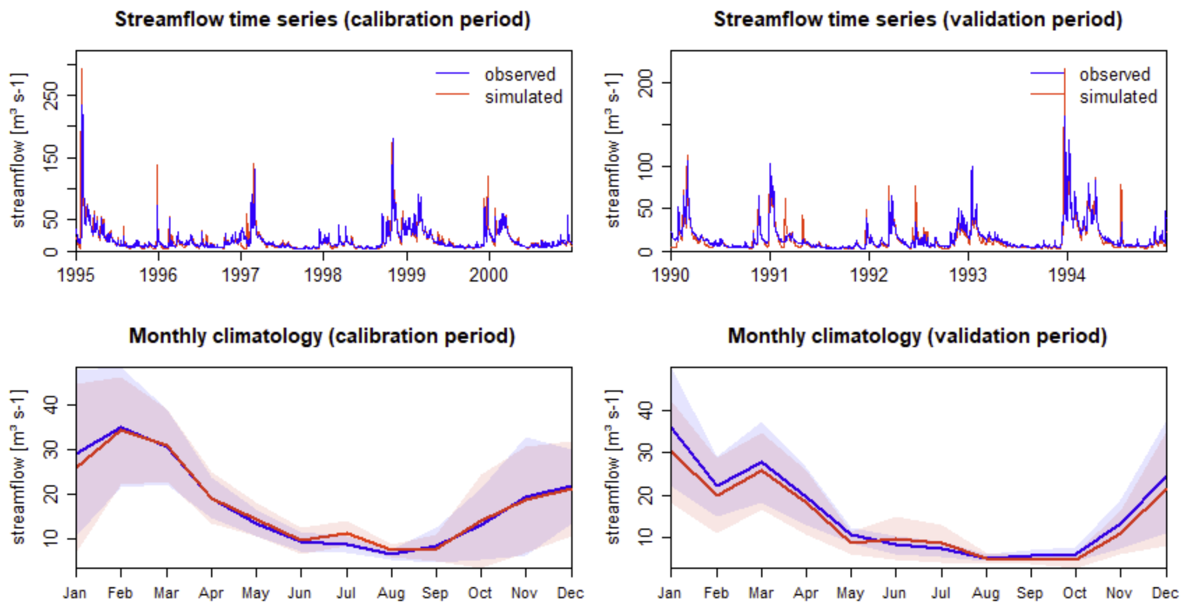

Figure 5: Example of the available calibration and validation summary information available in the "Hydrological Skill" layer in the EFAS interface.

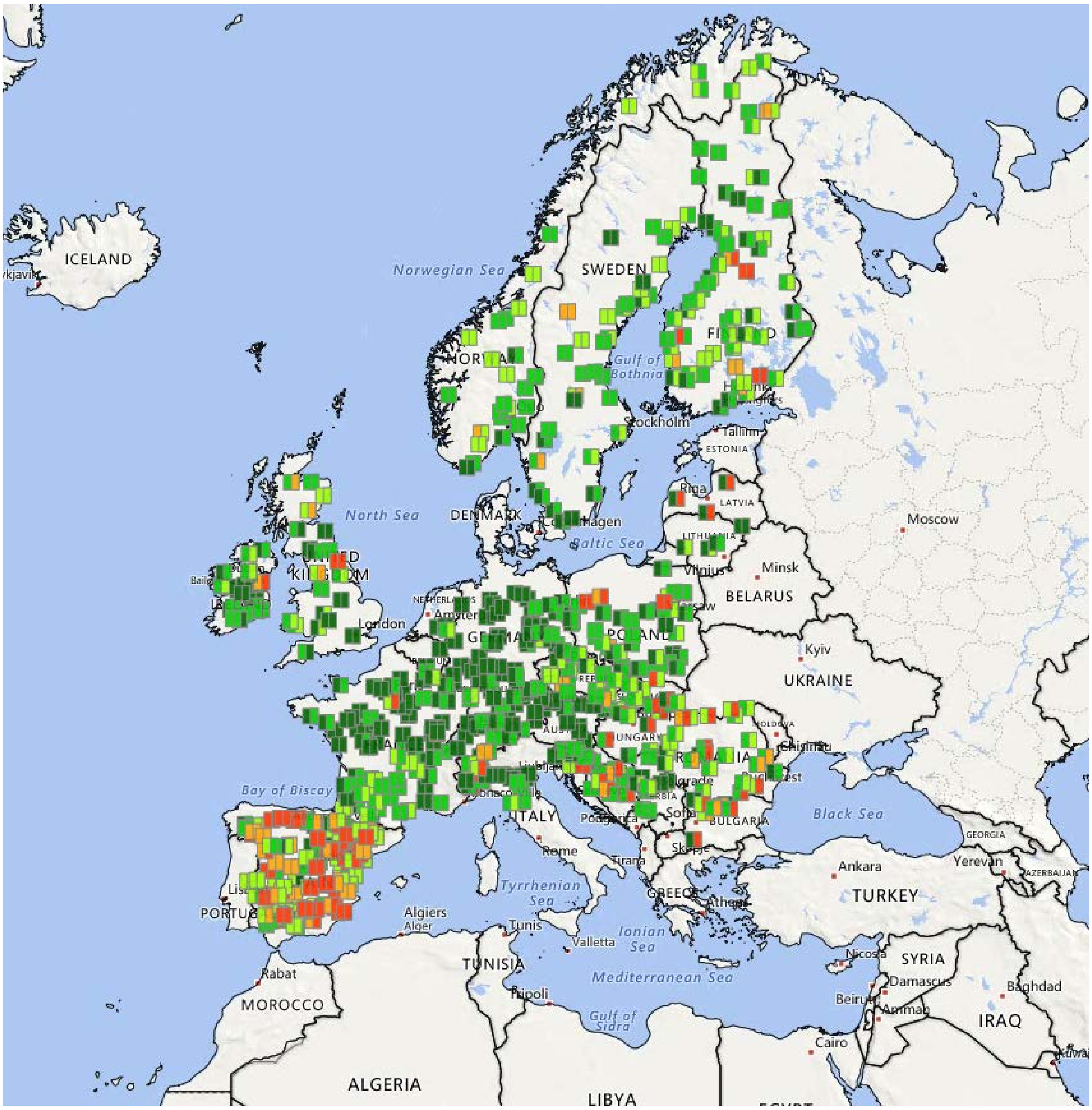

Figure 6: Hydrological skill of EFAS at the calibration locations. Colour coding denotes the quality of the KGE during calibration (left half of square) and validation (right half of the square). Dark green: KGE > 0.75; Green: KGE 0.5 – 0.75, Light green: KGE 0.2 – 0.5; Orange: 0 – 0.2; Red: < 0. Note: the hydrological skill of the calibration will be available as separate layer.

6 Upgrade in other related EFAS products

6.1 Updated simulated return periods

EFAS warnings are issued following a comparison of the forecast discharge with model discharge associated with different return levels. The return level discharge thresholds are calculated from a long-term discharge climatology generated from running LISFLOOD with forcing from 1-Jan-1990 until 31-Dec-2016, excluding simulations from 1990 (model warm up phase). The Gumbel distribution using L-Moments was used to calculate the relevant discharge return periods. Figure 6 shows the simulated discharge associated with the 100 year return period.

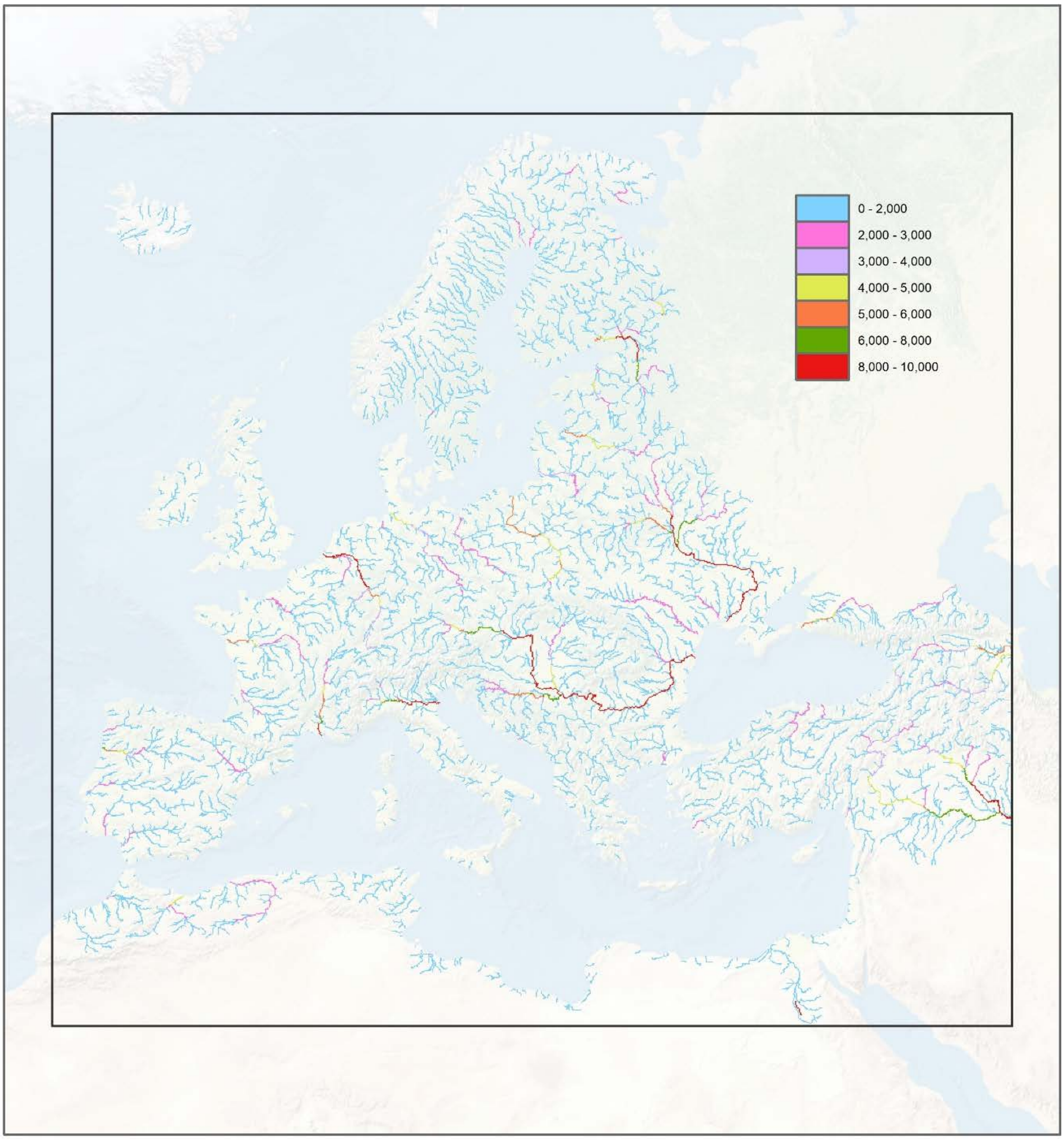

Figure 7: 100-year return period discharges [m3/s] as derived from the long term run of the calibrated LISFLOOD model set up.

6.2 Updated post-processing hydrographs

The post-processing hydrographs were updated to use climatological information from the newly calibrated LISFLOOD long term simulations. Furthermore, the number of post-processing hydrographs has been extended significantly to include more locations where real-time and sufficient historic river discharge information is available.

6.3 Updated flash flood products

Flash flood products computed from the ERIC [Raynaud *et al.,* 2015; European Runoff Index based on Climatology] methodology, have been updated to use climatological information from the newly calibrated LISFLOOD long term simulations. Soil moisture is one of the required simulated variables, previously this was a single output from LISFLOOD but now the upper soil layer has been divided into two top layers and separate calculations are performed for the forested and non-forested fractions in each of these. Therefore it is necessary to combine these soil moisture data into a single value of the upper level soil moisture Sm, using the following equation:

$$Sm = \frac{\left(\theta_1 * sd_1 * (1 - ffrac)\right) + \left(\theta_2 * sd_2 * (1 - ffrac)\right) + (\theta_{1F} * sd_{1F} * ffrac) + (\theta_{2F} * sd_{2F} * ffrac)}{\left((sd_1 + sd_2) * (1 - ffrac)\right) + \left((sd_{1F} + sd_{2F}) * ffrac\right)}$$

where θ_1 = soil moisture in layer 1 non-forested fraction [m/m], θ_2 = soil moisture in layer 2 non-forested fraction [m/m], θ_{1F} = soil moisture in layer 1 forested fraction [m/m], θ_{2F} = soil moisture in layer 2 forested fraction [m/m], *ffrac* = forested fraction, sd_1 = soil depth of layer 1 non-forested fraction [mm], sd_2 = soil depth of layer 2 non-forested fraction [mm], sd_{1F} = soil depth of layer 1 forested fraction [mm], and sd_{2F} = soil depth of layer 2 forested fraction [mm].

Apart from the above, the calculation methodology for the ERIC climatological and forecast products has remained unchanged. Also unchanged is the spatial extent of the products, as this is limited by the coverage of the COSMO-LEPS forecasts meaning that ERIC products cannot be extended eastwards. Work is ongoing to investigate filling these missing areas using forcings from the ECMWF global ensemble NWP.

6.4 Updated seasonal forecasts

The seasonal forecasts were updated by both extending to the new domain and switching to the new System 5 seasonal forecasts (SEAS5) from ECMWF. The main change with SEAS5 in comparison to the old model cycle is a much higher spatial resolution, 36 km compared with 80 km, a better ocean model and a 25-member hindcast period compared to only 15 members in the old version. The release date is set to the 5th of each month, so the dissemination will also be earlier.

The sub-basins for the eastwards expansion have been recalculated for the new domain (Figure 7). The seasonal forecasts will be presented as before with probabilities of exceeding high and low percentiles calculated from the water balance. However, we foresee that new products will be developed for the seasonal and sub-seasonal scale in the near future.

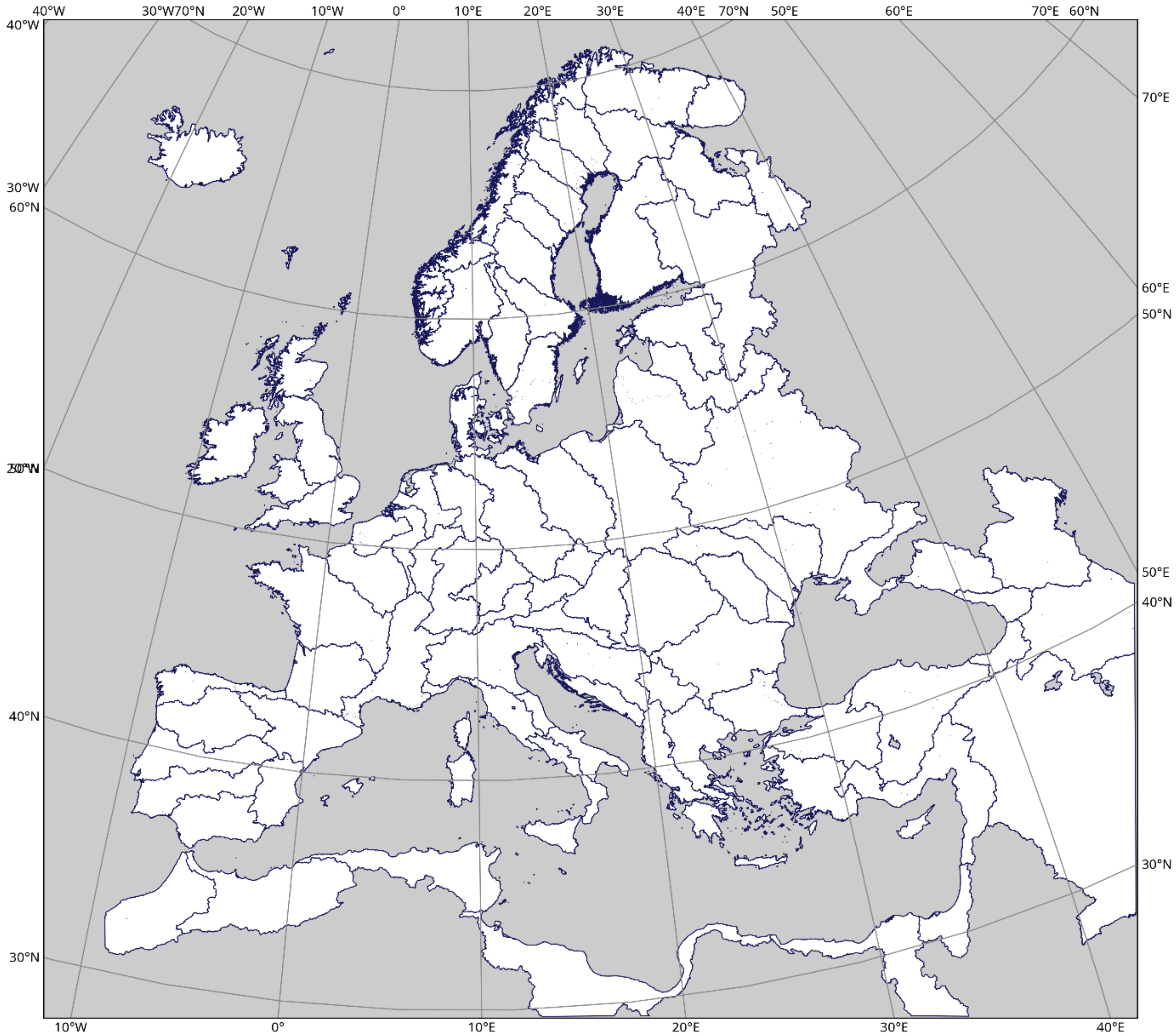

Figure 8: Water regions used for the seasonal outlook

6.5 Updated flood hazard and impact assessment

The rapid risk assessment procedure is used to estimate the flood extent as well as the potential flood impacts based on EFAS forecasts. Every time a flood event is forecasted in EFAS, the procedure identifies those river sections where the magnitude of forecasted peak discharge is expected to exceed the local flood protection level. For these river sections, the procedure delineates flood prone areas using a catalogue of flood hazard maps covering all the EFAS river network. These event-based hazard maps are combined with exposure information to assess several categories of impacts, such as affected population, roads and cities, the total extent of urban and agricultural areas affected and direct economic losses. A full description of the procedure is reported in Dottori et al. (2017).

In order to apply the procedure to the extended domain, additional flood simulations have been carried out to produce flood hazard maps for the new areas covered in EFAS. The simulations were run using the latest LISFLOOD climatology and the geographical layers described in Sections 3.1 and 3.2. As example is reported in Figure 8.

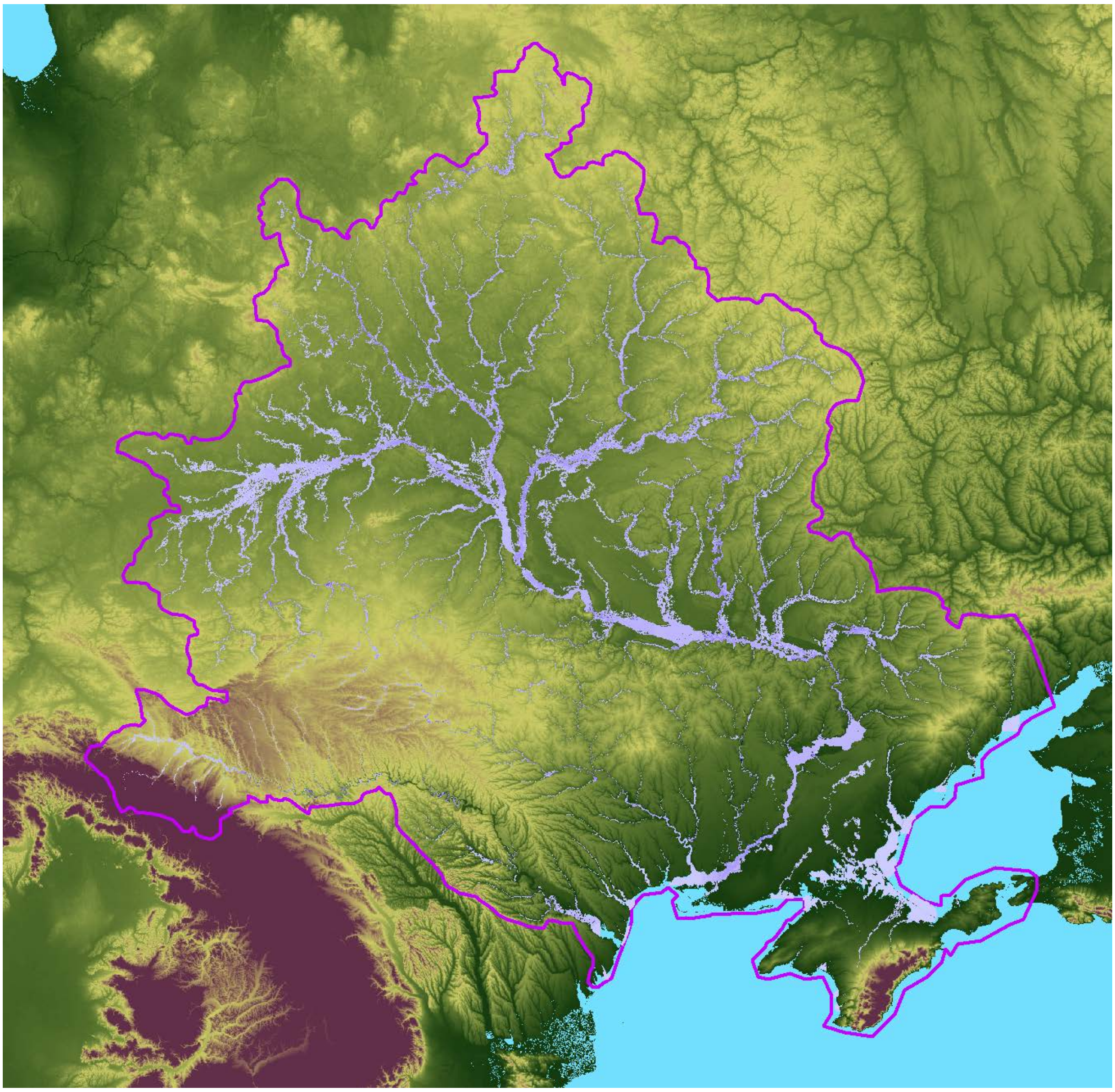

Figure 9: flood extent of the 1-in 100 year flood map for the Dniepr river basin (marked by purple line).

In addition, the existing database of flood protection levels has been integrated using the FLOPROS global dataset (Scussolini et al., 2016) and information on design protection levels, where available.

The land cover data are derived based on the procedure described in the Section 3.1.
The population potentially affected is calculated using the 250m resolution GHSL POPULATION GRID, resampled to 100m resolution grid GHSL (2016). The potential affected cities are derived d from the map of World Cities developed by ESRI (2017). The affected roads will be based on the data set of Herrera (2015), merged with global data set from SEDAC (Global Roads Open Access Data Set (gROADS), v1 (1980–2010).

Finally, vulnerability functions have been integrated using the global set of flood damage functions produced by Huizinga et al. (2017).

7 Forecast skill score evaluation

The skill scores will be expanded with new scores and be presented through the new EFAS interface on a more interactive and dynamic way. This will allow the user to have more detailed information on the forecast performance for certain locations, seasons, flow regime et cetera. However, this development will be released with the new EFAS web interface and not in the release of the extended domain.

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Annexes

Annex 1. List of stations used in the calibration and calibration results

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C008	RO	Arges	Arges	Budesti	0.71	0.45	0.72	5.9	-0.06	-0.23	0.24	-59.8
C012	AT	Drava	Mur	Bruck	0.89	0.78	0.89	2	0.82	0.75	0.88	-8.7
C015	SK	Hron	Hron	Brehy	0.71	0.43	0.71	-2.6	0.32	-0.36	0.41	-33.1
C016	RO	Ialomita	Bratul Borcea	Slobozia	0.22	-0.48	0.71	28.2	0	-0.53	0.16	-50.4
C017	BG	Iskur	Iskur	Kunino	0.5	0.06	0.5	-3.8	0.18	-0.08	0.39	-41.9
C018	RO	Jiu	Jiu	Podari	0.71	0.51	0.74	-9.4	0.34	-0.12	0.46	-36.5
C019	RO	Olt	Olt	Cornet	0.74	0.56	0.77	-9.1	0.49	0.19	0.61	-30.4
C020	MD	Prut	Prut	Oancea	0.64	0.39	0.67	-5.5	0.02	-0.19	0.21	-28.1
C021	RO	Prut	Prut	Radauti	0.69	0.52	0.74	-10.8	0.45	0.25	0.59	-31.5
C023	HR	Sava	Sava	Zagreb	0.86	0.75	0.87	0.1	0.8	0.72	0.89	9.8
C024	HR	Sava	Sava	Jasenovac	0.86	0.74	0.87	0.4	0.83	0.68	0.85	6.4
C025	HR	Sava	Crnac	Davor	0.64	0.56	0.9	23.2	0.42	0.21	0.86	25.1
C026	HR	Sava	Sava	Zupanja	0.74	0.63	0.87	13.9	0.58	0.35	0.82	15
C028	RO	Siret	Siret	Dragesti	0.72	0.59	0.78	-11.1	0.32	0.21	0.55	-39.6
C029	RO	Siret	Siret	Lungoci	0.73	0.52	0.75	-7.4	0.17	0.02	0.44	-43.9
C030	RO	Siret	Siret	Siret	0.54	0.3	0.59	-8.3	0.25	0.05	0.37	-22.1
C031	HU	Tisza	Tisza	Jasztelek	0.76	0.54	0.79	10.5	-8.74	-111.32	-0.08	306.5
C032	HU	Tisza	Sajó	Felsozsolca	0.47	0.02	0.49	-12.2	-	-	-	-
C034	SK	Tisza	Bodrog	Streda nad Bodrogom	0.68	0.42	0.7	-8.7	0.41	0.36	0.74	-39.2
C037	RO	Tisza	Crisul Alb	Gyula	0.54	0.41	0.66	-21.4	-0.22	-0.51	0.15	-71
C039	RO	Tisza	Mures	Ocna	0.64	0.52	0.74	-16.5	-0.05	-0.48	0.26	-61.6
C041	RO	Tisza	Mures	Arad	0.81	0.65	0.82	-4.8	0.48	0.09	0.67	-39.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C045	HU	Tisza	Tisza	Szeged	0.69	0.54	0.77	-15.6	0.29	-0.35	0.42	-38.8
C046	SK	Upper Danube	Mosoni-Duna	Bratislava	0.92	0.85	0.93	0.7	0.9	0.81	0.91	0.2
C047	DE	Upper Danube	Lech	Augsburg	0.8	0.6	0.81	-0.5	0.79	0.63	0.8	-1.1
C048	DE	Upper Danube	Donau	Berg	0.91	0.83	0.92	1.2	0.88	0.76	0.89	1.7
C050	AT	Upper Danube	Enns	Steyer	0.81	0.65	0.82	-4.3	0.78	0.69	0.84	-10.6
C051	CZ	Upper Danube	Morava	Straznice	0.85	0.71	0.85	-2.3	0.49	0.04	0.68	-28.1
C052	AT	Upper Danube	Traun	Wels	0.8	0.61	0.8	-0.9	0.7	0.69	0.84	-10.3
C053	DE	Upper Danube	Donau	Wiblingen	0.62	0.45	0.82	25.3	0.68	0.42	0.77	17.7
C054	AT	Upper Danube	March	Záhorská Ves	0.76	0.54	0.8	6.3	0.51	0.35	0.67	-27
C055	CZ	Upper Danube	Stary Rybnik	Židlochovice	0.8	0.59	0.8	4.3	0.48	0.2	0.6	-31
C056	DE	Upper Danube	Inn	Passau-Ingling	0.89	0.84	0.92	-3.4	0.88	0.85	0.93	-6
C057	AT	Upper Danube	Salzach	Burghausen	0.77	0.66	0.84	-11.8	0.76	0.66	0.84	-13.8
C058	DE	Upper Danube	Inn	Oberaudorf	0.82	0.72	0.87	-9.1	0.8	0.78	0.9	-11.1
C059	DE	Upper Danube	Donau	Hofkirchen	0.9	0.82	0.91	2.2	0.89	0.79	0.91	4.2
C060	SK	Vah	Vah	Sala	0.69	0.41	0.7	-1.8	0.38	-0.43	0.52	-27.4

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C061	YU	Velika Morava	Morava	Lubicevsky Most	0.9	0.81	0.9	-1.3	0.4	0.27	0.75	-46.4
C063	FR	Adour	Adour	Audon	0.86	0.73	0.86	2.1	0.77	0.6	0.82	11.3
C064	FR	Adour	Adour	Cahuzac	0.8	0.62	0.82	7.5	0.61	0.51	0.85	28.9
C065	FR	Adour	Gave de Pau	Gave de Pau	0.39	0.3	0.76	-39.2	0.45	0.38	0.74	-31.1
C066	FR	Adour	Gave	Escos	0.33	0.24	0.6	-37.7	0.28	0.24	0.61	-40.3
C067	FR	Garonne	Garonne	Verdun	0.63	0.5	0.73	-14.1	0.76	0.56	0.77	-2.4
C068	FR	Garonne	Tarn	Villemur	0.71	0.55	0.75	-8.9	0.62	0.62	0.8	-19.2
C069	FR	Garonne	Garonne	Tonneins	0.82	0.73	0.86	-4.7	0.83	0.74	0.86	3.2
C070	FR	Garonne	Lot	Faycelles	0.61	0.53	0.75	-19.8	0.72	0.45	0.72	-2.4
C071	FR	Garonne	Vezere	Campagne	0.71	0.69	0.85	-15.6	0.88	0.76	0.88	-0.5
C072	FR	Garonne	Isle	Abzac	0.87	0.74	0.87	3.3	0.53	0.54	0.88	37.8
C073	FR	Garonne	Dordogne	Cénac-et-Saint-Julien	0.46	0.46	0.82	-36.6	0.48	0.52	0.81	-31.4
C074	FR	Loire	Loire	Villerest	0.78	0.55	0.78	-0.2	0.63	0.28	0.72	15.4
C075	FR	Loire	Allier	Moulins	0.72	0.57	0.77	-10.3	0.78	0.6	0.79	-2
C076	FR	Loire	Vienne	Lussac les Chateaux	0.88	0.76	0.88	0.4	0.85	0.72	0.86	6.6
C077	FR	Loire	Creuse	Ciron	0.81	0.62	0.82	3.1	0.84	0.7	0.84	-1.6
C078	FR	Loire	Creuse	Leugny	0.87	0.74	0.87	1.8	0.86	0.75	0.88	6.7
C079	FR	Loire	Vienne	Nouatre	0.9	0.81	0.91	2.6	0.81	0.76	0.9	14.4
C080	FR	Loire	Loire	Durtal	0.87	0.76	0.88	5.2	0.65	0.59	0.86	25.1
C081	FR	Loire	Loire	Nevers	0.84	0.69	0.84	-0.9	0.77	0.56	0.8	8.7
C082	FR	Loire	Loire	Blois	0.83	0.71	0.85	-5.1	0.78	0.63	0.82	11
C083	FR	Loire	Loire	Saumur	0.93	0.86	0.93	1.1	0.82	0.77	0.9	14.9
C084	FR	Loire	Loire	Nantes	0.95	0.89	0.95	0.1	0.9	0.86	0.93	7.2
C085	BE	Maas	Meuse	Borgharen	0.87	0.83	0.92	9.9	0.84	0.83	0.93	13
C086	FR	Maas	Meuse	Chooz	0.83	0.77	0.88	-6.6	0.89	0.81	0.9	-2.4

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C091	FR	Rhone	Saone	Ray	0.84	0.69	0.84	-0.2	0.8	0.63	0.83	10.3
C092	FR	Rhone	Saone	Pagny-la-Ville	0.91	0.82	0.91	0.4	0.87	0.76	0.88	4.2
C094	CH	Rhone	Rhone	Pougny	0.65	0.33	0.65	-3.5	0.71	0.44	0.72	-6.8
C095	FR	Rhone	Rhone	Lyon	0.85	0.7	0.85	0.5	0.85	0.7	0.85	1.4
C097	FR	Rhone	Rhone	Viviers	0.91	0.83	0.91	0.3	0.91	0.83	0.91	-2
C098	FR	Rhone	Rhone	Beaucaire	0.91	0.82	0.91	1.9	0.89	0.82	0.91	3
C099	FR	Rhone	Isere	Beaumont-Monteux	0.83	0.66	0.84	-4	0.72	0.45	0.72	-4.8
C100	FR	Rhone	Durance	Saint-Paul-lès-Durance	0.72	0.47	0.72	-2.1	0.6	0.28	0.61	4.3
C101	FR	Seine	Yonne	Gurgy	0.88	0.78	0.89	-2.8	0.78	0.67	0.86	14.7
C102	FR	Seine	Armancon	Brienon	0.89	0.78	0.89	2.7	0.8	0.77	0.89	16.7
C103	FR	Seine	Yonne	Courlon	0.92	0.84	0.92	1	0.79	0.74	0.9	13.2
C104	FR	Seine	Loing	Episy	0.88	0.79	0.9	6.2	0.82	0.82	0.92	16
C105	FR	Seine	Marne	La Ferté-sous-Jouarre	0.81	0.7	0.86	-11.2	0.88	0.75	0.88	1.1
C106	FR	Seine	Marne	Gournay	0.8	0.65	0.82	-2.8	0.86	0.72	0.86	-3
C107	FR	Seine	Aisne	Givry	0.84	0.76	0.87	-5.3	0.88	0.77	0.89	3.5
C108	FR	Seine	Oise	Sempigny	0.9	0.85	0.93	5.9	0.8	0.82	0.93	15.5
C109	FR	Seine	Seine	Poissy	0.94	0.89	0.94	1	0.83	0.84	0.94	12.8
C110	ES	Duero	Duero		0.78	0.55	0.78	-1.4	0.6	0.42	0.83	-16.9
C111	ES	Duero	Duero	HerreraDeDuero	0.81	0.64	0.81	2.3	0.01	-0.63	0.8	38.5
C112	ES	Duero	Duero	Villamarciel	0.93	0.87	0.93	-0.9	0.41	0.34	0.88	29.3
C113	ES	Duero	Duero	Zamora	0.84	0.81	0.92	6.7	0.66	0.71	0.93	16.6
C114	ES	Ebro	Ebro	Castejon	0.85	0.77	0.88	-3.6	0.8	0.65	0.83	10.5
C115	ES	Ebro	Ebro	Zaragoza	0.82	0.73	0.86	-3.8	0.74	0.57	0.82	15.4
C116	ES	Ebro	Gallego	Zaragoza	-0.32	-0.09	0.49	117.8	-0.68	-0.36	0.45	158.1
C117	ES	Ebro	Segre	Seros	0.62	0.29	0.65	11.9	0.37	0.12	0.46	14.8

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C118	ES	Ebro	Ebro	Tortosa	0.22	0.17	0.51	-28.9	0.23	0.14	0.42	-16
C119	ES	Guadiana	Guadiana	Luciana	0.17	-0.39	0.51	61.1	0.06	0.06	0.49	78
C120	ES	Guadiana	Guadiana	Villanueva de la Serena	-4.98	-0.69	0.38	594.6	0.26	0.36	0.62	37.4
C121	ES	Guadiana	Guadiana	Azud de Badajoz	0.44	0.53	0.78	-11.2	0.62	0.64	0.81	-8.1
C122	ES	Guadiana	Zujar	Villanueva de la Serena	-8.35	-74.73	0.42	646.6	-1.58	-1.77	0.3	245.1
C125	ES	Jucar	Jucar	Picazo	-0.23	-0.53	-0.12	-25.4	-0.24	-0.4	-0.06	-39.4
C126	ES	Jucar	Jucar	Alcalá del Júcar	-0.21	-1.44	-0.21	1.9	-0.19	-1.61	-0.11	-42
C127	ES	Mijares	Mijares	Villarreal	0.47	0.08	0.5	13.7	0.33	0.09	0.46	-26.4
C130	IT	Po	Po	Carignano	0.81	0.63	0.82	-7.6	0.69	0.56	0.75	-1.7
C131	IT	Po	Sesia	Palestro	0.72	0.53	0.74	-0.1	0.63	0.56	0.75	-8.9
C133	IT	Po	Lago di Mergozzo	Candoglia	0.78	0.64	0.81	-7	0.75	0.69	0.83	0.1
C136	IT	Po	Po	Spessa	0.76	0.79	0.91	-17.1	0.66	0.62	0.86	-26.5
C138	IT	Po	Po	Cremona	0.92	0.84	0.92	-0.9	0.85	0.74	0.89	-0.6
C139	IT	Po	Po	Borgoforte	0.92	0.85	0.93	-2.4	0.87	0.82	0.92	-9.8
C140	IT	Po	Po	Lagoscuro	0.89	0.83	0.91	-5.4	0.85	0.78	0.91	-11.2
C142	ES	Segura	Segura	Almadenes	-0.1	-0.88	-0.02	-31.3	0	-0.5	0.12	-30.2
C144	ES	Segura	Segura	Contraparada	-6.79	-59.66	-0.02	685	-	-	-	-
C145	ES	Segura	Segura	Beniel	-8.4	-79.47	0.28	836.2	-3.62	-25.05	0.14	385.1
C146	ES	Tejo	Tajo	Trillo	0.57	0.28	0.6	-6.5	0.63	0.36	0.65	-3.6
C147	ES	Tejo	Tajo	La Portusa	0.47	0.21	0.84	27.3	0.8	0.73	0.9	5.7
C148	ES	Tejo	Jarama	Mejorada del Campo	0.66	0.58	0.8	26.7	0.75	0.69	0.83	9.8
C149	ES	Tejo	Henares	Espinillos	0.7	0.41	0.71	5.9	0.72	0.57	0.78	14.6
C152	ES	Turia	Turia o Guadalviar	Teruel	0.27	-0.64	0.41	34.3	-0.16	-0.49	0.67	103.5
C153	ES	Turia	Turia o Guadalviar	Zagra	0.5	-0.13	0.55	10.3	0.62	0.35	0.73	25.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C154	ES	Turia	Turia o Guadalviar	La Presa	0.16	-1.13	0.46	40.5	0.43	0.28	0.55	-7.7
C155	DE	Elbe	Elbe	Dresden	0.91	0.83	0.92	2.9	0.75	0.53	0.79	-13.4
C156	CZ	Elbe	Labe	Usti	0.88	0.79	0.9	3.9	0.78	0.56	0.8	-7.2
C157	CZ	Elbe	Labe	Brandys	0.87	0.74	0.88	1.3	0.48	0.38	0.73	-31.1
C158	CZ	Elbe	Sazava	SazavaPorice	0.7	0.46	0.71	1	0.27	-0.87	0.39	-8.1
C159	CZ	Elbe	Luznice	LuzniceBechyne	0.89	0.77	0.89	-0.8	0.71	0.41	0.75	3.2
C160	CZ	Elbe	Vltava	PrahaChuchle	0.85	0.71	0.86	5.2	0.67	0.33	0.73	7.1
C161	CZ	Elbe	Berounka	Beroun	0.77	0.54	0.77	4.2	0.69	0.44	0.78	-10.1
C162	CZ	Elbe	Ohre	OhreLouny	0.8	0.6	0.82	5.4	0.48	0.15	0.77	36.3
C163	DE	Elbe	Elbe	Torgau	0.92	0.85	0.92	1.5	0.77	0.59	0.8	-11.8
C164	DE	Elbe	Elbe	LuthWittenberg	0.91	0.82	0.91	1	0.81	0.61	0.82	-2.6
C165	DE	Elbe	Mulde	Golzern	0.5	-0.09	0.53	-10.9	0.82	0.66	0.84	8.3
C166	DE	Elbe	Saale	Camburg	0.86	0.71	0.86	1.8	0.72	0.65	0.84	-21
C167	DE	Elbe	Unstrut	Laucha	0.87	0.75	0.88	2.6	0.81	0.71	0.86	-11.7
C169	DE	Elbe	Saale	Calbe	0.89	0.78	0.89	2	0.83	0.71	0.88	-10.4
C170	DE	Elbe	Elbe	Tangermuende	0.89	0.79	0.9	2.1	0.85	0.71	0.85	-4.2
C171	DE	Elbe	Elbe	Wittenberge	0.89	0.79	0.89	-0.2	0.87	0.74	0.87	-3.5
C172	DE	Elbe	Elbe	NeuDarchau	0.9	0.79	0.9	1.8	0.89	0.78	0.89	-1.3
C175	LT	Nemnus	Nemunas	Smalininkai	0.87	0.74	0.87	1.3	0.4	-0.08	0.78	24.6
C177	LT	Nemnus	Neris	Jonava	0.84	0.7	0.86	5.7	0.41	-0.3	0.65	28.4
C178	DE	Oder	Oder	Hohensaaten	0.77	0.52	0.78	5.7	0.74	0.48	0.78	-1.2
C179	PL	Oder	Odra	Slubice	0.77	0.52	0.78	0.4	0.68	0.31	0.69	-0.9
C180	PL	Oder	Odra	Polecko	0.78	0.57	0.81	6	0.67	0.35	0.68	6.1
C181	PL	Oder	Odra	Scinawa	0.65	0.39	0.67	-2.9	0.53	-0.03	0.64	8.1
C182	PL	Oder	Odra	Olawa	0.75	0.62	0.86	10.4	0.2	-0.77	0.62	22.3
C183	PL	Oder	Odra	Miedonia	0.58	0.39	0.65	-11.3	0.63	0.27	0.74	7.7

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C184	CZ	Oder	Olse	Bohumin	0.82	0.64	0.82	1.4	0.66	0.47	0.77	-22.9
C185	CZ	Oder	Odra	Svinov	0.72	0.56	0.76	-4	0.67	0.48	0.75	-20.9
C186	CZ	Oder	Odra	Dehylov	0.76	0.54	0.76	0.9	0.58	0.1	0.62	-8.1
C189	PL	Oder	Jezioro Turawskie	Turawa	0.61	0.32	0.63	6.5	0.31	-0.24	0.33	15.7
C190	PL	Oder	Nysa Klodzka	Skorogoszcz	0.76	0.6	0.78	-2.4	0.56	0.39	0.64	-5.2
C191	PL	Oder	Bystrzyca	Jarnoltow	0.67	0.36	0.67	2.9	0.44	0.4	0.64	17.9
C193	PL	Oder	Nysa Luzycka	Gubin	0.86	0.73	0.86	1.2	0.72	0.6	0.81	-16.7
C194	PL	Oder	Warta	Gorzow	0.71	0.41	0.75	9.9	0.63	0.19	0.71	9.8
C196	PL	Oder	Warta	Poznan	0.81	0.62	0.81	1.2	0.57	0.1	0.7	9.8
C197	PL	Oder	Warta	Slawsk	0.79	0.58	0.81	-2.1	0.73	0.44	0.76	2.5
C199	PL	Oder	Notec	Drezdenko	-0.62	-4.99	0.54	54.9	-0.47	-4.42	0.5	34.9
C200	DE	Rhine	Rhein	Rekingen	0.7	0.55	0.93	-21.5	0.68	0.53	0.91	-20.1
C201	CH	Rhine	Rhein	Diepoldsau	0.76	0.75	0.89	-14.8	0.75	0.71	0.88	-15.9
C202	DE	Rhine	Rhein	Kaub	0.93	0.9	0.95	-1.4	0.94	0.89	0.94	1.7
C203	DE	Rhine	Rhein	Duesseldorf	0.95	0.9	0.95	0.3	0.92	0.88	0.94	0.7
C204	DE	Rhine	Rhein	Worms	0.94	0.88	0.94	-0.5	0.93	0.86	0.93	1.3
C207	DE	Rhine	Mosel	Perl	0.84	0.78	0.89	-7.2	0.89	0.78	0.89	1.3
C208	DE	Rhine	Mosel	Cochem	0.9	0.84	0.92	-2.6	0.92	0.85	0.93	-1.7
C209	DE	Rhine	Neckar	Lauffen	0.87	0.74	0.87	2.2	0.69	0.45	0.8	11.3
C211	DE	Rhine	Main	Frankfurt	0.93	0.85	0.93	1	0.87	0.8	0.91	4.5
C212	CH	Rhine	Aare	Untersiggenthal	0.93	0.89	0.95	-2.9	0.92	0.88	0.94	-1.6
C213	CH	Rhine	Aare	Murgenthal	0.92	0.85	0.93	-0.7	0.87	0.83	0.91	-2.7
C214	DE	Rhine	Saar	Fremersdorf	0.89	0.79	0.9	2.2	0.85	0.76	0.89	-4.4
C217	PL	Vistula	Wisla	Sandomierz	0.9	0.79	0.9	0.9	0.83	0.66	0.84	4.2
C218	PL	Vistula	Orzyc	Zambski Ko?cielne	0.61	0.37	0.66	-9.6	0.5	0.44	0.78	-21
C220	PL	Vistula	Bug	Frankopol	0.76	0.54	0.78	7.3	0.65	0.38	0.74	22.6

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C222	PL	Vistula	Wieprz	Kosmin	0.7	0.39	0.71	6.2	0.4	0.22	0.6	-20.4
C223	PL	Vistula	San	Nisko	0.83	0.67	0.84	1	0.53	0.4	0.72	-29.5
C224	PL	Vistula	Wisloka	Mielec	0.69	0.57	0.76	-12.9	0.64	0.53	0.73	-9.4
C225	PL	Vistula	Dunajec	Zabno	0.8	0.6	0.8	2.9	0.7	0.44	0.77	11.7
C227	DE	Weser	Weser	Intschede	0.94	0.91	0.95	-1.1	0.87	0.91	0.96	-10
C228	DE	Weser	Weser	Hann. Münden	0.93	0.87	0.93	-0.6	0.78	0.84	0.93	-14.5
C229	DE	Weser	Weser	Porta	0.92	0.84	0.92	1.7	0.83	0.84	0.93	-11.2
C230	SE	Angermanelven	Sollefteae Krv	Angermanaelven	0.45	-0.02	0.5	-17.5	0.48	0.1	0.65	-28.6
C231	SE	Dalaelven	Dalaelven	Aelvkarleby	0.63	0.49	0.73	-10.4	0.62	0.31	0.67	-15.6
C232	SE	Eman	Eman	Emsfors Bruk	0.82	0.64	0.82	0.9	0.55	0.4	0.78	-34.2
C234	NO	Glomma	Glomma	Elverum	0.56	0.59	0.89	-30.1	0.54	0.58	0.88	-32.6
C235	NO	Losna	Losna	Losna	0.36	0.43	0.89	-43.6	0.38	0.48	0.88	-42.2
C236	SE	Gota	Gota	Vaenersborg Vargoens	0.73	0.55	0.77	-8.6	0.13	-0.53	0.29	-35.2
C237	FI	Iijoki	Iijoki	Raasakka	0.7	0.72	0.87	-17.8	0.42	0.43	0.79	-40.7
C238	SE	Indalselven	Indalselven	Bergeforsens Krv	0.51	0.04	0.57	-17.4	0.43	0	0.61	-26.9
C239	SE	Kalixaelven	Kalixaelven	Raektfors	0.48	0.63	0.92	-36.3	0.52	0.65	0.89	-34.7
C241	FI	Kemijoki	Kemijoki	Isohaara	0.85	0.75	0.89	0.5	0.68	0.68	0.85	-19.5
C242	FI	Kemijoki	Ounasjoki	Marraskoski Iisinki	0.89	0.82	0.91	-4.2	0.67	0.8	0.92	-26.7
C243	FI	Kemijoki	Kemijoki	Seitakorva	0.57	0.05	0.64	-3.3	0.62	0.36	0.7	-20.3
C244	FI	Kymijoki	Leppavesi-Paijanne	Vaajakoski	0.74	0.46	0.74	2	0.3	-1.25	0.41	-31.4
C245	FI	Kymijoki	Kymijoki	Anjala	0.63	0.31	0.63	0.2	0.3	-1.28	0.37	-28.9
C246	SE	Lagan	Lagan	Angabaecks	0.86	0.75	0.89	6.3	0.58	0.38	0.84	-36.7
C247	SE	Ljungan	Ljungan	Skallboele	0.66	0.45	0.7	-9.5	0.61	0.38	0.74	-23.3
C248	SE	Ljusnan	Ljusnan	Ljusne Stroemmar	0.72	0.59	0.78	-8.9	0.72	0.45	0.75	-11.7

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C249	SE	Luleaelven	Luleaelven	Bodens	0.49	-0.12	0.55	-20	0.21	-0.96	0.26	-26
C250	SE	Maelaren	Maelaren	Oevre Stockholm	0.6	0.69	0.87	-7	0.36	0.34	0.69	-35.2
C251	FI	Oulujoki	Oulujoki	Meriskoski	0.06	-0.92	0.06	-10.9	-0.09	-1.8	0	-43.2
C252	SE	Piteaelven	Piteaelven	Sikfors	0.74	0.82	0.94	-18.2	0.65	0.77	0.93	-21.5
C253	SE	Skellefteaelven	Skellefteaelven	Kvistforsens	0.48	-0.05	0.61	-25.6	0.38	-0.16	0.57	-30.2
C254	NO	Tanano	Tanano	Polmak Nye	0.51	0.71	0.92	-34.1	0.5	0.74	0.93	-36.8
C255	SE	Umeaelven	Umeaelven	Umeae	0.77	0.62	0.83	-14.9	0.59	0.44	0.79	-25.6
C258	FI	Vuoksi	Vuoksi	Tainionkoski	0.63	0.34	0.66	-5.6	0.34	-1.36	0.39	-23.5
C259	IE	Boyne	Boyne	Navan Weir	0.86	0.74	0.87	3	0.87	0.76	0.88	-3.1
C260	IE	Boyne	Blackwater Kells	Liscartan	0.76	0.74	0.87	-10.3	0.56	0.58	0.82	-28.8
C261	IE	Boyne	Boyne	Slane Castle	0.06	0.05	0.85	-64.2	-0.02	-0.12	0.82	-70.5
C264	IE	Barrow	Barrow	Levitstown	0.89	0.78	0.89	2.1	0.82	0.74	0.86	-6.1
C268	IE	Suir	Suir	Caher Park	0.86	0.84	0.92	-7.2	0.65	0.73	0.89	-18.1
C272	IE	Shannon	Maigue	Castleroberts	0.81	0.65	0.82	5.3	0.84	0.74	0.87	9
C273	IE	Shannon	Mulkear	Annacotty	0.68	0.64	0.81	-16.7	0.57	0.62	0.83	-25.2
C276	IE	Shannon	Suck	Bellagill	0.92	0.86	0.93	4.1	0.9	0.89	0.95	-6
C277	IE	Shannon	Inny	Ballymahon	0.91	0.84	0.92	1.2	0.77	0.73	0.87	-14.6
C278	IE	Clare	Clare	Corrofin	0.73	0.65	0.81	-10	0.78	0.67	0.82	-7.6
C279	IE	Clare	Cong	Cong Weir	0.66	0.72	0.92	-21.5	0.42	0.27	0.85	-39.5
C281	IE	Erne	Annalee	Butlers Bridge	0.54	0.57	0.91	33.9	0.75	0.63	0.82	-15.5
C282	IE	Erne	Erne	Belturbet	0.58	0.62	0.92	-35.2	0.28	0.18	0.81	-55.9
C283	ES	Ebro	Ega	Andosilla	0.78	0.64	0.82	11.8	0.75	0.55	0.76	-1.5
C284	ES	Ebro	Arga	Funes	0.75	0.7	0.84	-12.4	0.59	0.53	0.75	-25.9
C285	ES	Ebro	Aragon	Caparroso	0.29	0.4	0.67	55.7	0.44	0.46	0.7	-16.1
C286	ES	Ebro	Jalon	Cetina	-0.13	-0.68	0.42	95	-0.04	-0.24	0.35	79.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C287	ES	Ebro	Gállego	Ardisa	-2.95	-1.6	0.5	391.8	-5.18	-1.46	0.26	613.4
C288	ES	Ebro	Esera	Graus	0.71	0.57	0.76	-6.6	0.51	0.35	0.61	-8.2
C289	ES	Ebro	Martín	Hijar	-0.84	-0.54	0.25	168.4	-6.11	-39.48	0.19	460.9
C290	ES	Ebro	Cinca	Fraga	0.61	0.39	0.68	16	0.53	0.36	0.64	-16.1
C291	ES	Ebro	Bergantes	Zorita	0.2	-0.18	0.54	61.4	-0.25	-3.06	0.13	18.6
C292	ES	Ebro	Najerilla	Torremontalbo	0.58	0.22	0.59	-0.5	0.43	-0.16	0.56	30
C293	ES	Ebro	Pancrudo	Navarrete del Río	-2.46	-0.3	0.48	342	-4.09	-0.85	0.18	502.1
C294	ES	Ebro	Jiloca	Calamocha	0.23	-0.44	0.47	55.9	-0.65	-4.41	0.42	122
C295	ES	Ebro	Isabena	Capella	0.75	0.57	0.78	12.9	0.43	0.3	0.56	3.4
C296	ES	Ebro	Jiloca	Morata de Jiloca	0.55	0.23	0.7	30.8	-0.22	-1.41	0.49	97.7
C297	ES	Ebro	Esca	Sigues	0.77	0.58	0.78	5.5	0.64	0.39	0.66	0.6
C298	ES	Ebro	Irati	Liedena	0.52	0.43	0.66	-10.1	0.43	0.43	0.68	-17.1
C299	ES	Ebro	Ega	Estella	0.79	0.63	0.8	0.2	0.69	0.45	0.7	-0.8
C300	ES	Ebro	Ayuda	Berantevilla	0.57	0.3	0.61	12.3	0.11	-0.09	0.64	78.3
C301	ES	Ebro	Jalon	Grisen	0.5	0.37	0.72	41.4	-0.52	-0.42	0.74	142.3
C302	ES	Ebro	Alcanadre	Lascellas	0.66	0.48	0.78	23.6	0.66	0.35	0.67	7
C303	ES	Ebro	Nela	Trespaderne	0.51	0.32	0.59	-7.6	0.51	0.23	0.64	32.5
C304	ES	Ebro	Oca	Ona	0.74	0.6	0.81	17	0.03	-1.01	0.57	60.6
C306	ES	Ebro	Guadalope	Caspe	-3.55	-0.74	0.32	450.4	-3.47	-2.47	0.15	434.4
C307	ES	Ebro	Gallego	Anzanigo	0.62	0.48	0.73	-15.3	0.59	0.38	0.64	-2.7
C308	ES	Ebro	Noguera Ribagorzana	El Pont de Suert	0.35	0.2	0.71	-38.4	0.44	0.05	0.53	-25.7
C309	ES	Ebro	Bayas	Miranda de Ebro	0.44	0.51	0.74	-27.8	0.32	0.33	0.59	-33
C310	ES	Ebro	Aragon	Yesa	0.73	0.55	0.76	-6.1	0.59	0.34	0.62	-3.4
C311	ES	Ebro	Algas	Batea	0.4	0.37	0.61	30.7	-0.21	-1.58	0.24	79.1
C312	ES	Ebro	Manubles	Ateca	-0.23	0.16	0.65	117.9	-0.79	0.18	0.59	173.5

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C313	ES	Ebro	Alcanadre	Ballobar	0.65	0.34	0.65	3.6	0.47	0.41	0.65	-13.9
C314	ES	Ebro	Tiron	Haro	0.76	0.56	0.79	10.5	-12.37	-105	0.31	1121.8
C315	CZ	Elbe	Otava	Pisek	0.11	-0.46	0.7	64.7	0.07	-0.85	0.71	39.7
C316	CZ	Elbe	Elbe	Decin	0.88	0.8	0.91	3.9	0.7	0.51	0.78	-18.4
C317	CZ	Elbe	Jizera	Zelezny Brod	0.6	0.49	0.72	-17.5	0.23	0.07	0.53	-47.9
C318	CZ	Morava	Morava	Moravicany	0.72	0.62	0.8	-13.6	0.58	0.38	0.75	-32.4
C319	CZ	Morava	Thaya	Breclav Ladna	0.72	0.45	0.73	9	0.63	0.52	0.72	-0.6
C320	SK	Morava	Morava	Moravsky Jan	0.73	0.47	0.77	7.5	0.2	0.05	0.46	-33.6
C321	CZ	Morava	Becva	Teplice	0.74	0.59	0.78	-7.8	0.47	0.39	0.69	-42.4
C322	SE	LakeVatternCatchment	Motala Stroem	Glan	0.55	0.37	0.7	-19.4	0.27	-0.09	0.71	-48.8
C323	SE	Ulme	Vindelaelven (Umeaelven)	Sorsele 2	0.83	0.81	0.9	-8.9	0.76	0.78	0.89	-12
C324	SE	Torne	Torneaelven	Kukkolankoski Oevre	0.93	0.9	0.95	-3.2	0.86	0.88	0.94	-10.9
C325	AT	Danube	Danube	Kienstock	0.89	0.79	0.9	1	0.92	0.84	0.92	-1.9
C326	AT	Danube	Danube	Korneuburg	0.91	0.83	0.91	-0.2	0.9	0.83	0.92	2.7
C327	AT	Inn	Inn	Innsbruck	0.8	0.75	0.88	-11.1	0.75	0.78	0.92	-17.1
C328	AT	Inn	Inn	Schaerding	0.91	0.82	0.91	-1.9	0.9	0.86	0.93	-3.5
C329	AT	Mur	Mur	Spielfeld	0.9	0.82	0.91	-1.5	0.84	0.75	0.88	-8.7
C330	AT	Mur	Mur	Friesach	0.91	0.82	0.91	2	0.87	0.79	0.9	-7.8
C332	DE	Rhine	Nahe	Grolsheim	0.85	0.71	0.85	0.2	0.85	0.75	0.88	-8.7
C333	DE	Rhine	Rhine	Mainz	0.94	0.88	0.94	0.3	0.92	0.87	0.94	3.7
C334	DE	Rhine	Rhine	Speyer	0.93	0.87	0.94	-1.4	0.91	0.85	0.92	-2.6
C335	DE	Main	Main	Kleinheubach	0.88	0.75	0.88	2.5	0.73	0.59	0.85	10.6
C338	DE	Rhine	Lahn	Leun (Neu)	0.87	0.75	0.87	1.2	0.88	0.83	0.92	-7.6
C340	DE	Main	Main	Wuerzburg	0.9	0.81	0.9	-1.5	0.87	0.79	0.9	8.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C341	DE	Rhine	Neckar	Rockenau Ska	0.87	0.73	0.87	1.4	0.63	0.4	0.81	12.8
C342	DE	Rhine	Neckar	Plochingen	0.83	0.66	0.83	1.8	0.82	0.72	0.88	9.8
C343	DE	Mosel	Moselle	Trier Up	0.92	0.84	0.92	0.5	0.93	0.86	0.93	-0.3
C344	DE	Weser	Aller	Rethem	0.92	0.84	0.92	-0.4	0.88	0.83	0.93	-8
C346	DE	Weser	Werra	Letzter Heller	0.92	0.85	0.92	1.4	0.79	0.83	0.93	-12.5
C347	DE	Ems	Ems	Versen	0.91	0.82	0.91	2.2	0.86	0.81	0.92	10.6
C348	DE	Elbe	Elbe	Barby	0.89	0.8	0.91	4.7	0.85	0.73	0.86	-4.5
C349	DE	Elbe	Elbe	Aken	0.88	0.77	0.89	3.8	0.83	0.66	0.84	-0.9
C350	DE	Saale	Saale	Halle Trotha	0.88	0.75	0.88	1.3	0.8	0.7	0.87	-14.7
C351	DE	Havel	Havel	Rathenow Hauptschleuse Up	0.75	0.55	0.76	-1.8	0.75	0.49	0.75	-4.3
C353	DE	Mulde	Vereinigte Mulde	Bad Dueben	0.69	0.37	0.74	7.9	0.78	0.66	0.83	12.9
C354	DE	Havel	Spree	Berlin Muehlendamm Op	0.76	0.51	0.77	1.5	0.67	0.37	0.74	-18.7
C355	DE	Elbe	Schwarze Elster	Bad Liebenwerda	0.75	0.51	0.76	8	0.68	0.4	0.78	-6.8
C356	DE	Danube	Iller	Kempten	0.78	0.58	0.78	-0.7	0.76	0.54	0.77	-4.6
C357	DE	Danube	Danube	Ingolstadt	0.9	0.8	0.9	0	0.89	0.78	0.89	2.2
C358	DE	Danube	Altmuehl	Eichstaett	0.88	0.77	0.89	5	0.83	0.73	0.87	11.7
C360	DE	Danube	Danube	Achleiten	0.93	0.87	0.94	0.4	0.92	0.85	0.93	-2
C361	DE	Danube	Danube	Oberndorf	0.91	0.82	0.91	0.9	0.89	0.79	0.9	1.4
C362	DE	Danube	Danube	Pfelling	0.91	0.83	0.92	1.5	0.9	0.82	0.91	3.1
C363	DE	Danube	Isar	Landau	0.86	0.72	0.87	2.8	0.84	0.69	0.86	2.3
C364	DE	Inn	Inn	Wasserburg	0.88	0.82	0.91	-6.3	0.85	0.84	0.93	-7.7
C365	DE	Oder	Oder	Eisenhuettenstadt	0.76	0.53	0.79	3.6	0.69	0.36	0.71	-10.6
C367	NL	Maas	Meuse	Megen Dorp	0.9	0.81	0.91	0	0.74	0.71	0.91	16
C368	NL	Rhine	Rhine	Lobith	0.94	0.89	0.95	1.2	0.91	0.88	0.95	3.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C370	SI	Sava	Sava	Hrastnik	0.86	0.71	0.86	2.1	0.87	0.79	0.91	6.2
C371	SI	Sava	Sava	Radovljica	0.68	0.48	0.71	-7.8	0.75	0.57	0.77	-6.7
C372	SI	Sava	Krka	Podbocje	0.81	0.67	0.83	-5.2	0.84	0.7	0.85	-5.7
C373	SI	Sava	Savinja	Veliko Sirje	0.7	0.38	0.71	4.7	0.75	0.56	0.76	0.1
C374	SI	Sava	Ljubljanica	Moste	0.89	0.79	0.9	3.3	0.89	0.82	0.91	-5.3
C377	SI	Isonzo	So?a / Isonzo	Solkan	0.78	0.57	0.78	0.7	0.79	0.6	0.8	-3.2
C380	UK	R. Annan	Annan	Brydekirk	0.84	0.68	0.84	0.6	0.79	0.57	0.79	-1.3
C383	UK	Orrin / Black Water	Conon	Moy Bridge	0.56	0.55	0.85	-29.7	0.06	-0.26	0.7	-62.4
C386	UK	Lune	Lune	Caton	0.39	0.44	0.73	-38.3	0.1	0.19	0.61	-56.2
C390	NO	Vosso	Vosso	Bulken	0.58	0.58	0.81	-26.7	0.53	0.57	0.82	-28.4
C391	NO	Otra	Otra	Heisel	0.62	0.37	0.71	-17.7	0.55	0.23	0.68	-23.2
C392	NO	Begna	Dramselv	Dovikfoss	0.73	0.53	0.8	-14.7	0.67	0.43	0.8	-22.5
C393	NO	Glomma	Glama	Langnes	0.61	0.59	0.91	-23.3	0.59	0.6	0.9	-24.5
C394	NO	Glomma	Glama	Skarnes	0.65	0.62	0.84	-19.1	0.59	0.73	0.91	-7.6
C395	NO	Glomma	Otta	Lalm	0.28	0.41	0.89	-50.6	0.21	0.26	0.78	-51.6
C396	NO	Gauldalen	Gaula	Gaulfoss	0.65	0.74	0.89	-22.4	0.56	0.72	0.9	-28
C397	NO	Namsen	Namsen	Bertnem	0.43	0.34	0.71	-34	0.37	0.29	0.74	-41.2
C398	NO	Goto	Klara	Nybergsund	0.72	0.78	0.92	-17.7	0.68	0.75	0.89	-11
C399	NO	Vefsna	Vefsna	Lakfors	0.68	0.7	0.86	-20.1	0.61	0.64	0.84	-26.6
C400	NO	Barduelva	Maalselv	Malangsfoss	0.28	0.37	0.85	-48.3	0.21	0.33	0.87	-55.6
C401	NO	Altaelva	Kautokeinoelva	Masi	0.44	0.61	0.86	-36.5	0.55	0.71	0.89	-27.6
C402	NO	Altaelva	Altaelva	Kista	0.5	0.65	0.88	-32.5	0.53	0.71	0.91	-32.9
C403	RO	Danube	Danube	Bazias	0.87	0.77	0.91	7.9	0.8	0.63	0.84	0.4
C404	RO	Olt	Olt	Hoghiz	0.66	0.52	0.74	-14.1	0.46	0.39	0.64	-14.1
C405	RO	Danube	Danube	Zimnicea	0.89	0.79	0.91	5.7	0.8	0.6	0.82	-4.8

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C406	RO	Danube	Danube	Ceatal Izmail	0.89	0.78	0.89	1.7	0.75	0.47	0.77	-8.3
C407	RO	Danube	Ialomita	Cosereni	0.63	0.31	0.64	0.5	0.44	-0.27	0.57	-10.5
C408	RO	Mures	Maros	Alba Iulia	0.76	0.51	0.76	2	0.57	0.32	0.71	-31.8
C409	RO	Timis	Timis	Sag	0.8	0.63	0.81	-2	0.38	-0.21	0.45	-27.3
C410	RO	Tisza	Szamos	Satu Mare	0.68	0.53	0.75	-14.8	0.37	0.1	0.63	-47.5
C411	FI	Pasvikely	Paatsjoki	Lake Inari Outlet	0.19	-0.76	0.24	-26	0.43	-0.22	0.56	-31
C412	FI	Tana	Tana	Onnelansuvanto	0.48	0.69	0.92	-36	0.4	0.65	0.9	-43.9
C413	FI	Kokemaenjoki	Kokemaenjoki	Harjavalta	0.66	0.42	0.68	-5.6	0.39	-0.14	0.56	-35.5
C414	FI	Oulujoki	Oulujoki	Lake Lentua Outlet	0.7	0.55	0.77	-11.4	0.49	0.18	0.67	-32.7
C415	FI	Oulujoki	Oulujoki	Jylhämä	-0.11	-1.02	-0.1	-5.5	-0.24	-1.58	-0.17	-39.3
C416	CH	Aare	Aare	Bern Schoenau	0.89	0.84	0.92	-5.2	0.88	0.82	0.92	-6.1
C417	CH	Rhine	Rhine	Basel Rheinhalle	0.88	0.87	0.95	-6.8	0.87	0.84	0.94	-7.8
C418	CH	Rhine	Rhine	Neuhausen Flurlingerbruecke	0.91	0.91	0.97	-8	0.86	0.86	0.97	-9.7
C419	CH	Rhine	Rhine	Domat/Ems	0.75	0.69	0.86	-14.5	0.62	0.61	0.83	-18.1
C421	CH	Rhine	Reuss	Mellingen	0.8	0.8	0.92	-12.1	0.8	0.73	0.89	-12.1
C422	CH	Rhine	Thur	Andelfingen	0.71	0.47	0.72	-4.1	0.66	0.36	0.67	-5.6
C423	CH	Rhone	Rhone	Porte Du Scex	0.79	0.6	0.83	-11.8	0.79	0.63	0.86	-9.6
C425	CH	Inn	Inn	Martinsbruck	0.81	0.71	0.85	-6.8	0.63	0.67	0.85	-12.7
C426	CH	Po	Ticino	Bellinzona	0.75	0.59	0.78	-8.8	0.73	0.56	0.76	-8.6
C427	CH	Po	Maggia	Locarno Solduno	0.12	-0.08	0.59	75.8	0.2	-0.05	0.61	66.4
C436	LV	Venta	Venta	Kuldiga	0.78	0.62	0.8	-3.8	-	-	-	-
C437	LV	Gauja	Gauja	Valmiera	0.83	0.67	0.84	5.4	-	-	-	-
C438	LV	Zap Dvina	Daugava	Daugavpils	0.91	0.84	0.92	1.8	0.82	0.64	0.83	4
C439	LV	Lielupe	Lielupe	Mezotne	0.81	0.62	0.81	2.5	-	-	-	-

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C440	LT	Vilnya / Neris	Sventoji	Ukmerge	0.84	0.67	0.84	2.6	0.7	0.46	0.77	18.4
C442	DE	Morava	Wornitz	Harburg	0.83	0.67	0.84	4.2	0.73	0.55	0.76	9
C443	DE	Danube	Naab	Haitzenhofen	0.92	0.84	0.92	1.7	0.81	0.72	0.86	-10.8
C444	CZ	Danube	Jihlava	Ivancice	0.66	0.38	0.67	3	0.5	0.49	0.72	-17.8
C445	DE	Morava	Regen	Kienhof	0.75	0.5	0.76	2	0.73	0.47	0.73	-1.5
C446	SL	Danube	Vah	Liptovskymikulas	0.77	0.54	0.8	8.5	0.36	-0.33	0.5	-38.4
C447	SL	Vah	Vah	Nitra	0.76	0.52	0.78	7.1	-	-	-	-
C448	SL	Hron	Hron	Banskabystrica	0.68	0.33	0.7	6.7	0.28	-0.51	0.36	-34
C449	SL	Danube	Hron	Hron	0.72	0.44	0.76	9.9	0.21	-0.49	0.34	-43.2
C450	HR	Sava	Kupa	Kupari	0.3	-0.14	0.72	46	0.29	-0.09	0.75	47.2
C453	HR	Sava	Kupa	Jamnicka Kiselica	0.16	-0.06	0.86	60.7	0.07	-0.24	0.87	65.6
C454	HR	Sava	Kupa	Farkasic	0.33	0.23	0.88	48.1	0.27	0.15	0.88	54.2
C455	HR	Sava	Una	Donja Suvaja	0.68	0.64	0.8	-14.5	0.65	0.64	0.81	-14.3
C459	HR	Sava	Sava	Rugvica	0.85	0.74	0.87	2.5	0.75	0.74	0.91	13.7
C463	HR	Sava	Sava	Slavonski Brod	0.73	0.62	0.88	15.8	0.45	0.28	0.87	22.7
C464	IT	Po	Po	Boretto	0.88	0.85	0.92	-4.1	0.87	0.82	0.92	-9.7
C465	IT	Reno	Reno	Casalecchio Chiusa	0.71	0.46	0.74	13.2	0.63	0.36	0.65	-7.4
C466	IT	Po	Tanaro	Farigliano	0.5	0.5	0.77	-30.8	-	-	-	-
C468	IT	Po	Po	Piacenza	0.81	0.83	0.92	-12.3	0.82	0.8	0.91	-12.4
C471	IT	Po	Tanaro	Asti	0.84	0.72	0.85	-5.8	-	-	-	-
C472	IT	Po	Stura Demonte	Fossano	0.86	0.73	0.86	-0.4	0.58	0.2	0.66	20.3
C473	IT	Po	Bormida	Alessandria	0.67	0.46	0.7	8.1	0.57	0.51	0.72	24
C475	IT	Po	Bormida	Cassine	0.72	0.48	0.72	-1.9	0.74	0.56	0.77	7.9
C476	IT	Po	Po	Isola S.Antonio	0.79	0.74	0.87	-12.4	0.83	0.77	0.88	-11.1
C481	IT	Po	Po	Castiglione Torinese	0.49	0.65	0.88	48	-	-	-	-
C482	IT	Po	Baltea	Hône - Ponte Dora	0.51	0.45	0.81	41.4	0.46	-0.07	0.69	14.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C483	IT	Po	Cervo	Quinto Vercellese	0.49	0.43	0.69	-26.5	-	-	-	-
C487	FR	L'Erdre	L'Erdre	Nantes	0.78	0.64	0.82	12.9	0.8	0.66	0.82	6.1
C488	FR	Loire-Atlantique	La Sevre Nantaise	Nantes	0.86	0.73	0.86	-0.6	0.78	0.72	0.85	-4.7
C490	SP	Guadalquivir	Guadalquivir	Guadalb Men	0.56	0.3	0.64	26.3	0.51	0.35	0.61	-16.1
C491	SP	Guadalquivir	Guadalquivir	Guadiel Men	-1.53	-1.43	0.76	226.3	0.22	0.1	0.48	52.9
C493	SP	Guadalquivir	Guadalquivir	Genil Loja	0.8	0.66	0.82	6.1	0.68	0.48	0.71	5.5
C494	SP	Guadalquivir	Guadalquivir	Genil Ecija	0.07	-1.32	0.22	37.5	0.59	0.27	0.6	4.3
C495	SP	Guadalquivir	Guadalquivir	Corbones Ca	-1.84	-2.86	0.35	260.1	-0.39	-0.64	0.66	117.8
C496	SP	Guadalquivir	Guadalquivir	Guadiamar	0.7	0.42	0.71	8.9	0.57	0.49	0.84	26.2
C497	SP	Guadalquivir	Guadiana Menor o Baza	Negratin	0.09	-1.1	0.14	24	-0.03	-0.73	-0.01	11.8
C498	SP	Guadalquivir	Guadalen	Guadalen	0.69	0.42	0.7	9.7	0.52	0.17	0.6	25.5
C499	SP	Guadalquivir	Guadalmena	Guadalmena	0.5	0.43	0.65	-1.2	-0.01	-0.1	0.14	-13.6
C500	SP	Guadalquivir	Guadalimar	Giribaile	0.67	0.34	0.67	1.9	0.06	0.02	0.24	2.9
C501	SP	Guadalquivir	Grande	Rumblar	0.42	0.42	0.66	-14	0.47	0.42	0.65	-5.4
C502	SP	Guadalquivir	Jandula o Fresneda	Jandula	0.48	0.41	0.64	-15.2	0.54	0.09	0.58	17.6
C503	SP	Guadalquivir	Yeguas o Pradillo	Yeguas	-9.7	-57.86	0.64	844.5	-6.16	-18.63	0.66	621.1
C504	SP	Guadalquivir	Cuzna o Guadalmellato	Guadalmellato	0.18	0.2	0.45	-16.3	0.09	0.18	0.44	-22.5
C505	SP	Guadalquivir	Cuzna o Guadalmellato	San Rafael De Navallana	0.4	0.21	0.5	-12.3	0.42	0.26	0.53	-0.6
C506	SP	Guadalquivir	Guadajoz o Almedinilla	Vadomojon	0.77	0.57	0.78	7.3	0.43	0.28	0.55	-8.6
C507	SP	Guadalquivir	Guadiato	Puente Nuevo	0.43	0.24	0.52	-9.5	0.3	0.33	0.58	-19.3
C508	SP	Guadalquivir	Bembezar	Bembezar	0.51	0.38	0.62	-8.5	0.52	0.41	0.64	-4.8
C509	SP	Guadalquivir	Genil	Iznajar	0.27	0.1	0.39	-11.5	0.29	0.25	0.52	-21.7

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C510	SP	Guadalquivir	Huesna	Huesna	0.41	0.31	0.56	-5.3	0.23	0.44	0.77	-41.3
C511	SP	Guadalquivir	Viar	El Pintado	0.42	0.29	0.55	-9.8	0.24	0.36	0.63	-36.5
C512	SP	Guadalquivir	Guadalquivir	Alcala Del Rio	0.67	0.69	0.84	15.2	0.68	0.77	0.9	3.2
C513	SP	Guadalquivir	Huelva	Zufre	0.33	0.19	0.46	-10.1	0.05	0.27	0.66	-53
C514	SP	Ebro	Ebro	Mequinenza	-0.22	-0.31	0.38	-71.4	-0.25	-0.35	0.29	-69.1
C515	SP	Ebro	Ebro	Ebro	-0.25	-0.03	0.19	-31.1	-0.39	-0.06	-0.09	14.3
C516	SP	Ebro	Aragán	Yesa	-0.16	-0.28	0.58	-69.4	-0.26	-0.42	0.3	-67.1
C517	SP	Ebro	Cina	Grado I	0.3	0.18	0.56	-31.6	0.23	0.05	0.42	-24.5
C518	SP	Ebro	Noguera Ribagorzana	Santa Ana	0.06	-0.03	0.32	-25.4	-0.09	-0.03	0.13	-0.8
C519	SP	Ebro	Segre	Oliana	0.55	0.42	0.67	-17.2	0.39	0.01	0.42	8.6
C520	SP	Ebro	Piedra	La Tranquera	0.08	-0.08	0.22	-22.3	-0.07	-0.26	0.04	-10.6
C521	SP	Ebro	Guadalope	Santolea	0.35	-0.39	0.4	19.9	-0.33	-3.39	0.19	20.7
C522	SP	Ebro	Segre	San Lorenzo Mongay	0.13	0.17	0.42	-16.8	0.07	-0.67	0.33	64.2
C523	SP	Ebro	Segre	Rialb	0.34	0.1	0.45	-20.4	0.35	-0.27	0.38	-18.9
C524	SP	Ebro	Irati	Itoiz	0.12	-0.24	0.23	-29.2	0.21	0.22	0.48	-14.9
C525	SP	Ebro	Ebro	Ribarroja	0.03	0.04	0.38	-36.6	0.13	-0.11	0.29	-25.1
C526	SP	Ebro	Soton	La Sotonera	-0.32	-0.45	0	-55	-0.36	-0.43	0	-56
C527	SP	Ebro	Noguera Ribagorzana	Escales	0.29	-0.05	0.44	-28.9	0.05	-0.24	0.16	-19.3
C528	SP	Ebro	Esera	Barasona-Joaquin Costa	0.57	0.33	0.62	-8.3	0.23	0.04	0.35	-14.9
C529	SP	Guadiana	Zujar	Zujar	-0.04	-1.12	-0.04	4.7	0.27	-0.41	0.31	21.8
C530	SP	Guadiana	Guadiana	Orellana	0.04	0.14	0.42	-47.3	-0.17	0.03	0.27	-55.2
C531	SP	Ebro	Ebro	Miranda de Ebro	0.54	0.23	0.56	-6.5	0.16	-0.75	0.57	48.5
C532	SP	Guadiana	Ciguela	Villafranca de los Caballeros	0.4	0.15	0.75	41.4	0.04	-1.52	0.38	33.1

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C533	SP	Guadiana	Zancara	Alcazar	-10.65	-16.65	0.79	1104.8	-1796.29	-14041.2	0.11	179384.9
C536	PL	Pregolya	Lyna tributary	Prosna	0.84	0.72	0.85	2.2	0.72	0.49	0.73	7
C537	DE	Elbe	Havel	Sachsenhausen Sohlabsturz	0.77	0.59	0.8	10.2	0.75	0.59	0.8	13.6
C538	PL	Vistula	Skawa	Zator	0.69	0.57	0.76	-7.9	0.59	0.26	0.6	-4.3
C539	PL	Vistula	Vistula tributary	Proszowki	0.61	0.38	0.65	-6.9	0.58	0.45	0.68	-7.5
C540	PL	Oder	Warta	Dzialoszyn	0.81	0.63	0.83	6.4	0.57	0.06	0.65	9.7
C541	PL	Oder	Warta	Podgorze	0.74	0.51	0.74	0.3	0.72	0.47	0.73	8.4
C542	PL	Oder	Warta	Dabie	0.67	0.35	0.67	1.6	0.64	0.31	0.65	-6.5
C543	PL	Vistula	Narew	Strekowa Gora	0.63	0.22	0.64	5.5	0.64	0.51	0.74	14.4
C544	PL	Vistula	Vistula	Smolice	0.84	0.69	0.85	-1.6	0.68	0.52	0.73	-5.5
C545	PL	Vistula	Narew tributary	Bialobrzeg Blizszy	0.39	-0.33	0.41	7.3	0.39	-0.18	0.42	-18.1
C546	PL	Vistula	Wkra	Borkowo	0.8	0.66	0.82	-6.4	0.74	0.56	0.77	-7.7
C547	PL	Oder	Oder tributary	Osetno	0.59	0.37	0.63	-0.8	0.59	0.46	0.68	0.7
C548	PL	Vistula	San	Gusin	0.88	0.77	0.89	1.4	0.78	0.58	0.8	-8.8
C549	PL	Vistula	Dunajec	Stary Sacz	-0.18	-0.02	0.08	-8.9	0.28	-0.46	0.67	18.6
C550	PL	Vistula	Narew tributary	Burzyn	0.61	0.37	0.65	-8.5	0.75	0.58	0.79	-12.5
C551	PL	Vistula	Zakhidnyy Buh	Kepa Polska	0.8	0.63	0.81	-2.5	0.73	0.54	0.76	-7.3
C554	PL	Pregolya	Lyna	Sepopol	0.81	0.65	0.82	0	0.75	0.51	0.76	-5.9
C555	PL	Vistula	Vistula tibutary	Lochow	0.65	0.43	0.68	8.6	0.28	0.05	0.37	10.6
C556	PL	Vistula	Narew	Dobrylas	0.62	0.14	0.65	9	0.69	0.39	0.69	3.2
C557	PL	Oder	Gwda	Pila	0.01	-0.57	0.03	-8.5	-4.22	-33.84	0.37	-14.5
C558	DE	Elbe	Tepla Vltava	Malliss Op	0.83	0.68	0.85	8.6	0.76	0.71	0.9	19.8
C559	CZ	Elbe	Elbe	Nemcice	0.85	0.71	0.85	-4.1	0.39	0.15	0.6	-35.6
C560	CZ	Elbe	Tepla Vltava	Ceske Budejovice	0.62	0.25	0.69	14.6	0.52	0.11	0.74	24
C561	CZ	Elbe	Uhlava	Hracholusky Mze	0.75	0.58	0.81	14.9	0.49	0.38	0.67	-26.3

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C562	CZ	Elbe	Uhlava	Lhota Radbuza	0.41	0.08	0.59	41.8	0.43	-0.06	0.73	1.7
C563	PL	Vistula	San	Rzeszow	0.8	0.61	0.8	-1.9	0.6	0.46	0.68	-7
C564	PL	Vistula	Nida	Pinczow	0.78	0.56	0.79	6.3	0.48	-0.13	0.64	8.4
C565	PL	Vistula	Narew tributary	Makow Mazowiecki	-0.25	-0.04	0.03	-6.6	-1.05	-6.46	0.39	-3.5
C566	FI	NA	Eurajoki	Pappilankoski	0.77	0.56	0.77	4.9	0.34	0.22	0.65	-42.8
C567	FI	Lapuanjoki	Lapuan	Keppo	0.83	0.7	0.84	-1	0.42	0.06	0.59	-40.7
C568	FI	NA	Lestijoki	Saarenpaa	0.74	0.62	0.79	-2.6	0.51	0.36	0.66	-30
C569	FI	Pyhtjoki	Tolpankoski	Pyhajoki	0.78	0.62	0.8	-1.8	0.44	0.33	0.67	-41.3
C570	FI	Kuivajoki	Kuiva	Luujoki Haaran Ala Puolelle	0.74	0.65	0.81	-9.4	0.54	0.66	0.85	-27
C571	FI	Simojoki	Simo	Simo	0.67	0.67	0.84	-18.5	0.49	0.63	0.85	-32.4
C572	FI	Kalajoki	Kala	Nikakoski	0.71	0.47	0.72	0.7	0.53	0.22	0.61	-24.5
C573	FI	Kyronjoki	NA	Skatila Lansorsund	0.66	0.55	0.75	-16.9	0.35	0.3	0.66	-47.3
C574	FI	NA	Vantaanjoki	Oulunkyla NearTheMouth	0.84	0.69	0.85	5.2	0.75	0.5	0.75	2.8
C575	FI	NA	Leppavesi-Paijanne	Vaajakoski / Haapakoski	0.74	0.47	0.74	0.8	0.3	-1.28	0.41	-32.3
C576	FI	NA	Huopanankoski	Kivijarvi	0.68	0.39	0.68	0.7	0.35	-0.47	0.48	-37.7
C577	FI	NA	Porvoonjoki	Vakkola / Near The Mouth	0.83	0.68	0.84	5.5	0.63	0.59	0.79	-21.9
C578	FI	Neva	Pielisjoki	Kaltimo	0.8	0.6	0.8	-4.8	0.66	0.12	0.71	-16.8
C579	FI	Neva	Kallavesi	Kallavesi-Konnus-Karvio	0.69	0.4	0.69	-1.4	0.41	-0.43	0.51	-33.1
C580	FI	Kokem	Kuokkalankoski	Lempäälä	0.7	0.43	0.71	-0.1	0.55	-0.04	0.59	-12.5
C581	FI	Kokem	NA	Vilppulankoski	0.42	-0.38	0.57	23.2	0.25	-0.98	0.41	-14.1
C582	FI	Kokem	Kokemaen	Muroleenkoski	0.46	-0.27	0.58	11.2	0.22	-1.18	0.35	-38.7
C583	FI	Kokem	Kokemaen	Hartolankoski	0.53	0.25	0.57	-4.4	0.31	-0.32	0.44	-33.3

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C584	FI	Kokem	Loimijoki	Maurialankoski	0.83	0.67	0.83	0.7	0.58	0.42	0.68	-19.4
C585	FI	NA	Karvian	Lankoski	0.39	-0.33	0.56	27.5	0.15	-0.01	0.56	-60.1
C586	FI	NA	NA	Perus	0.6	0.22	0.6	2.2	0.41	0.33	0.65	-35.4
C587	FI	NA	Narpion	Allmanningsforsen	0.65	0.36	0.66	-2.5	0.59	0.38	0.7	-27.2
C588	FI	Kyronjoki	Kyronjoki	Kauhajoen Saannpato	0.38	-0.18	0.63	32.5	0.57	0.34	0.74	28.9
C589	FI	Kyronjoki	Kyronjoki	Jalasjoen Saannpato	-0.06	-0.02	0.7	95.7	0.71	0.45	0.72	-4
C590	FI	NA	Ahtavan	Herrfors	0.7	0.42	0.7	2.2	0.31	-0.86	0.45	-33.9
C591	FI	NA	Perhon	Kaitfors	0.75	0.56	0.76	0.1	0.49	0.1	0.6	-32.1
C592	FI	Siikajoki	Siika	Lankela	0.73	0.5	0.74	0.7	0.37	0.17	0.58	-42
C593	FI	Neva	Vuoksi	Lieksankoski	0.8	0.63	0.82	-6.1	0.74	0.48	0.78	-13.1
C594	FI	Neva	NA	Koitajoki_Lylykoski	0.74	0.49	0.74	-2.9	0.68	0.53	0.76	-14.8
C595	FI	Neva	NA	Onkivesi_Viannonkoski	0.76	0.59	0.78	-3.6	0.47	0.4	0.7	-35.9
C596	FI	Neva	NA	Kuolimo-Luusua	-0.67	-5.76	0.2	59	-0.4	-3.94	0.16	31.4
C597	FI	NA	NA	Karnajarvi_Kellankoski	0.62	0.16	0.65	9	0.42	-0.19	0.53	-32.5
C598	FI	NA	Kymijoki	Kiimasjarvi_Hietamankoski	0.71	0.47	0.72	-1.1	0.44	-0.11	0.52	-28.9
C599	FI	NA	NA	Hankavesi-Luusua	0.77	0.57	0.78	-3.2	0.33	-1.23	0.44	-30.3
C600	FI	NA	NA	Jaasjarvi-Luusua	0.02	-2.14	0.46	37.4	0.09	-1.55	0.34	5.7
C601	FI	NA	Kymijoki	Mankala	0.58	0.26	0.59	-1.3	0.15	-1.67	0.21	-31.2
C602	FI	NA	NA	Verla	0.3	-0.83	0.51	17.7	0.31	-0.76	0.4	15.5
C603	FI	Iijoki	NA	Haukipudas	0.75	0.55	0.79	12	0.71	0.62	0.81	-20.2
C604	FI	Iijoki	Iijoki	Vaatajansuvanto	0.5	-0.14	0.6	-4.3	0.49	-0.15	0.53	-20.8
C605	FI	Iijoki	NA	Jaurakkajarvi-Luusua	0.86	0.75	0.87	0.4	0.51	0.52	0.8	-40.2
C606	FI	NA	Livojoki	Hanhikoski	0.83	0.69	0.84	0.9	0.61	0.57	0.78	-25.6

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C607	FI	NA	Kitinen	Kokkosniva	0.24	-0.11	0.61	-45.8	0.18	-0.01	0.65	-53.5
C608	FI	NA	Kemijoki	Kemihaara	0.86	0.75	0.87	-2.8	0.63	0.68	0.86	-26.3
C609	FI	NA	NA	Vikajärvi-Luusua	0.87	0.76	0.88	-1.4	0.83	0.71	0.87	8.3
C610	FI	NA	Ounasjoki	Köngäs	0.73	0.75	0.87	-13.2	0.53	0.67	0.86	-30.9
C611	FI	NA	Inarijoki	Karigasniemi	0.6	0.7	0.87	-25.5	0.48	0.65	0.86	-32.9
C612	FI	NA	NA	Juutuanjoki	0.7	0.73	0.88	-18.4	0.65	0.74	0.89	-26
C613	FI	NA	Ivalojoki	Pajakoski	0.62	0.68	0.84	-22.7	0.44	0.64	0.87	-38.4
C614	FI	NA	Patsoyoki	Kaitakoski	0.2	-0.76	0.25	-25	0.44	-0.2	0.56	-30.8
C615	FI	NA	NA	Oulankajoki	0.87	0.75	0.87	0.3	0.73	0.67	0.83	-17.7
C616	FI	NA	Kitkajoki	Kayla	0.7	0.33	0.75	8.3	0.55	0.06	0.56	-5.3
C617	SE	Helge	Helge	Torsebro Krv	0.84	0.73	0.86	-4.5	0.52	0.57	0.89	-38.6
C618	SE	NA	NA	Morrum	0.85	0.71	0.85	0.4	0.85	0.82	0.92	-11.1
C619	SE	NA	Viskan	Asbro 3	0.8	0.79	0.9	-10.4	0.52	0.56	0.86	-36.6
C620	SE	NA	Moaelven	Vaestersel	0.74	0.7	0.85	-14	0.44	0.5	0.77	-32.2
C621	SE	NA	Oereaelven	Torrboele	0.83	0.81	0.9	-6.4	0.45	0.41	0.65	-14.6
C622	UK	Bann	Lower Bann	Movanagher	0.79	0.71	0.84	-4.5	0.63	0.68	0.87	-23.4
C623	NO	Moel	Neiden	Neset	0.2	-0.36	0.56	61.3	0.23	-0.24	0.69	56.3
C624	UK	Severn	Severn	Bewdley	0.89	0.79	0.9	0.8	0.39	0.46	0.82	-48.9
C625	FI	NA	Munio	Muonio	0.65	0.79	0.92	-24.4	0.59	0.76	0.92	-32.2
C626	SE	NA	Pite	Gransel	0.62	0.66	0.88	-25.9	0.67	0.76	0.92	-23.9
C627	SE	NA	Munio	Kallio 2	0.74	0.8	0.91	-17.1	0.7	0.87	0.96	-22.8
C628	SE	Daläven	Dal	Grada Krv	0.31	0.03	0.43	-17.6	0.2	-0.32	0.24	-12.2
C629	SE	Daläven	Vasterdal	Mockfjard Krv	0.86	0.72	0.86	0.7	0.83	0.73	0.86	-7.3
C630	SE	NA	NA	Saffle_Damm	0.83	0.67	0.83	-1.2	0.57	0.22	0.71	-31.9
C631	SE	NA	NA	Edsvalla_Krv	0.7	0.61	0.79	-7.3	0.54	0.28	0.62	-19.5
C632	SE	Indals	Indals	Hissmofors_Krv	0.01	-0.67	0.04	-11.9	0.12	-0.54	0.17	-20

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C633	SE	Umeliven	Umea	Harrsele_Krv	0.25	-0.22	0.35	-21.5	0.35	-0.18	0.49	-27.9
C634	SE	NA	NA	Yngeredsforsen	0.9	0.81	0.91	3.3	0.75	0.77	0.91	-15.9
C635	SE	Umeliven	Vindel	Granaker	0.8	0.83	0.92	-12.9	0.79	0.82	0.91	-12.9
C636	SE	NA	Gide	Bjorna_Krv	0.72	0.56	0.76	-5.8	0.64	0.54	0.74	-4.4
C637	GB	Tay	Tay	Ballathie	0.39	0.4	0.86	-42.5	0.14	0	0.76	-58.2
C638	SE	NA	Ljungan	Ostavallselet	0.45	0.1	0.52	-16.8	0.49	0.11	0.55	-19.2
C639	SE	NA	NA	Nybro	0.65	0.52	0.74	-9.1	0.55	0.47	0.74	-22.1
C640	SE	NA	Ljusnan	Donje_Krv	0.73	0.55	0.77	-9.5	0.73	0.49	0.75	-11
C641	SE	NA	Ljusnan	Svegs_Krv	0.56	0.2	0.59	-13	0.6	0.21	0.61	-8.5
C642	NO	Glomma	Glomma	Barkaldfoss	0.88	0.77	0.88	0.7	0.63	0.74	0.88	-22
C643	NO	NA	Hallingdalselva	Skalfoss	0.59	0.39	0.77	-26.7	0.53	0.16	0.73	-33.7
C644	NO	NA	Dokka	Kistefoss	0.53	0.2	0.55	-5.1	0.46	0.1	0.52	-16.2
C645	NO	NA	Begna	Stromstoa	0.68	0.62	0.82	-16.2	0.65	0.56	0.81	-19.8
C646	NO	NA	Fyreselv	Eikhomkilen	0.31	0	0.49	-26.7	0.21	-0.31	0.33	-27
C647	NO	NA	Numedalslågen	Holmfoss	0.77	0.63	0.8	-7.1	0.68	0.5	0.76	-15.8
C649	NO	NA	Mandalselva	Kjolemo	0.86	0.75	0.87	-3.8	0.76	0.63	0.81	-10.6
C650	NO	Stjordalselva	Stjordalselva	Hegra Bru	0.39	0.31	0.73	-38.9	0.3	0.31	0.76	-41.1
C651	NO	NA	Rauma	Rauma v/Venge	0.41	0.54	0.88	-39.8	0.4	0.53	0.88	-42.3
C652	NO	NA	Orkla	Syrstad	0.61	0.52	0.77	-21.9	0.55	0.54	0.79	-23.4
C653	GB	Thames	Thames	Kingston upon Thames	0.92	0.84	0.92	-0.1	0.82	0.8	0.9	-7.6
C654	GB	NA	Trent	Colwick	0.82	0.69	0.84	-4.8	0.81	0.72	0.86	-12.1
C655	GB	Tweed	Tweed	Norham	0.79	0.59	0.79	-1.2	0.77	0.55	0.8	7.6
C656	GB	Wye	Wye	Redbrook	0.83	0.72	0.85	-4	0.48	0.55	0.8	-34.7
C657	DE	Weser	Leine	Herrenhausen	0.9	0.82	0.91	-0.6	0.85	0.86	0.93	-8.9
C658	DE	Weser	NA	Uttershausen	0.81	0.63	0.81	1.9	0.75	0.75	0.88	-17.3

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C659	IE	NA	Slane	Scarrawalsh	0.73	0.68	0.83	-12.2	0.52	0.54	0.82	-32.4
C660	IE	Barrow	Barrow	Royal Oak	0.91	0.83	0.92	1.6	0.7	0.74	0.89	-19.7
C661	IE	Barrow	Barrow	Graiguenamanagh U-S	0.92	0.86	0.94	2	0.91	0.84	0.92	-3.3
C662	IE	Barrow	Nore	Johns Bridge	0.76	0.75	0.88	-13.1	0.63	0.7	0.87	-21.2
C663	IE	Barrow	Nore	Brownsbarn	0.86	0.79	0.89	-6.4	0.57	0.65	0.86	-26.4
C664	IE	Barrow	Suir	Clonmel	0.75	0.77	0.9	-16.8	0.52	0.62	0.89	-28.4
C665	IE	NA	Blackwater	Ballyduff	0.8	0.7	0.85	-7.9	0.78	0.72	0.86	-7.9
C666	IE	NA	Blackwater	Killavullen	0.7	0.63	0.81	-16.8	0.75	0.67	0.82	-8.1
C667	IE	Shannon	Brosna	Moystown	0.85	0.78	0.88	-2.4	0.82	0.76	0.88	-11.2
C670	IE	Moy	Moy	Rahans	0.81	0.79	0.9	-9.1	0.75	0.76	0.9	-17.5
C671	GB	Foyle	Mourne	Drumnabuoy House	0.67	0.65	0.82	-16.4	0.49	0.59	0.83	-30.8
C672	GB	NA	Clyde	Blairstone	0.69	0.6	0.79	-15.9	0.77	0.66	0.82	-7.2
C673	GB	Spey	Spey	Boat O Brig	0.72	0.55	0.76	-8.5	0.62	0.53	0.76	-19.3
C674	GB	Dee	Dee	Park	0.39	0.35	0.7	-37	0.38	0.36	0.7	-37
C675	GB	Tyne	Tyne	Bywell	0.64	0.55	0.75	-13.1	0.55	0.5	0.72	-15.4
C676	GB	Eden	Eden	Sheepmount	0.81	0.62	0.81	-0.2	0.62	0.55	0.76	-18.5
C677	GB	NA	Ouse	Skelton	0.63	0.57	0.76	-12.5	0.41	0.33	0.61	-23.4
C678	GB	NA	Tywi	Nantgaredig	0.65	0.73	0.89	-22.5	0.33	0.4	0.78	-48.4
C679	GB	Severn	Avon	Evesham	0.81	0.61	0.81	0.5	0.79	0.62	0.84	5.7
C680	GB	Mersey	Mersey	Adelphi Weir	0.65	0.32	0.66	8.3	0.56	0.29	0.6	-11.5
C681	GB	Lower Tyne	NA	Leven Bridge	-4.31	-6.74	0.49	525.1	-5.01	-6.57	0.45	596.5
C682	GB	Exe	Exe	Thorverton	0.69	0.65	0.88	21.5	0.79	0.68	0.85	-14.7
C683	GB	R. Teifi	Teifi	Glan Teifi	0.56	0.58	0.8	-25	0.44	0.4	0.7	-33.6
C685	IT	Po	Pellice	Villafranca	0.83	0.7	0.85	7.5	0.84	0.69	0.85	5

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C686	IT	Arno	Sieve	Rosano	0.58	0.33	0.74	27.2	0.75	0.49	0.76	-0.5
C687	IT	Arno	Canale Imperiale	S Giovanni Alla Vena	0.59	0.4	0.78	29.6	0.49	0.5	0.88	37.1
C688	IT	Adige	Adige	Boara Pisan	0.78	0.57	0.79	3.9	0.76	0.53	0.83	11.4
C689	IT	Po	Panaro	Bomporto	0.66	0.42	0.68	-6.3	0.57	0.19	0.58	9.3
C690	FR	NA	Vire	Montmartin-en-Graignes	0.8	0.74	0.86	-6.7	0.55	0.69	0.89	-26.2
C691	FR	Seine	Therain	Maysel	0.83	0.77	0.91	10	0.64	0.47	0.87	20
C692	FR	Seine	Eure	Louviers	0.86	0.76	0.9	6.5	0.75	0.53	0.81	2.3
C693	FR	Seine	Essonne	Ballancourt-Sur-Essonne	0.34	-0.84	0.83	34.9	-0.07	-3.91	0.5	37.5
C694	FR	Rhine	Meurthe	Malzeville	0.54	0.62	0.85	-30.4	0.56	0.62	0.83	-26.4
C695	FR	Seine	Seine	Mery-Sur-Seine	0.83	0.67	0.83	0.4	0.77	0.67	0.87	16.8
C696	FR	NA	Blavet	Languidic	0.77	0.77	0.88	-10	0.68	0.67	0.82	-4.7
C697	FR	Vilaine	Vilaine	Rieux	0.85	0.79	0.89	-4.7	0.63	0.55	0.86	19.7
C698	FR	Loire	Sarthe	Neuville-Sur-Sarthe	0.86	0.76	0.88	-2.2	0.87	0.78	0.89	-0.2
C699	FR	Loire	Loir	Villavard	0.71	0.49	0.8	13.3	0.52	0.42	0.8	38.8
C700	FR	Loire	Clain	Dissay	0.86	0.74	0.87	3.8	0.75	0.52	0.77	-10.3
C701	FR	Lay	Lay	Mareuil-Sur-Lay-Dissais	0.8	0.7	0.87	11.7	0.84	0.7	0.84	-0.2
C702	FR	Garonne	Dropt	Loubens	0.67	0.53	0.78	24.9	0.73	0.59	0.8	18
C703	FR	Garonne	Gers	Layrac	0.75	0.56	0.79	12.4	0.29	0.07	0.74	54.9
C704	FR	Hrrault	Herault	Agde	0.71	0.47	0.72	-1.6	0.43	0.48	0.72	-37.2
C705	FR	Aude	Aude	Moussan	0.61	0.36	0.64	-9.4	0.6	0.61	0.8	-6.2
C706	DE	Rhine	Regnitz	Huettendorf	0.79	0.58	0.8	2.1	0.74	0.48	0.78	10.2
C707	DE	Rhine	Main	Kemmern	0.89	0.8	0.9	0.5	0.78	0.75	0.88	-17.9
C708	DE	Rhine	Aisch	Laufermuehle	0.81	0.66	0.84	8.6	0.62	0.43	0.79	24.7
C709	DE	Rhine	Frankische Saale	Wolfsmuenster	0.86	0.73	0.86	3	0.85	0.75	0.87	-6.8

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C710	FR	Loire	Sarthe	Saint-Denis-d'Anjou	0.92	0.85	0.92	0.5	0.91	0.82	0.91	-0.2
C711	FR	Rhine	Ill	Strasbourg	0.52	-0.11	0.56	2.6	0.71	0.38	0.73	3.8
C712	FR	Seine	Marne	Frignicourt	0.7	0.59	0.78	-9.3	0.74	0.56	0.77	6.6
C713	FR	Rhine	Seille	Metz	0.85	0.73	0.86	7.1	0.72	0.67	0.88	19.5
C714	FR	Garonne	Salat	Roquefort-Sur-Garonne	0.46	0.39	0.68	-27.3	0.53	0.41	0.69	-24.8
C715	FR	Garonne	Ariege	Auterive	0.44	0.25	0.6	-26	0.69	0.43	0.72	-13.3
C716	FR	Garonne	Save	Larra	0.64	0.42	0.68	8.2	0.35	0.2	0.78	50.9
C717	FR	Garonne	Tarn	Marsal	0.72	0.51	0.74	-9	0.7	0.6	0.79	-14.8
C718	FR	Rhine	Orne	Rosselange	0.82	0.68	0.83	0.9	0.66	0.54	0.8	26.2
C719	FR	Adour	Midouze	Campagne	0.81	0.76	0.89	14.9	0.77	0.61	0.82	13
C720	FR	Loire	Loire	Bas-En-Basset	0.66	0.35	0.66	-3.3	0.33	-0.58	0.43	-22.2
C721	FR	Loire	Allier	Vic-Le-Comte	0.69	0.56	0.77	-14.2	0.8	0.64	0.81	3.8
C722	FR	Loire	Dore	Saint-Gervais-Sous-Meymont	0.49	0.04	0.49	-2.9	0.38	-0.29	0.39	8.8
C723	FR	Rhone	Ain	Chazey-Sur-Ain	0.8	0.6	0.8	0.1	0.74	0.5	0.75	0.6
C724	FR	Rhone	Seille	Saint-Usuge	0.85	0.73	0.87	5.5	0.86	0.71	0.86	1.8
C725	FR	Rhone	Loue	Parcey	-1.22	-3.93	0.88	160.7	-1.04	-3.24	0.91	142.4
C726	FR	Meuse / Maas	Semoy	Haulme	0.69	0.67	0.83	-16.7	0.67	0.75	0.88	-21.4
C727	FR	Meuse / Maas	Chiers	Carignan	0.86	0.73	0.87	4.2	0.47	0.41	0.89	18.5
C728	FR	Rhine	Moder	Schweighouse-Sur-Moder	0.66	0.45	0.79	24.7	0.32	-0.27	0.72	32.5
C729	FR	Meuse / Maas	Meuse	Vaucouleurs	0.83	0.66	0.83	0.2	0.78	0.57	0.79	7.2
C730	FR	Loire	Mayenne	Chambellay	0.83	0.74	0.86	-5.5	0.83	0.75	0.87	-3.2
C731	FR	Rhone	Tille	Arceau	0.85	0.83	0.92	12	0.85	0.81	0.91	11.5
C732	FR	Rhone	Ognon	Pesmes	0.91	0.83	0.92	2.6	0.89	0.79	0.9	-1.9

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C733	FR	Loire	Sioule	Saint-Priest-Des-Champs	0.39	0.31	0.62	-31	0.56	0.42	0.67	-18.1
C734	FR	NA	Eyre	Salles	0.88	0.86	0.94	9.6	0.61	0.6	0.9	29.4
C735	FR	Garonne	Cele	Orniac	0.7	0.55	0.75	-8.8	0.74	0.51	0.75	-4.9
C736	FR	Garonne	Lot	Lassouts	0.73	0.46	0.74	5.3	0.56	0.26	0.76	21.5
C737	FR	Seine	Epte	Fourges	0.83	0.82	0.94	10	0.76	0.66	0.89	17.9
C738	FR	Rhine	Moselle	Tonnoy	0.56	0.6	0.81	-26.2	0.83	0.65	0.83	-0.3
C739	FR	Loire	Sauldre	Selles-Sur-Cher	0.84	0.73	0.86	-0.1	0.83	0.76	0.9	8.7
C740	FR	Rhone	Doubs	Rochefort-Sur-Nenon	0.9	0.8	0.9	2.5	0.86	0.84	0.92	-4.7
C741	FR	Loire	Gartempe	Montmorillon	0.85	0.71	0.85	0	0.86	0.72	0.87	1.6
C742	FR	Loire	Arroux	Rigny-Sur-Arroux	0.76	0.61	0.79	-7.1	0.77	0.57	0.78	1.9
C743	FR	Garonne	Truyere	Sainte-Genevieve-Sur-Argence	0.71	0.44	0.71	-2	0.69	0.36	0.69	-0.6
C744	FR	Garonne	Bais	Nerac	0.74	0.51	0.78	11.5	0.29	0.13	0.75	60.4
C745	FR	Garonne	Garonne	A_Saint-Gaudens	0.45	0.36	0.74	-33.3	0.64	0.5	0.75	-17.6
C746	DE	Meuse / Maas	Niers	Goch	0.7	0.46	0.85	19.9	0.47	0.38	0.91	27.5
C747	DE	Rhine	Schussen	Gerbertshaus	0.78	0.58	0.8	6.8	0.72	0.45	0.74	10.3
C748	DE	Rhine	NA	Giessen	0.77	0.54	0.77	3.1	0.75	0.55	0.77	6.5
C749	DE	Rhine	Kinzig	Hanau	0.89	0.79	0.9	4.5	0.82	0.75	0.89	12.3
C750	DE	Weser	Aller	Celle	0.88	0.77	0.89	3	0.77	0.64	0.86	-1.9
C751	DE	Weser	Eder	Affoldern	0.7	0.39	0.7	3	0.53	0.48	0.73	-25
C752	DE	Weser	Fulda	Grebenau	0.87	0.75	0.88	2.5	0.85	0.8	0.9	-8.8
C753	NA	NA	Kysuca	Kysucké Nové Mesto	0.73	0.49	0.77	10.5	0.22	0.29	0.66	-49.9
C754	SK	Danube	Sajo	Lenartovce	0.65	0.27	0.67	6.2	-0.24	-0.3	0.29	-80.9
C755	SK	Danube	Hornad	Zdana	0.81	0.61	0.82	2.4	0	-0.31	0.49	-69.7

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C756	HU	Danube	Zala	Zalaapati	0.64	0.25	0.64	4.4	-	-	-	-
C757	HU	Danube	Danube	Mohacs	0.82	0.72	0.9	7.1	0.71	0.46	0.8	3.1
C758	RO	Danube	Crasna	Agerdomajor	0.2	-0.55	0.2	-1.1	-	-	-	-
C759	RO	Danube	Crisul Negru	Zerind	0.44	0.25	0.54	-13.6	0.49	0.27	0.58	-20
C760	RO	Danube	Viseul	Bistra	0.37	0.26	0.65	-39	-0.09	-0.38	0.4	-70.2
C761	RO	Danube	Danube	Lom	0.81	0.64	0.84	2.1	0.78	0.58	0.79	-4.3
C762	UA	Danube	Siret	Storozhynets	0.48	0.08	0.51	13.8	-	-	-	-
C765	AT	Danube	Lech	Lechaschau	0.79	0.58	0.8	2	0.81	0.74	0.87	-10.6
C770	SK	Danube	Latorytsya	Ve?ké Kapušany	0.7	0.36	0.71	0	0.38	0.2	0.65	-48.8
C772	BG	Danube	Ogosta	Miziya	0.48	0.06	0.49	-6.1	-	-	-	-
C773	BG	Danube	Osum	Izgrev	0.65	0.28	0.66	6	0.04	-0.04	0.33	-53.3
C774	BG	Danube	Vit	Tarnene	0.61	0.27	0.62	-2.6	0.01	-0.16	0.2	-44.3
C775	CZ	Danube	Dyje	Tr Vn Dvur Dyje	0.71	0.46	0.75	12.8	0.66	0.64	0.8	14.7
C776	RO	Danube	Târnava Mare	Blaj	0.68	0.41	0.7	-9.4	-0.16	-2.02	0.03	-51.2
C777	RO	Danube	Strei	Petreni	0.73	0.45	0.73	3.4	0.02	-0.14	0.29	-40.7
C780	AT	Danube	Enns	Admont	0.87	0.74	0.87	-0.7	0.88	0.77	0.88	-3.7
C781	RS	Danube	Donau	Smederevo	0.82	0.62	0.85	8.9	0.8	0.63	0.81	-5
C782	RS	Danube	Lim	Prijepolje	0.62	0.55	0.79	-24.7	0.21	0.13	0.78	-62.2
C783	BG	Strimonas	Strimonas	Kresna	0.76	0.55	0.76	-0.4	-0.2	-0.14	0.44	-66.1
C785	BG	Danube	NA	Karantzi	0.53	0.22	0.56	-10.5	-0.11	-0.02	0.29	-60.6
C786	RO	Danube	NA	Oradea	0.57	0.19	0.57	-1.8	0.24	-0.07	0.35	-28.1
C790	BA-RS	Danube	Sana	Prijedor	0.56	0.48	0.71	-18.7	0.7	0.49	0.72	-4.4
C792	BA-RS	Danube	Bosna	Doboj	0.75	0.5	0.75	-2.3	0.62	0.49	0.76	-27.2
C793	BA-RS	Danube	Vrbanja	Vrbanja	0.3	0.26	0.54	-32.4	0.46	0.29	0.58	-22.3
C794	HR	Danube	Sava	Podsused	0.82	0.64	0.82	0.7	0.88	0.8	0.9	6.8
C797	HR	Danube	Kupa	Brodarci	-0.26	-1.22	0.79	85.7	-0.33	-1.08	0.85	99.4

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C798	HR	Danube	Orljava	Pleternica	0.66	0.4	0.73	19.5	-	-	-	-
C799	SI	Danube	Sava	Litija I	0.82	0.65	0.82	-1.1	0.86	0.76	0.89	6.5
C800	SI	Danube	Sora	Suha	0.69	0.36	0.7	7.7	0.78	0.57	0.8	5.3
C801	SI	Danube	Sotla	Rakovec	0.7	0.44	0.73	12.1	0.71	0.62	0.79	10.9
C802	SI	Danube	Savinja	Nazarje	0.61	0.19	0.62	0	0.72	0.51	0.77	16.1
C803	HR	Danube	Sava	Jasenovac	0.54	0.36	0.86	33.7	0.11	-0.31	0.9	72.7
C804	BA-Fed	Danube	Sana	Sanski Most	0.5	0.4	0.69	-28.6	-	-	-	-
C805	BA-Fed	Danube	Vrbas	Daljan	0.65	0.26	0.69	7.7	-	-	-	-
C806	BA-Fed	Danube	Vrbas	Kozluk Jajce	0.09	-0.16	0.47	-53.4	-	-	-	-
C807	BA-Fed	Danube	Lašva	Merdani	0.71	0.4	0.71	-2.7	-	-	-	-
C808	BA-Fed	Danube	Krivaja	Olovo	0.71	0.43	0.73	7.8	-	-	-	-
C810	RS	Danube	Sava	S.Mitrovica	0.89	0.79	0.9	2.2	0.79	0.6	0.82	-7
C812	RS	Danube	Vapa	Cedovo	0.61	0.45	0.81	28.3	0.52	0.57	0.8	40.7
C813	RS	Danube	Jadar	Lesnica	0.76	0.53	0.77	7	0.35	0.3	0.61	-42.3
C814	RS	Danube	Kolubara	Valjevo	0.59	0.41	0.66	0.4	0.38	0.33	0.57	6.5
C815	RS	Danube	Kolubara	Slovac	0.68	0.48	0.71	-1	0.84	0.68	0.84	2.2
C816	RS	Danube	Tamnava	Cemanov Most	0.66	0.53	0.75	19.3	0.37	0.31	0.59	40
C817	RS	Danube	Tisza	Senta / Szeged	0.63	0.39	0.81	25.7	0.67	0.42	0.73	-18.3
C818	ES	Miio	Mino	Sil Las Portas	-0.39	-0.48	0.11	-74.3	-0.42	-0.28	-0.03	-64.1
C819	ES	Miio	Mino	Sil Belesar	0.81	0.72	0.85	-1.9	0.72	0.63	0.8	-8.2
C820	ES	Miio	Mino	Sil Los Peares	0.77	0.74	0.86	-3.9	0.73	0.63	0.8	-3.2
C821	ES	Miio	Mino	Sil San Esteban	0.55	0.68	0.87	-25.9	0.68	0.64	0.83	-22.1
C822	ES	Miio	Mino	Sil Barcena	0.22	0.21	0.67	-39.9	0.13	0.05	0.51	-39.7
C823	ES	Miio	Mino	Sil Bao	0.08	-0.01	0.6	-54.8	0.14	-0.01	0.5	-46.8
C824	ES	Guadalquivir	Guadalquivir	La Brenaii	-15.16	-209.84	0	1057.5	-6.34	-13.05	0.52	678.6
C825	ES	Segura	Segura	Fuensanta	0.59	0.36	0.63	-3.6	0.09	0.06	0.37	-30.5

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C826	ES	Segura	Segura	Cenajo	0.14	-0.03	0.26	-7.3	-0.21	-0.08	0.17	-48
C827	ES	Segura	Segura	La Pedrera	-0.78	-1.74	-0.18	-95.6	-0.84	-1.5	-0.28	-93.3
C828	ES	Guadalquivir	Guadalquivir	Tranco De Beas	-0.12	-0.57	-0.06	-19.8	-0.48	-0.06	-0.04	-41.5
C829	ES	Guadalquivir	Guadalquivir	La Fernandina	-0.12	0.06	0.25	5.2	-0.12	0.05	0.22	10.9
C830	ES	Ebro	Ebro	Talarn O Tremp	0.33	0.19	0.69	-40.3	0.41	-0.1	0.44	-17.4
C831	ES	Ebro	Ebro	Mediano	0.29	0.21	0.6	-33.2	0.21	0.08	0.48	-30.9
C832	ES	Ebro	Ebro	Canelles	-0.03	0	0.26	-20.8	-0.14	-0.04	0.14	-18.5
C833	ES	Tajo	Tajo	Burguillo	0.19	0.18	0.49	-29.5	0.17	0.21	0.51	-31.9
C834	ES	Tajo	Tajo	Cedillo	0.43	0.55	0.81	-25.9	0.37	0.54	0.82	-36.2
C835	ES	Tajo	Tajo	Valdecanas	0.49	0.34	0.59	-3.9	0.66	0.57	0.76	-12.6
C836	ES	Tajo	Tajo	Gabriel Y Galan	-0.05	0.01	0.31	-42.8	-0.01	0.04	0.33	-41.5
C837	ES	Tajo	Tajo	Entrepenas	0.1	-0.13	0.19	-1	0.01	-0.14	0.13	-2.9
C838	ES	Tajo	Tajo	Atazar	0.38	-0.17	0.39	-6	0.32	0.15	0.49	-29.6
C839	ES	Tajo	Tajo	Buendia	-0.19	-0.25	-0.03	-17.8	-0.37	-0.24	0.07	-56.3
C840	ES	Tajo	Tajo	Alcantara	0.25	0.35	0.68	-35.4	0.26	0.4	0.73	-46.8
C841	ES	NA	Júcar	Benageber	0.03	-0.29	0.12	14.6	0.21	-0.26	0.25	11.6
C842	ES	Jrcar	Júcar	Tous	0.18	-0.04	0.32	-19.4	0.05	-0.79	0.25	-51
C843	ES	Jrcar	Júcar	Contreras	0.21	0.16	0.43	18.4	0.1	0.09	0.32	-12.1
C844	ES	Jrcar	Júcar	Alarcon	-0.21	-0.67	-0.16	-13.7	-0.51	-0.62	-0.08	-71.7
C846	ES	Guadiana	Guadiana	Garcia De Sola	0.15	0.23	0.53	-42.4	-0.03	0.01	0.25	-39.3
C848	ES	Guadiana	Guadiana	Alange	-0.49	-3.43	-0.02	72.5	-0.13	-2.03	0.14	46.1
C849	ES	Guadiana	Guadiana	Cijara	0.41	0.3	0.55	-12.1	0.5	0.48	0.7	-13.3
C850	ES	Guadiana	Guadiana	Serena	0.1	-0.09	0.21	4.8	0.26	-0.48	0.26	3.3
C851	ES	Duero	Duero	Cuerda Del Pozo	-0.07	-0.12	0.16	-35.5	-0.5	-0.33	-0.02	-61.6
C852	ES	Duero	Duero	Cernadilla	0.15	0.28	0.68	-53.5	0.06	0.05	0.4	-49.4
C853	ES	Duero	Duero	Aguilar De Campoo	-0.06	-0.06	0.37	-46.9	-0.13	-0.15	0.06	-16.2

ID	Country	Basin	River	Station	calibration				validation			
					KGE	NSE	r	BIAS [%]	KGE	NSE	r	BIAS [%]
C854	ES	Duero	Luna	Barrios De Luna	-0.12	-0.05	0.26	-37.6	-0.29	-0.15	0.12	-45.9
C855	ES	Duero	Duero	Porma	-0.16	-0.27	0.38	-55.8	-0.22	-0.36	0.23	-49.5
C856	ES	Duero	Tormes	Santa Teresa	0.04	0.06	0.41	-45	0.03	0.07	0.41	-46.1
C857	ES	Duero	Tormes	Almendra	0.14	-0.26	0.22	-23.9	-0.06	-0.68	-0.03	-10.9
C858	ES	Duero	Esla	Riano	-0.15	-0.3	0.51	-62.7	-0.19	-0.28	0.22	-44.9
C859	ES	Duero	Esla	Ricobayo	0.5	0.54	0.76	-21	0.72	0.46	0.72	-5
C860	RS	Danube	Dunav	Na	0.69	0.43	0.85	14.3	0.8	0.61	0.87	12.4
C862	RS	Danube	Ibar	Na	0.82	0.63	0.82	3.4	0.32	0.03	0.7	-55.5
C863	RS	Danube	Južna Orava	Na	0.84	0.69	0.85	-2.9	0.36	0.27	0.72	-48.4
C864	RS	Danube	Južna Orava	Na	0.67	0.43	0.69	-5.2	0.38	0.17	0.59	-41.4
C865	RS	Danube	Nišava	Na	0.77	0.55	0.77	-2.3	0.45	0.15	0.63	-38.5
C867	RS	Danube	Zapadna Orava	Na	0.87	0.73	0.87	0.5	0.27	0.07	0.67	-54.9
C868	RS	Danube	Dunav	Na	0.87	0.76	0.89	6.4	0.8	0.6	0.81	-2.1
C870	RS	Danube	Drina	Na	0.73	0.52	0.75	-8	0.23	-0.24	0.62	-59.4
C871	RS	Danube	Drina	Na	0.74	0.57	0.79	-13.8	0.2	-0.12	0.63	-57.2
C872	RS	Danube	Lim	Na	0.78	0.59	0.79	-4.1	0.31	0.23	0.77	-57.4
C873	RS	Danube	Lim	Na	0.74	0.64	0.81	-8.5	0.33	0.24	0.74	-51
C875	RS	Danube	Mileševka	Na	0.36	0.19	0.65	53.9	0.43	0.28	0.57	-23.1
C876	RS	Danube	Jadar	Na	0.49	0.3	0.57	-5.2	0.36	0.12	0.47	-26.9

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