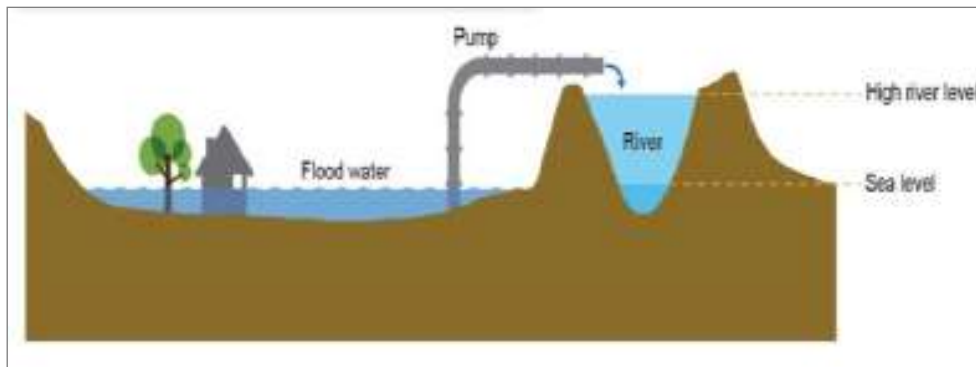


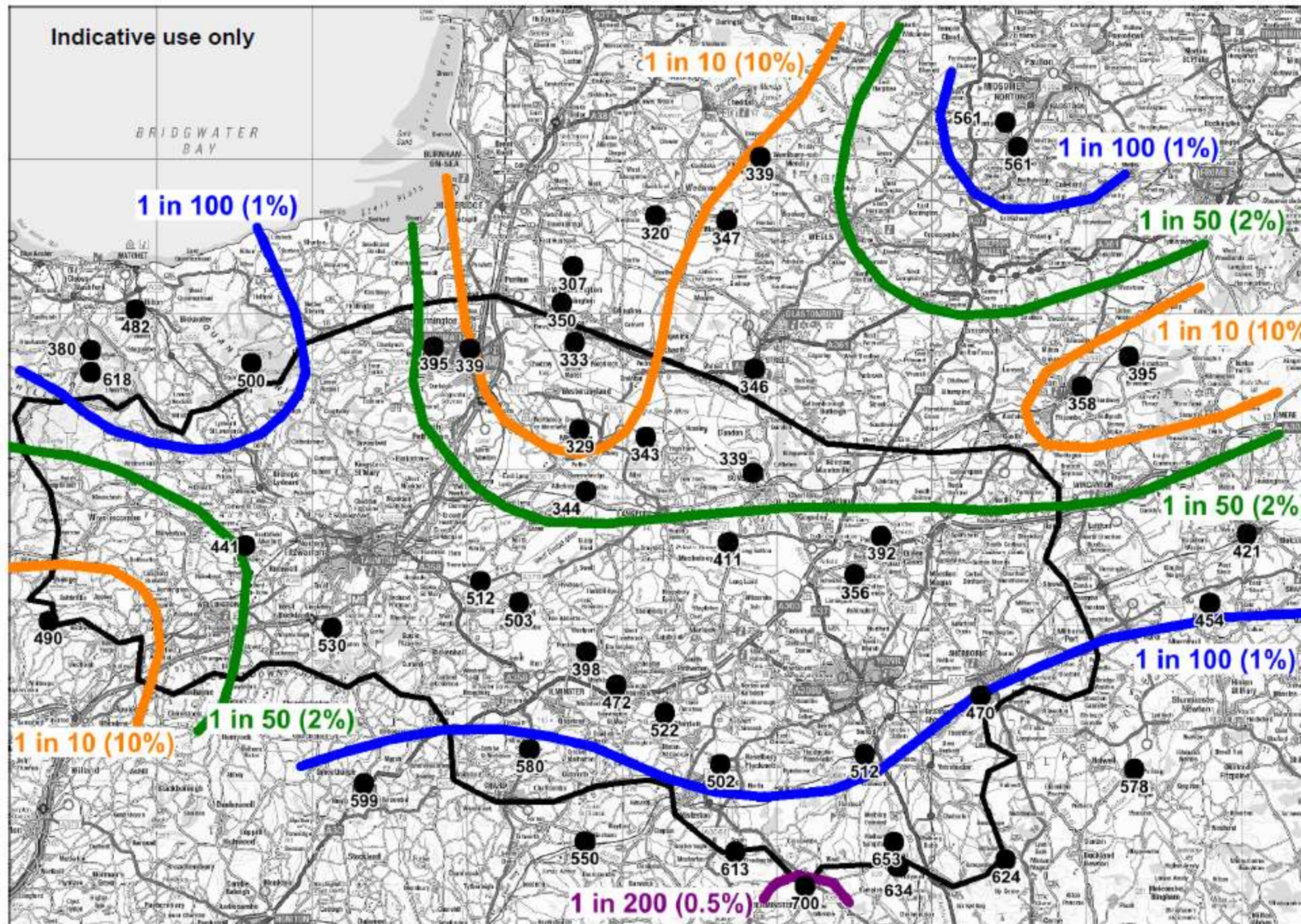
Somerset Floods 2014

Graham Quarrier
Projects Team Manager

How the Somerset Levels work



Indicative use only



20% of floodwater is stored
80% flows straight through





Repairing the river embankment at Athelney, 1929. During the first two weeks of December much of the Taunton area was hit by severe weather. Vivary Park and parts of the town were flooded. At Curload efforts to contain the River Tone finally failed and the river burst its banks during the early hours of the morning. Much of the area had to be evacuated. Sixty families were made homeless at Burrowbridge and in the worst affected area, the parish of Stoke St Gregory, there were 120 homeless families. A county relief fund was set up to aid the homeless.



2014 Pumping Operation

- ➔ Approximately 100 million cu m floodwater pumped from the end of December to March
- ➔ 2/3 by EA, 1/3 by Dutch contractors
- ➔ Fuel bill almost £2M
- ➔ Demonstrated how pumping could greatly speed up recovery
- ➔ Public feel happier

Estimated direct costs of the 2014 flooding

Local Government/Emergency Response	£17M
Railway	£17M
Highways/Travel	£12M
Property Damage	£16M
Agricultural	£5.7M
Business premises	£3.2M
Social/Health	£3.3M
Utilities	£0.8M
TOTAL APPROX	£75M

Indirect Costs

Western Daily Press: “Pictures of flooded fields, roads, villages in Somerset ...detering visitors worth an estimated £200M”, says Visit Somerset



“Start dredging as soon as it’s safe to do so”.
David Cameron, Prime Minister’s Questions





Load testing for
safety



Survey target





Offloading point

An aerial photograph showing a river restoration project. The river flows from the top left towards the bottom right. On the left bank, there's a temporary weir. Further up the river, there's an offloading point. The right bank features a cluster of industrial buildings and a residential area. A large area of silt is marked for spreading in the fields. Amphibious and bankside dredging is taking place near the bottom right.

Temporary
Weir

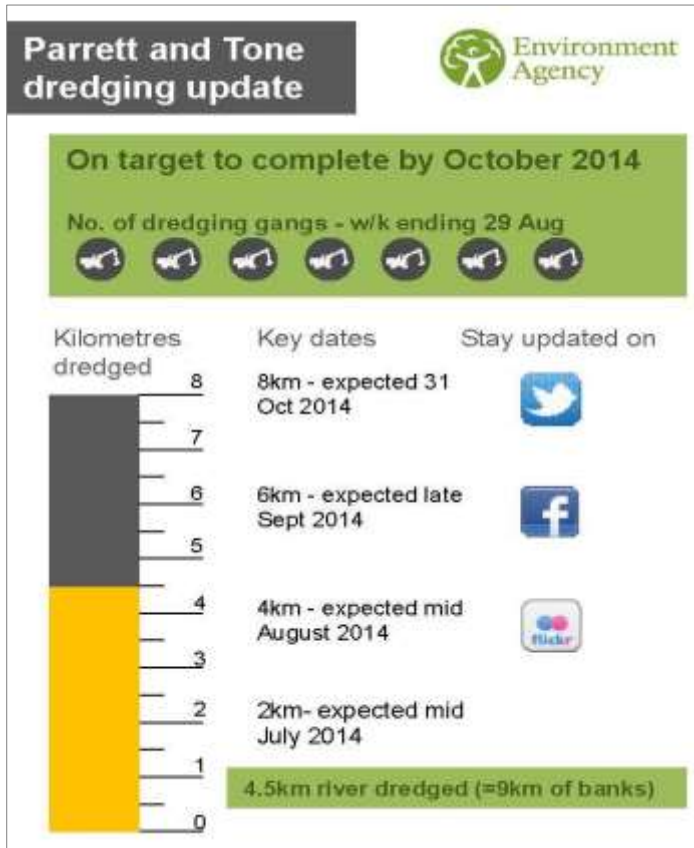
Silt to be spread in
fields

Amphibious and
bankside dredging

Rivers Parrett and Tone Dredging

- ➡ 8km reach known to have greatest impact
- ➡ Needed different management approach akin to Incident Management
- ➡ Selected reach definitely worth doing
- ➡ Could have prevented more damage than we realised
- ➡ Evaluation system may not reflect the truth!

Use of Social media



“The
Dredgeometer”





Platform for temporary pumps
when Kings Sedgemoor Drain
is tidelocked

EA will use a mix of owned and
hired pumps for flood events



Pipes for temporary pumps
at Northmoor Pump Station,
Moorland



“Repairs” to damaged assets



What we do now differently

- ➡ More social media - find an expert
- ➡ Consider on-site tests for H&S
- ➡ Plan for temporary solutions (pumps)
- ➡ Recognise that visibility of our response is important



Wider lessons

- ➡ Be wary of blindly believing established benefit evaluation systems
- ➡ It's hard to convince the public with logic alone
- consider their emotions



Heading

Level one bullet

Level two bullet

- Level three bullet
 - Level four bullet
 - » Level five bullet

