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Reservoirs on European Flood Awareness System

18th EFAS Annual Meeting

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(Hydrological Data Collection Centre)



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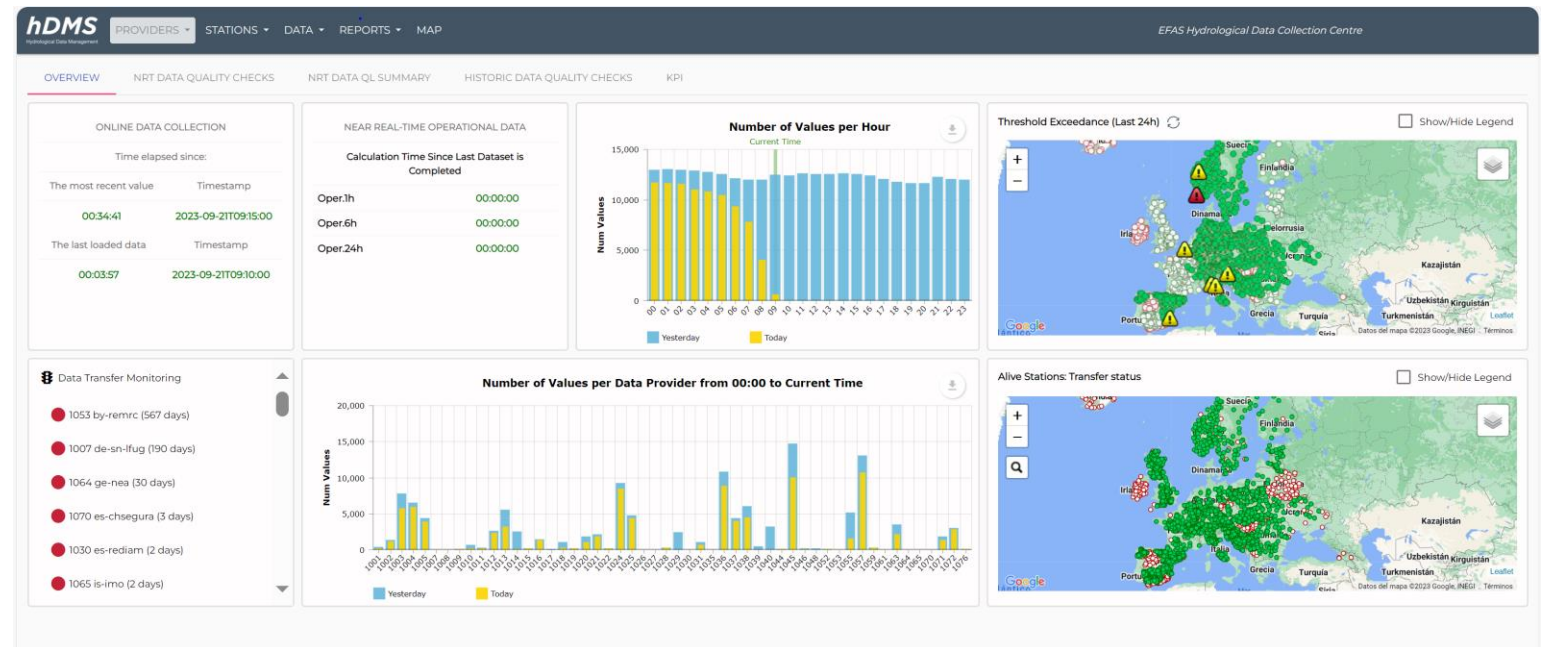
Hydrological Data Collection Centre

The HDCC has been collecting hydrological data from rivers in the EFAS domain since the service was operative.

- Near-Real-Time data
- Historical data

Variables

- Discharge
- Water level



NEW

RESERVOIRS

Data collection from reservoirs is a new feature of EFAS.

During 2023 the HDCC has been testing successfully the data collection and processing

The development of this feature and an increase of the amount of data provided by the partners is expected for 2024





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WHY

WHAT and
HOW

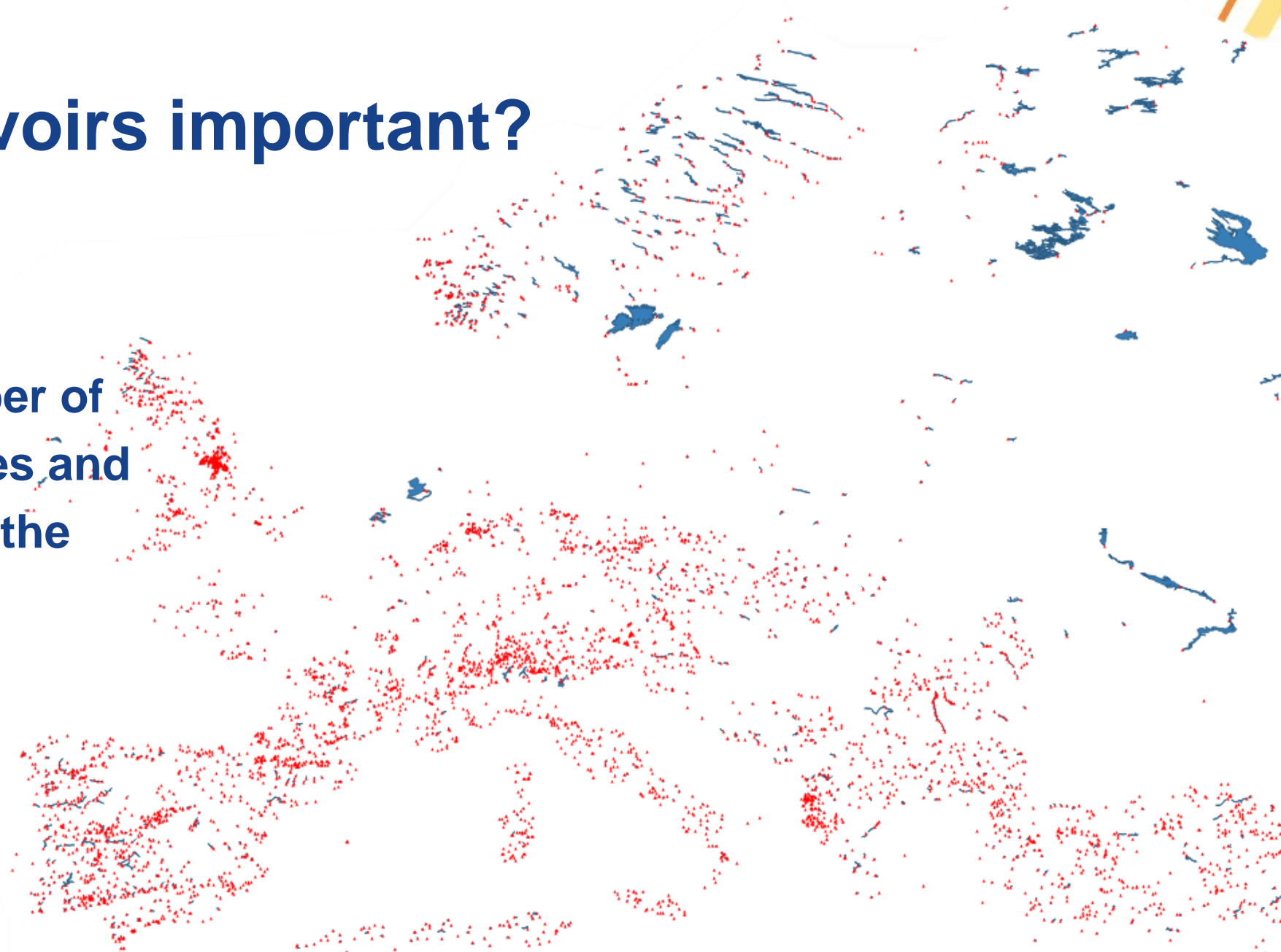
Why are reservoirs important?

Reservoirs in Europe

There is a great number of reservoirs, dams, lakes and other water bodies in the EFAS domains

▲ +/- 5000 dams

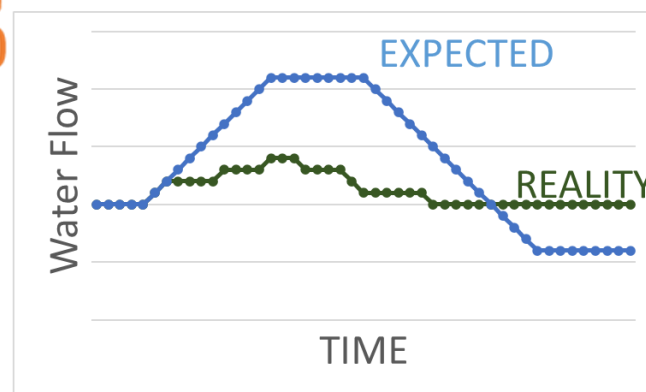
● +/- 4000 reservoirs/lakes



Why are reservoirs important?

Reservoirs can alter the readings on gauging stations during hydrological events

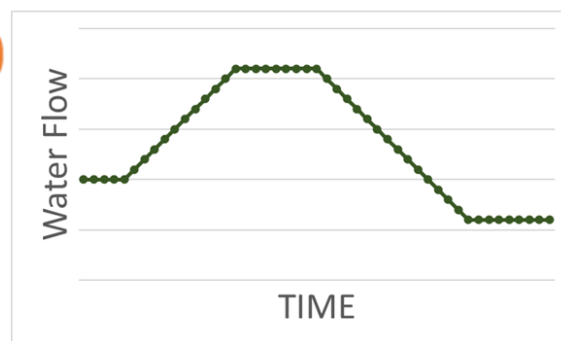
The water that does not reach the station because its course is “interrupted” generates a false low record that does not match with what was expected



Why are reservoirs important?

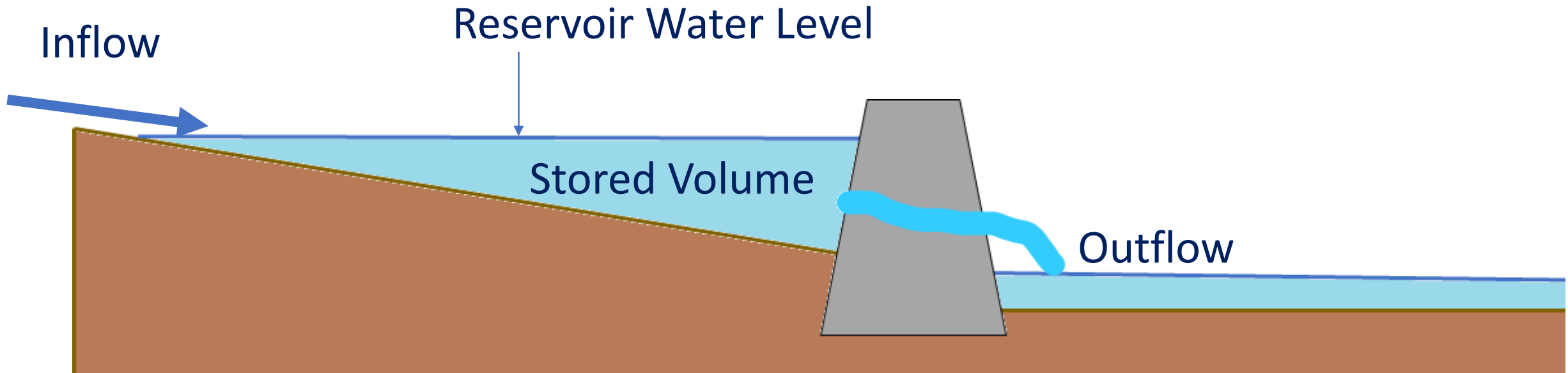
Reservoirs can alter the readings on gauging stations during hydrological events

Unexpected flows during draughts or dry seasons, due reservoirs' water release



What data do we need?

Four variables:



How do we need the data?

Global Inflow vs. Outflow to riverbed

- **Inflow** variable: a “**summatory**” of all inputs to the reservoir (rainfall, upper streams, water transfer, etc.)
 - Calculated data.
 - Post-processed/corrected data.
- **Outflow** variable: **only the water discharged** to the downstream waterway
 - Water transfers for irrigation, human or industrial consumption, or similar purposes will not be taken into account



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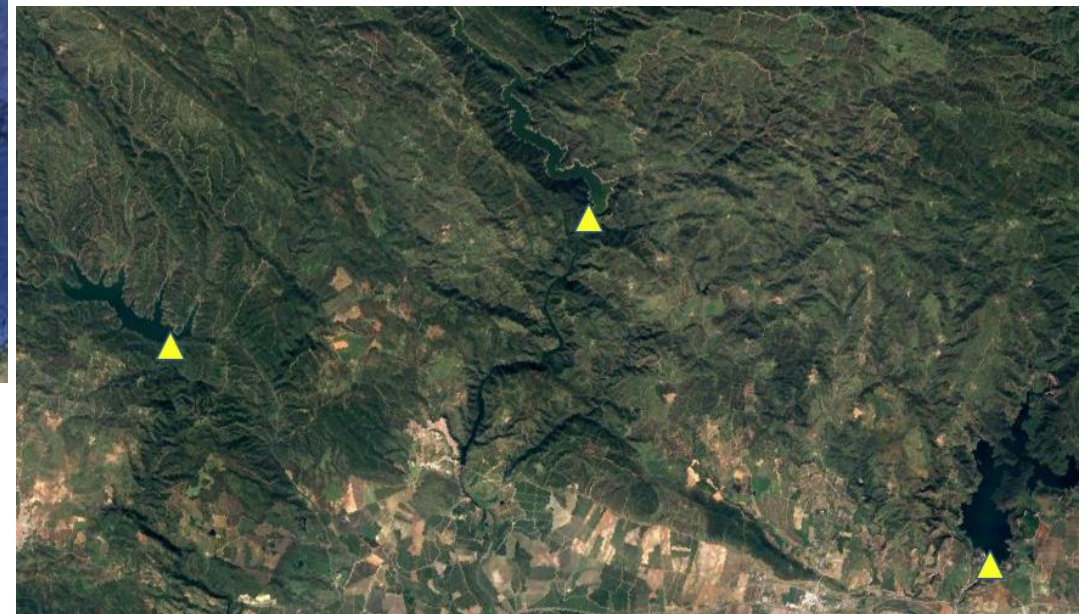
WORK done
UNTIL
NOW

Data processing test

Reservoirs on Guadalquivir River Basin



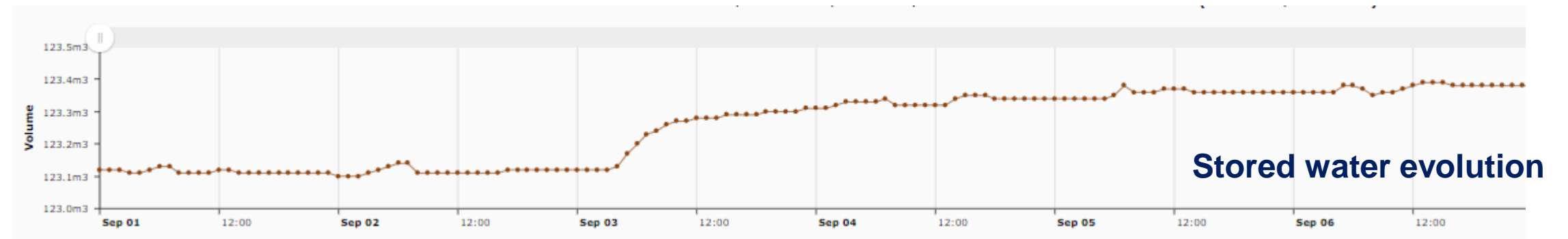
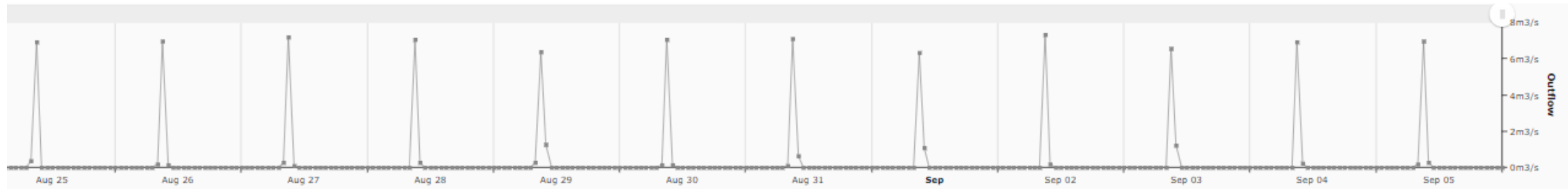
49 Reservoir stations



Data processing test

Reservoirs on Guadalquivir River Basin

Outflows



CALL FOR DATA

An e-mail informing about this new feature and requesting reservoir data request was sent to all data providers on August and within the last two weeks.



WITHOUT YOUR COLLABORATION, THIS IS NOT POSSIBLE

If you have any question, please don't hesitate to approach us.



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NEXT STEPS

CONTINUOUS DEVELOPMENT

Consolidate the initiated processes

Test the new processes and quality checks

Incorporate new information as it is received





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THANK YOU
FOR **YOUR**
COLLABORATION

STAY CONNECTED

EVENTS, ONLINE, and MAP VIEWERS



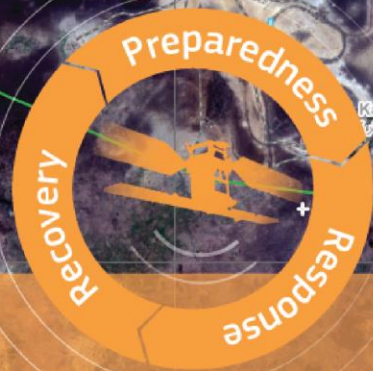
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Rapid Mapping



Risk & Recovery Mapping



Floods



Fires



Droughts



Population



Built-up areas



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