

Flood Risk Management

What it is, and how we are changing

Tom Dauben – Flood & Coastal Risk Management Senior Advisor

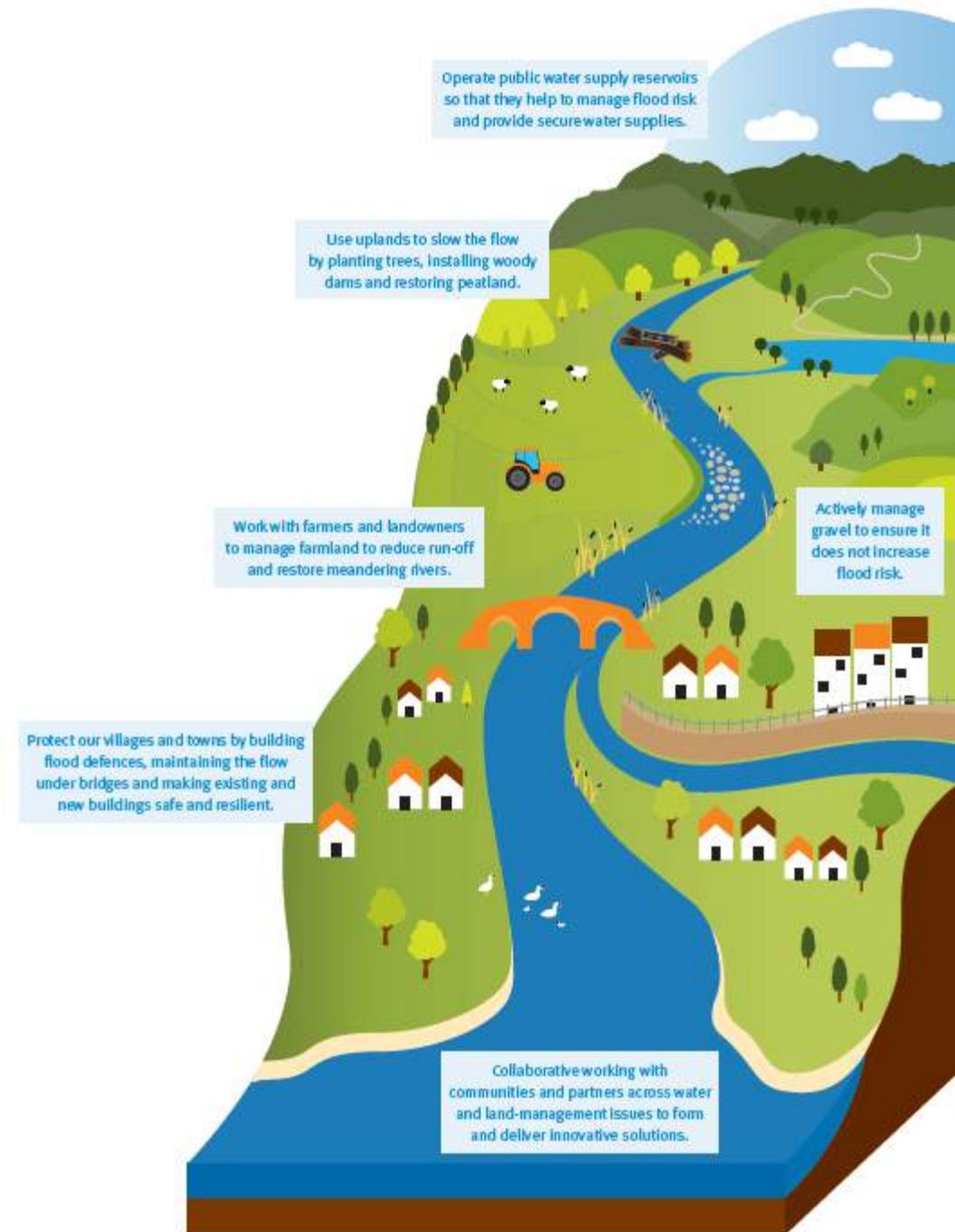
Kate Pearson – Flood Risk Engagement Advisor

27th November 2019



Content

- Why care about flooding
- How we are changing our approach
- Roles and responsibilities
- What we can all do



Which of these is a flood defence?

A



B



Flooding: Why care?

Immediate impacts:



Risk to life



Transport disruption



Damage to structures, habitats, businesses



Erosion of soils

Long term impacts



Protracted recovery (1yr plus)



Mental health issues



Damage to local economy



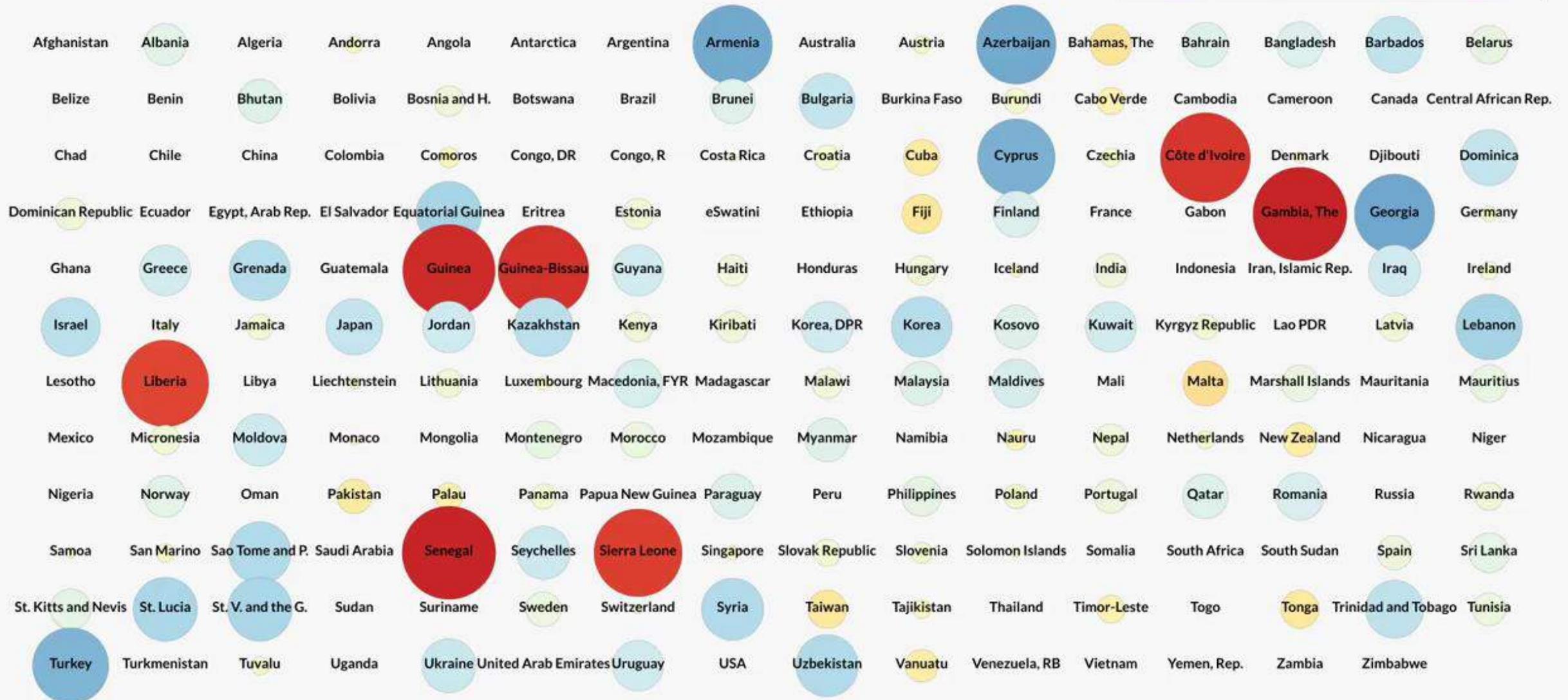
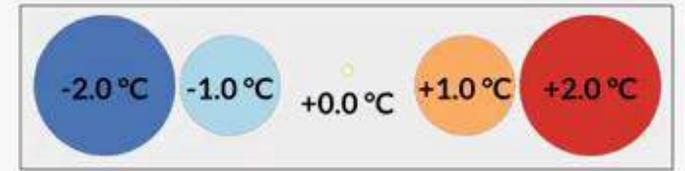
Increased insurance



**Most people don't believe
it will happen to them.**

Temperature Anomalies by Country Years 1880 - 2017

1880

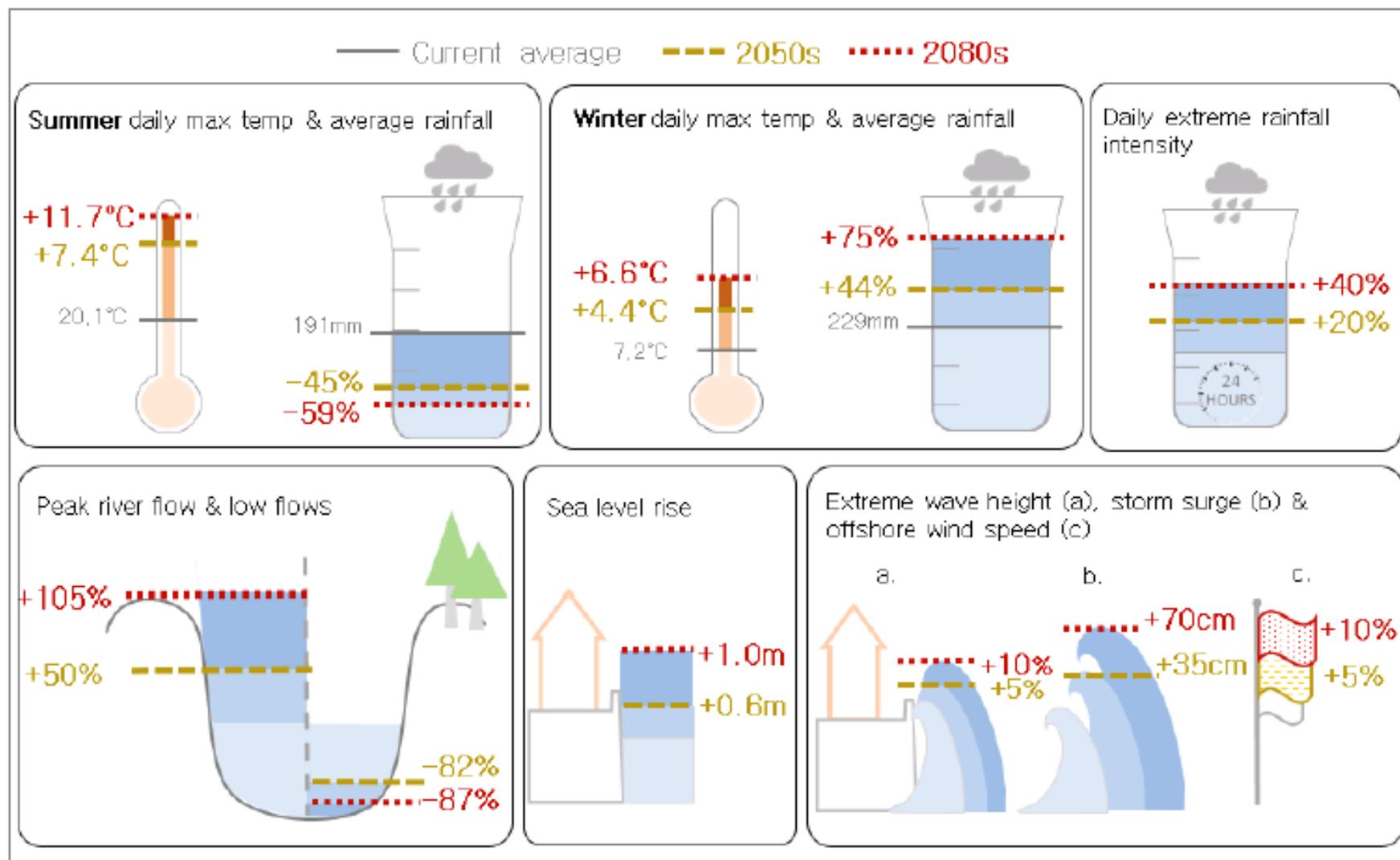


Data Source:
 NASA GISS, GISTEMP Land-Ocean Temperature Index (LOTI), ERSSTv5, 1200km smoothing
<https://data.giss.nasa.gov/gistemp/>
 Average of monthly temperature anomalies. GISTEMP base period 1951-1980.

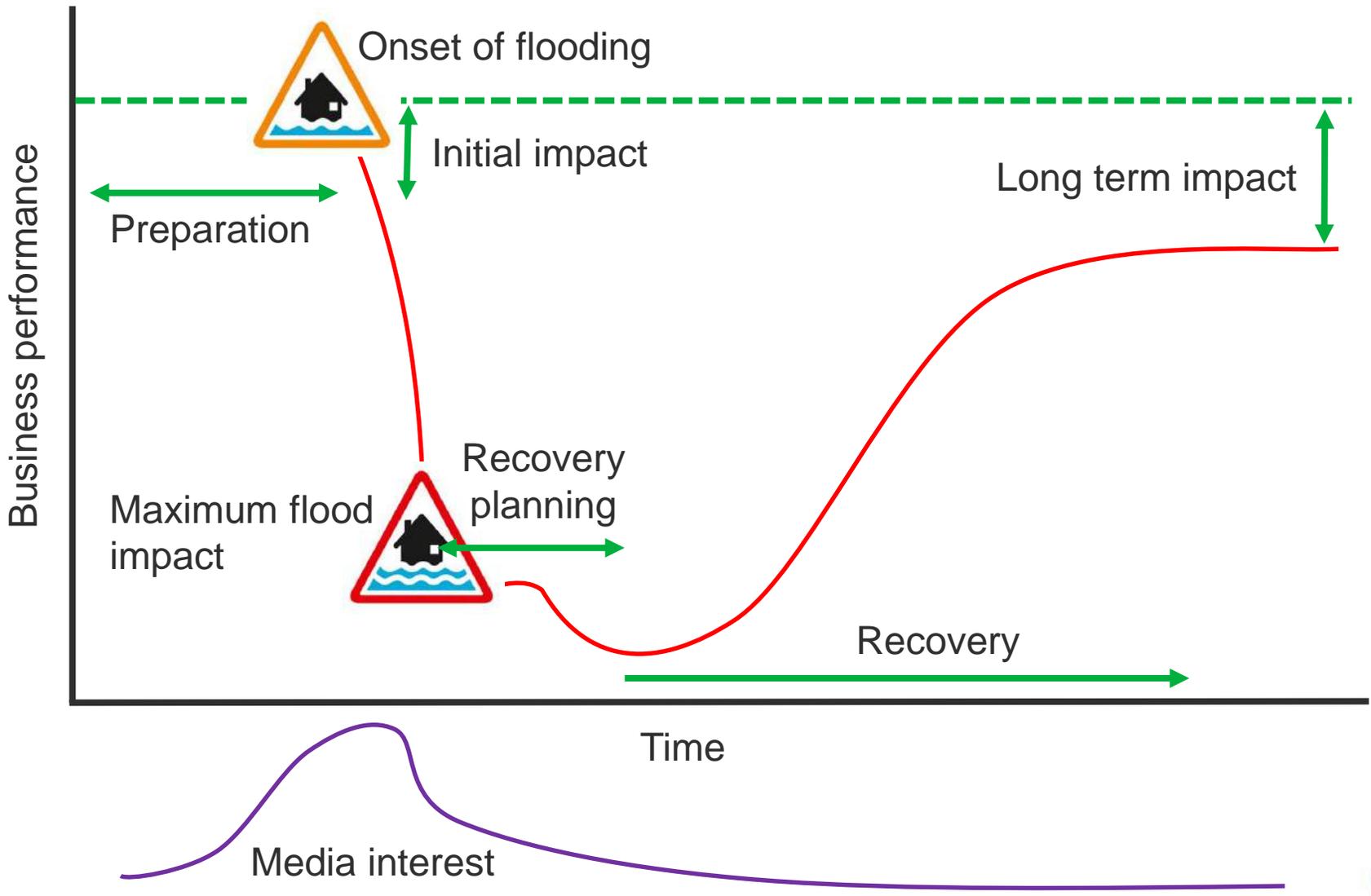
Global Temperature Anomalies from 1880 to 2017 (NASA)

Video license: CC-BY-4.0
 Antti Lipponen (@anttilip)

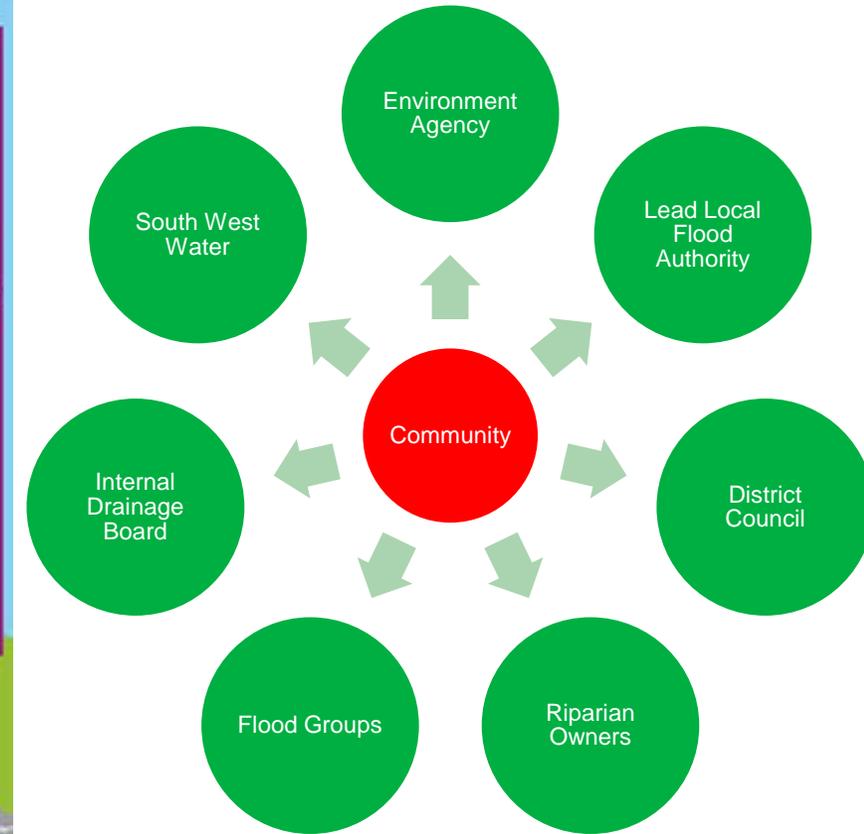
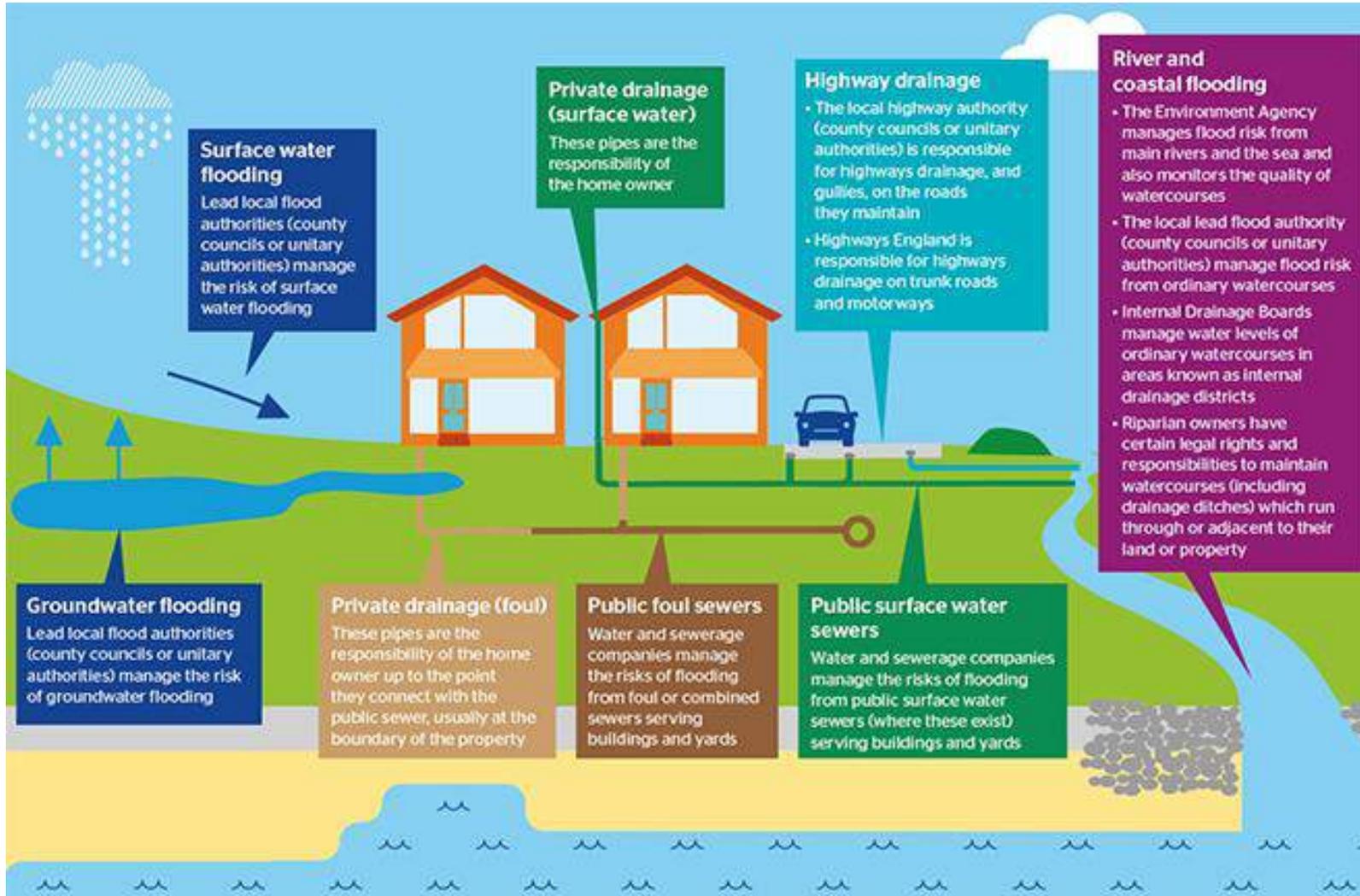
Flooding: Why care?



Flooding: why care?



Roles in Flood Risk Management





“

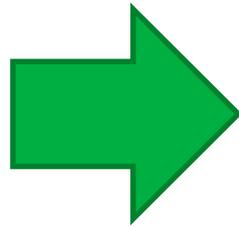
Over the next fifty years, if we are going to give our country the best possible protection against flooding, we are going to need a different approach”

Sir James Bevan

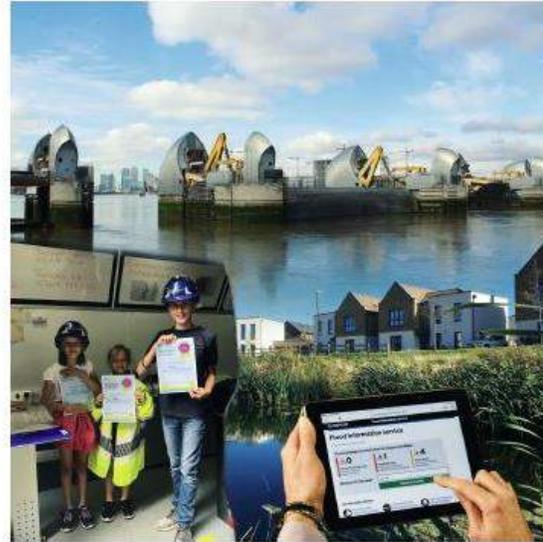
National Strategic drivers



A Green Future: Our 25 Year Plan to Improve the Environment



Draft National Flood and Coastal Erosion Risk Management Strategy for England



Vision: a nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.

... a nation ready for, and resilient to, flooding and coastal change; today, tomorrow and to the year 2100.



National Strategy Themes



Climate Resilient Places

- Working with partners to explore and develop the **concept of standards for flood and coastal resilience** as well as a **national suite of tools** to deliver flood and coastal resilience **in places**.



Today's Growth & Infrastructure in Tomorrow's Climate

- Getting the right kind of development in the right places to deliver **sustainable growth** and work with partners and other agencies to enable **infrastructure resilient** to flooding and coastal change.



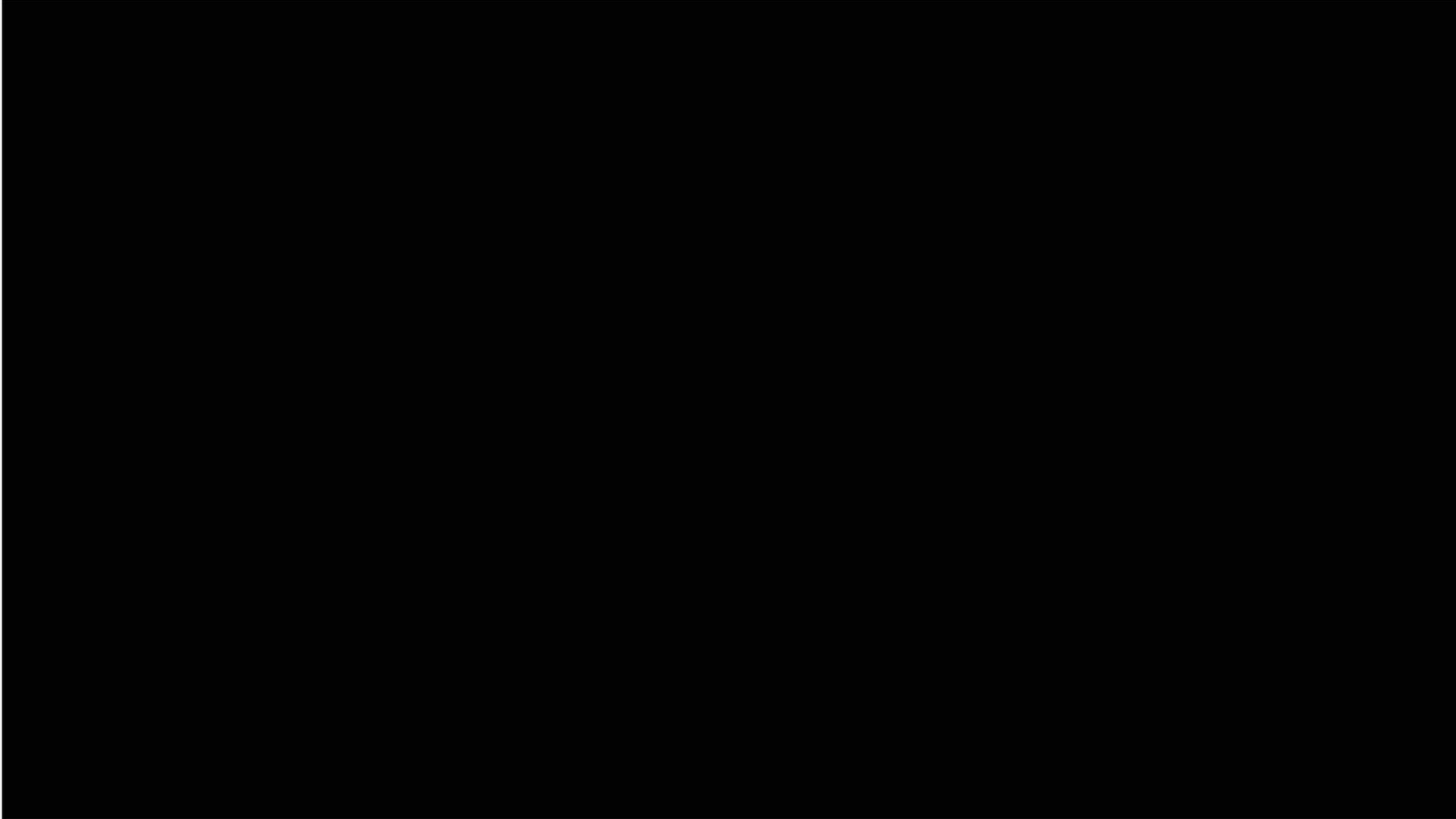
A Nation of Climate Champions

- **Better preparing society** through education and accessible digital information as well as being a **world leader** in flood and coastal resilience

Approaches to reducing flood risk



Evidence Based Decisions



Stronger Place Based Visions

Flood Plan Explorer

search by place name or post code



Department for Environment Food & Rural Affairs

Home / South West

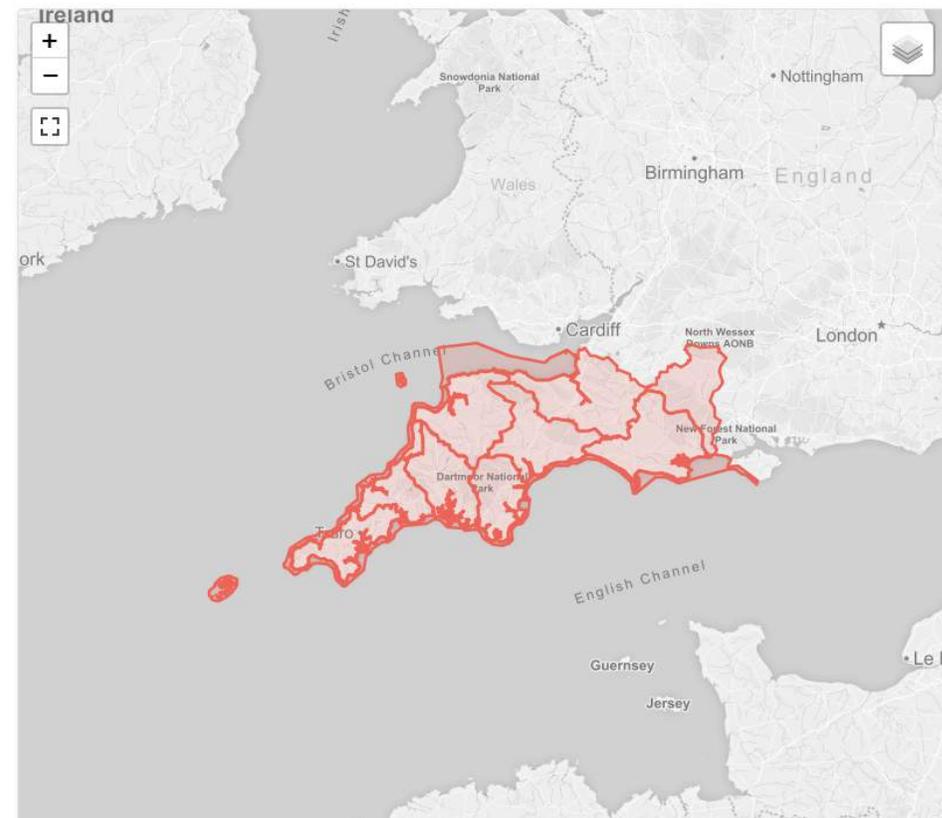
River Basin District

The South West river basin district covers 21,000km² and includes Cornwall, the Isles of Scilly, Devon, Dorset, Somerset, and parts of North Somerset, Hampshire and Wiltshire.

River catchments in the South West river basin district vary considerably, leading to lots of different types of flood risk. Somerset has predominantly flat catchments with wide rivers that take a long time to respond to rainfall. Devon, Cornwall and West Dorset have smaller, steep catchments with fast-flowing rivers that respond rapidly to rainfall. Rivers in the Avon Hampshire management catchment receive large flows from chalk aquifers (where water is stored underground). These rivers react relatively slowly to rainfall but long periods of wet weather can result in prolonged flooding.

Management Catchments

Avon Hampshire	Cornwall West and the Fal
Devon East	Devon South
Dorset	North Cornwall Seaton Looe and Fowey
North Devon	Somerset South and West
South West TraC	Tamar

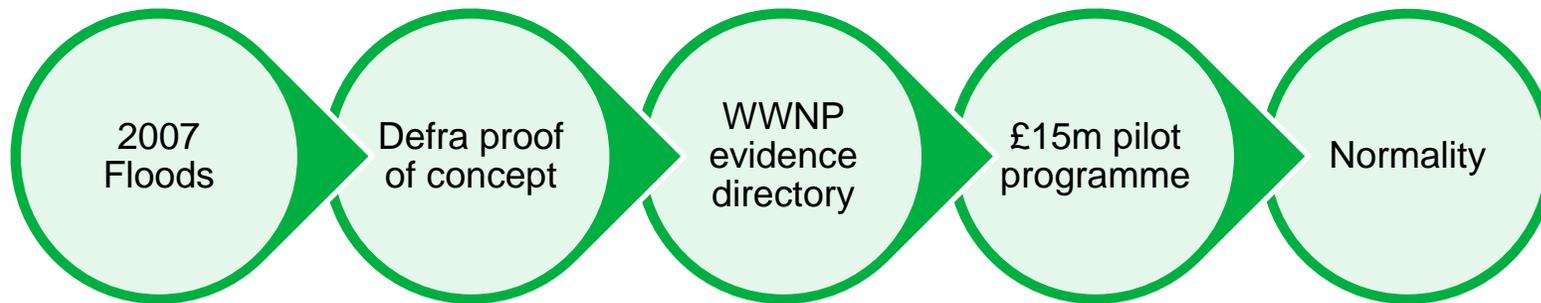


Achieve More Through Others



Work With Natural Processes

“taking action to manage flood and coastal erosion risk by protecting, restoring and emulating the natural regulating function of catchments, rivers, floodplains and coasts”



Desilting/dredging



Warning & Informing



Plympton
Sidbury
Sidford
Sidmouth
South Molton
Sticklepath
Tavistock
Teignmouth
Torquay
Tuckenhay
Uplyme
West Buckland
Paignton
Parracombe



SEVERE FLOOD WARNING

SEVERE FLOODING. DANGER TO LIFE.



FLOOD WARNING

FLOODING IS EXPECTED. IMMEDIATE ACTION REQUIRED.



FLOOD ALERT

FLOODING IS POSSIBLE. BE PREPARED.



Maintain Key Assets

Palmer's Dam



[Click here to Contact Us](#)



Image of the Palmer's Dam sluice gate



Promote New Defences



Residual Risk Management

Undefended risk

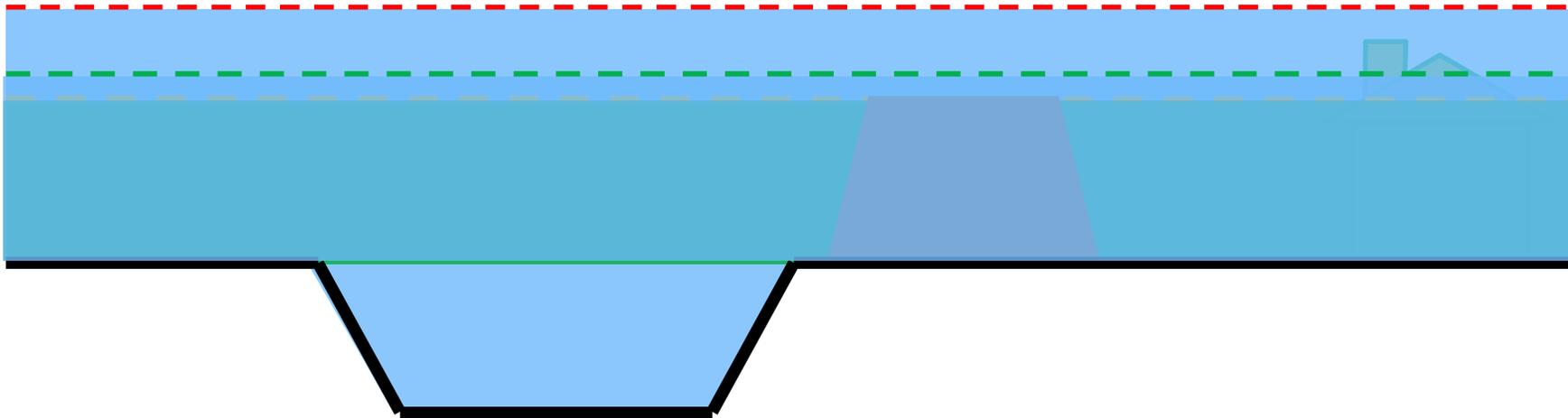
1:50 flood level

Now defended to a 1:50 standard

1:75 flood event

Residual risk is the risk of flooding from:

- any flood event greater than 1:50 probability, or;
- failure of the defence in any flood event



What can communities do?

- Find out if your, or your community are at risk
- Sign up to our flood warning service
- Understand and own your risk
- Form a flood group to plan actions
- Think about what you could do for those downstream, as well as yourself
- Seek help from professional partners
- Help deliver and drive projects



Which of these is a flood defence?

A



B



Why we are doing this



tom.dauben@environment-agency.gov.uk
kate.pearson@environment-agency.gov.uk