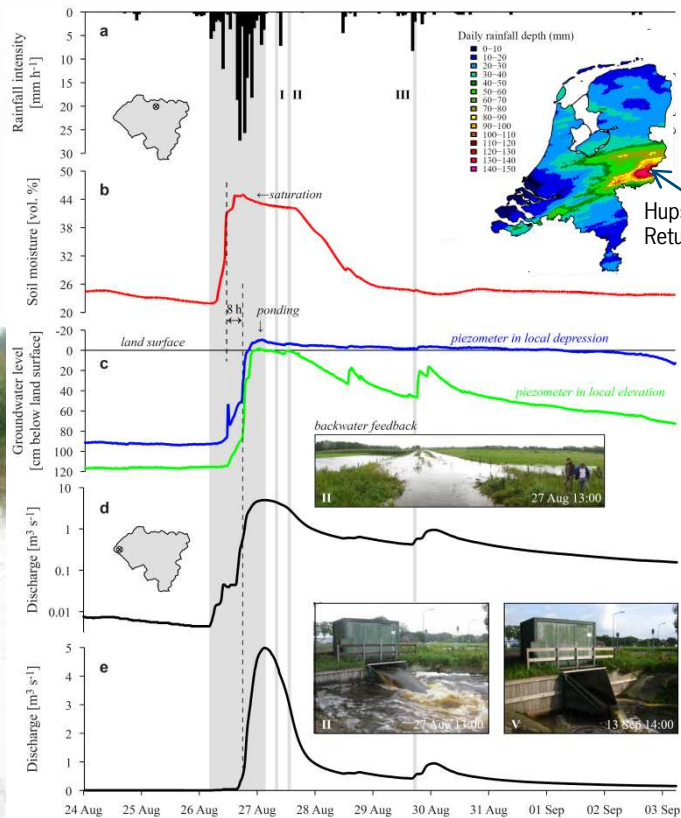


Analysing and modelling a lowland flash flood

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What happened

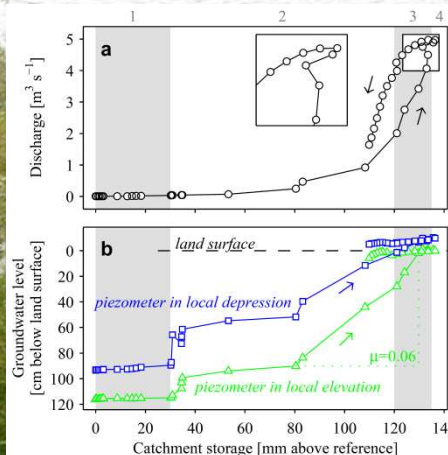
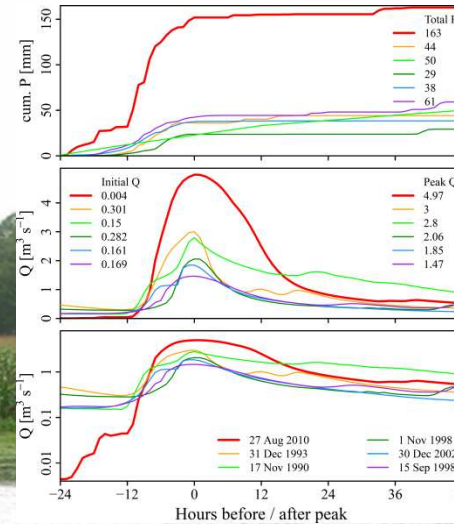


Research question

What happens during a lowland flash flood and how can these processes be modelled?

What we found

Conclusion ←
Dry initial conditions compared to previous discharge peaks



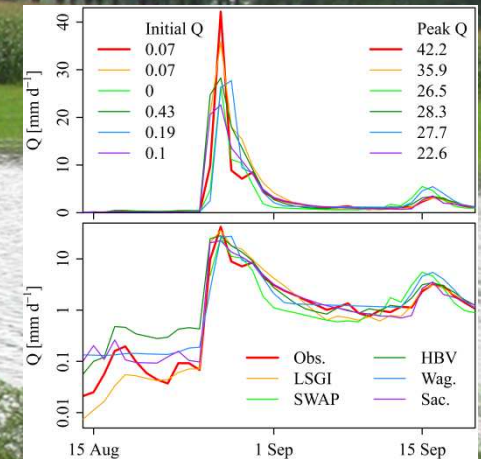
Conclusion

Different storage-discharge relations during different phases of the catchment response:
1. Soil moisture increase
2. Groundwater rise
3. Surface runoff
4. Backwater feedback

What models do

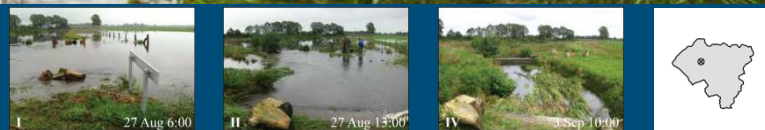
5 lumped models (daily timestep):

- Lowland Groundwater-Surface water Interaction Model (Van der Velde, 2009)
- Soil, Water, Atmosphere, Plant (Van Dam, 2000)
- HBV Light (Seibert, 1997)
- Wageningen Model (Stricker & Warmerdam, 1982)
- Sacramento Model (Burnash, 1995)



Conclusions

- Peak underestimated
- Initial conditions o.k.



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