

Wensum DTC Mitigation Measures

Sediment traps: 2016–2017



UEA University of East Anglia



Demonstration
Test
Catchments

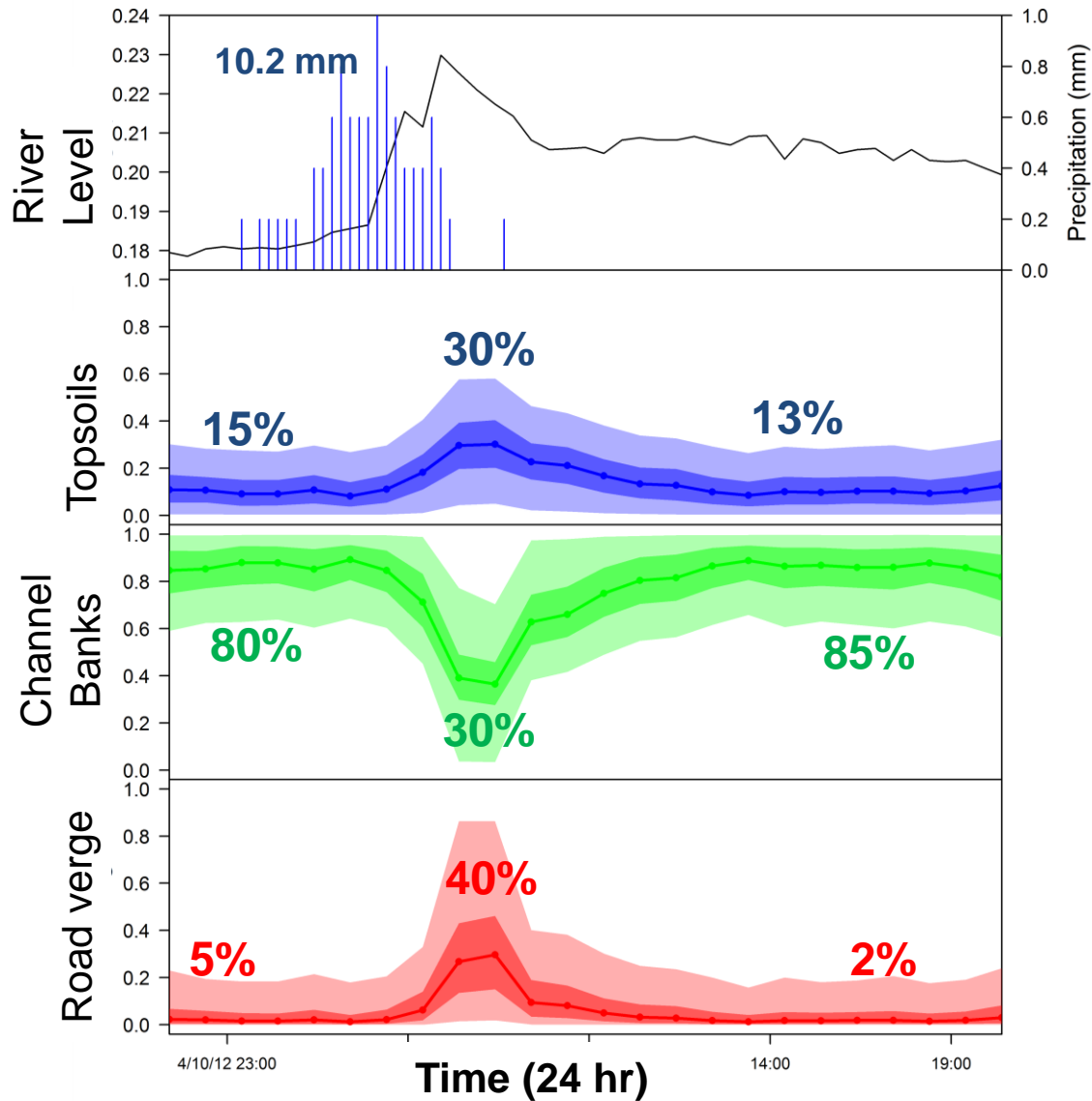






Pre-installation Fingerprinting

October 2012





**Constructed
October 2016**



£15,000

Funded by *Norfolk
Rivers Trust &
Broadland Catchment
Partnership*



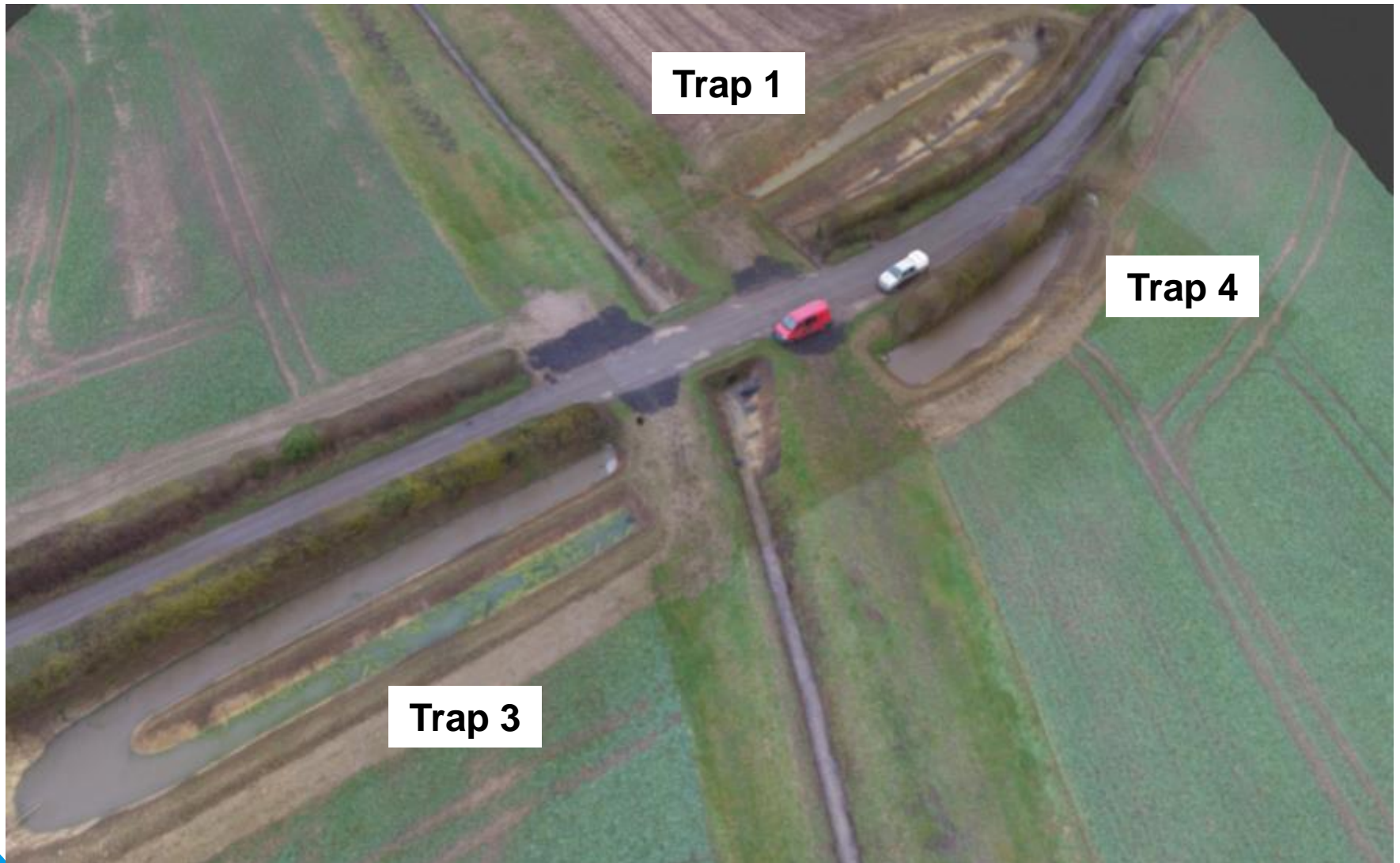
www.wensumalliance.org.uk

**Wensum
Alliance**

Drone survey – February 2017

HexCam

<https://hexcam.co.uk/>





Monitoring Trap Performance

Sediment trap 4 (2016 – 2017)

Sediment retained: **7,253 kg**

Damage cost: **£392**

TP retained: **11.6 kg**

Damage cost: **£148**

OC retained: **400 kg (6%)**

Total damage cost: **£540**

River sediment load downstream

2016/17: **6.3 tonnes**

2011-2016 average: **15 tonnes**



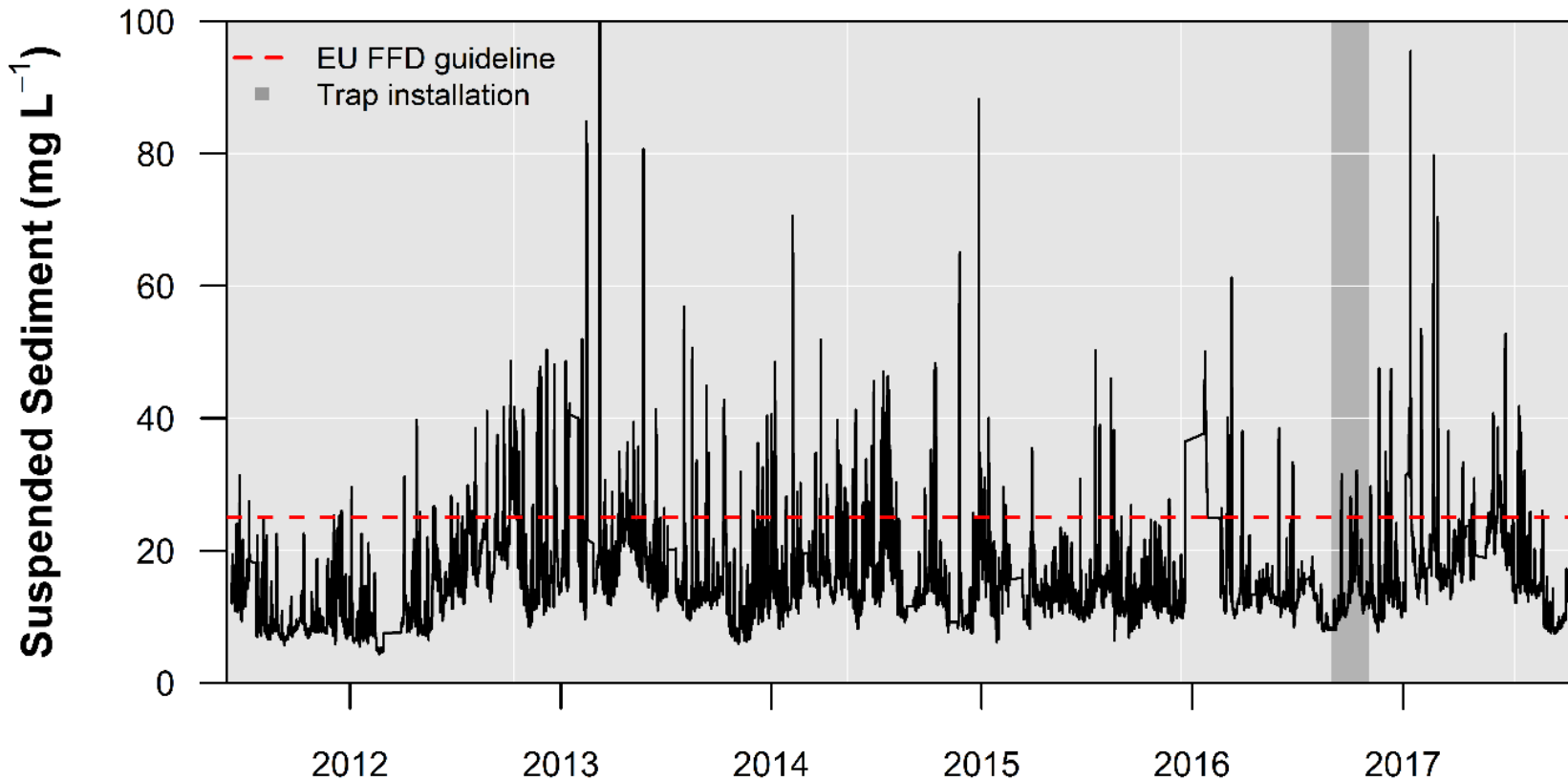
Damage costs per tonne

TP: £12,790

N: £430

Sed: £54

Monitoring Trap Performance

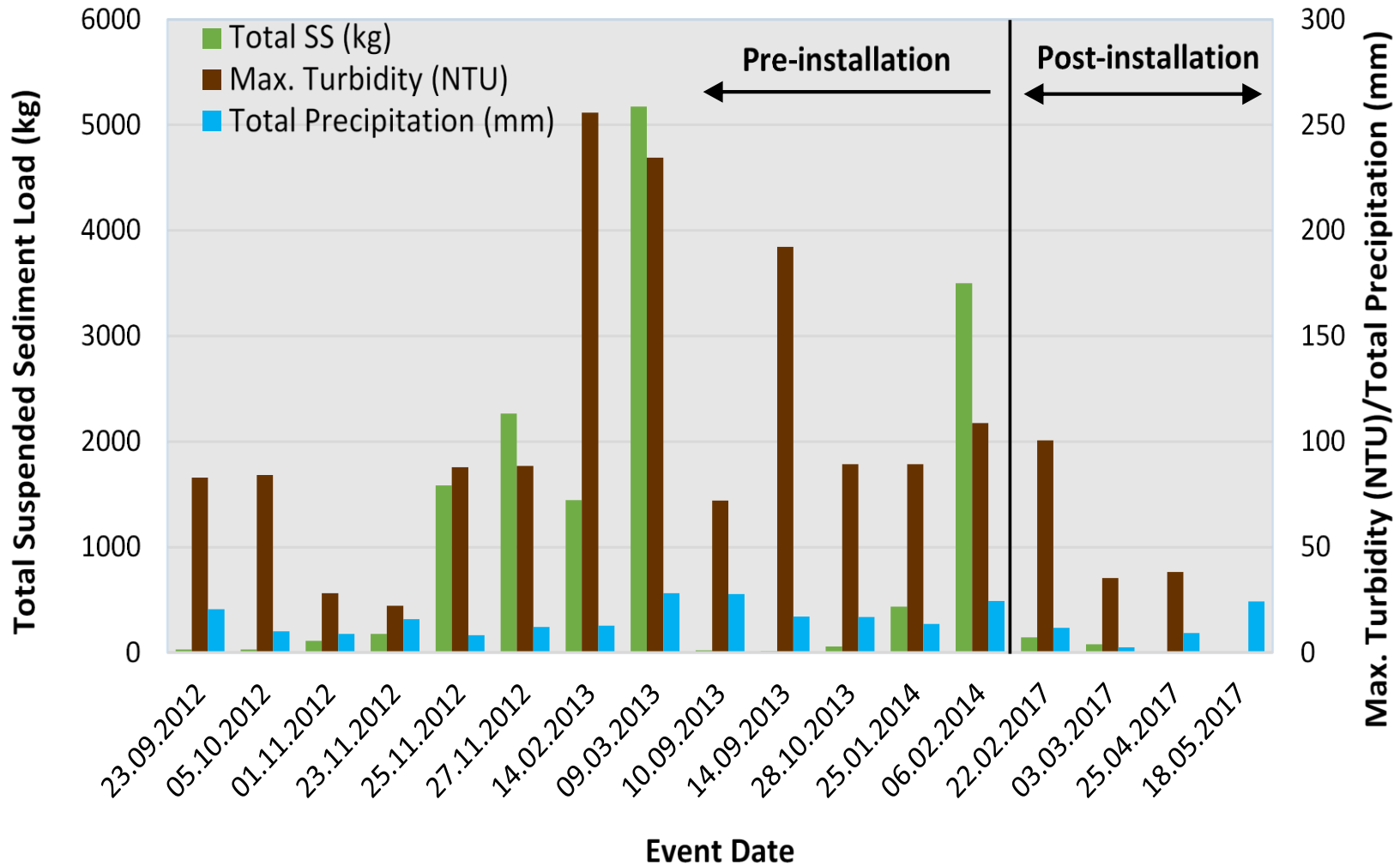


	Pre-installation	Post-installation	Change
Suspended sediment (mg/L)	15.9	18.2	+14%
Flow (L/s)	26.5	10.2	-62%
Sediment load (kg/y)	15,000	6,300	-58%



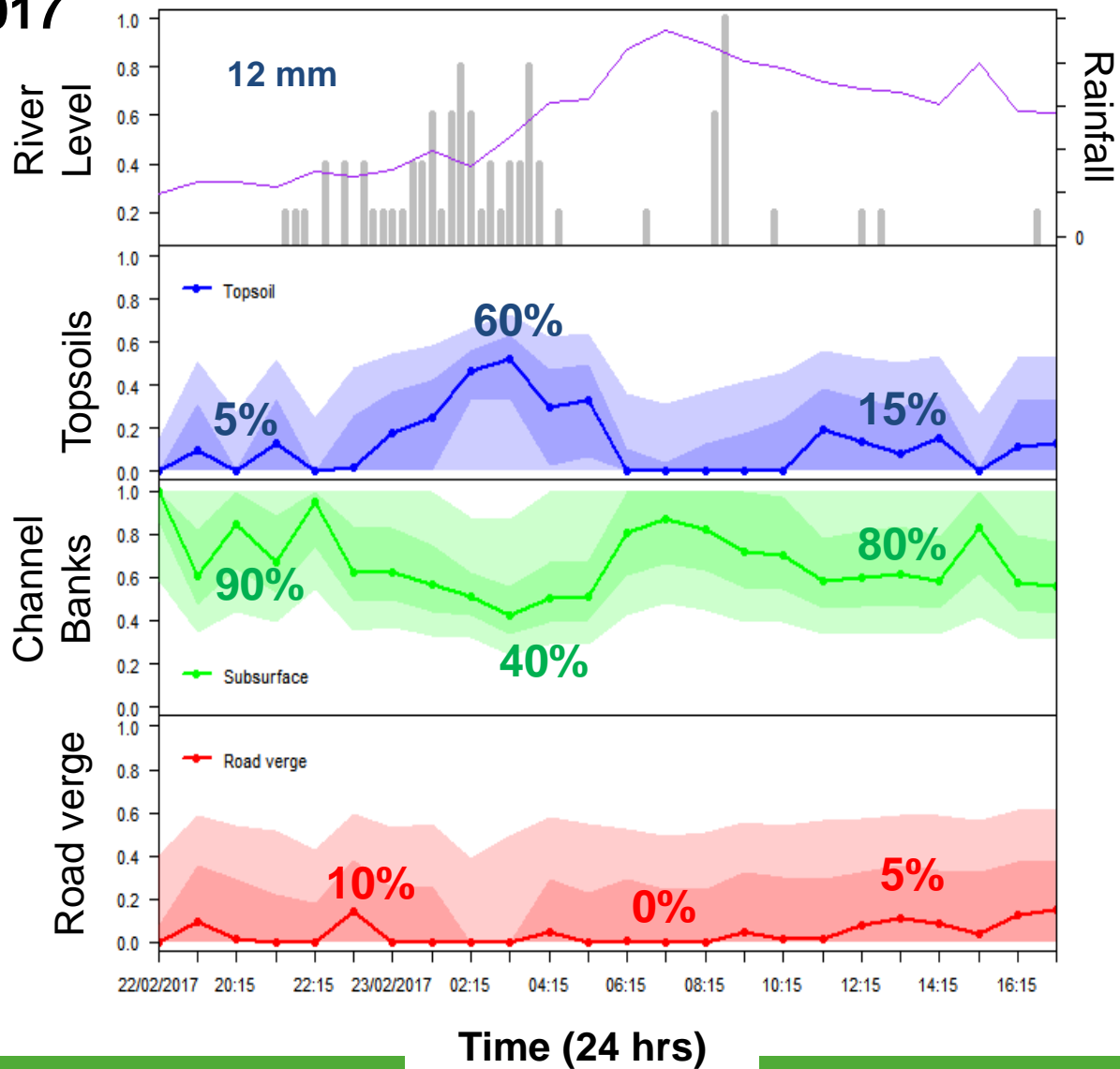
Monitoring Trap Performance

17 storms events



Post-installation Fingerprinting

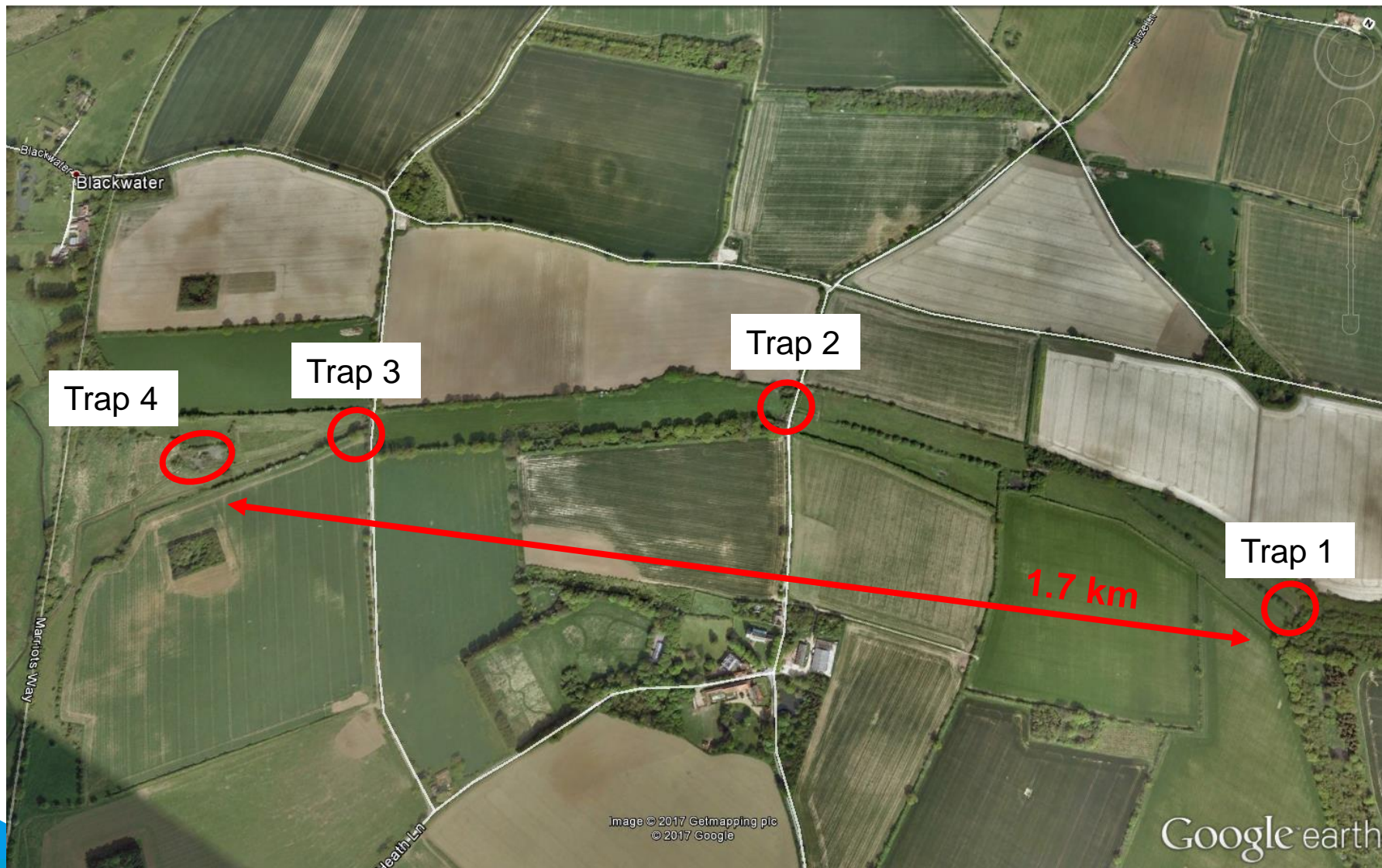
February 2017



Gt. Witchingham traps



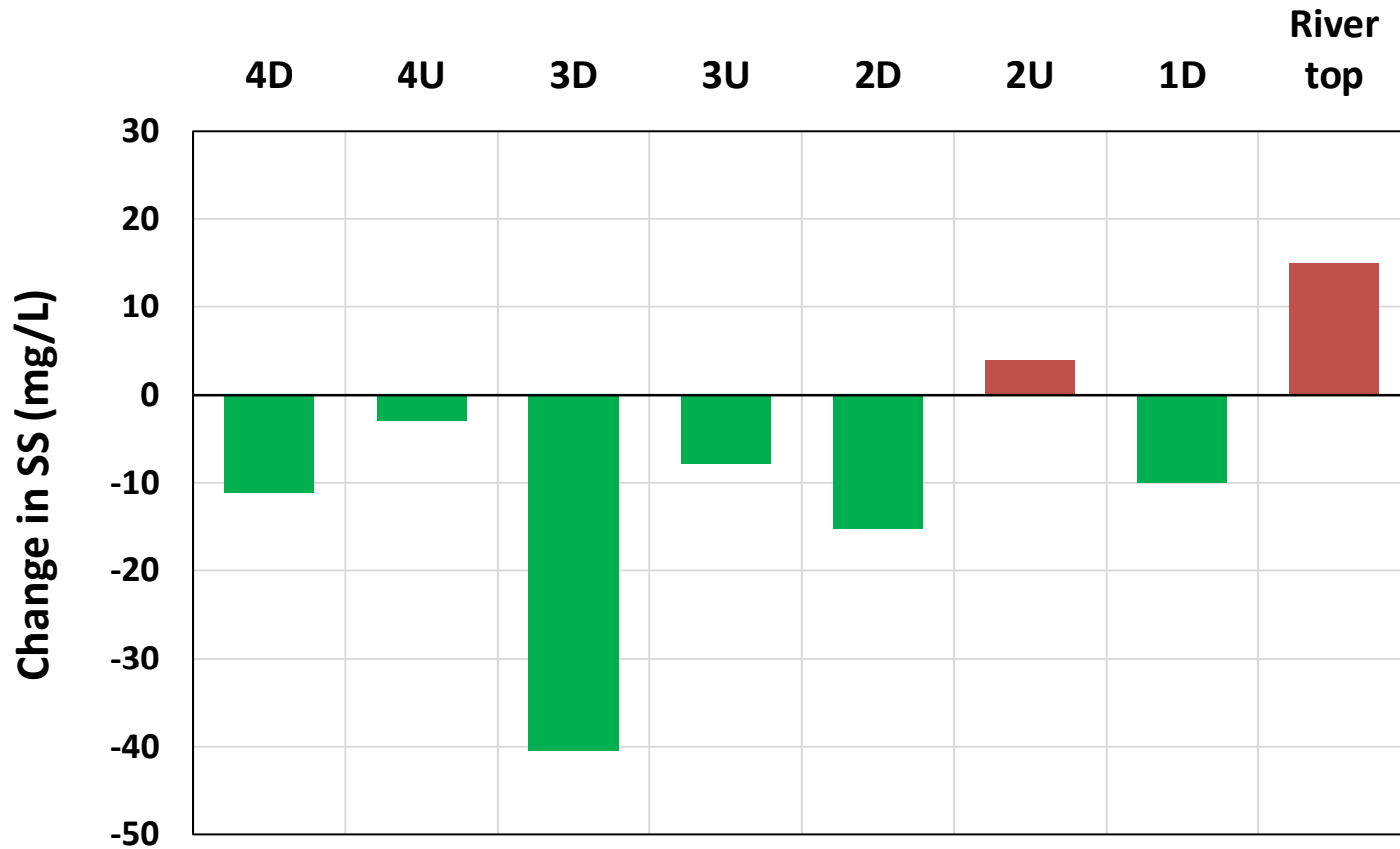
Gt. Witchingham traps



Gt. Witchingham traps



Results: Suspended sediment



5 sampling rounds (2 x pre, 3 x post); baseflow conditions