Juliane Mai, Ph.D.
Technical Consulting

405-460A Belmont Ave W.,
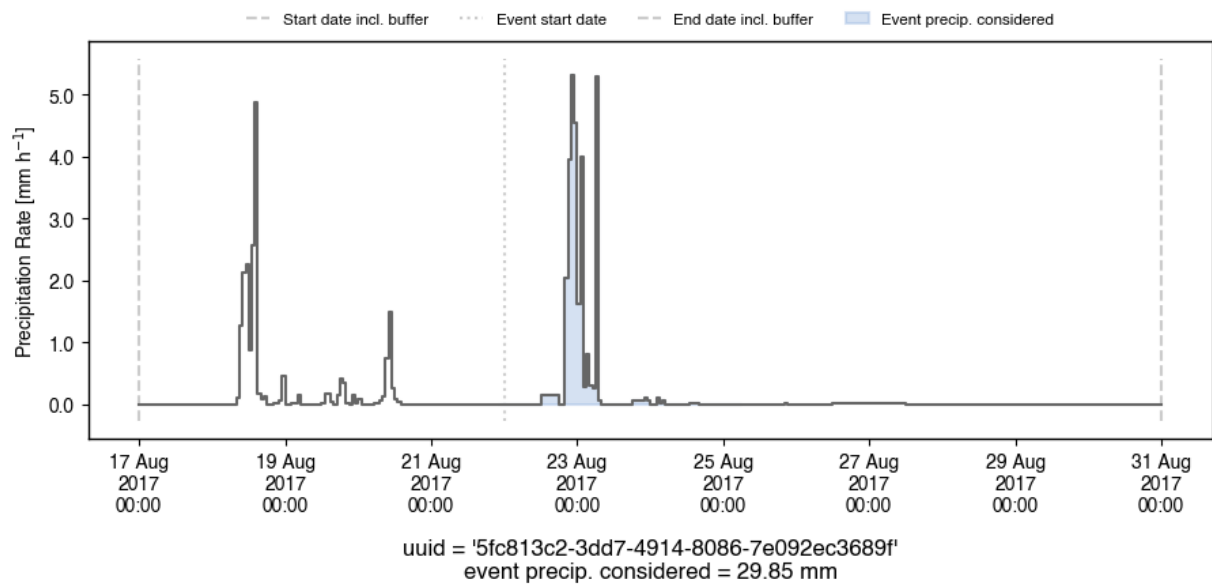Kitchener, ON, N2M 0A9, Canada

– Comparison of CaSPAr and GeoMet data –

A comparison of a selected number of 23 floods (single-point from "historical_flood.json") that all occurred in 2017 such that data from RDRS_v2.1 as well as RDPA-6h are available on CaSPAr and GeoMet, respectively.
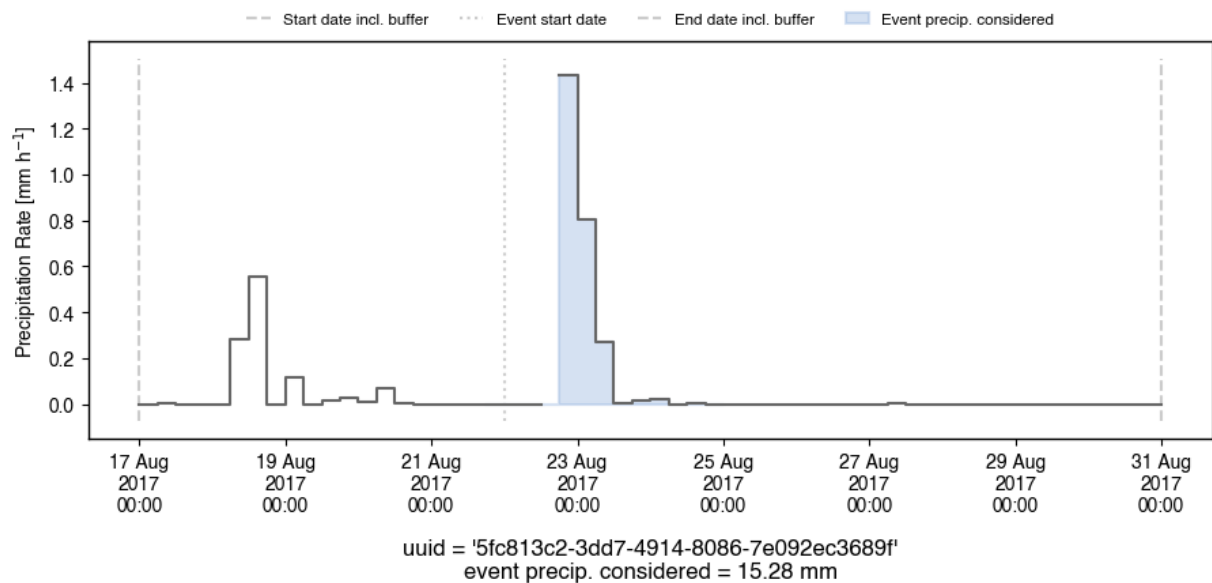
The data have been downloaded and analyzed using the same approach to identify the main precipitation event (highlighted blue bars). The sum of precipitation identified and then considered as the main precipitation amount is reported in the label at the bottom of each figure. Each page contains the results for one event; one plot using data from CaSPAr (panel a) and one plot for data from GeoMet (panel b).

Gaps in plots only occur for GeoMet (panel b) when the data are not available.
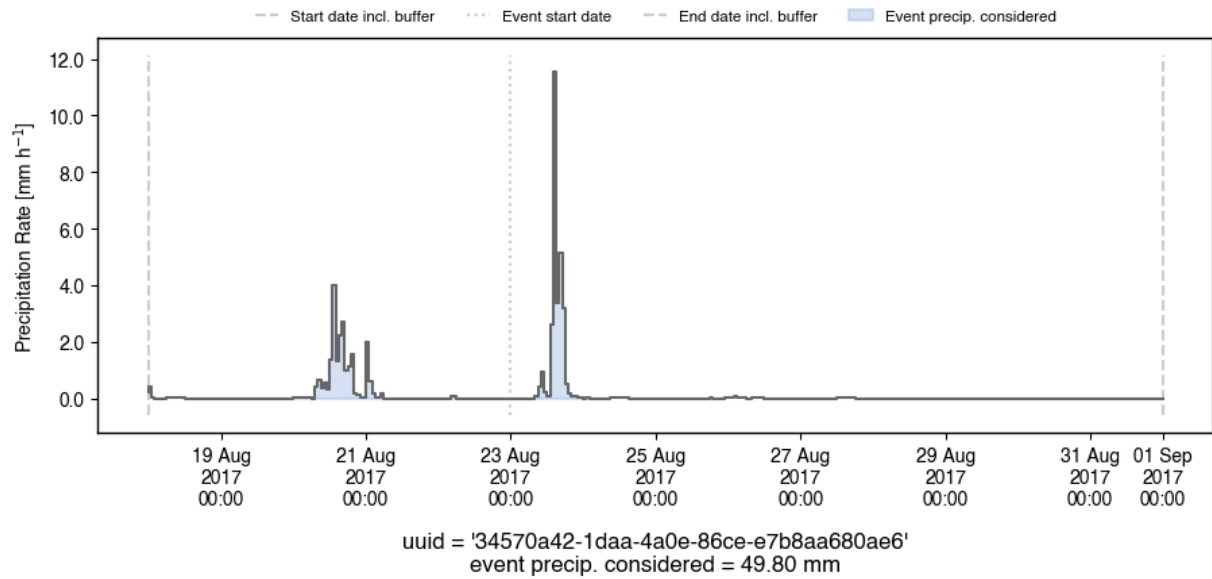
Version: 1.0
Date: Sep 21, 2022

(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
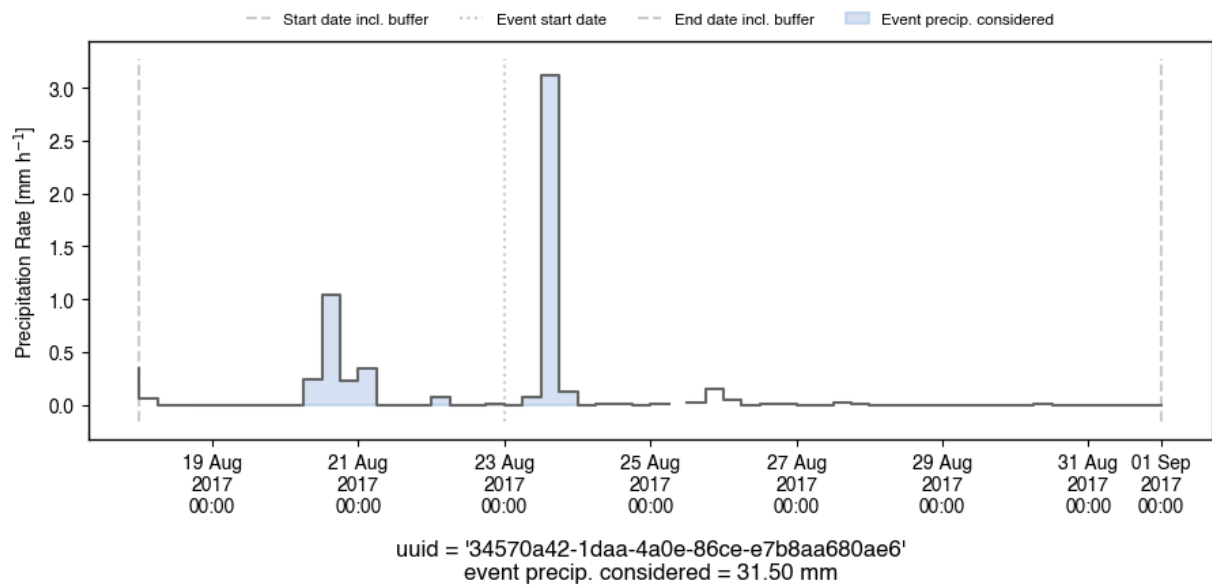

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 1: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "5fc813c2-3dd7-4914-8086-7e092ec3689f"
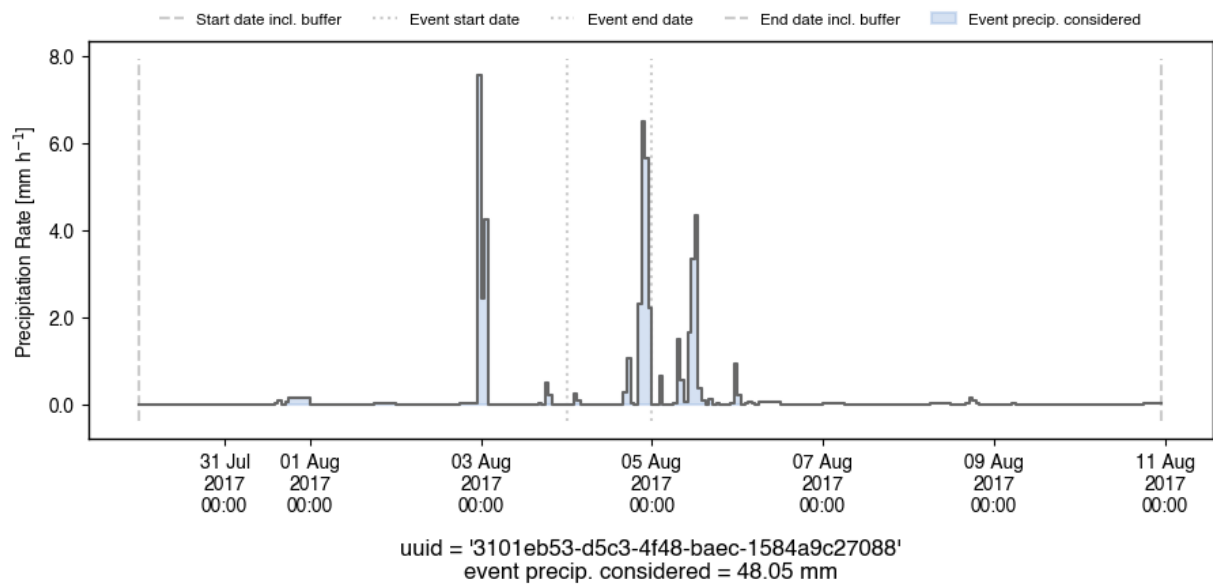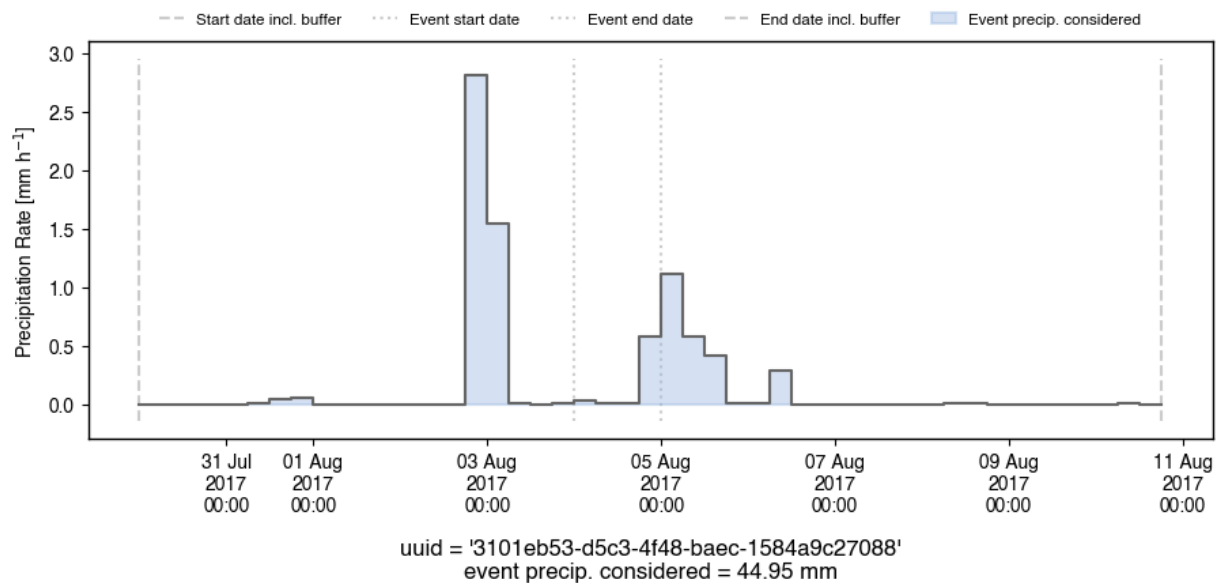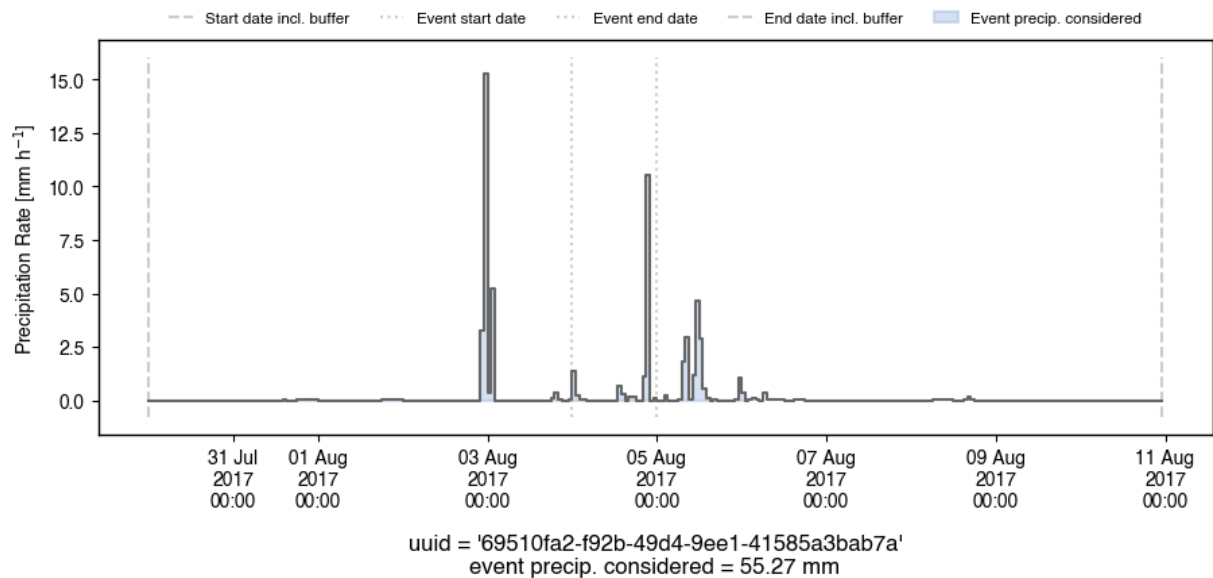
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 2: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "34570a42-1daa-4a0e-86ce-e7b8aa680ae6"

(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
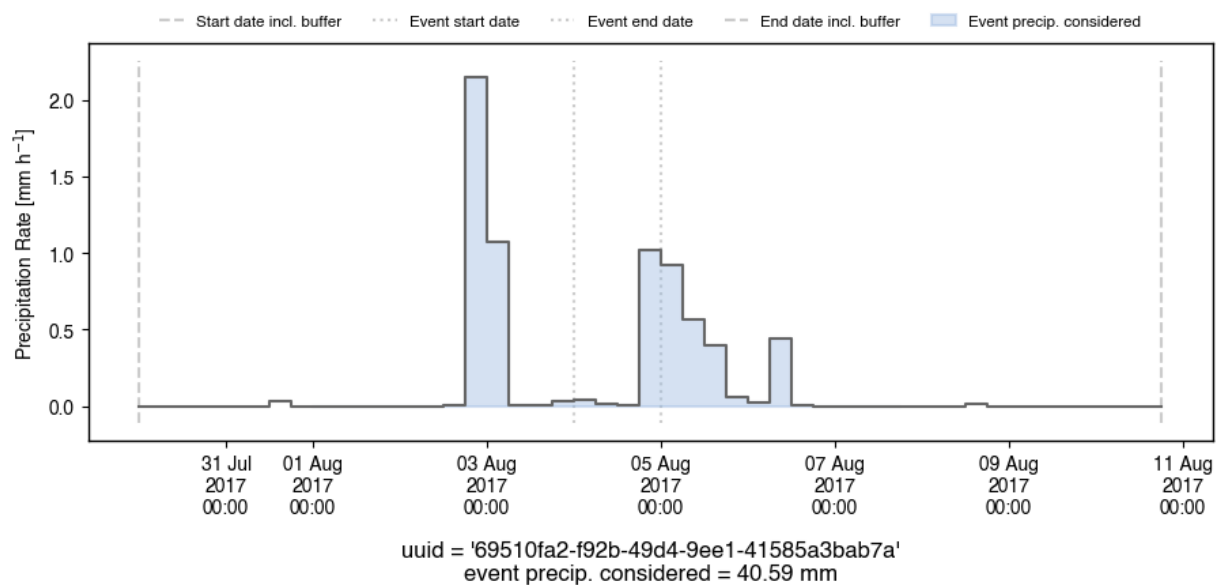

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 3: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "3101eb53-d5c3-4f48-baec-1584a9c27088"
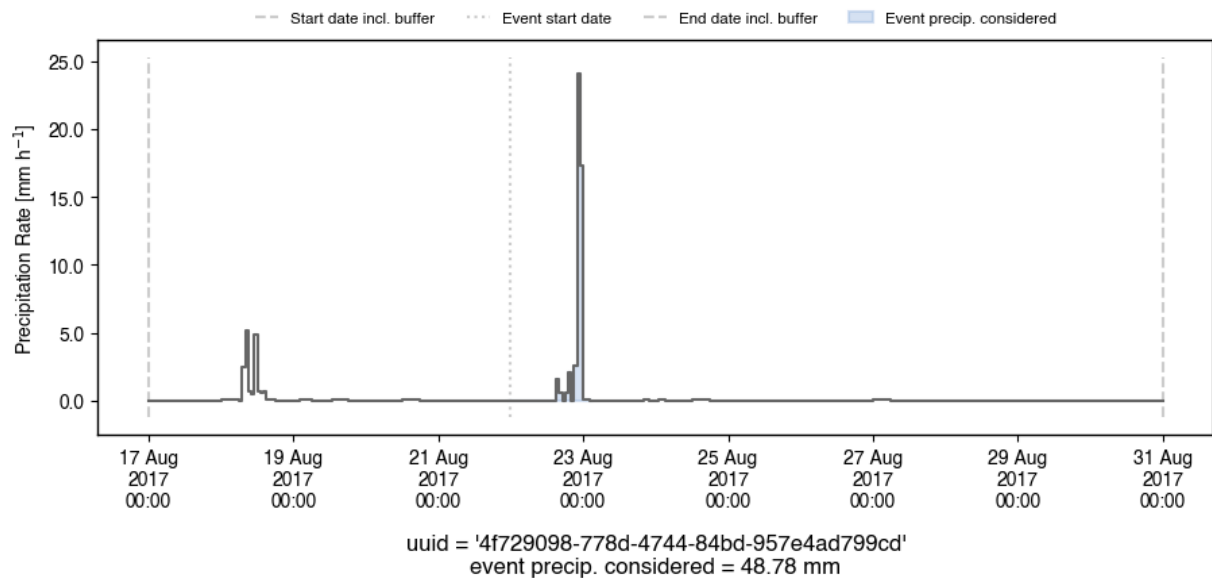
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
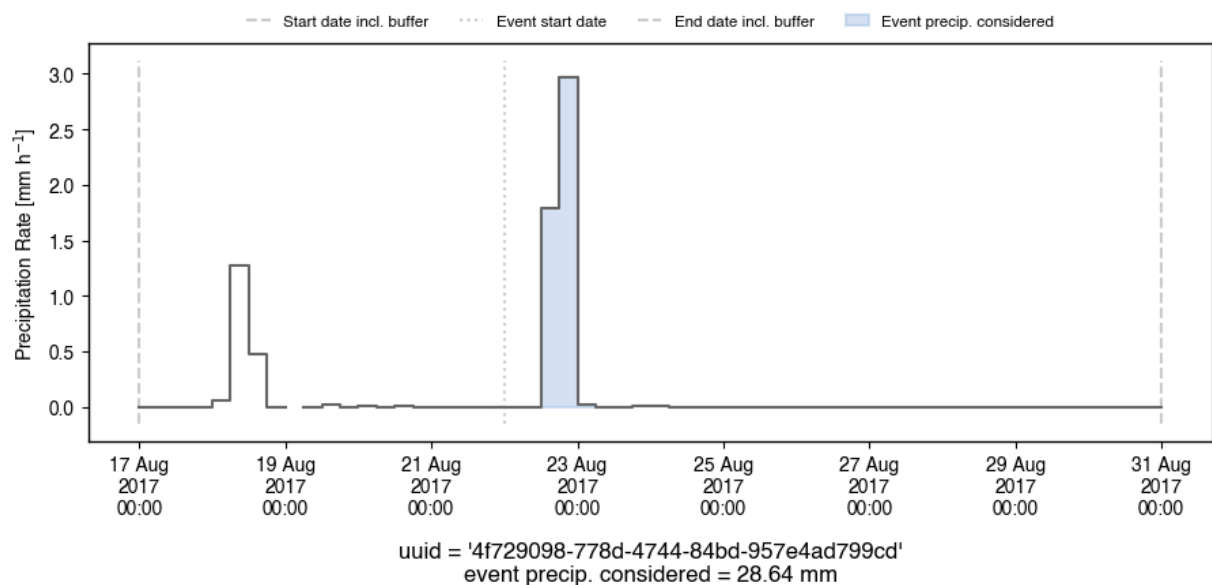

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 4: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "69510fa2-f92b-49d4-9ee1-41585a3bab7a"
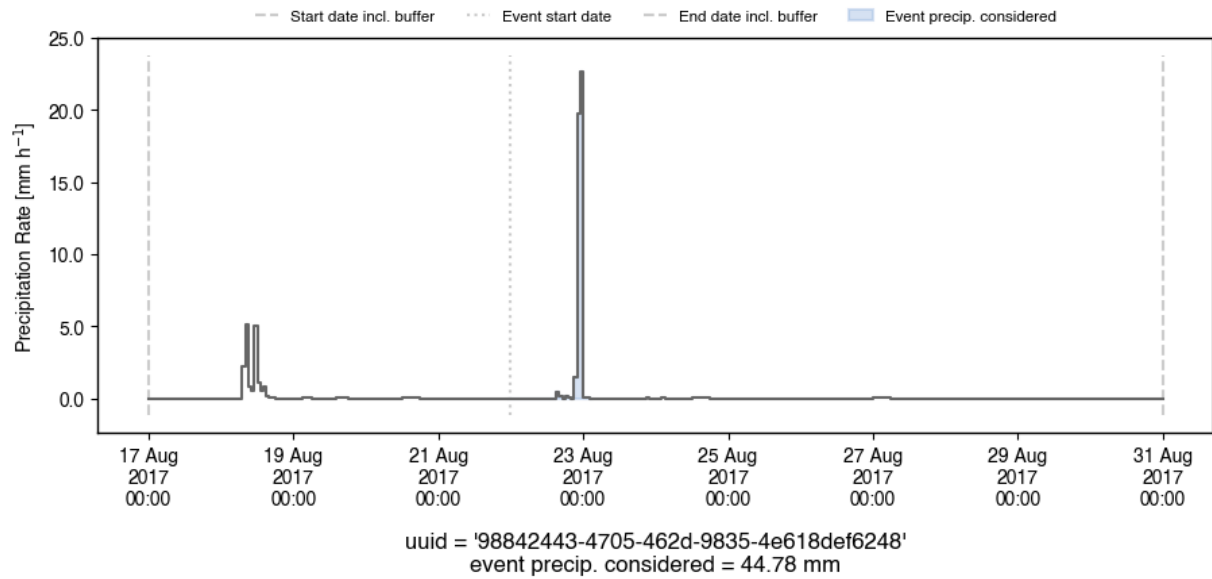
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
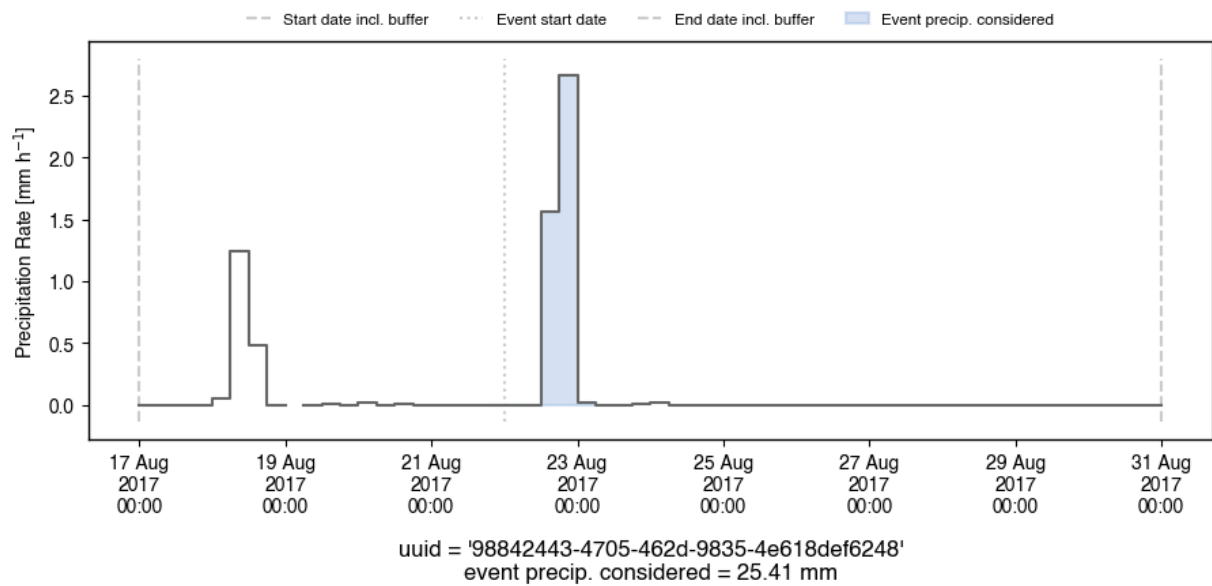

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 5: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "4f729098-778d-4744-84bd-957e4ad799cd"
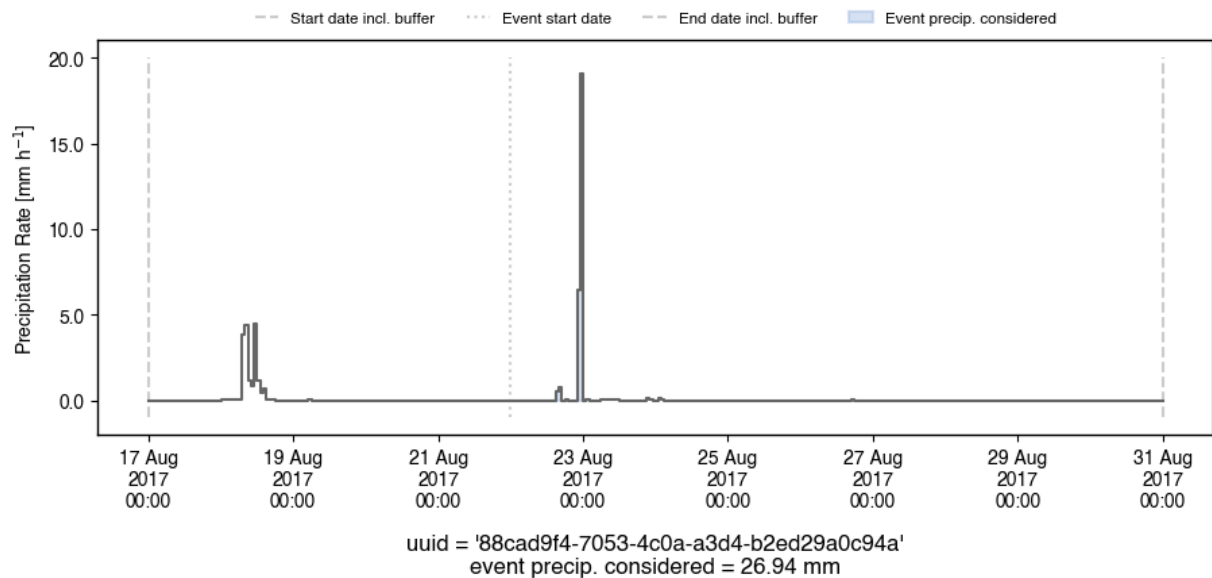
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
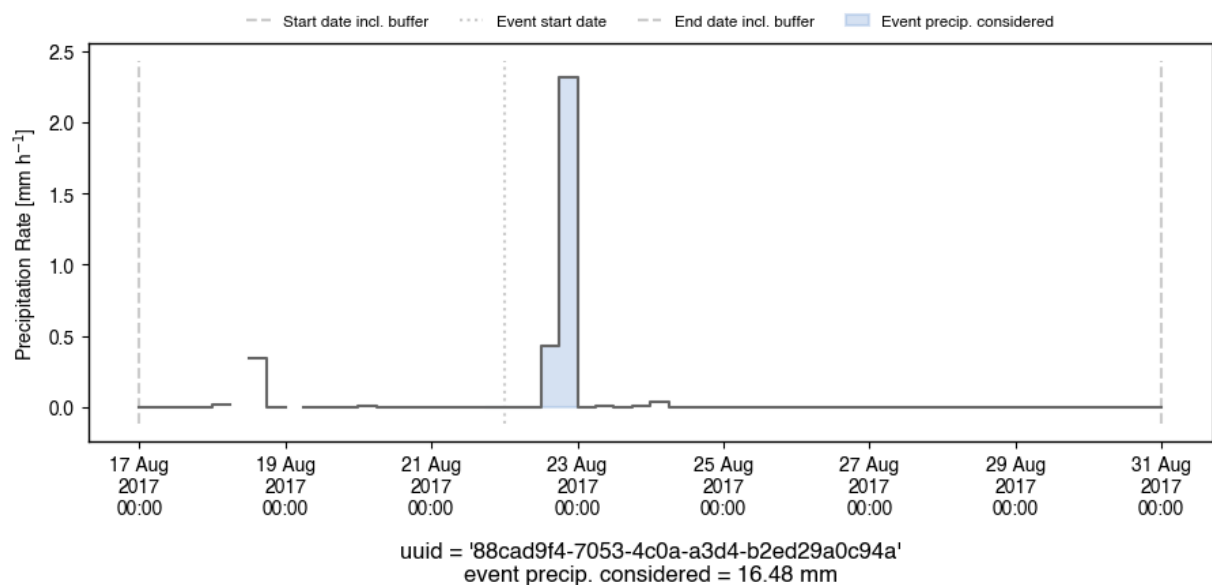

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 6: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "98842443-4705-462d-9835-4e618def6248"
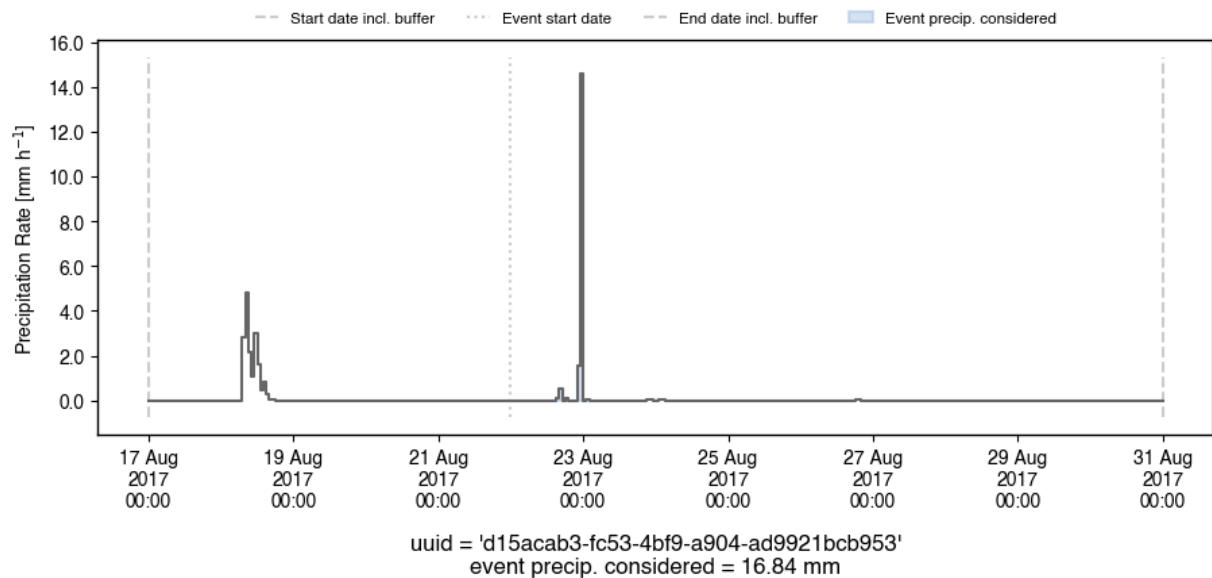
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
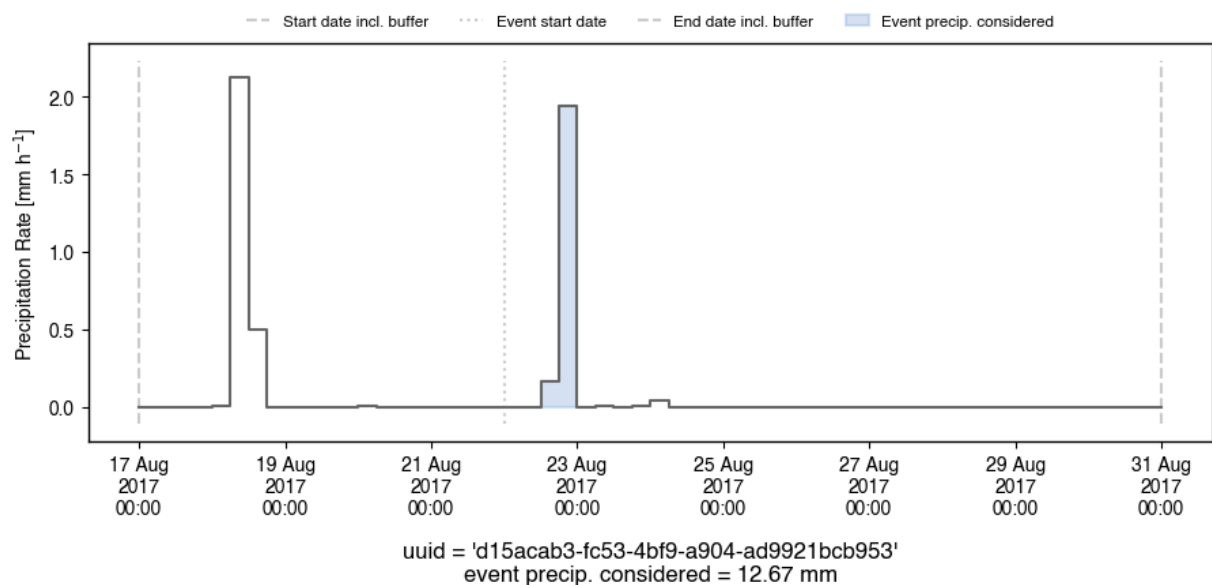

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 7: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "88cad9f4-7053-4c0a-a3d4-b2ed29a0c94a"
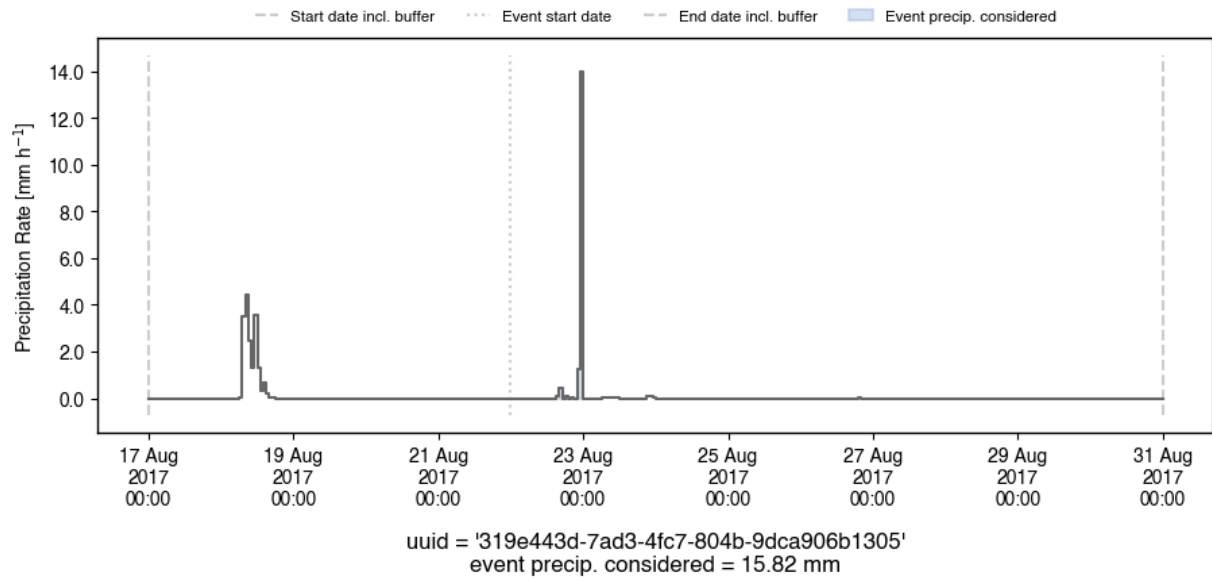
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
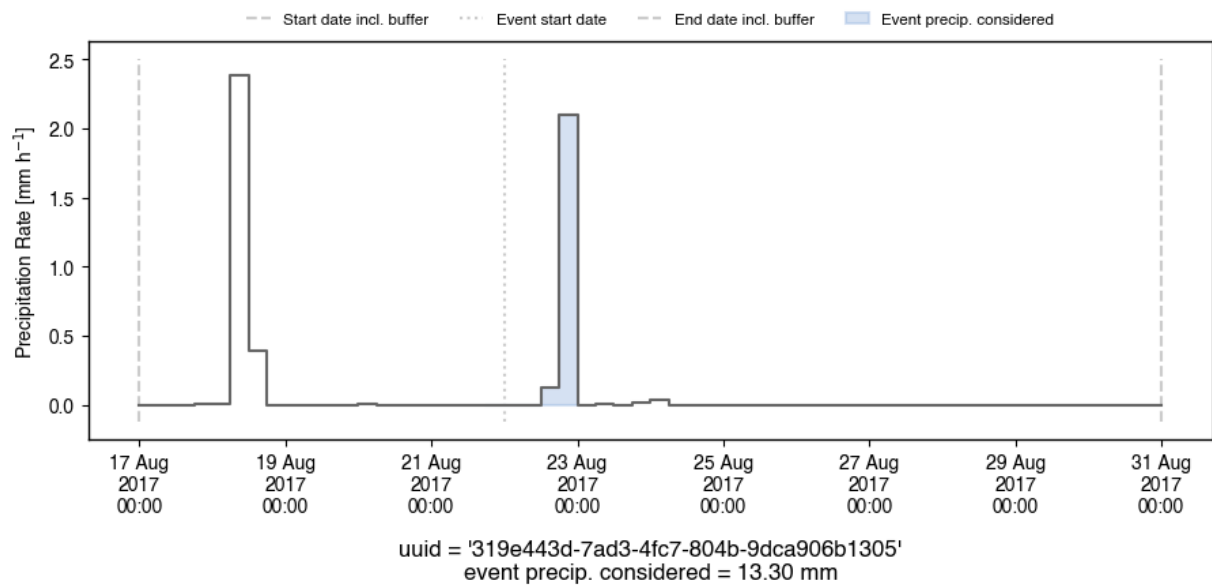

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 8: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "d15acab3-fc53-4bf9-a904-ad9921bcb953"
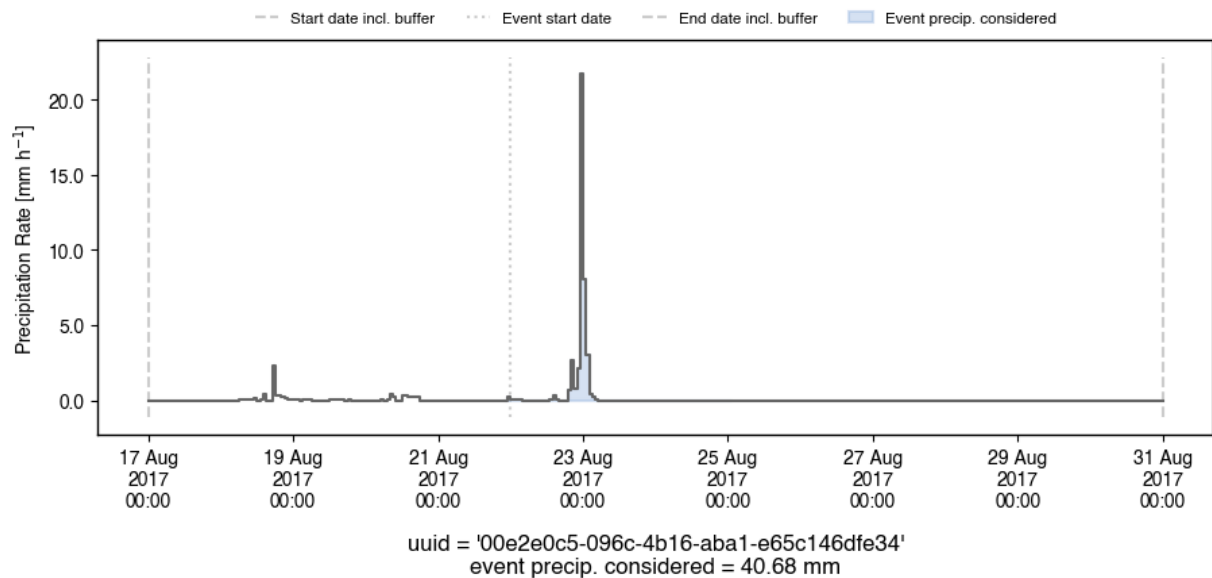
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
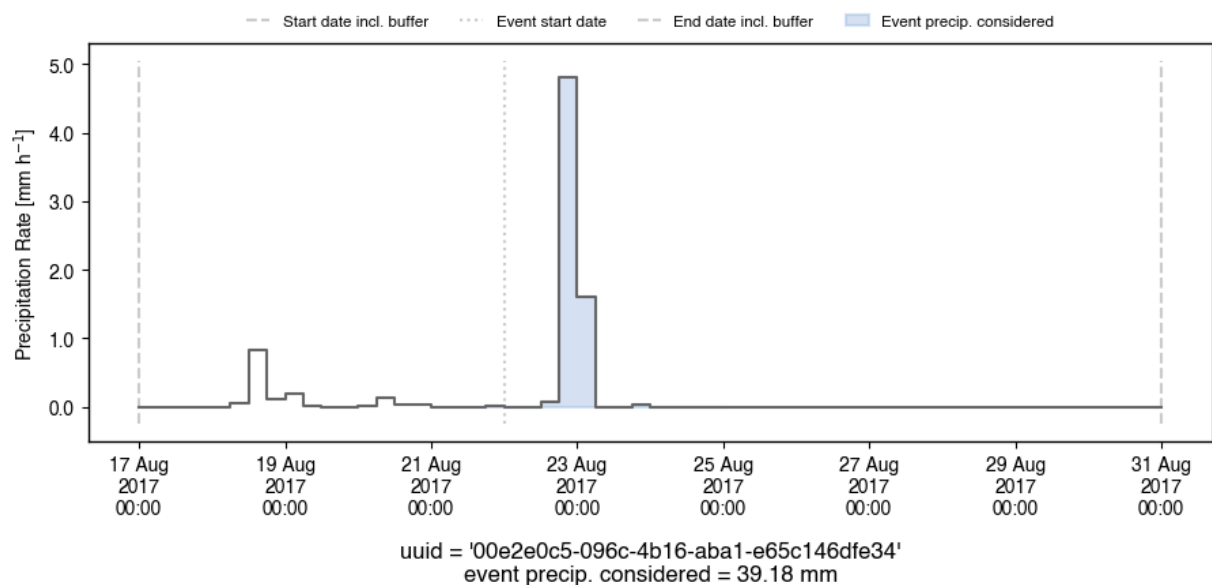

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 9: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "319e443d-7ad3-4fc7-804b-9dca906b1305"
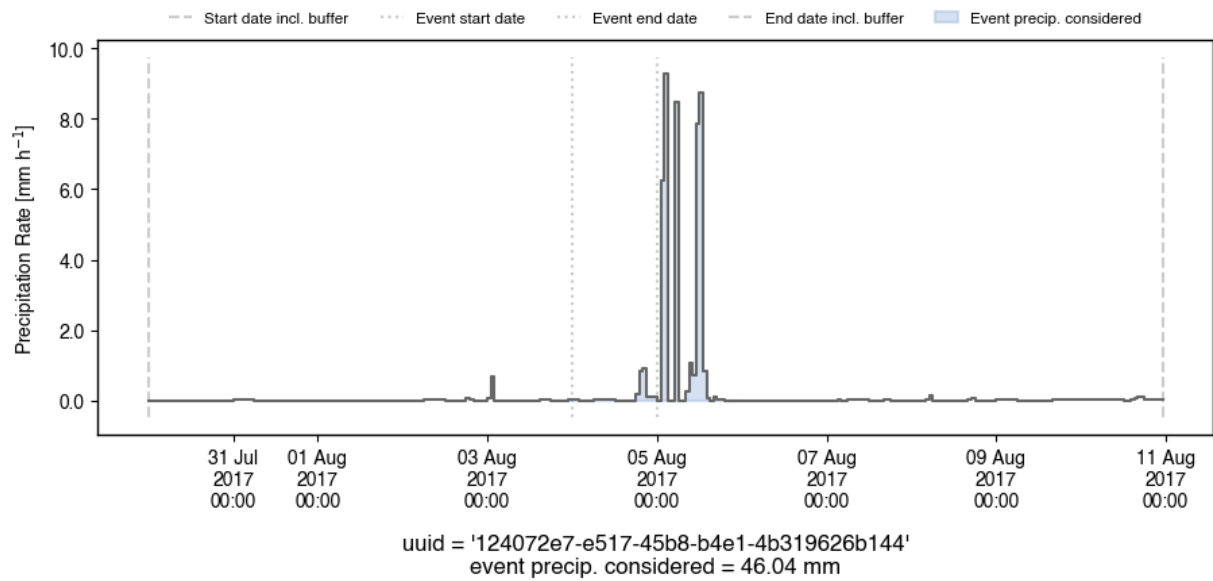
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
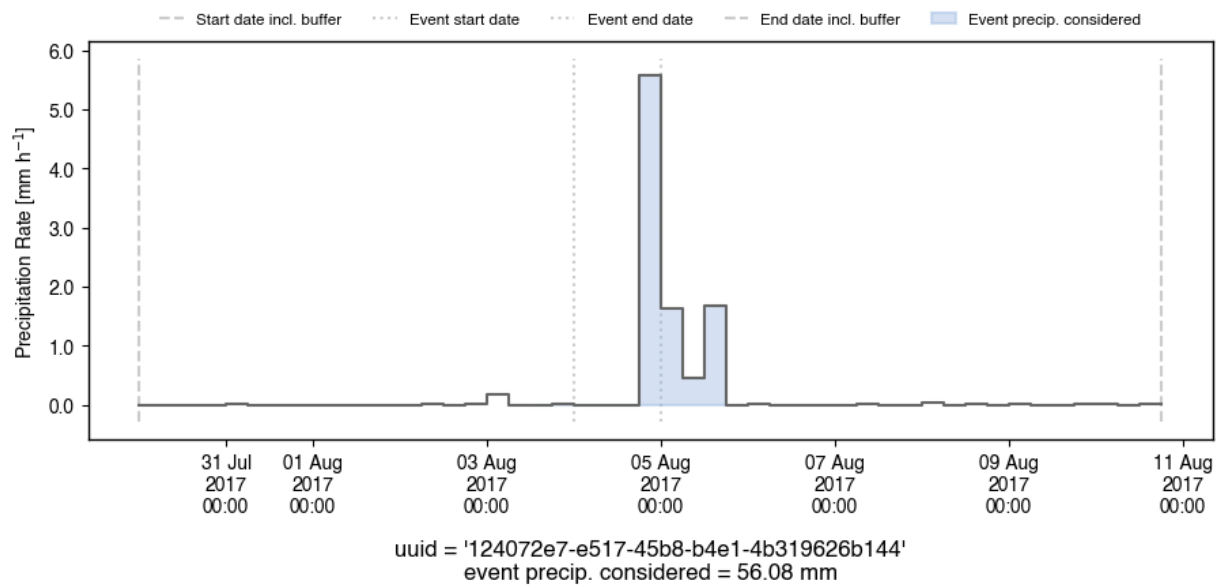

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 10: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "00e2e0c5-096c-4b16-aba1-e65c146dfe34"
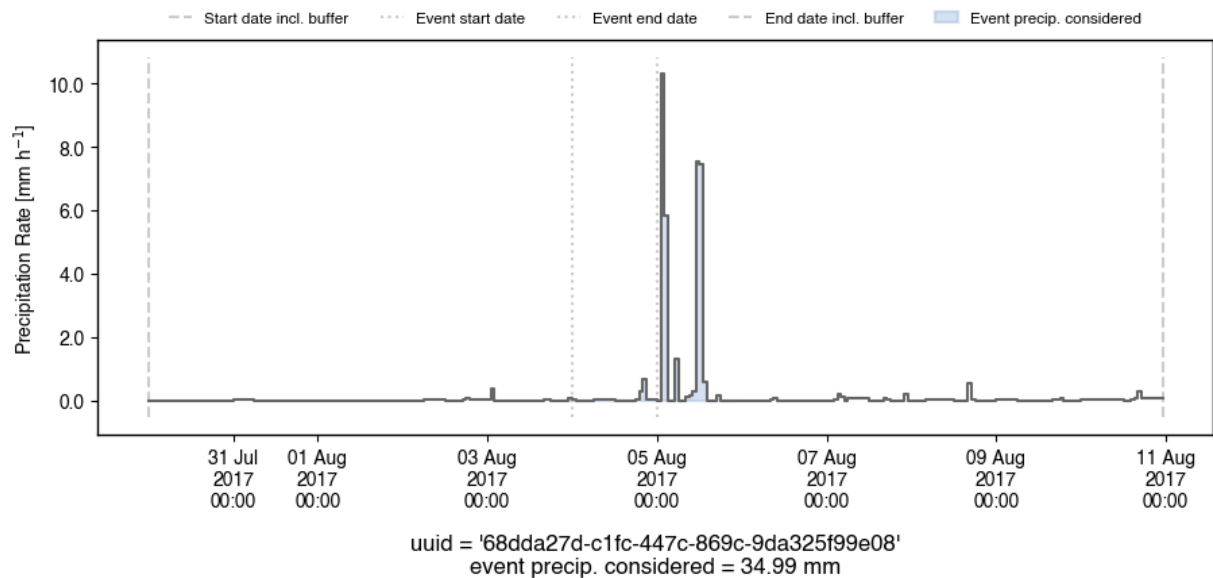
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
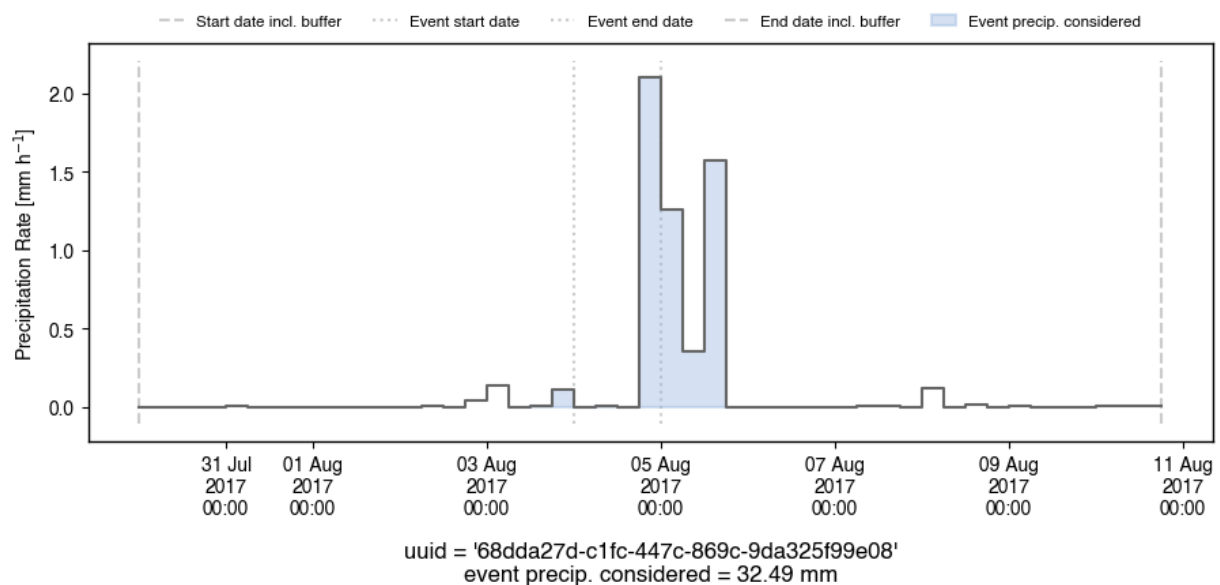

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 11: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "124072e7-e517-45b8-b4e1-4b319626b144"
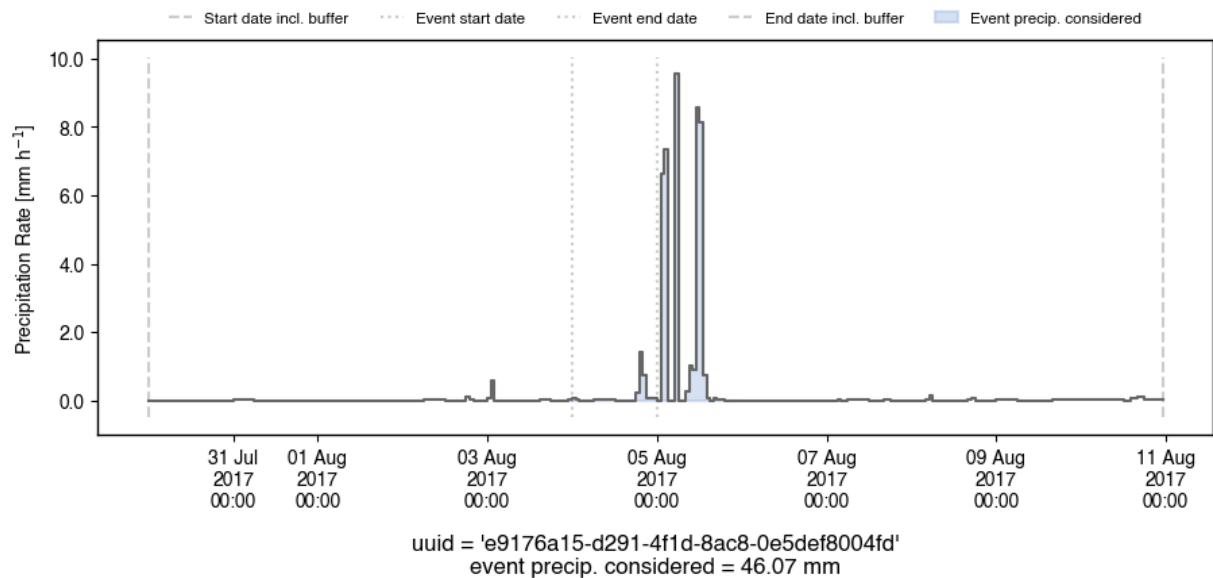
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
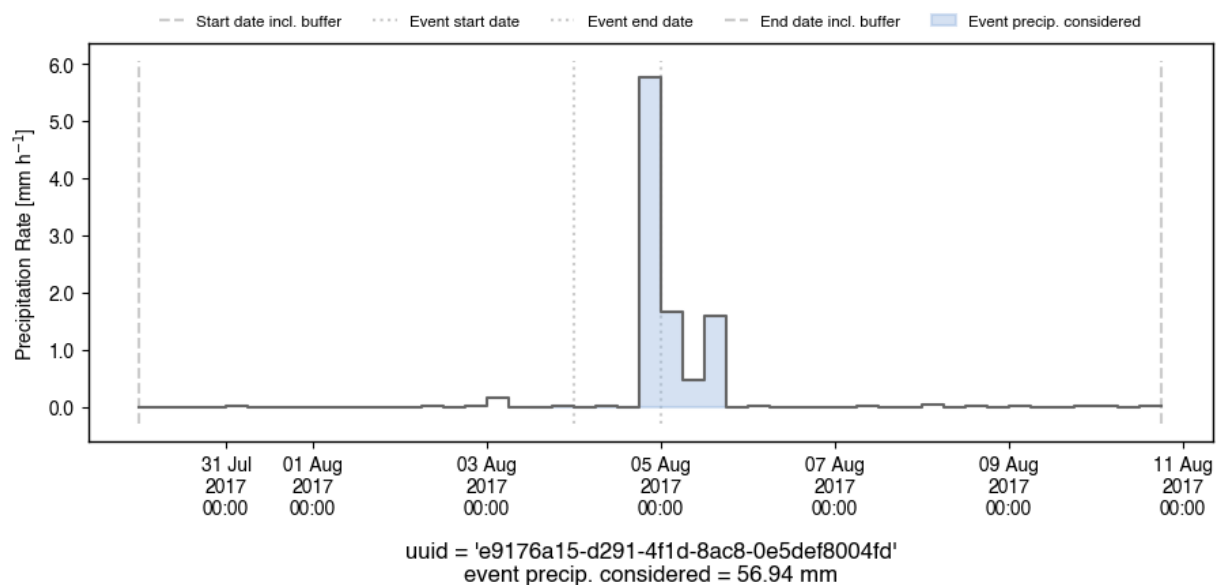

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 12: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "68dda27d-c1fc-447c-869c-9da325f99e08"
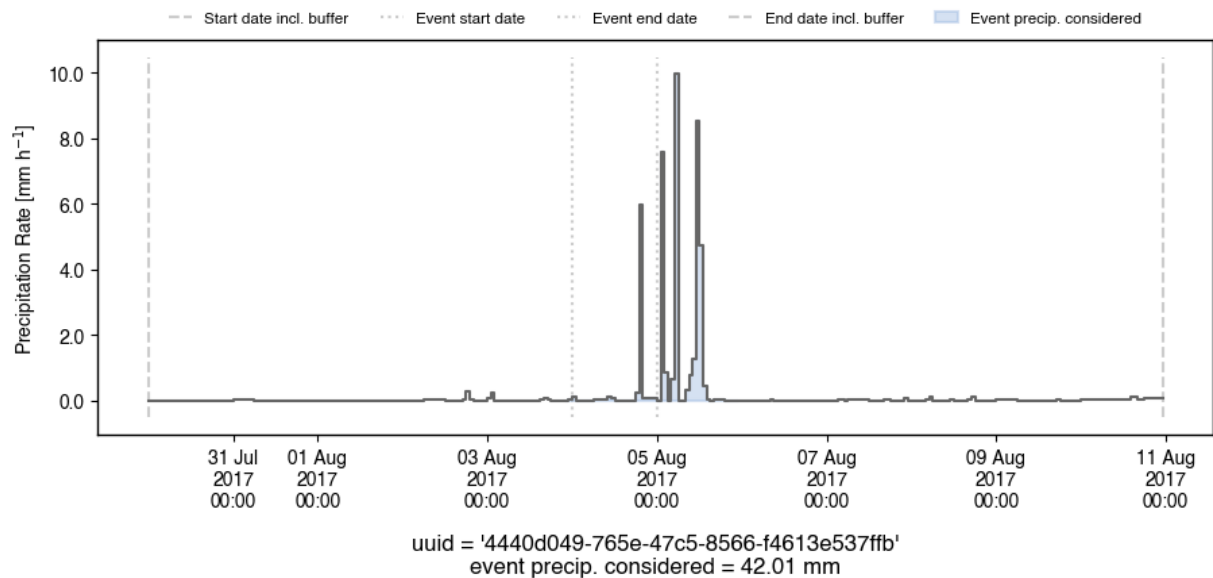
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
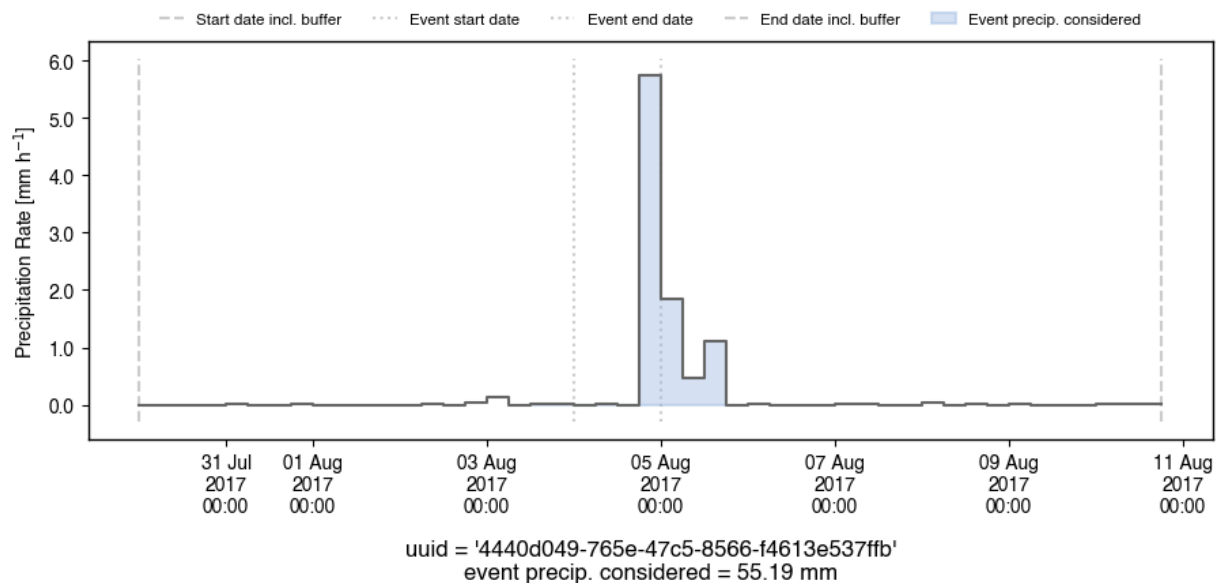

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 13: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "e9176a15-d291-4f1d-8ac8-0e5def8004fd"
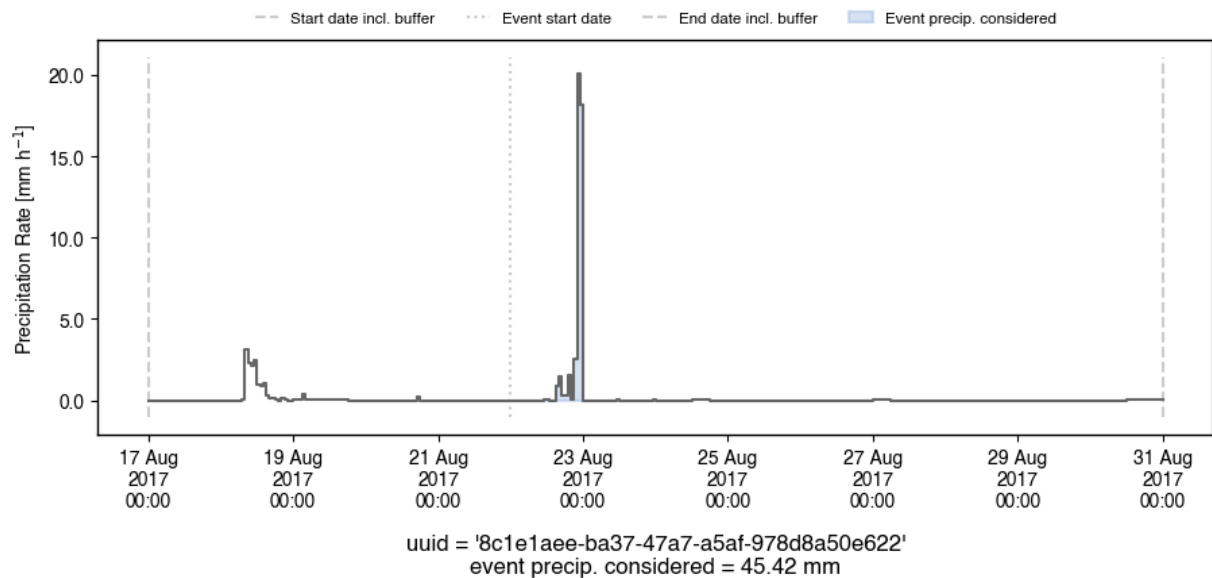
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
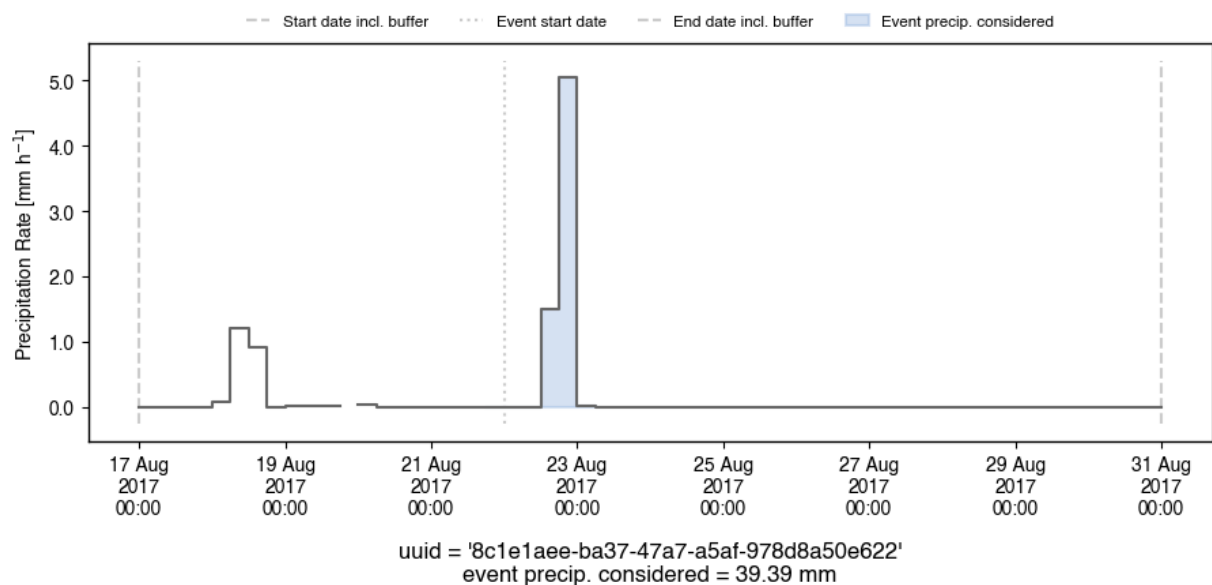

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 14: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "4440d049-765e-47c5-8566-f4613e537ffb"
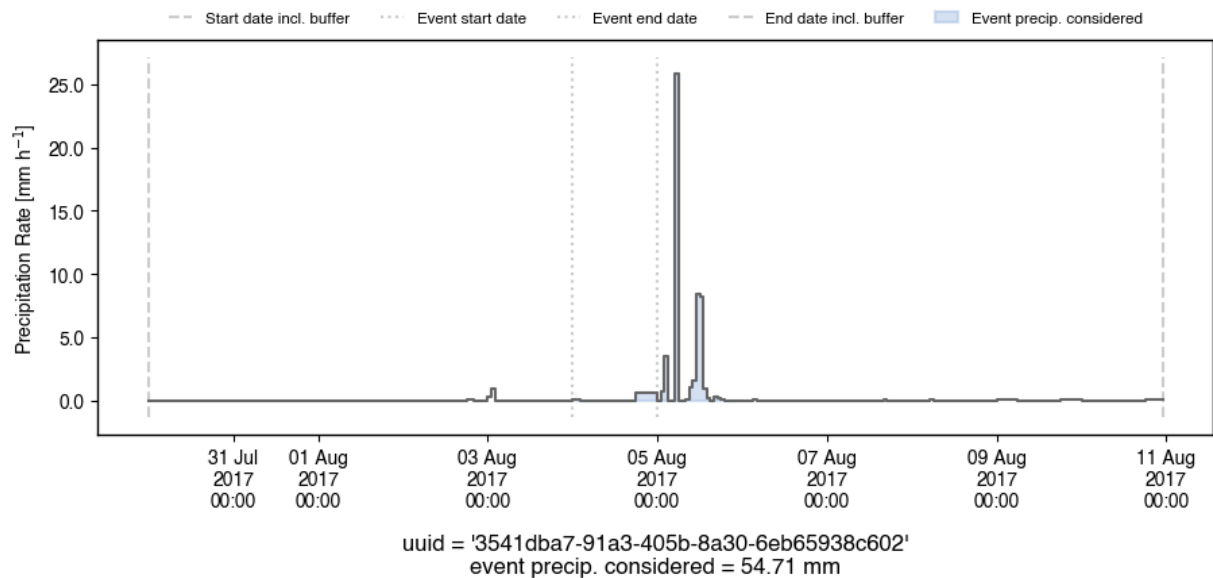
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
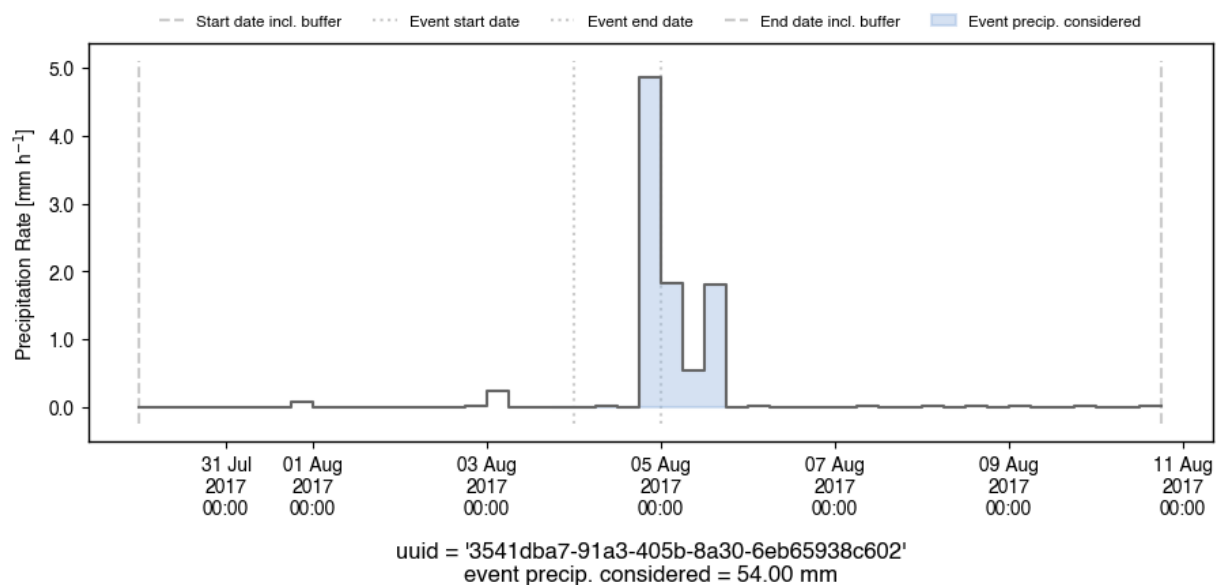

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 15: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "8c1e1aee-ba37-47a7-a5af-978d8a50e622"
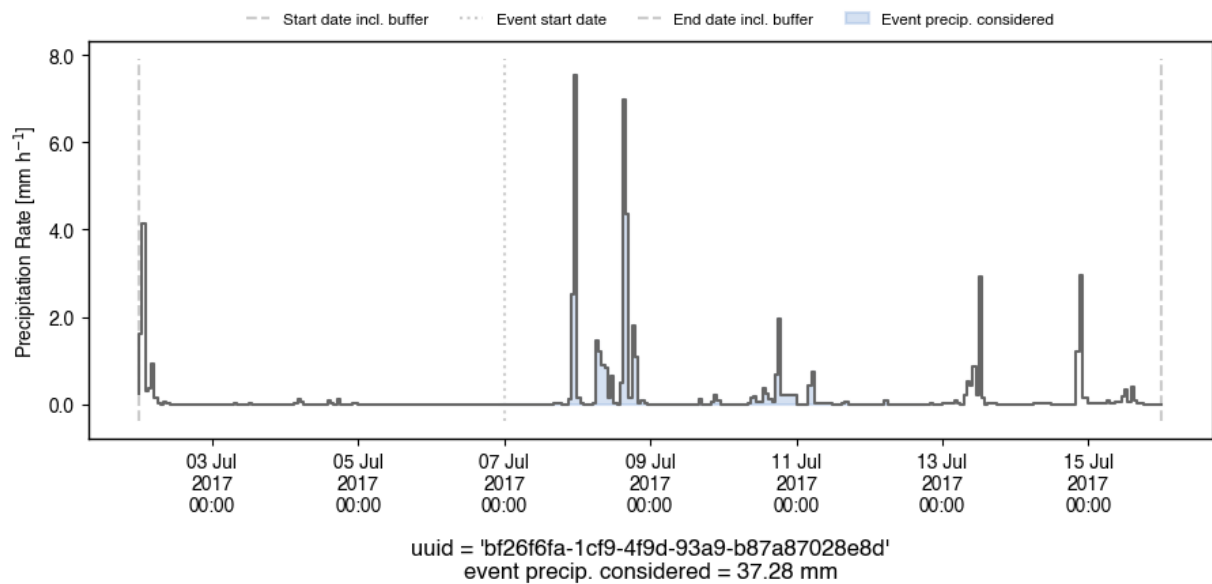
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
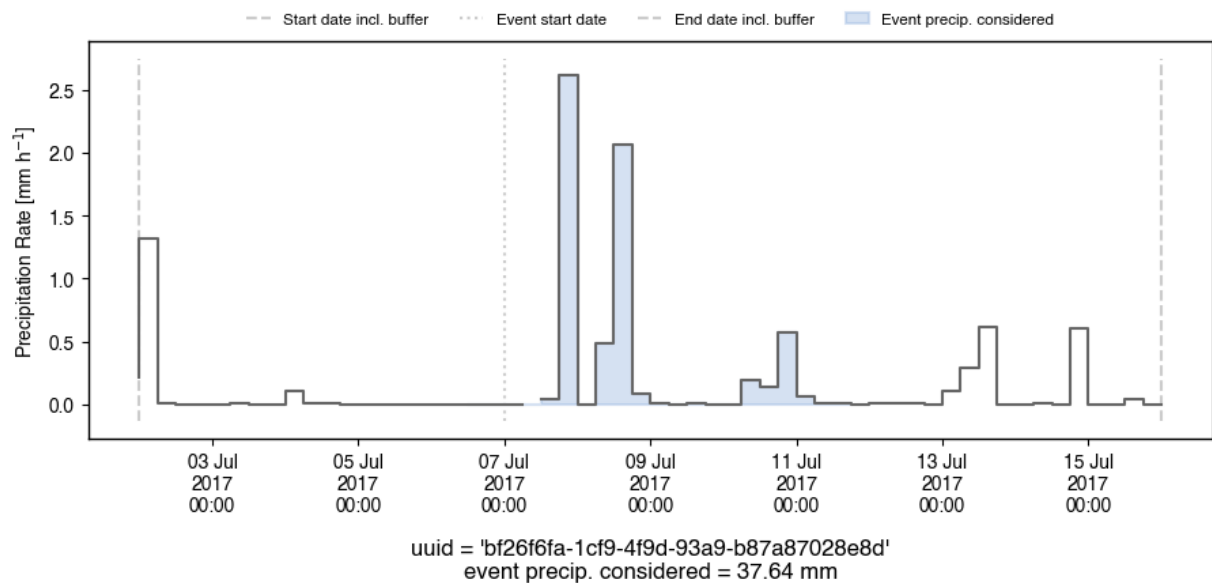

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 16: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "3541dba7-91a3-405b-8a30-6eb65938c602"
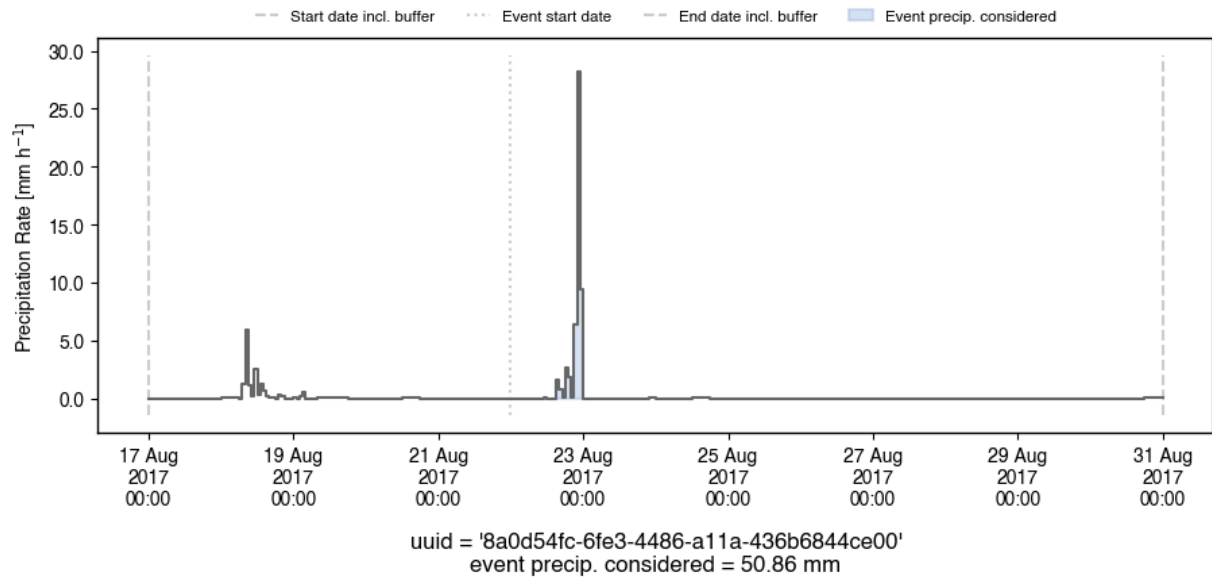
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
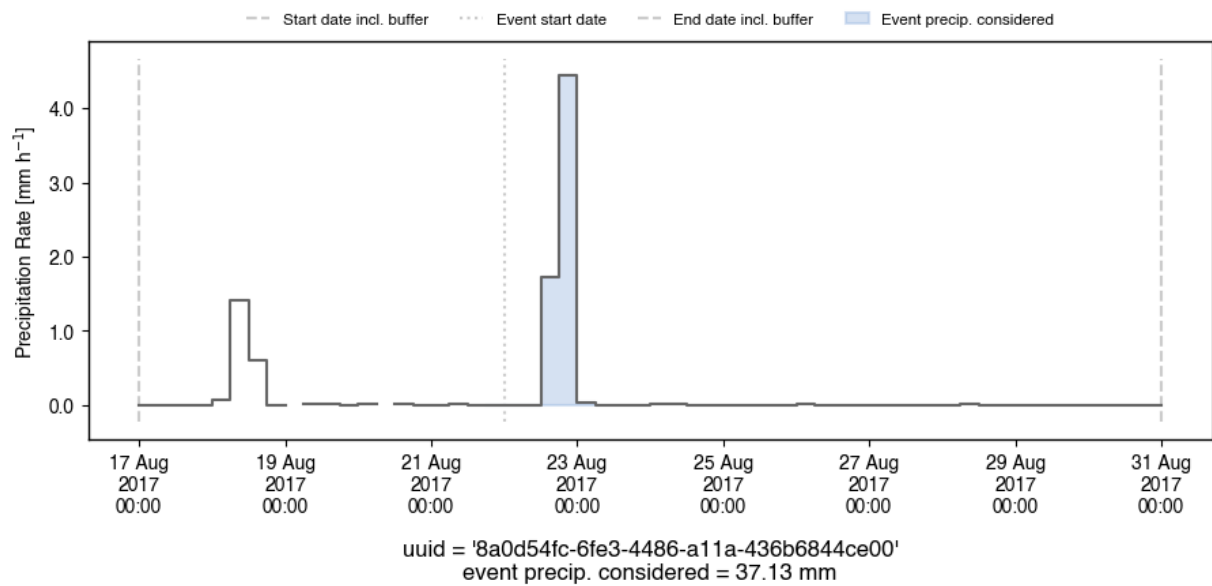

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 17: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "bf26f6fa-1cf9-4f9d-93a9-b87a87028e8d"
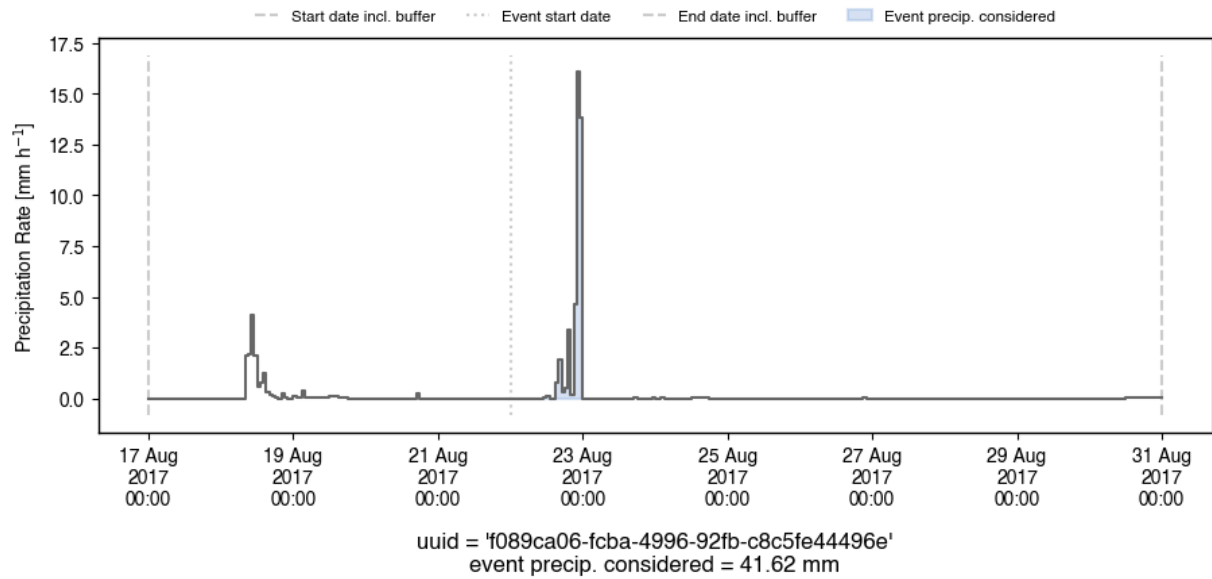
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
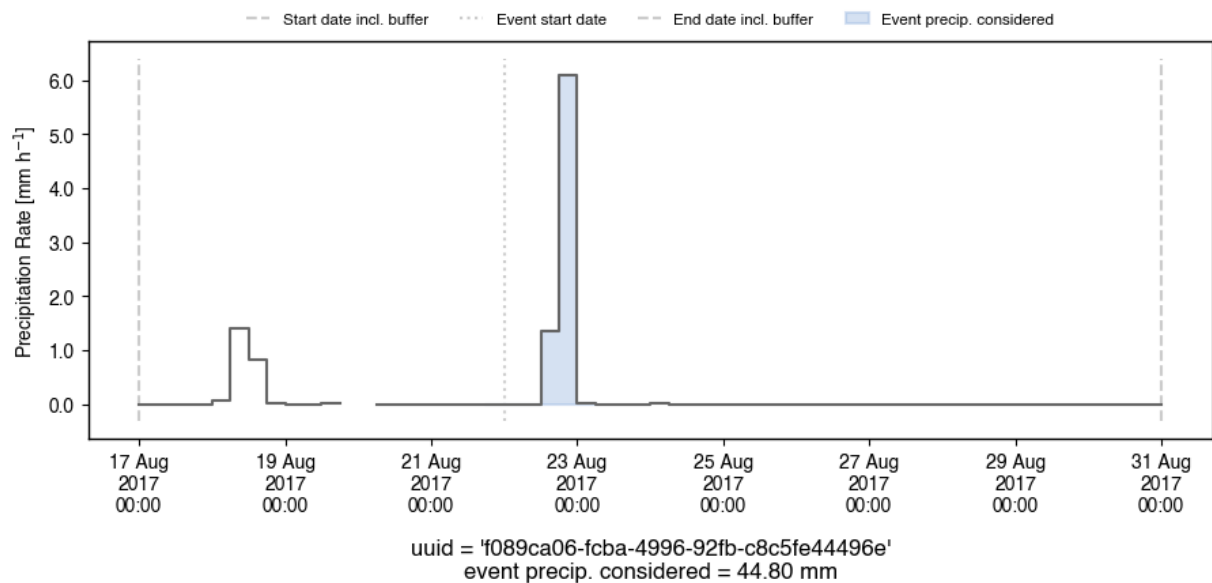

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 18: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "8a0d54fc-6fe3-4486-a11a-436b6844ce00"
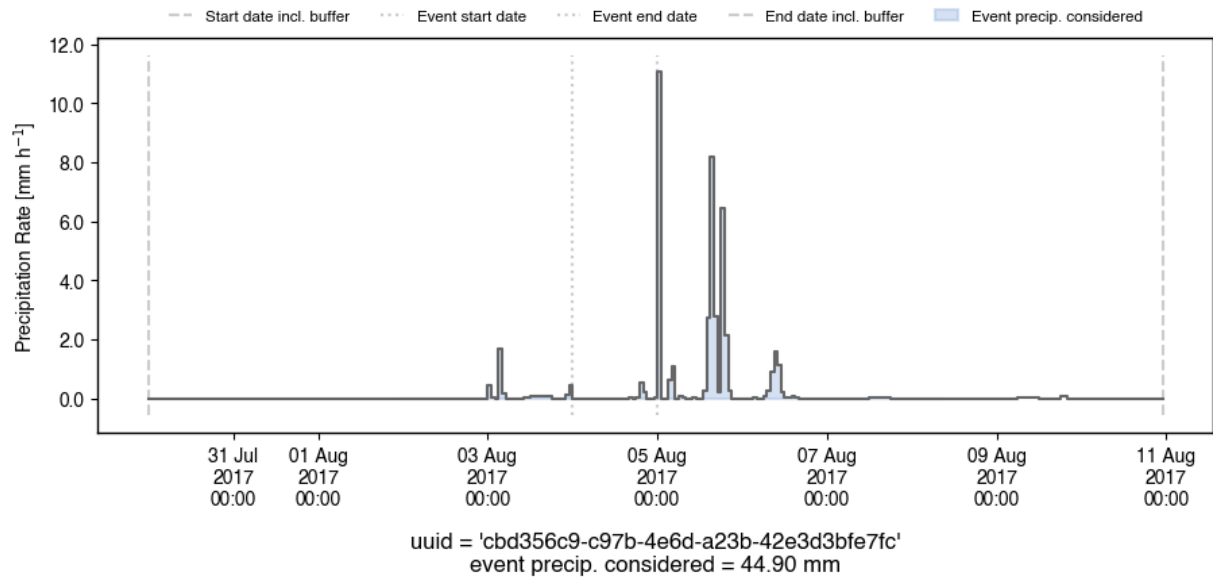
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
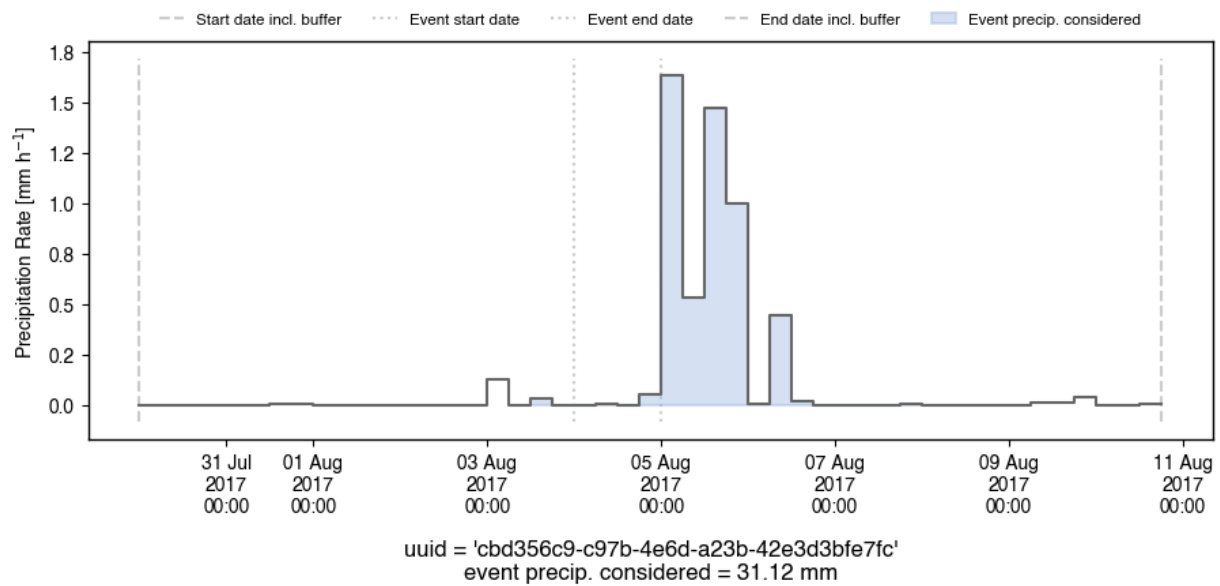

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 19: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "f089ca06-fcba-4996-92fb-c8c5fe44496e"
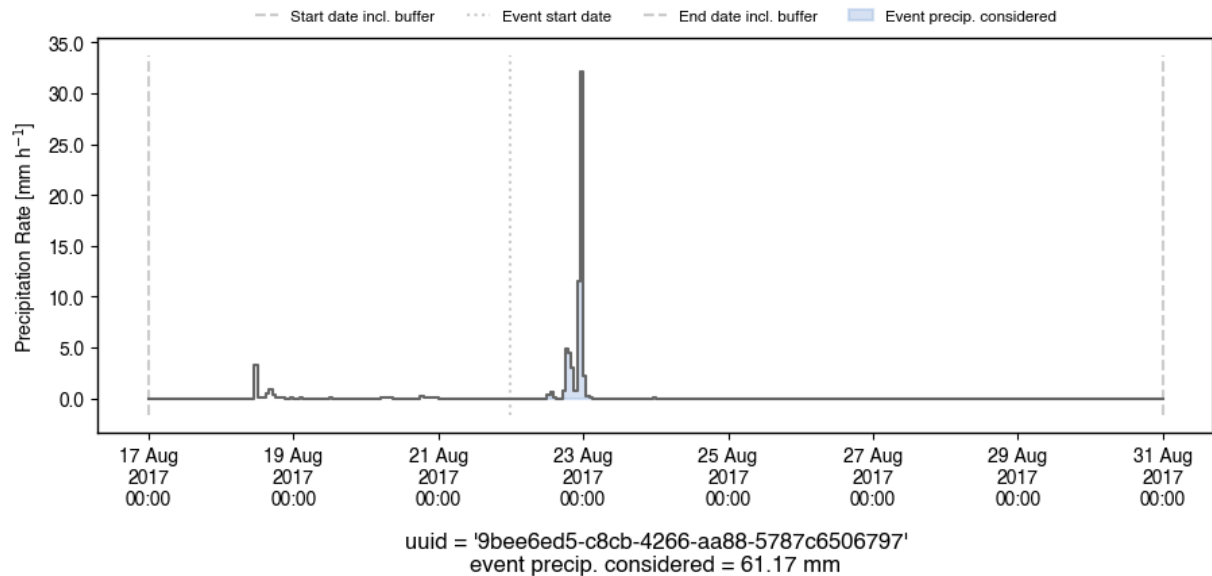
(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 20: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "cbd356c9-c97b-4e6d-a23b-42e3d3bfe7fc"

(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
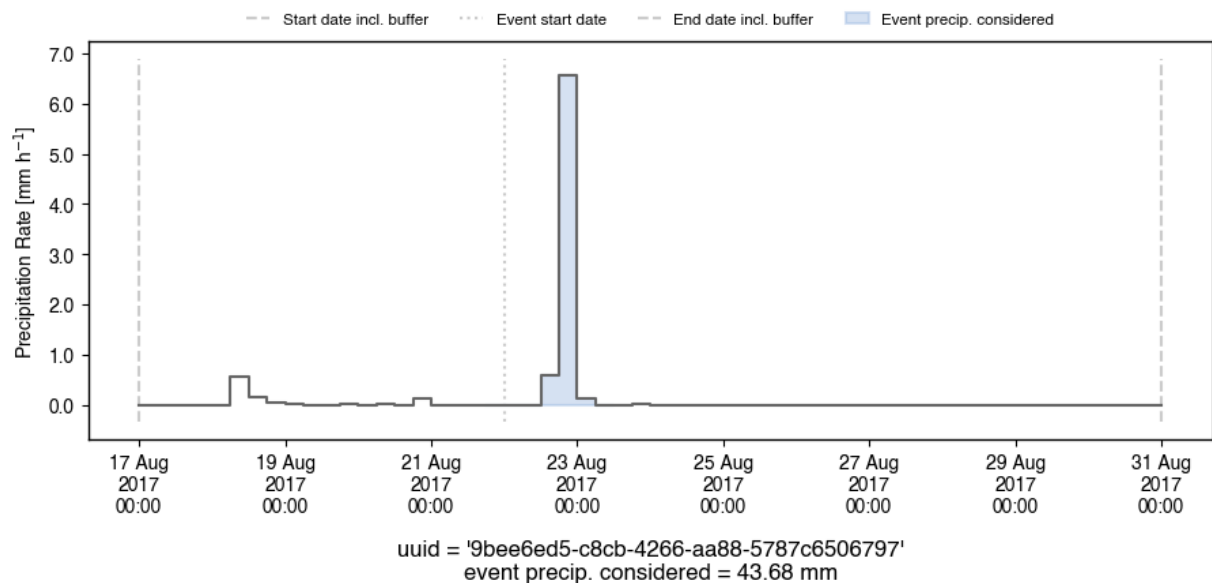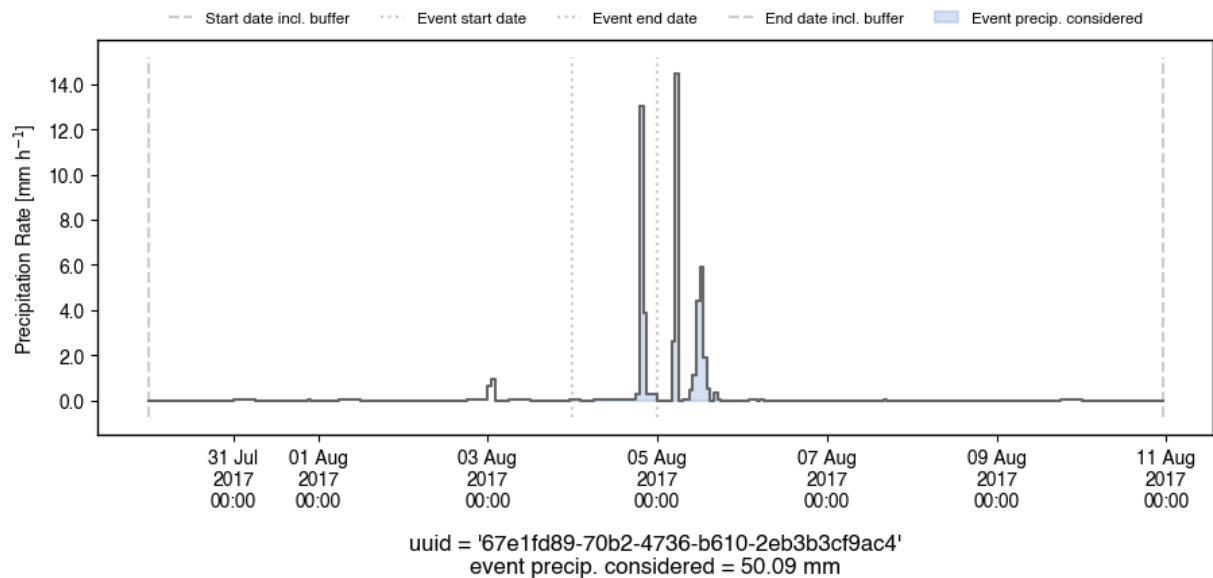

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 21: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "9bee6ed5-c8cb-4266-aa88-5787c6506797"

(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
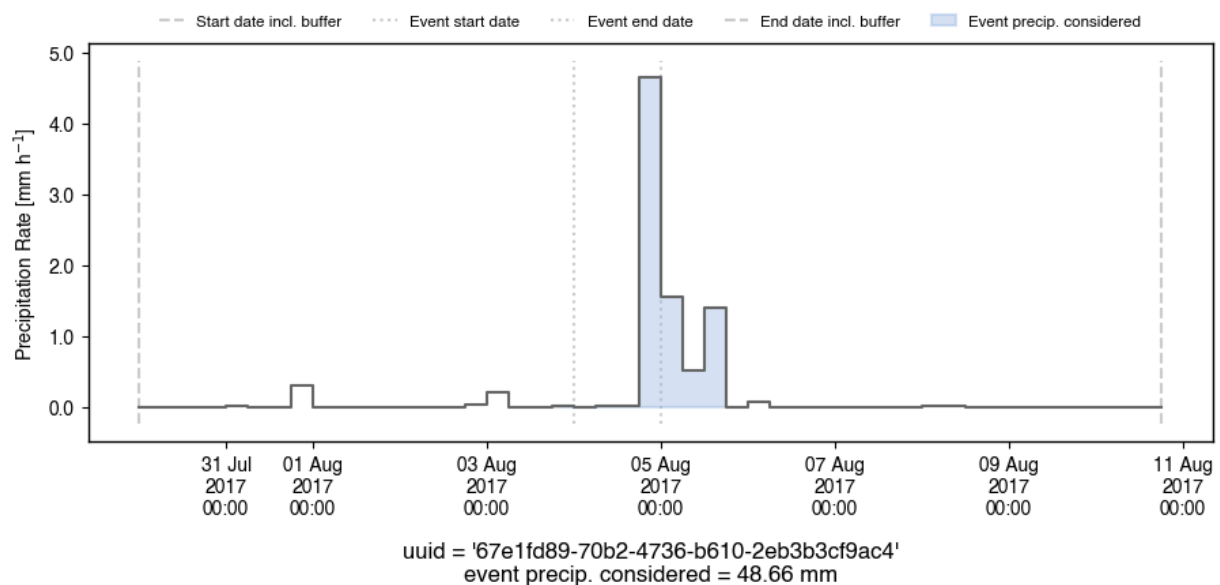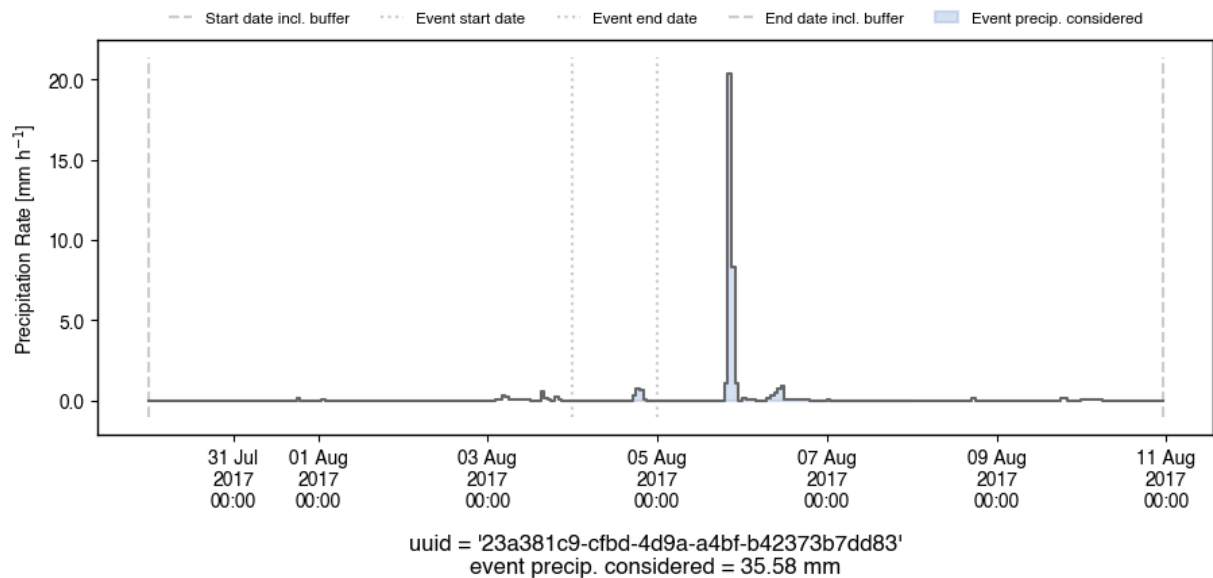

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 22: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "67e1fd89-70b2-4736-b610-2eb3b3cf9ac4"

(a) Flood occurrence analyzed using data from CaSPAr NetCDF data (RDRS_v2.1; 1hr accumulations)
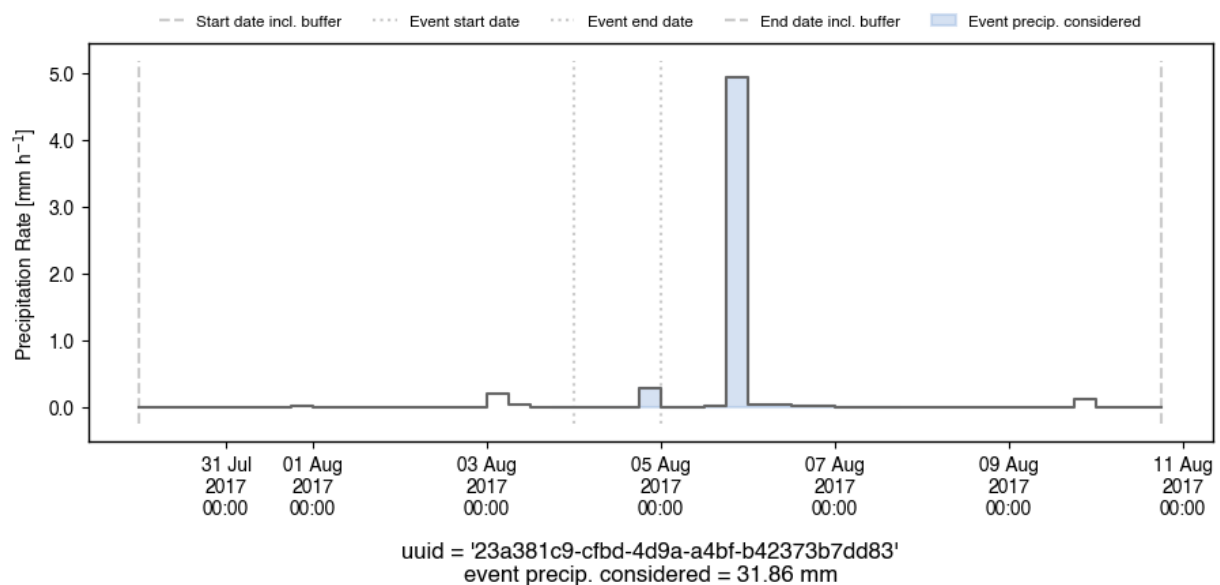

(b) Flood occurrence analyzed using data from GeoMet GRIB2 data (RDPA; 6hr accumulations)

Figure 23: Flood occurrence in 2017 from HFE database (historical_flood.json) with UUID "23a381c9-cfbd-4d9a-a4bf-b42373b7dd83"