

Welcome to the LCC Parish and Town Council Conference 4 November 2023



Delivering better services



Parish and Town Council Conference

Defects: Responsibility & Repair Technology

Presented By: Gary Petherbridge
Highways Group Manager – Countywide Projects



Statutory Duty

- **Highways Act 1980**

The local authority is responsible for maintaining and repairing the highway which can be a road, cycle track, walkway or footpath, over which every member of the general public has a right of passage.

There is no obligation to improve a highway only to maintain it.

- **LCC Policy**

The County Council will allocate resources to programmed Highway Safety Inspections and safety repairs, in order to secure the safety of the highway and minimise risk to users of the highway.



Highway Safety Inspection Policy

- Sets out Lancashire County Council's approach to managing liability and risk on the network
- Is the primary defence in any case of litigation brought against the County Council
- Sets out LCC's approach to network cyclic safety inspections
- Sets out how LCC assesses and reacts to requests and complaints from the public
- Ensures a consistent approach which is achievable, practical and reasonable within available resources



Types of repair

- Patching with a hot material
- Excavate and Reinstatement method
- Infill method
 - Spray Injection patching
 - Cold applied instant material
 - Spray Injection
 - Thermal Repairs



Patching with a
hot material



Infill with cold
material



Hot material
with additives



Jet Patching



Thermal Repairs



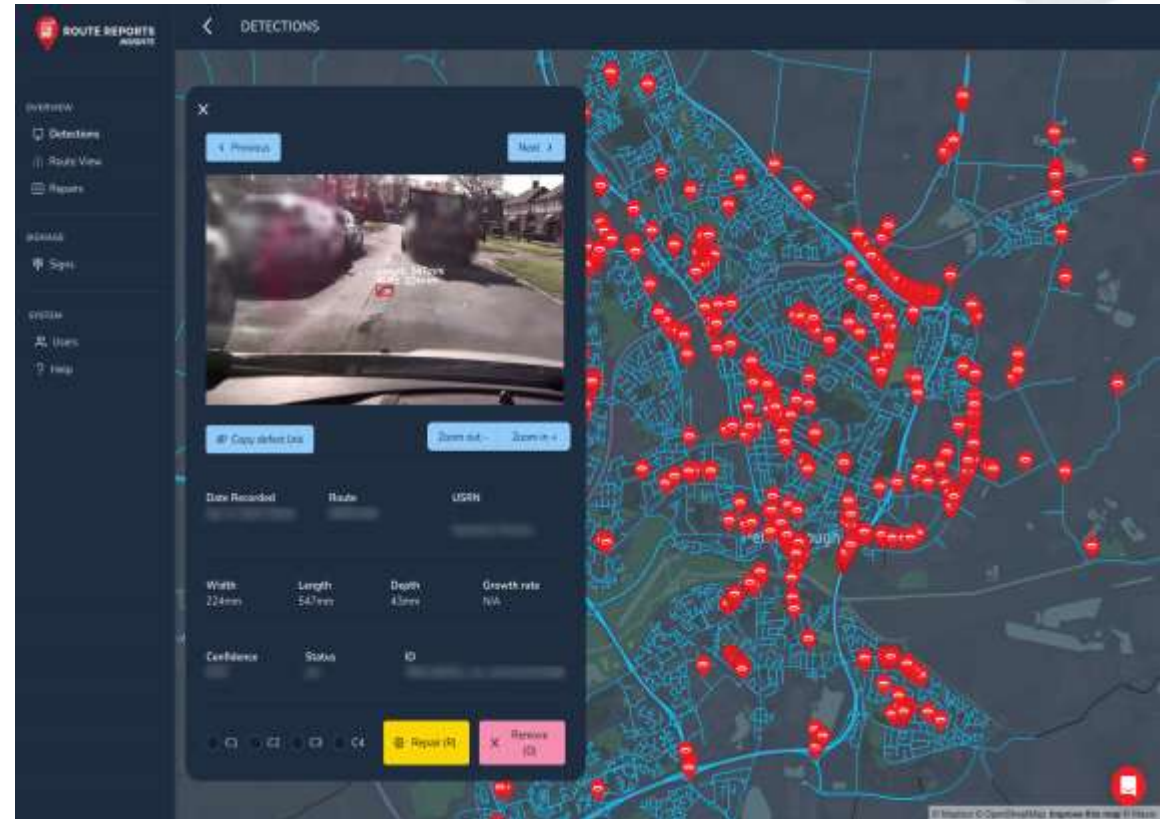
Defect Repairs

Variety of factors determine type of repair:

- Existing road construction
- Traffic volume and type
- Weather / climate / season
- Road geography
- Quantity / clustering of defects
- Locations of defect within the carriageway
- How traffic can be managed to carry out the repair
- Urgency
- Forthcoming capital programme
- Employee Safety and Welfare



Artificial Intelligence - Defects



Delivering better services



Parish and Town Council Conference

Surface Treatment Technology

Presented By: Gary Petherbridge
Highways Group Manager – Countywide Projects



Surface Treatments Categories

- **Examples of Preventative Treatments**
 - Surface Dressing
 - Micro-Asphalt
 - Asphalt Preservation
- **Examples of Replacement Surfacing**
 - Hot mixes of Asphalt, Bitmac and SMA (Stone Mastic Asphalt)
 - Warm Mixes of SMA – LCC uses over 90% warm mix SMA
 - Recycled Surfacing
 - In-situ
 - Cement and Lime Stabilised
 - Ex-situ
 - Foamed Emulsion



Surface Dressing – A Preventative Treatment

- Relatively quick to install
- Lasts 5-7yrs
- Further treatments are possible, extending road life up to 15 years
- **Importantly**, this treatment re-seals the road from water penetration, restores skid resistance and aids longevity
- Very cost effective where surface degradation is limited
- “Locked in” process significantly reduces chipping loss; is visually pleasing and difficult to differentiate from an inlay surface treatment
- However, can only be carried out during the summer months
- Approximately 80 km of highway surface dressed this season



Chipping spreading



Compacting chippings



Final appearance

Roadway Micro-Asphalt - A Preventative Treatment

- Relatively quick to install
- Minimal disruption
- Lasts over 5yrs
- **Importantly**, the treatment reseals the road from water penetration, restores skid resistance and aids longevity
- Cost effective in the right location



Appearance before treatment



Micro-Asphalt being applied



Appearance after treatment

Footpath Micro-Asphalt – A Preventative Treatment

- Minimal disruption
- Quick to install – footpath can reopen in a couple of hours
- Lasts over 5yrs
- **Importantly**, the treatment reseals the footpath preventing further water penetration and aids longevity
- Cost effective
- LCC plan to treat approximately 6km of footway next year



Roadway Reconstruction (Inlays) – Re-building the Road

- Treatment of last resort
- Expensive
- Disruptive – Road closures needed. Requires old layers removing and ironwork re-levelling
- Lasts 25 years plus
- If combined with future preventative treatments, no need to repeat for over 40 years
- So far this year we have reconstructed over 300,000m² which is equivalent to approximately 40km of new road



Footpath Reconstruction – Re-building the Footpath

- Only undertaken when the footpath surface can no longer be kept safe by maintenance teams
- Expensive
- Disruptive – footpath closures needed
- Once complete, footpath will last 25+ years



Old Surface Removed



Binder Course



New Surface Layer Being Installed



Roadway Reconstruction (Recycled Materials) – Re-building the Road

- Re-use of tarmac planings either in-situ or ex-situ, saves on disposal costs to landfill
- It is a “cold” applied methodology saving on CO² emissions
- Often used on rural roads and well suited to Moss roads
- Long lasting
- However, is still disruptive – road closures are often needed



Road Removed



Cement Stabilised Sub-base



Binder Layer



Final Surface Complete



Other Technologies Available to Lancashire County Council

- **Cementitious Grouted Macadam**
 - Highly effective in wet and high stress locations such as; fords, roundabouts and entrances to industrial estates
- **Asphalt Grouted Macadam**
 - Is a flexible material that retains good strength and durability over traditional surfacing materials
- **Crack Sealing and Joint Repairs**
 - Hot & Cold Applied Repairs
 - By Filling & Over-banding
 - Suitable for joint and crack filling from 5mm upwards
 - Effective on repairs to fretted centreline joints and on roundabouts to slow degradation





Thank you for your time





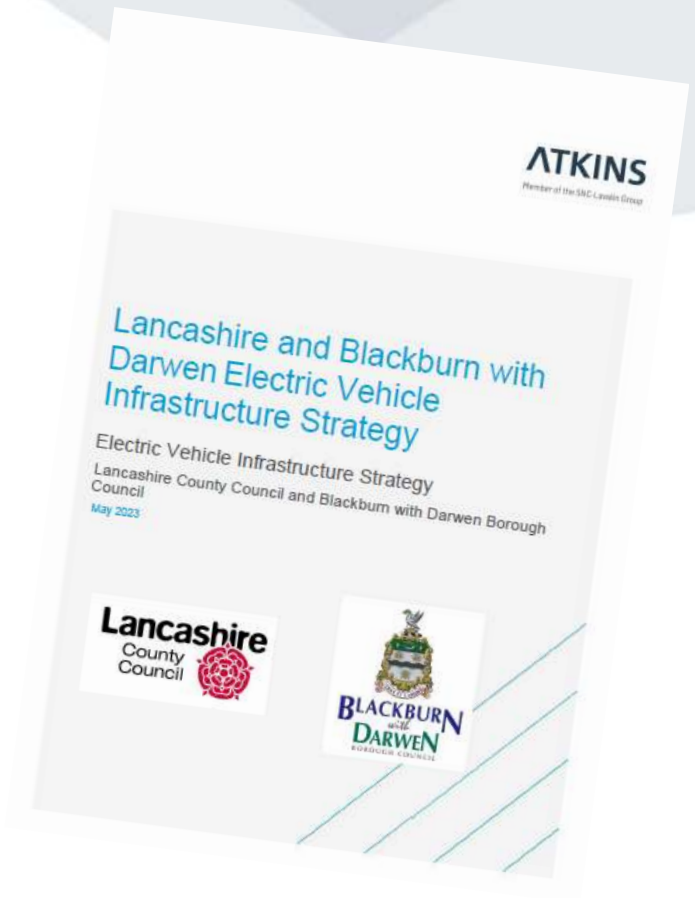
Electric Vehicle Infrastructure

Debbie King
Head of Environment & Climate



EV Infrastructure Strategy

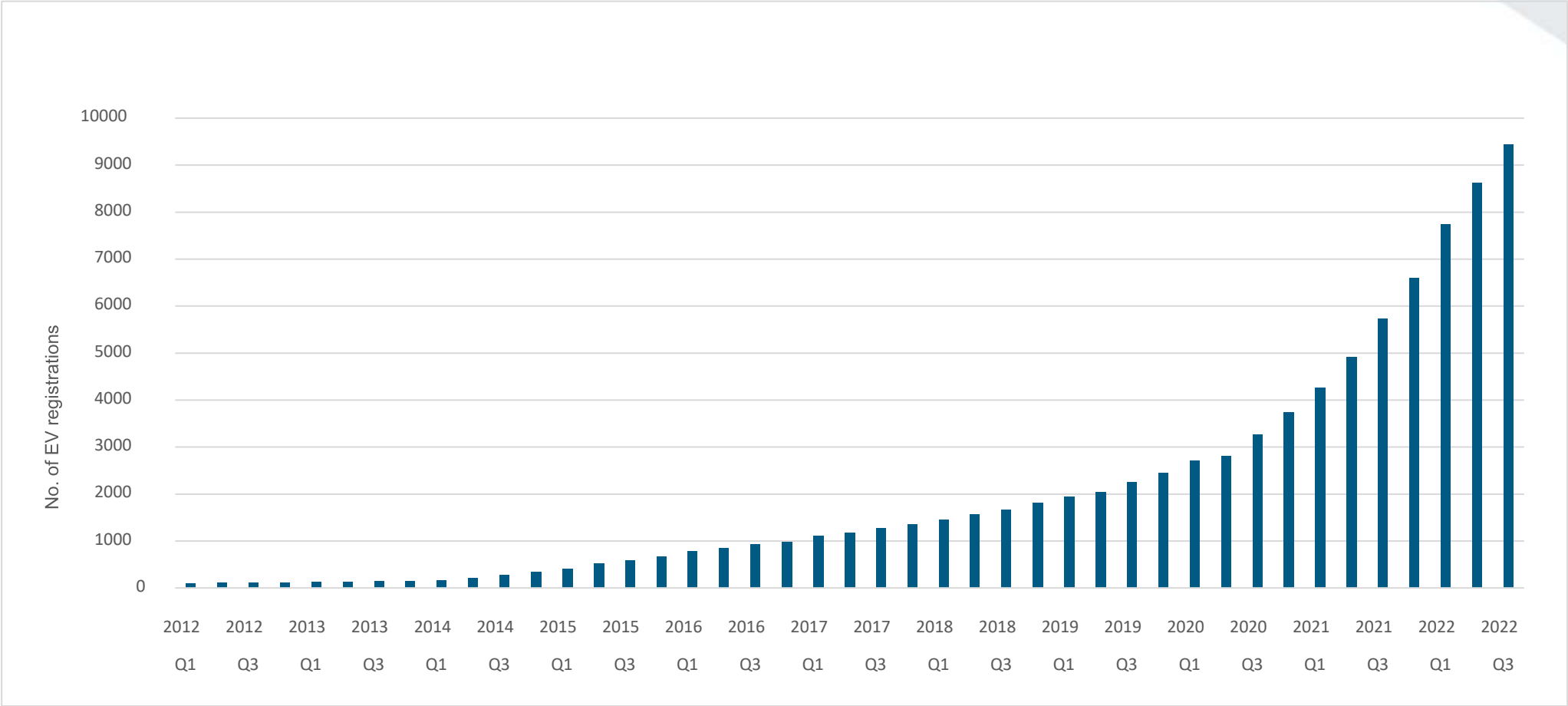
To deliver appropriate, accessible, and equitable EV charging provision to meet the expected growth in EV usage and demand from residents, businesses and visitors without access to off-street charging.



lancashire.gov.uk/media/945415/the-lancashire-and-blackburn-with-darwen-electric-vehicle-infrastructure-strategy.pdf



EVs registered in Lancashire 2012-2022



EV Infrastructure Strategy

By 2030, a total of 244,728 vehicles will be electric - 36% of all cars and vans.

It is estimated that there will be a need for a total of 6,655 chargepoints to support this demand.

Provision is split by three infrastructure types:

- **Nearby** - a chargepoint that is within walking distance of a household.
- **Primary** - a chargepoint that is visited for the primary purpose of charging.
- **Secondary** - a chargepoint that is visited for some other primary purpose, where charging is a secondary purpose (for example charging whilst shopping).

Nearby chargers make up 69% of future charging demand by 2030.



Personas and profiles for EV charging

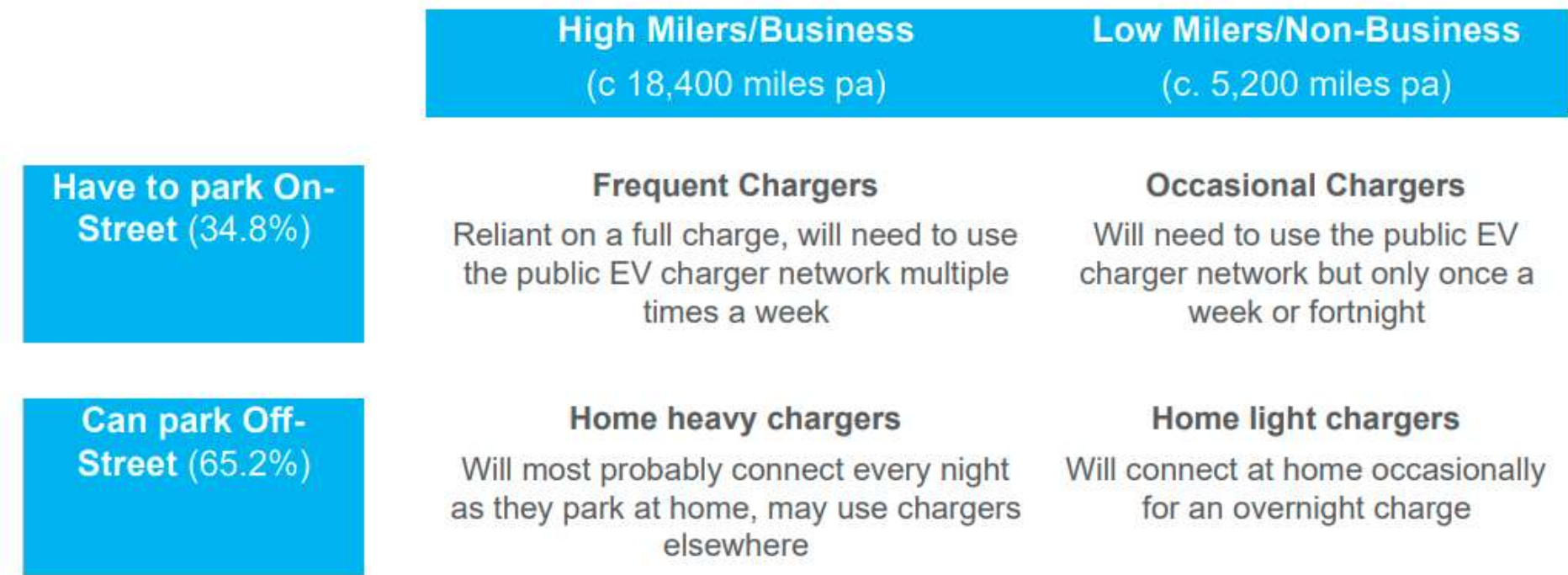


Figure 5-3 - Overview of charging behaviours



The right mix of chargepoints



Local Electric Vehicle Infrastructure (LEVI) Fund

LEVI Capital Fund - £10.1m for public EV infrastructure

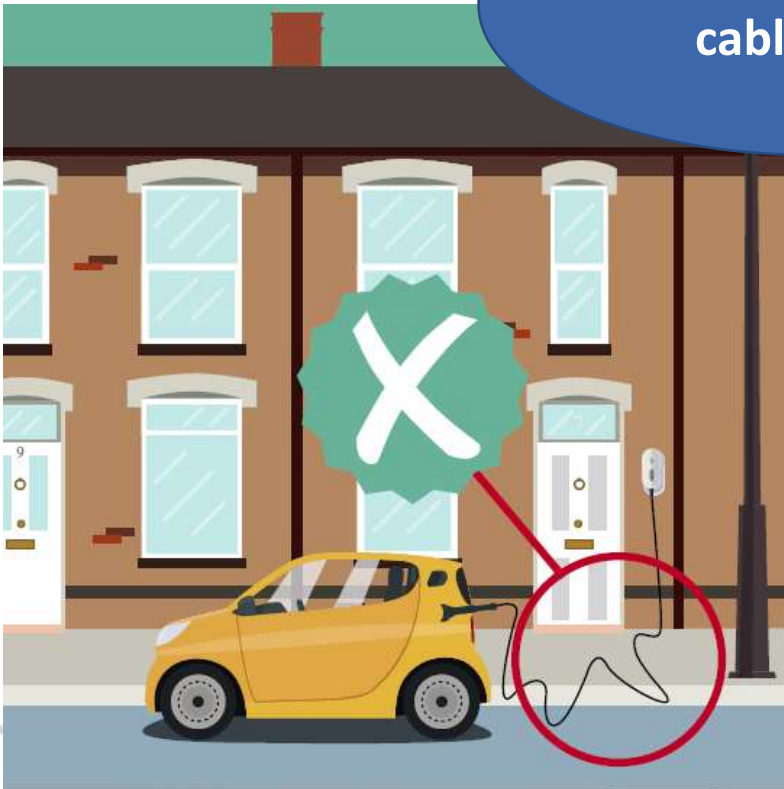
- Predominately to deliver local, low power, on-street charging infrastructure, primarily benefiting those who do not have access to off-street parking at home.
- Number and type of chargepoints, broad locations to be identified.
- Stage 2 application – preparing submission for April 2024.



LEVI Pilot Project

Trialling solutions that will help people who do not have access to off-street parking

Pavement
cable-trays



Lamppost
integrated
chargepoints



Cable tray pilot

- Funding for the provision and install of a cable tray to allow a cable to cross the footway in a safe manner
- Funding for the install of a chargepoint on the property is **not** included, this needs to be arranged by the resident. Any required permission for this needs to be secured.



Cable tray pilot

To take part in the trial applicants must:

- Own or lease an EV and have no access to off-street parking provision
- Have access to a private electrical supply for charging at ground floor level.
- Be able to park safely and legally outside the property to meet charging needs. A dedicated parking bay is **not** provided.
- Have a minimum of 2.5 meters between where the cable tray will be installed and any metal object connected to an electricity supply, such as a lamppost, parking machine, or utility cabinet.



Expressions of interest to: EVcharging@lancashire.gov.uk



David Goode Public Rights of Way Manager

Main Statutory Duties

Lancashire County Council manages a network of 5500km recorded public rights of way

1. Definitive Map and Statement
2. Maintenance
3. Enforcement



Toolbox

1. Direct action
2. Parishes and user groups
3. Serve Notice
4. Prosecute
5. Highways Act 1980
Diversions

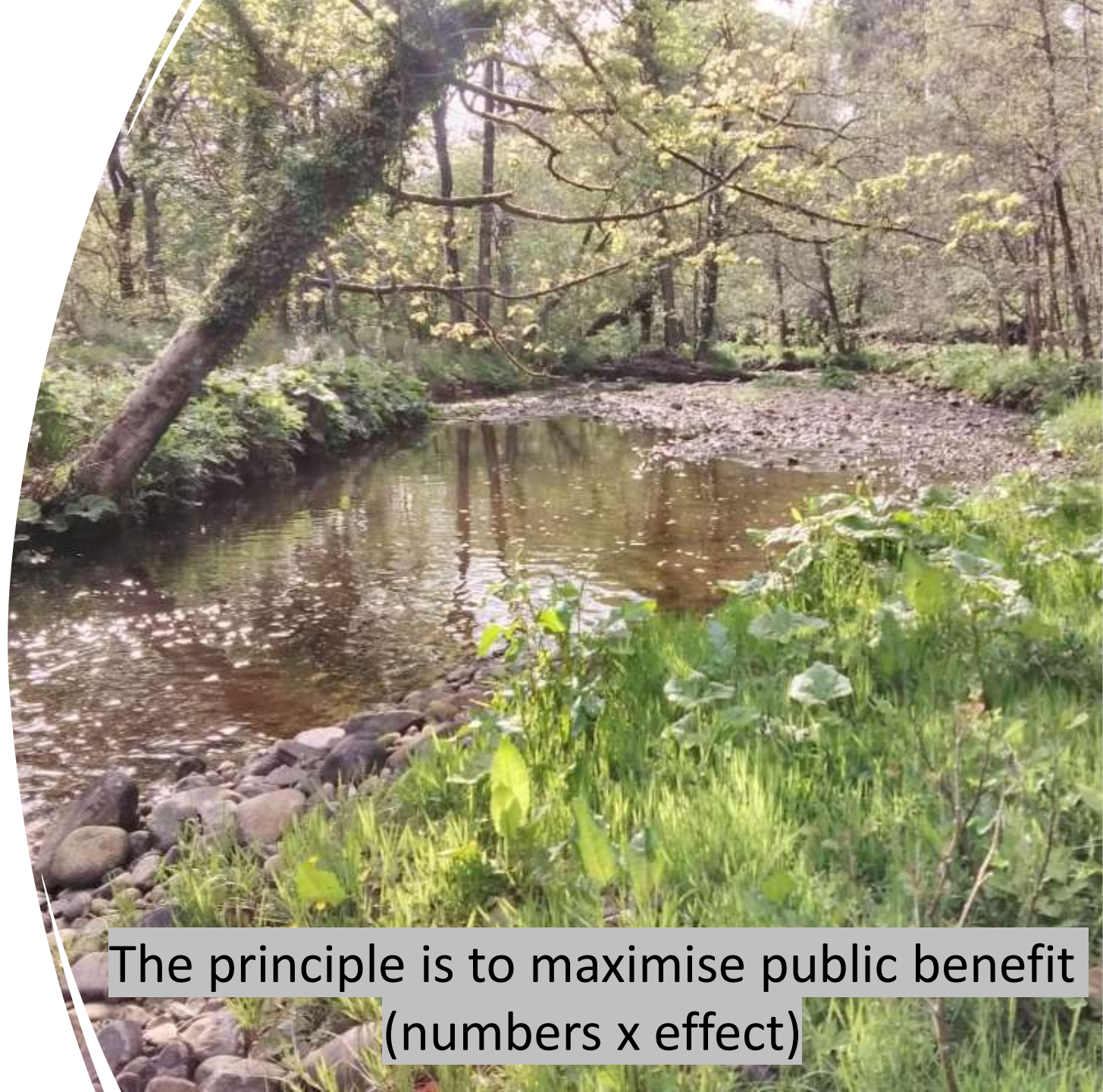


Priorities

1. Danger
2. Complete obstruction
3. Difficult to pass
4. Inconvenient to pass
5. Other

Modified by:

- number of users;
- alternative provided;
- typical users;
- environment;
- importance of the link.



The principle is to maximise public benefit
(numbers x effect)

Parishes

1. Inspections
2. Hands on
3. Online
4. Management



Active Volunteers

1. Inspections
2. Hands on
3. Online
4. Management



Any Volunteers

1. Inspections
2. Hands on
3. Online
4. Management



Coordinator

1. Inspections
2. Hands on
3. Online
4. Management





Mapping

- Online Mapping
- Statutory Records
- DMMOs
- PPOs
- Temporary Closures
- L/O Deposits
- Searches
- Limitations



Questions





Planning and preparing for Flooding in Lancashire

Rachel Crompton, Principal Flood Risk Officer





Planning and preparing for flooding

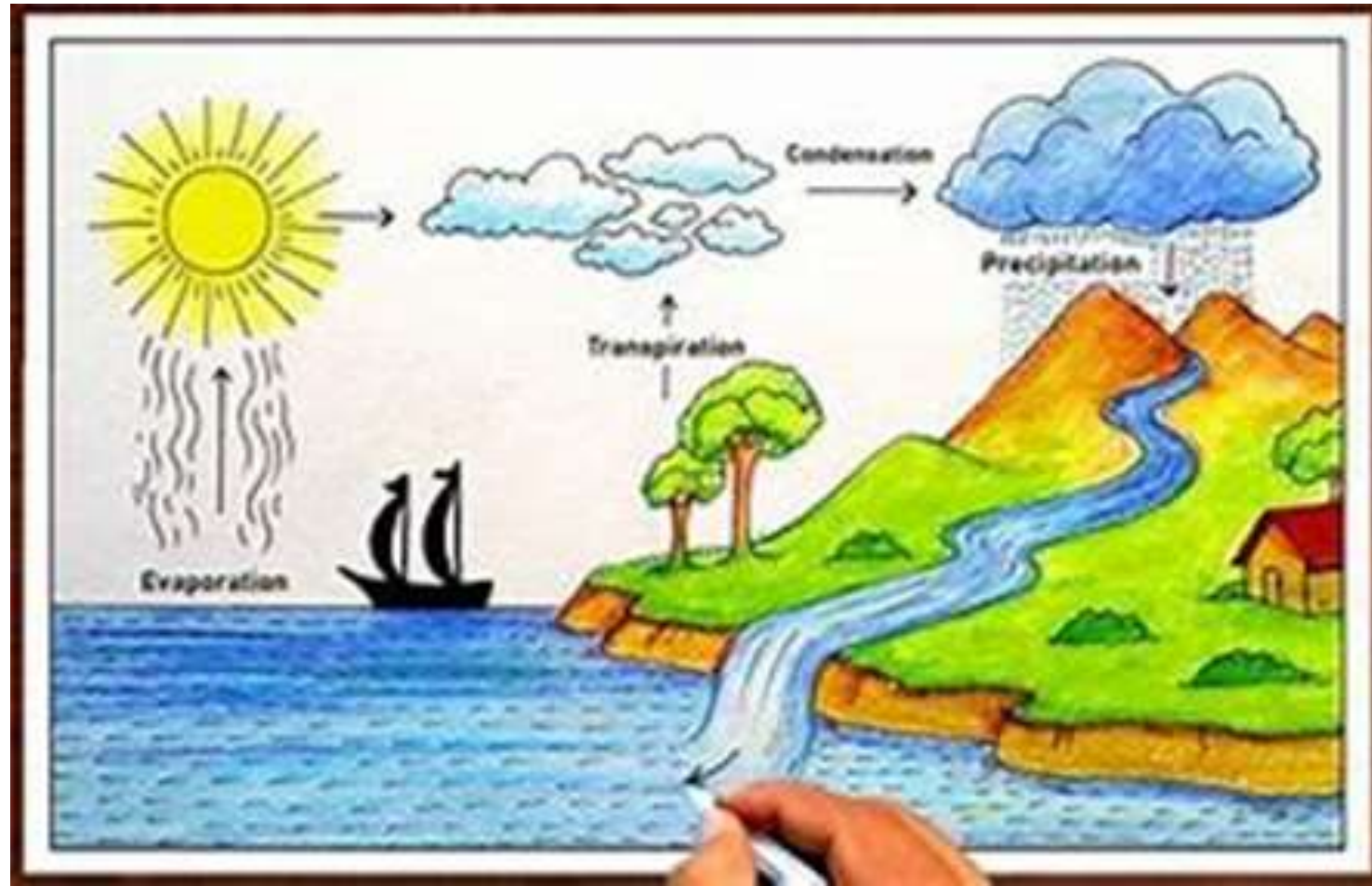


Anticipate

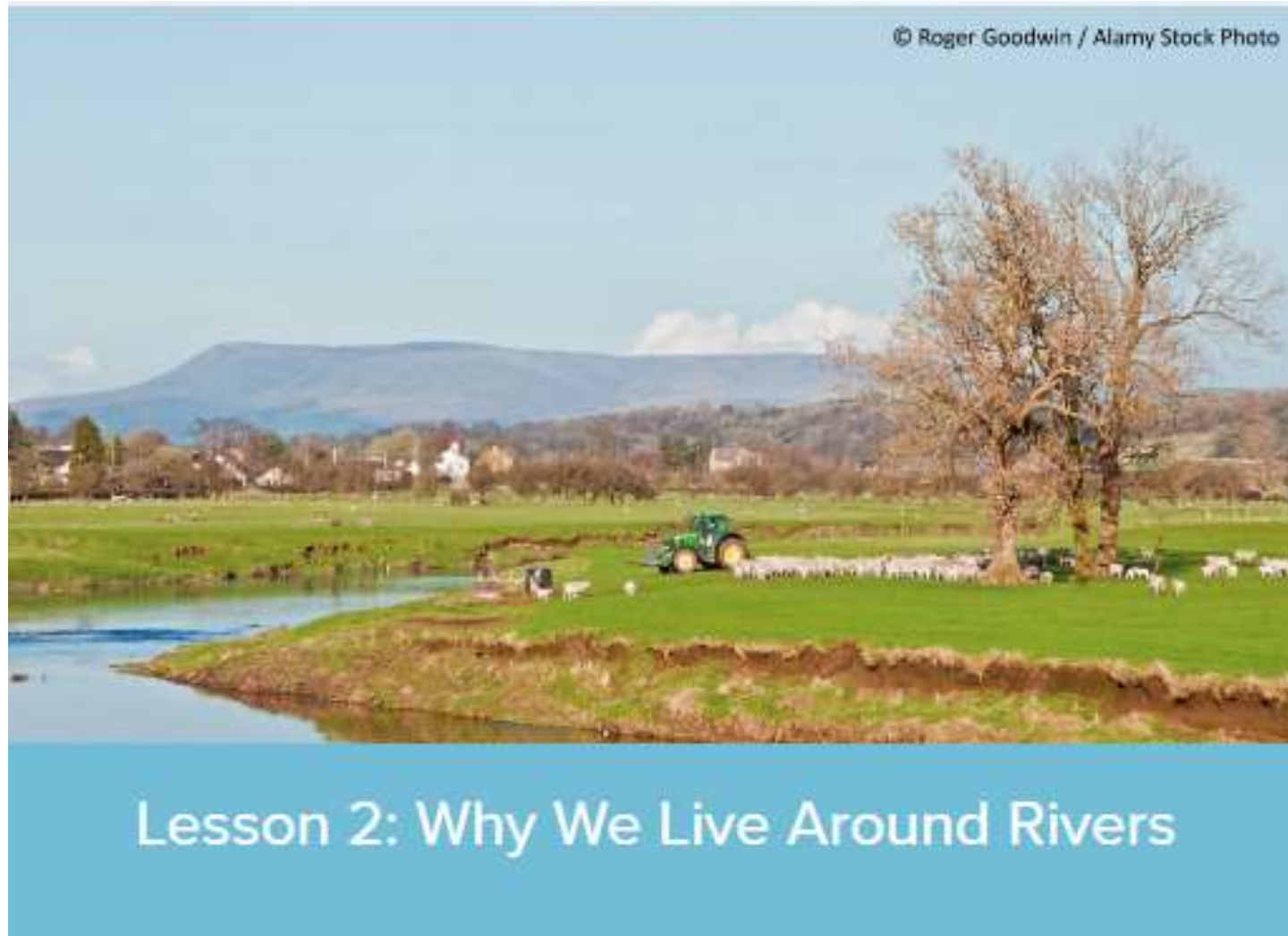
Scan the horizon for emergency or changing risks



The Water Cycle



KS2 geography lessons



Lancashire's Water Cycle



Lancashire Flood Risk Rating

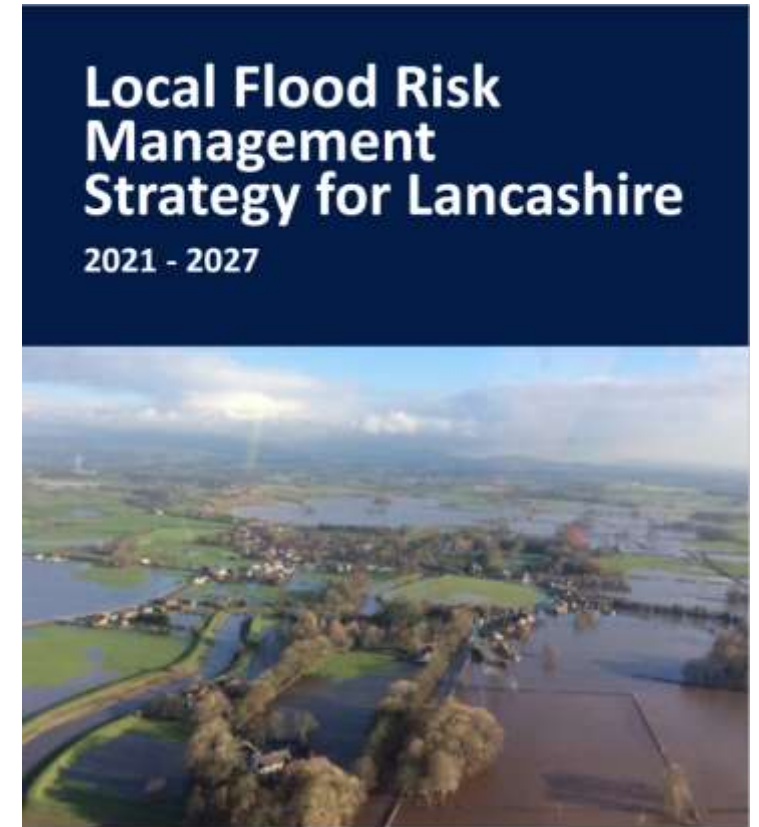
Risk	Rating
Local coastal / tidal flooding (affecting more than one region).	Very High
Local coastal/ tidal flooding (in one region).	Very High
Local urban flooding (fluvial or surface water run-off).	Very High
Local fluvial flooding	High
Localised, extremely hazardous flash flooding.	Medium



Lancashire Flood Risk Management Strategy

Properties at risk of surface water flooding (including “localised, extremely hazardous flash flooding”)			
Risk of flooding (AEP)	Lead Local Flood Authorities		
	Blackpool	Blackburn-with-Darwen	Lancashire
3.3% (High risk)	10,251	10,730	68,705
1% (Medium risk)	20,952	21,352	147,836
0.1% (Low risk)	46,161	43,142	332,911

[Local Flood Risk Management \(lancashire.gov.uk\)](https://lancashire.gov.uk/local-flood-risk-management/)



Assess

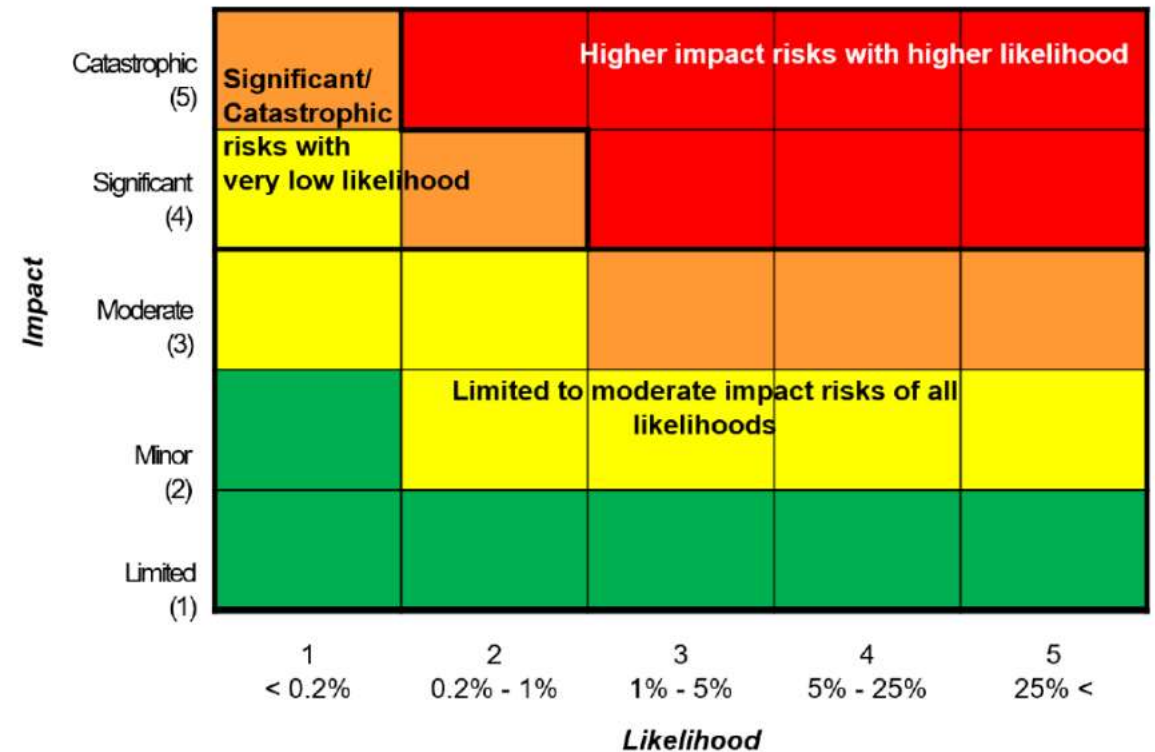
Assess those risks and set priorities.



Lancashire Top Risks

1. Flu-type pandemic
2. **Flooding**
3. Terrorist attack
4. Industrial incident
5. Loss of essential services
6. Cold weather and snow
7. Heatwave
8. Storms and gales

www.lancashireprepared.org.uk / #lancsalert



Icy roads



Will we have freezing temperatures on the roads? Where and when?

Icy roads



Will we have freezing temperatures on the roads? Where and when?

If 'YES', will we also have water on the roads? Where and when?

Icy roads

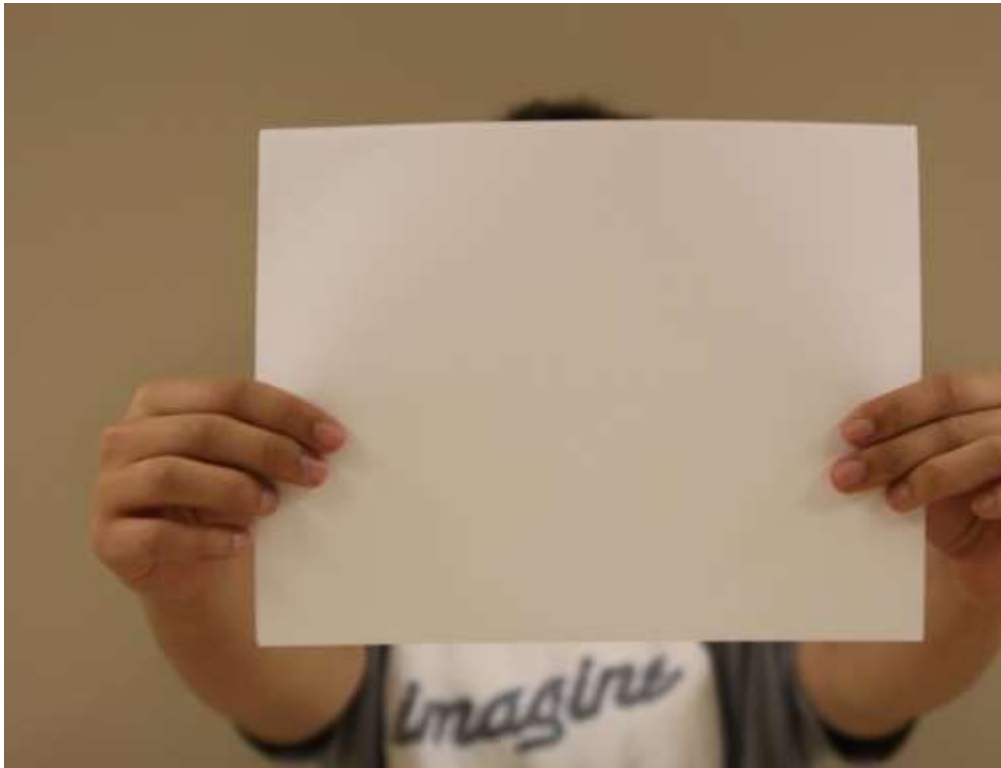


Will we have freezing temperatures on the roads? Where and when?

Will we have water on the roads? Where and when?

If yes to both questions, then ice will form so we need to get salt down on the roads before that happens.

Icy roads vs Flooding



Flooding

- Will it rain? Where, when, how heavily & for how long?
- Will the tides be high round the coast? Will high sea levels hold up water in the pipes? Where and when?
- Is the ground already saturated?
- Are any streams or pipes blocked? Whose are they? Do the owners know? Will they do anything about it?
- Is it windy as well? Will falling leaves and branches add more blockages?
- Are roads & bridges safe to travel on?

Prevent

When and where possible



Medium-Long Term Flood Risk Management Measures



Community action (e.g. Flood Action Groups, Parish/Town Councils)



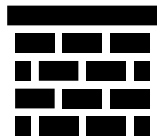
Business support/climate change funding



Natural flood management (peat restoration, coastal buffers, re-wiggling rivers)



Development management and SuDS



Engineering projects (e.g. coastal protection, river defences, pumps)



Property flood resilience



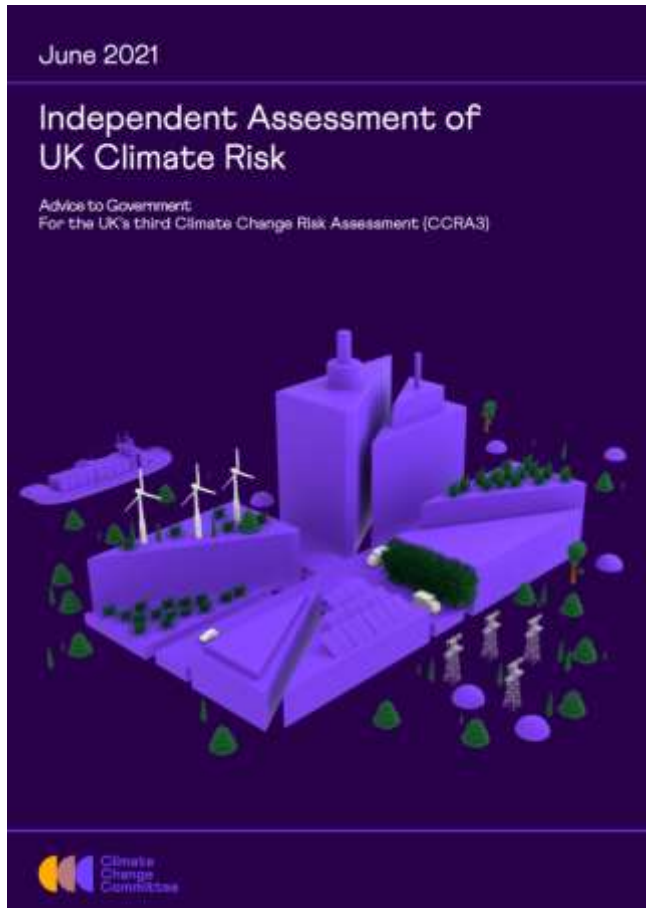
Education & information

Community action

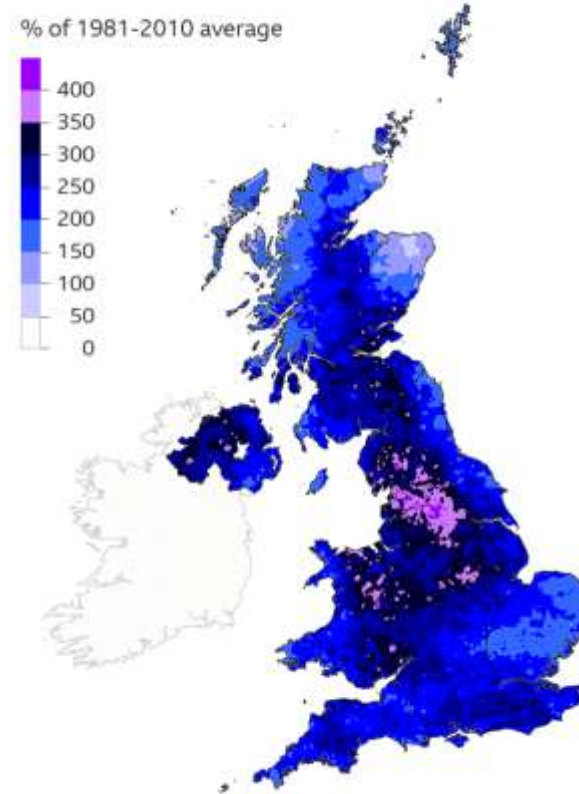
- Trusted neighbours;
- Frequent activities such as drop-in events & materials demos;
- Joint technical meetings with emergency responders & drainage authorities;
- Informed questions on planning applications;
- 'Dry run' incident preparation exercises.



Minimise Climate Change



Higher than average rainfall in February 2020



Source: Met Office

BBC



Development Management

Surface water drainage strategy including:

- Surface water outfalls, rates and volumes
- Sustainable drainage systems
- Allowances for climate change & urban creep

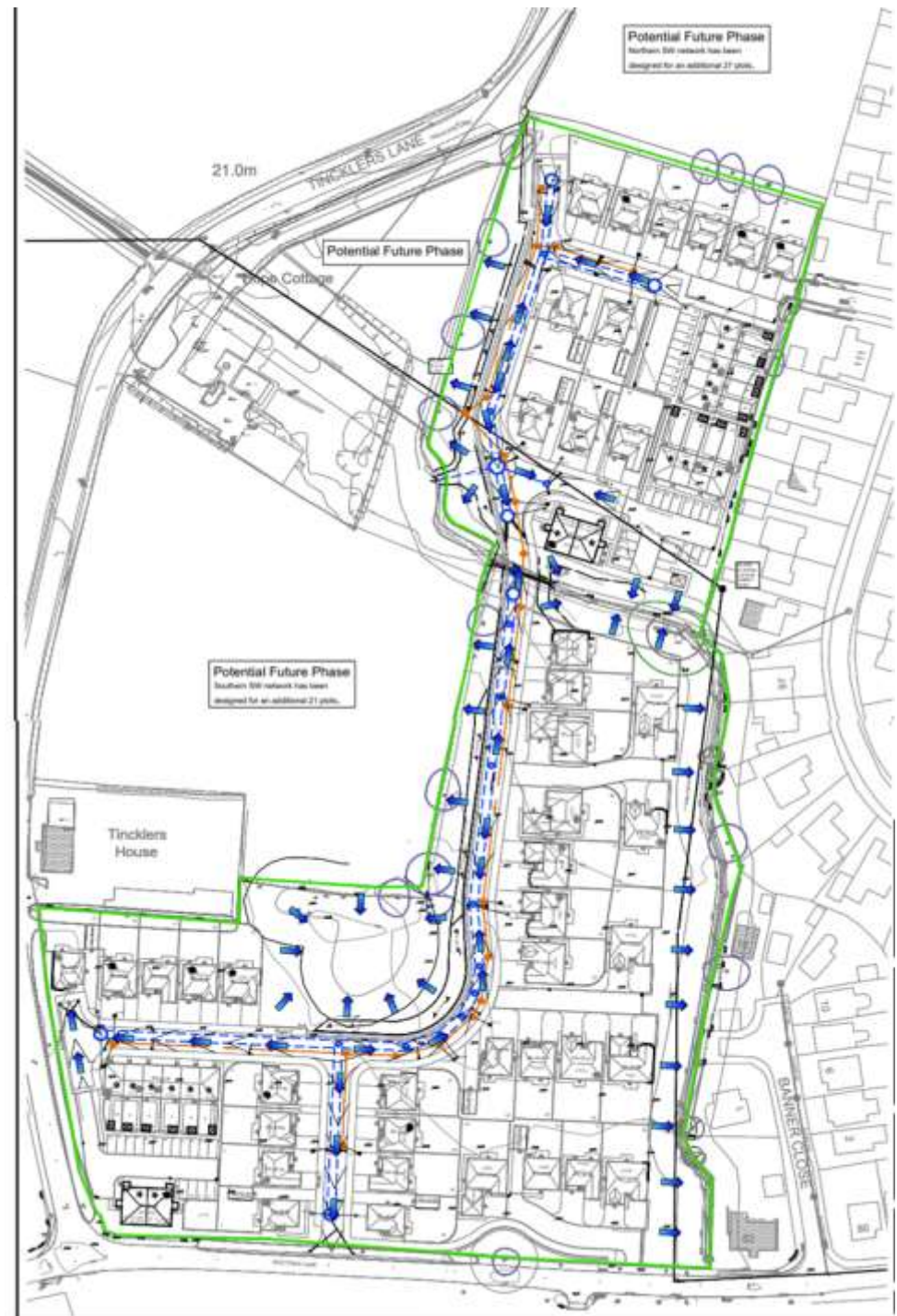
Flood risk assessment including:

- Measures for mitigating surface water flood risk
- Raising of site and finished floor levels
- Off-site flows
- On-site drainage ditches (access road culvert)
- Measures for managing residual risk (exceedance)

Maintenance arrangements:

- On-site sewer network
- Attenuation tanks
- On-site drainage ditch

Conditions including Verification Report and Operation and Management Plan (pre-occupation condition)



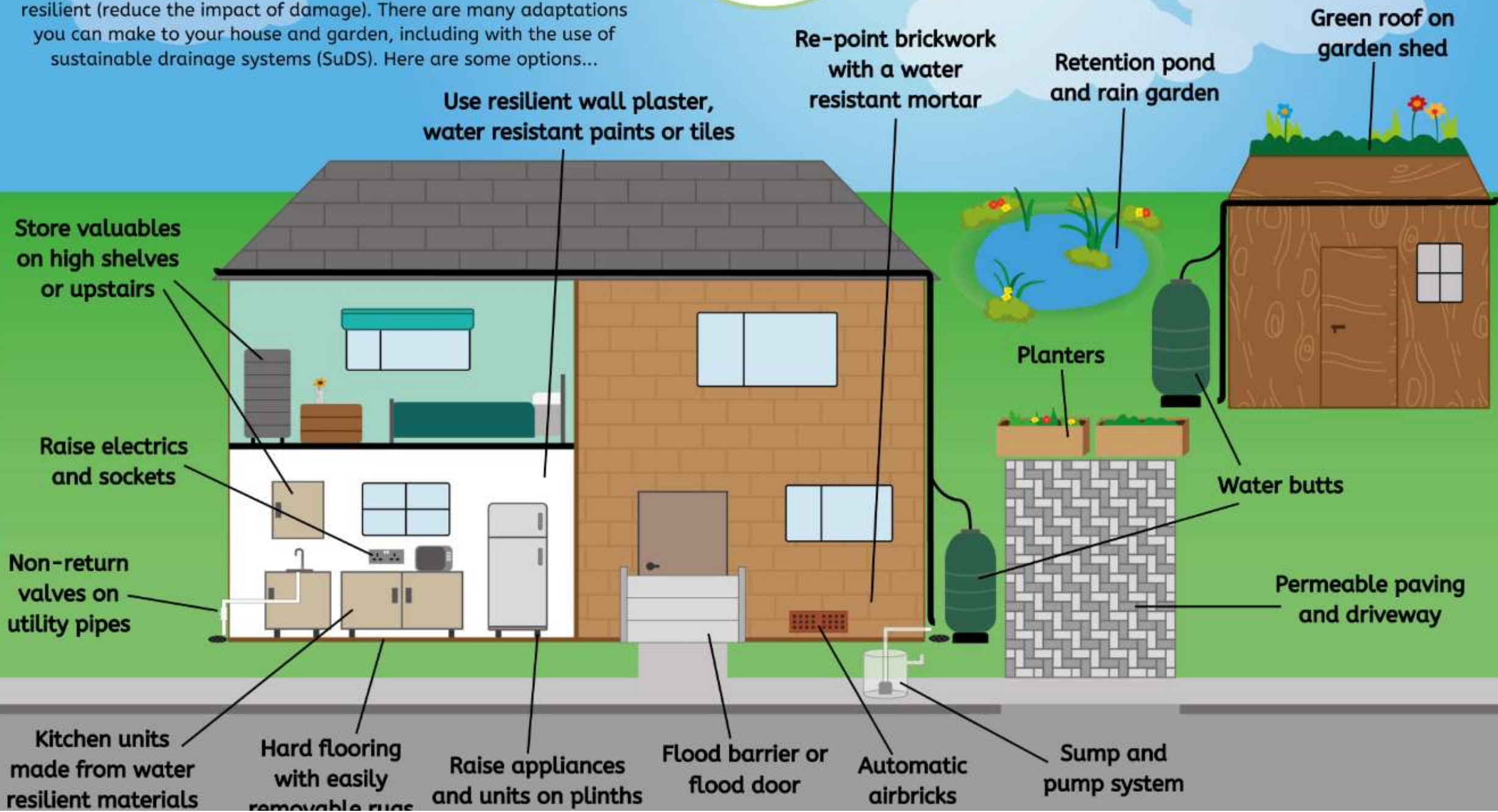


Peatland restoration

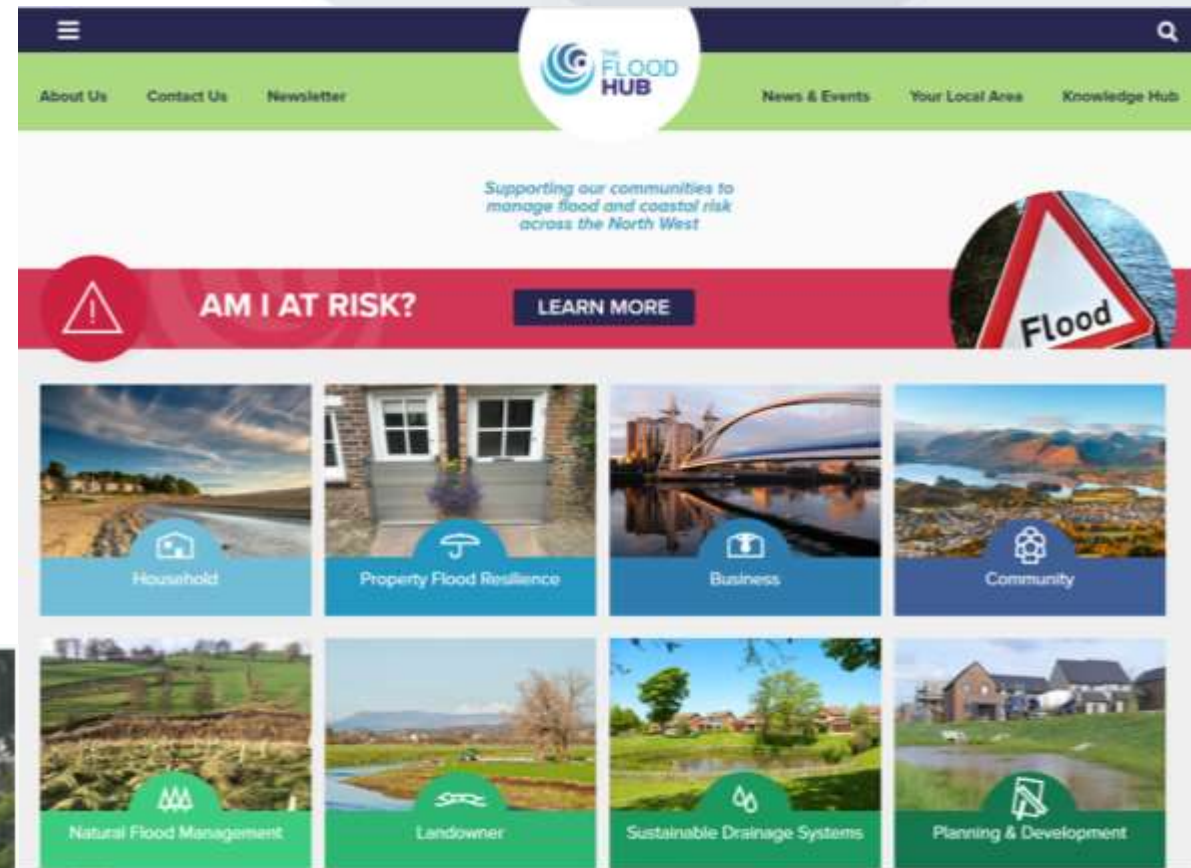
Engineering projects



When protecting a property from flooding, it is effective to use techniques that are both flood resistant (keep water out) and flood resilient (reduce the impact of damage). There are many adaptations you can make to your house and garden, including with the use of sustainable drainage systems (SuDS). Here are some options...



Education and Self Help



Prepare

Emergency planning, training and exercises.



Multi Agency Emergency Plans

Box	Type	Description
Box 1	Generic	Standard information applicable to all plans and could be used during any type of emergency, including: <ul style="list-style-type: none">• Roles and responsibilities• Resilient telecommunications• Recovery• Contact arrangements.
Box 2	Hazard Specific	Information relevant to specific hazards such as: <ul style="list-style-type: none">• Fuel• Flooding• REPPIR• Severe Weather
Box 3	Site Specific	All information and arrangements which are relevant to site specific locations such as: <ul style="list-style-type: none">• COMAH• Flooding• REPPIR• Reservoir.

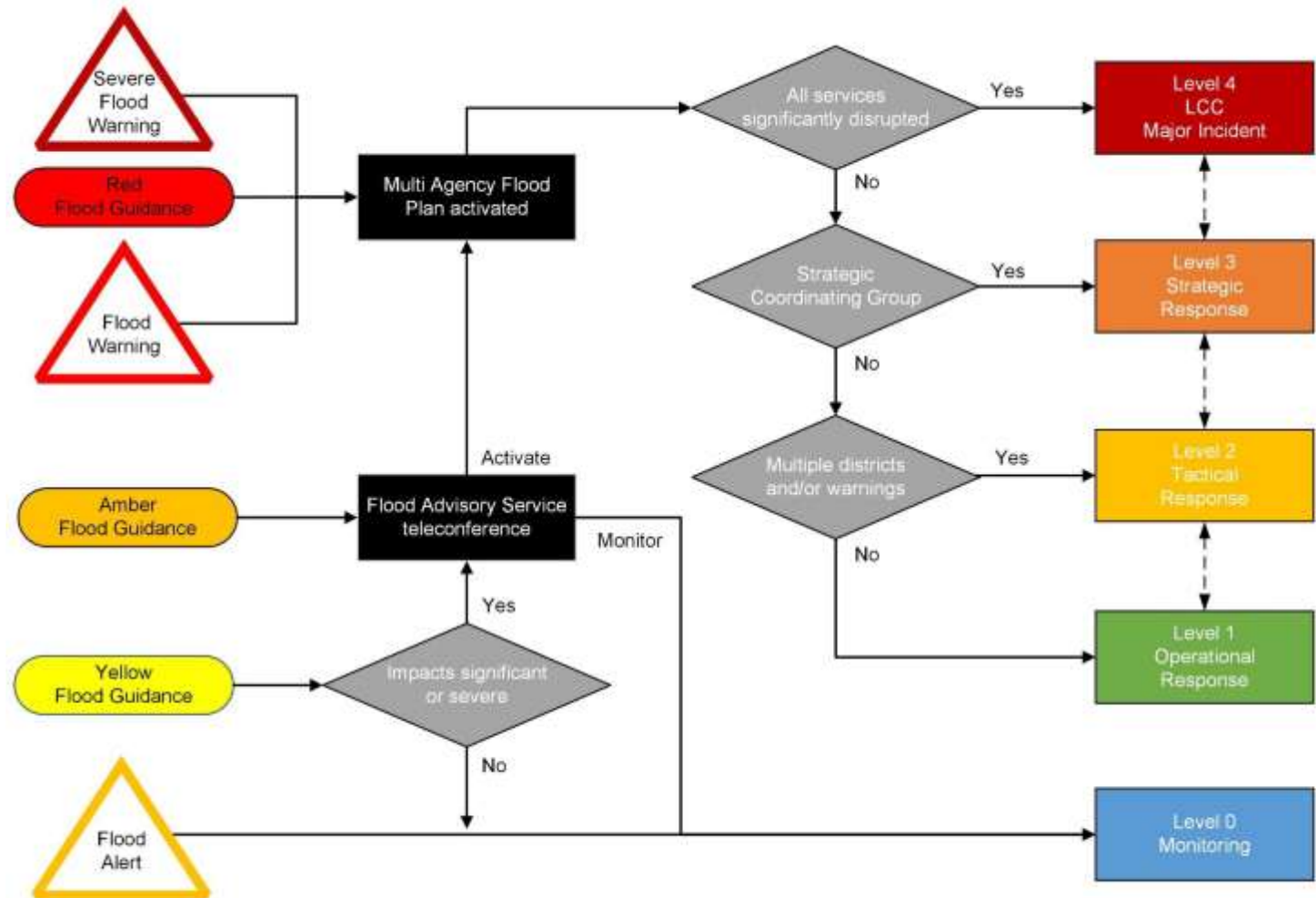




Flood Response Plan

Version: 1.0
Date Issued: May 2022

Operational response planning



Additional indications include: Met Office advices, reports of actual flooding, reports from the public.

Prepare

- Corporate
 - Follow weather forecasts;
 - Receive and respond to advice from Met Office, Environment Agency and the Flood Forecasting Centre;
- Highways:
 - Attend trash screens & vulnerable gullies;
 - Arrange extra resources for overnight/weekends;
 - Make temporary works safe;
 - Service-level pre-incident meetings



Respond

Implement the plan



LCC Priorities

‘Ordinary tasks in extraordinary circumstances’

- Initially support the response by emergency services and act as the link between District Councils;
- Provision of welfare support and humanitarian assistance facilities;
- Keeping public highways open & available for blue light services;
- Protecting our vulnerable members of society (care homes and individuals);
- Liaise with, and activate as necessary:
 - LCC Services;
 - Voluntary Agencies;
 - Central Government;
 - Others...



Highways Response

- Maintain safe access for emergency vehicles
AND *close unsafe routes*;**
- Continue checking on trash screens & vulnerable gullies;
- Activate extra resources for overnight/weekends, mainly people and equipment;
- Keep temporary works safe;
- Respond in support of blue light services where required.



Communications Response

- Decision-makers
- Members
- Public Media & Communications
 - Formal 'press releases';
 - Social media:
 - Repeated by partner organisations;
 - enhanced by personal Councillor/officer accounts;
- Informal advice to Town & Parish Councils and Flood Action Groups.



Flooding in Lancashire



Flooding Flooding in Lancashire Before a flood During a flood After a flood Drains and Sewers ▾ Contacts

Flooding in Lancashire

Over the last few years, flooding caused by extreme rainfall has become a bigger issue in Lancashire and across the country. Heavy rain has had a devastating impact where people have had to leave their homes and seen valuables destroyed by flood water.

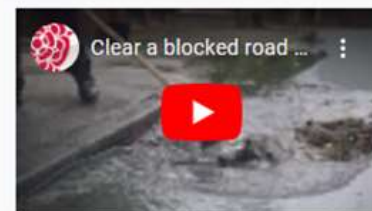
Watch our short animation for advice and tips on what to do before, during and after a flood.



Surface water flooding

If there is an immediate risk to your life or you are trapped by floodwater **call 999** and follow their advice.

Blocked gullies



Find out how we [maintain over 300,000 roadside drains](#), also known as gullies.

Local Authority Support

Lancashire County Council	District / Borough Council
Humanitarian Assistance Waste disposal Public Health Highways Services Help lines / Interpreters Animal health Scientific Services Link to Voluntary Agencies Safety of structures / bridges Warning & Informing Lead Recovery	Temporary accommodation Waste collection Sanitation Environmental Health Services Local knowledge / communities Safety of structures / bridges Warning & Informing Lead Recovery

Note: Blackpool Council / Blackburn with Darwen Council are responsible for all in their area



Sandbags

- NO statutory duty to provide.
- NOT an effective barrier, they only direct flow.
- BULKY to transport and to manoeuvre – lifting problems for residents.
- DIFFICULT to dispose of afterwards, shedding sand into drains.
- ONLY used in public highway, primarily to maintain access along roads.

For personal use: sandbags and waterbags can be bought in advance from builders' merchants, DIY stores etc.

[Alternative sandbags \(thefloodhub.co.uk\)](http://thefloodhub.co.uk)

ALTERNATIVE SANDBAGS

Is there an alternative to traditional sandbags?

For many years, traditional sandbags using hessian sacks have often been the most popular method of preventing flood water from entering and inundating properties or an area of land. However, over time, alternative sandbags have now been developed and identified as a better substitute for traditional sandbags.



Even though traditional sandbags are cheap, and can prevent flood water from entering areas for short periods of time, there are some negative aspects of using them:

- They are relatively easy to obtain, but at the time of a flood event, demand for them may exceed availability at your local builder's merchants.
- Due to their weight (~13kg), they can be very difficult to handle.
- The hessian sacks are biodegradable and can rot if they are left in the same position for long periods of time.

What are the alternatives and how do they work?



Gravitas International Ltd / Domestic flood control
2011 - water reactive sandbag / CC BY-SA 3.0

A range of alternative sandbags are now available to purchase in preparation for flooding. They have many advantages over traditional sandbags and have been found to be more effective at protecting against flooding.

Some alternative sandbags are filled with a gel substance which can mould to gaps and available space, creating a better seal than traditional sandbags. They can be applied in small strips and can act as a water tight seal around windows and door frames or laid out as barriers to divert flowing water during a flood.

They are lightweight and easy to store and deploy, so are very useful in a flash flood event. Once the alternative sandbags are put in the appropriate place, it is important to wet them which will activate them so that they are weighted down and can act as a barrier.

Some types of alternative sandbags can absorb approximately 20 litres of water. After the flood event has occurred, alternative sandbags can be re-used, as long as they are not contaminated with sewage water.



Gravitas International Ltd / Flood Doorway in
Somerset / CC BY-SA 3.0

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Somerset / CC BY-SA 3.0

Role for Town & Parish Councils during a Flood Incident

DO

- Report any immediate threat to life & safety to 999;
- Report flooding
 - from sewers to local water company
 - from main rivers/sea to the Environment Agency, and
 - obstructing the road to police on 101;
- Share on any messages and advice from LCC & emergency services;
- Encourage people to make their homes & property as secure as possible.

DON'T

- Ask LCC for sandbags!

How to Report Urgent Concerns

Issue	Contact
Risk to Life	999
Social Care	8am to 8pm: 0800-123-6720 8pm to 8am: 0300-123-6722
Foul water out of sewers	United Utilities plc: 0345-672-3723 Yorkshire Water plc: 0345-124-2424
Water obstructing the highway	0300-123-6780
Sea overtopping or river bursting its bank	Environment Agency: 0800-807060



Recover

Recover to the 'new normal'



Recovery

“the process of rebuilding, restoring and rehabilitating the community following an emergency”

Can extend to regeneration:

“transformation/revitalisation, physical social and economic, building new homes/buildings, raising aspirations, improving skills/environment”

- Start as soon as possible
- Prepare for long haul
- **Involve community/local organisations**
- Resources





Recovery

- Inspect & repair damage to LCC roads, bridges and other assets.
- Highways cleansing in affected areas.
- Provision of waste management support to district councils.
- Provide advice in respect of any grants (residential and commercial).
- Start data-collection for Section 19 investigation.



Recovery

- Inspect & repair damage to LCC roads, bridges and other assets.
- Highways cleansing in affected areas.
- Provision of waste management support to district councils.
- Provide advice in respect of any grants (residential and commercial).
- Start data-collection for Section 19 investigation.

Role for Town & Parish Councils in Recovery

DO

- Report dangers in the road to LCC Highways (Love Clean Streets app, or t.0300-123-6780);
- Report damaged rivers and streams ('watercourses') for inspection (t.0300-123-6780);
- Report flooding to homes & business premises for investigation (t.0300-123-6780);
- Encourage people to report to their insurers for help;
- Encourage people to make their homes & property as secure as possible with advice on the Flood Hub ("building back better"): [Property Flood Resilience | The Flood Hub](#)
- Offer local information and advice to flood investigations

How to Report – Flooded Property Investigation

Issue	Contact
From sewers	United Utilities: Sewage in your home/garden Yorkshire Water plc: 0345-124-2424
From sea or main river	Environment Agency cmblnc-pso@environment-agency.gov.uk
From roads or other sources	LCC t. 0300-123-6780 or info@lancashire.gov.uk
Damaged watercourses	LCC t. 0300-123-6780 or info@lancashire.gov.uk



Debrief

“To examine the effectiveness of the response and identify any lessons that be learnt and fed back into the planning process”

- What went well?
- What could be improved?
- How, when and by whom?



Planning and preparing for Flooding in Lancashire

Thank you for your attention.

Any questions?

Rachel Crompton, Principal Flood Risk Officer

suds@lancashire.gov.uk

