



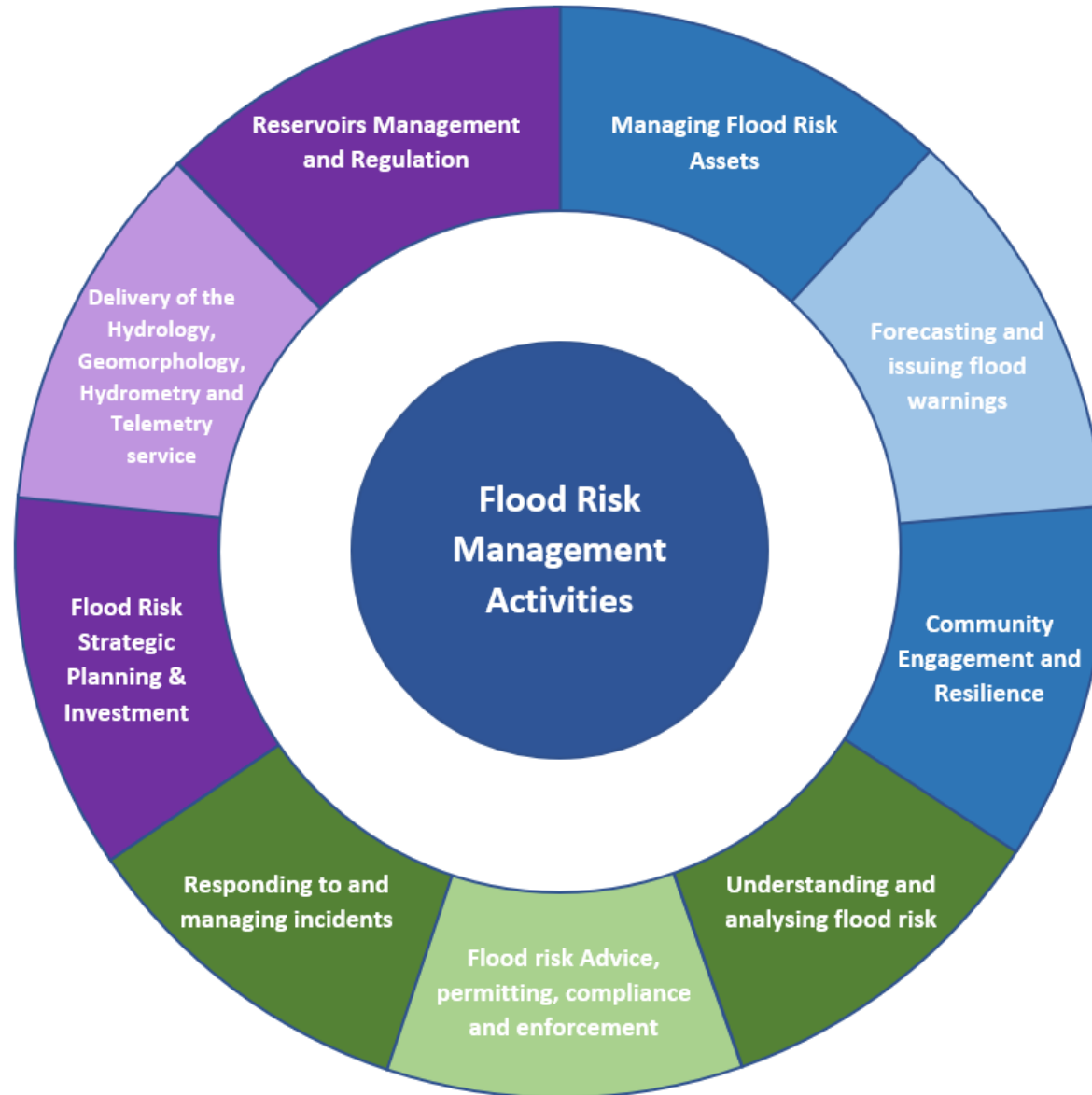
**Cyfoeth
Naturiol**
Cymru
**Natural
Resources**
Wales



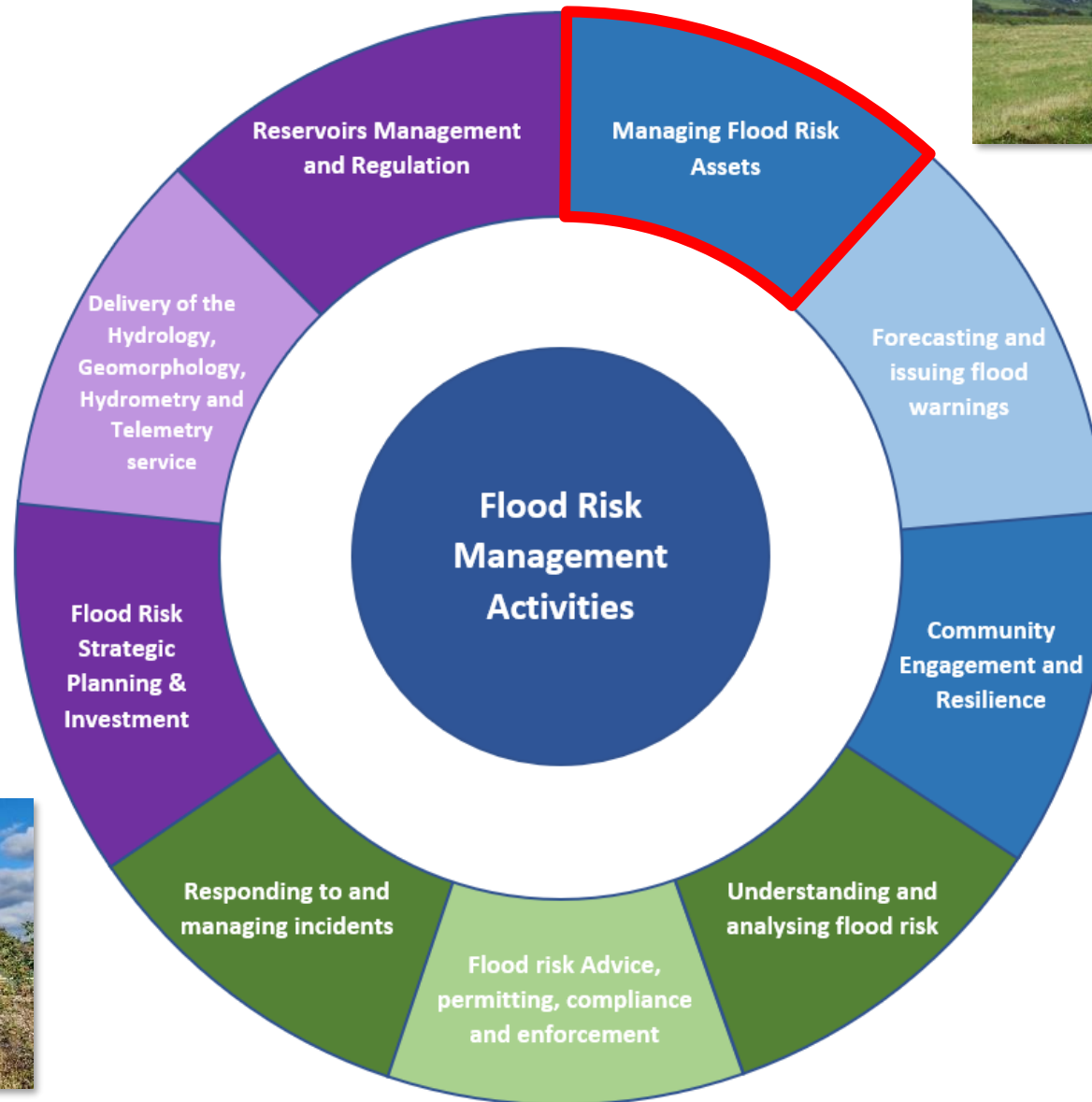
Natural Resources Wales – Flood Risk Management

Dav Letellier – Head of Operations South Central

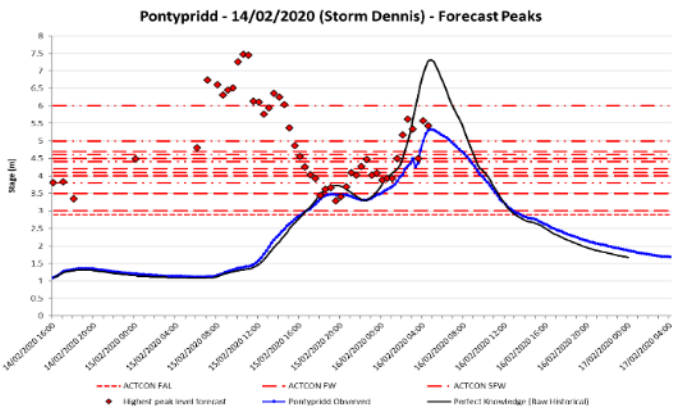
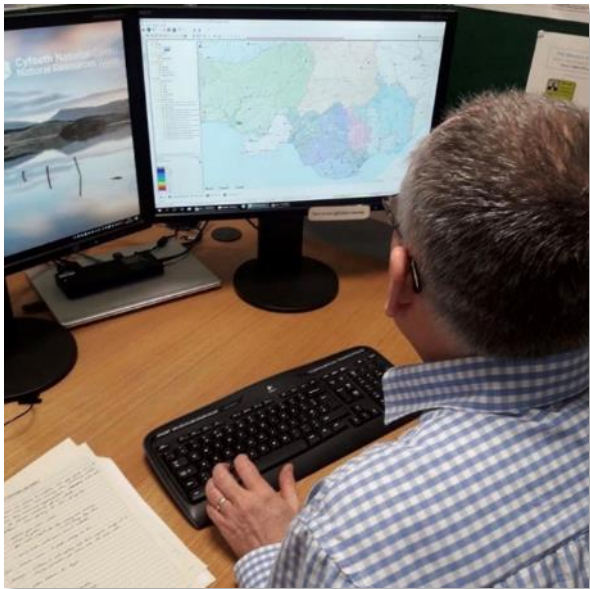
NRW Flood Risk Management Activities



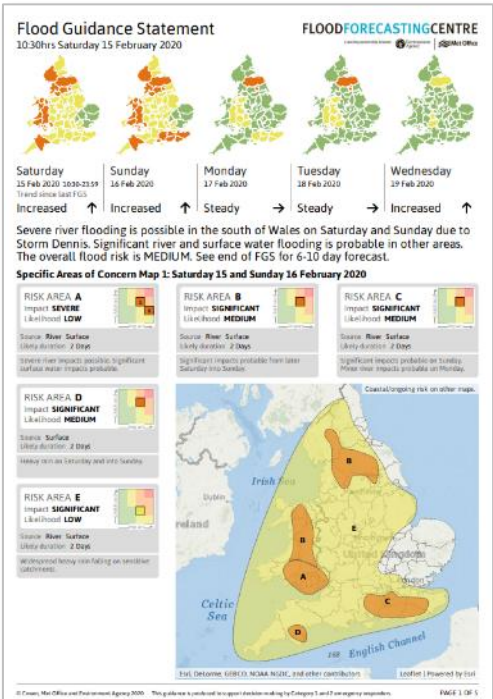
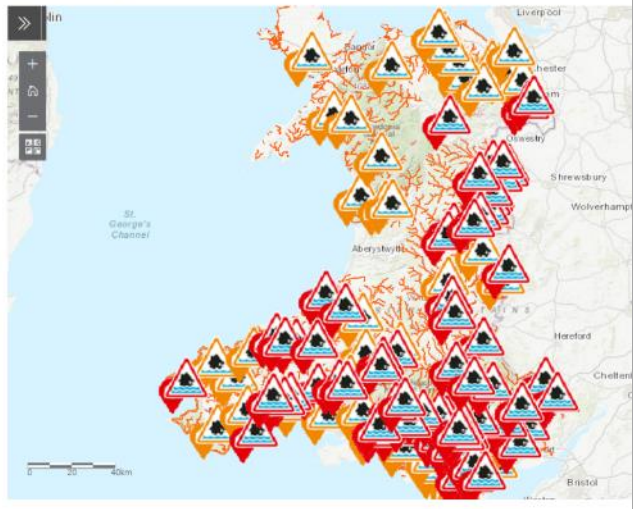
Managing Flood Risk Assets



Forecasting and issuing flood warnings



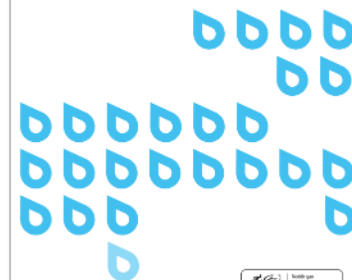
Live map of warnings



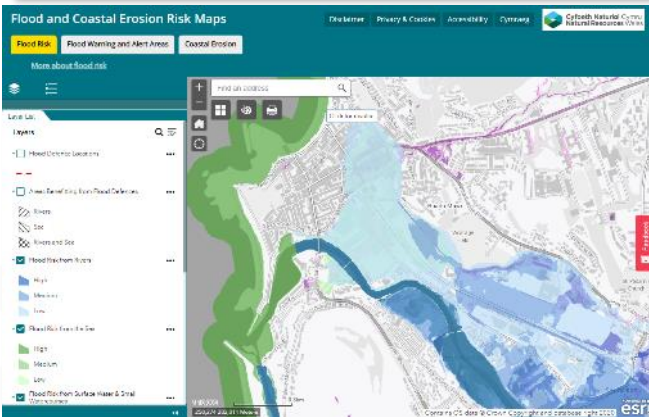
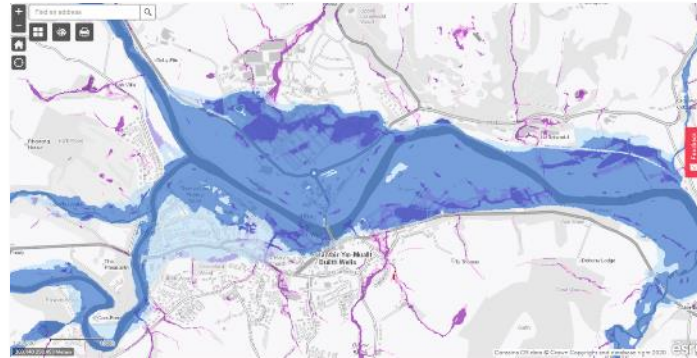
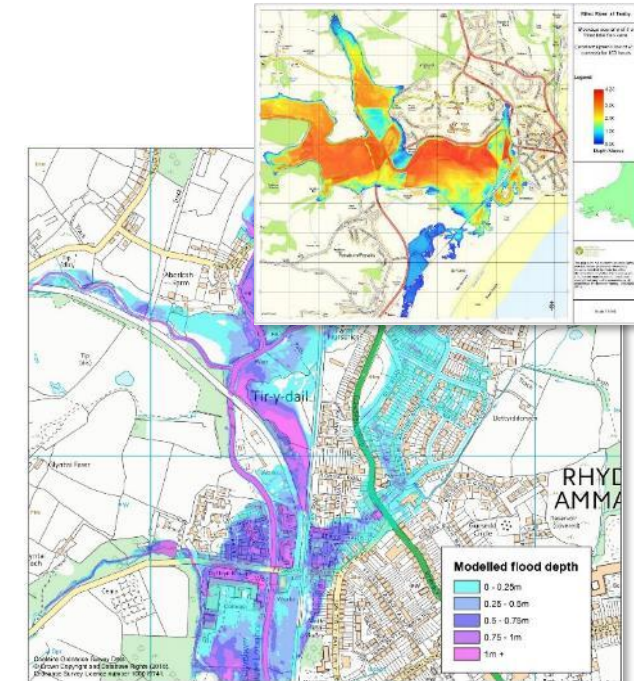
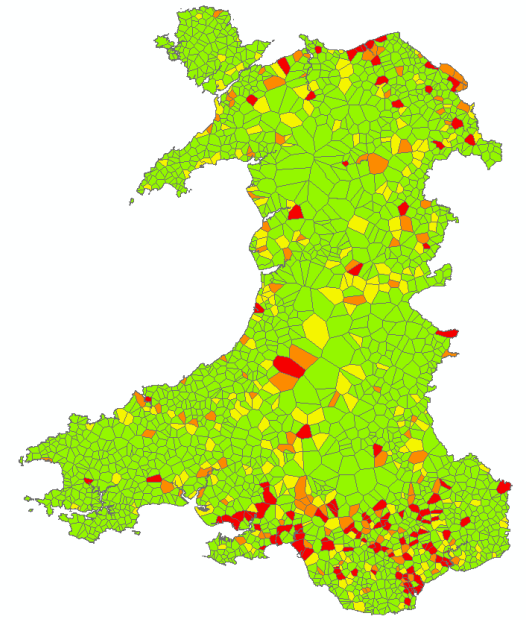
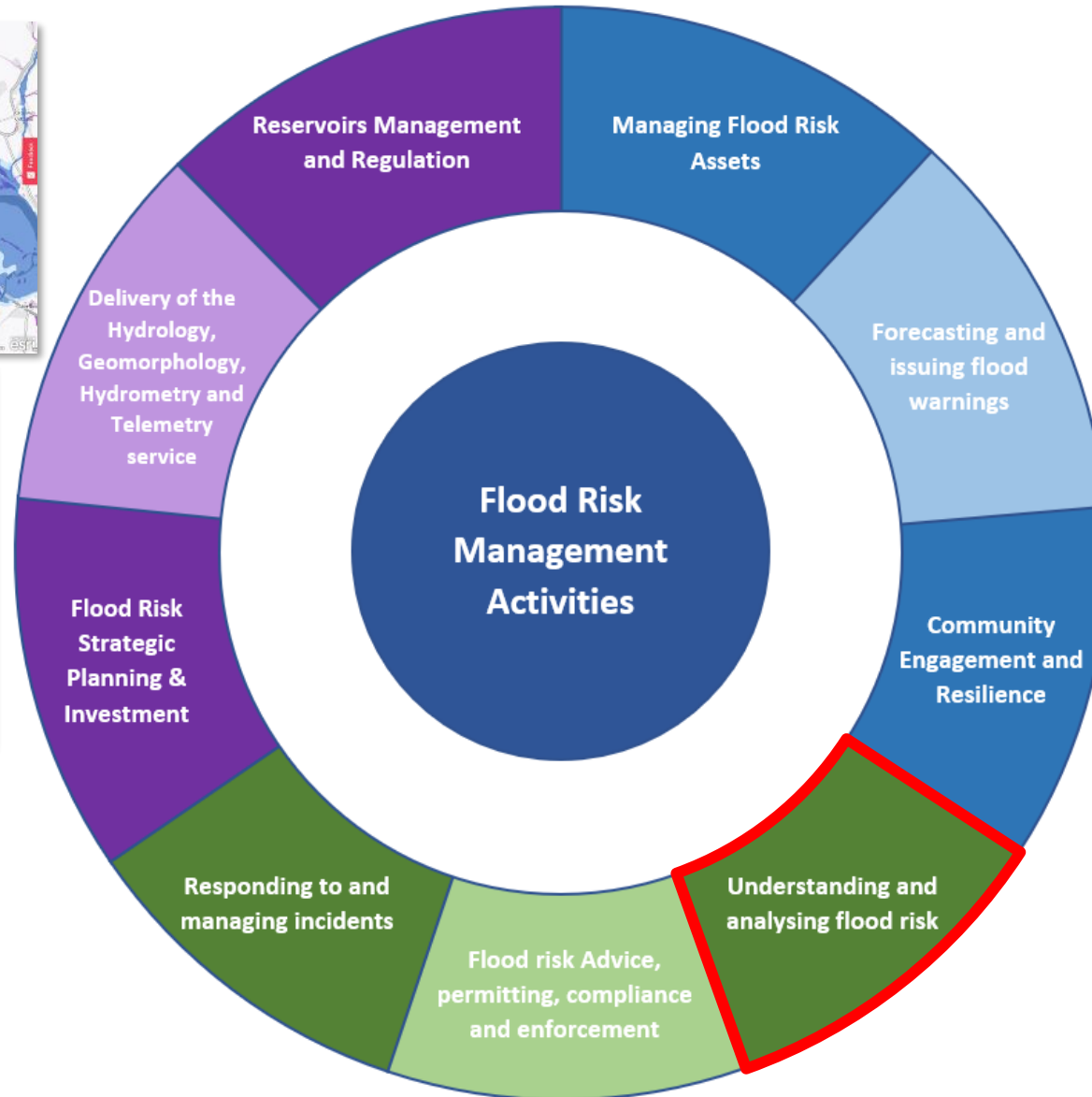
Community Engagement and Resilience



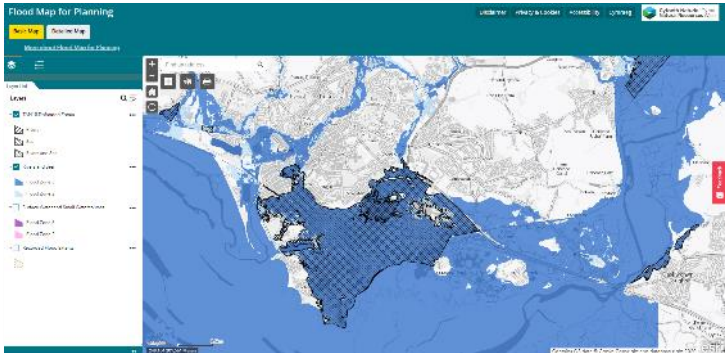
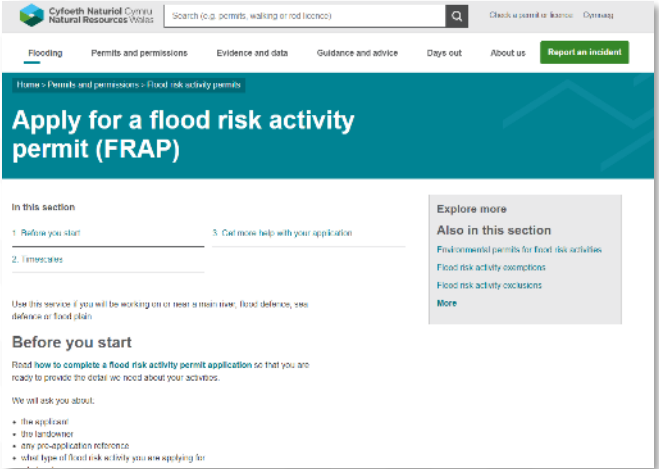
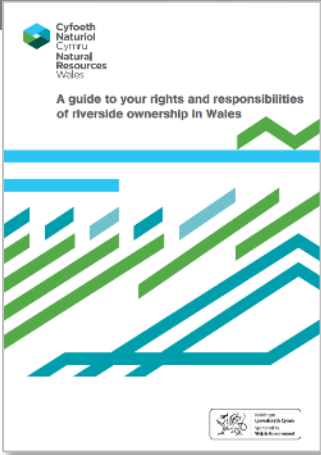
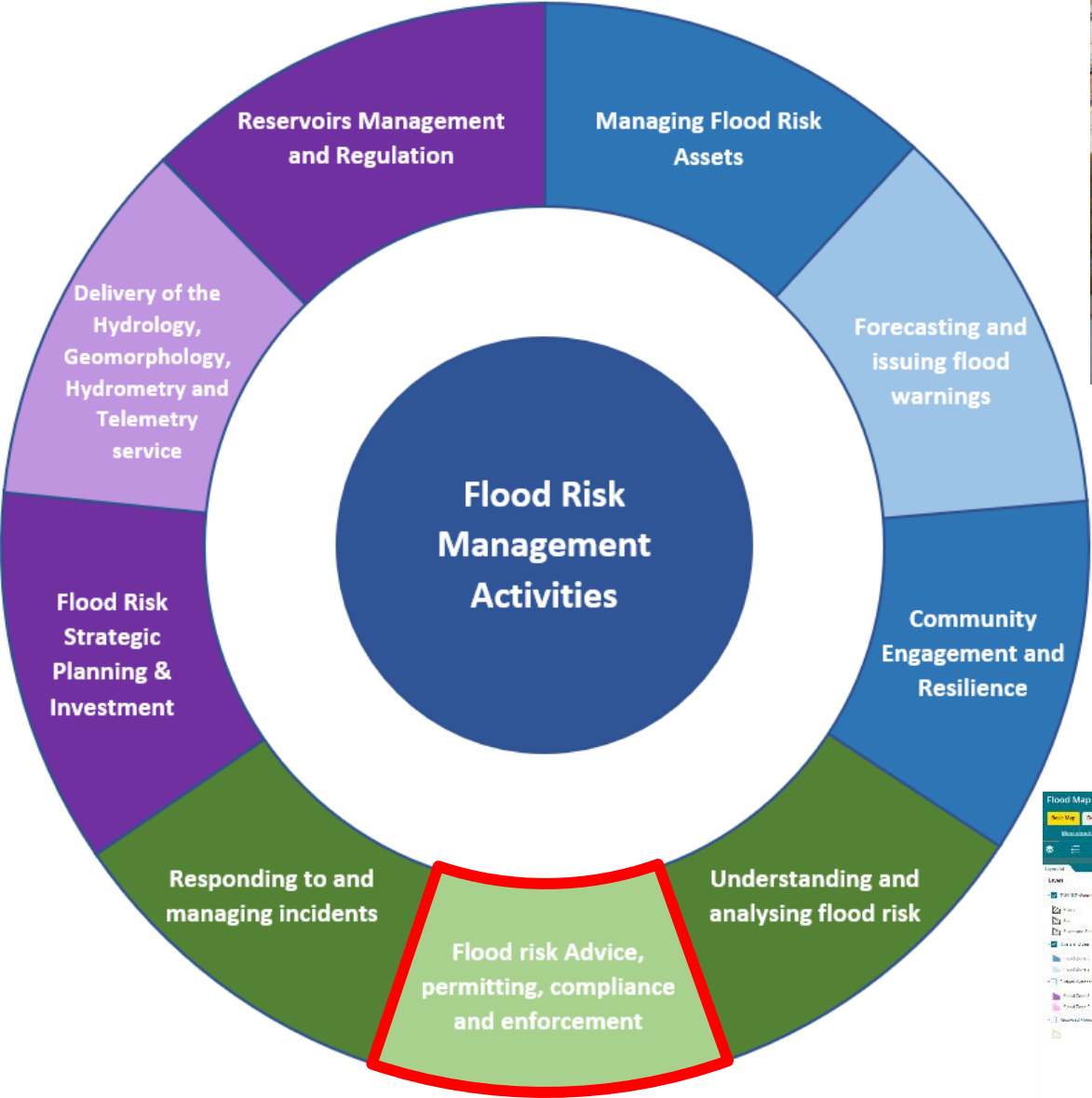
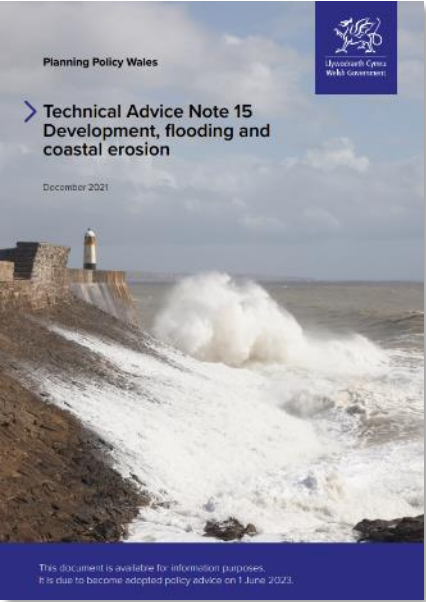
What to do before, during and after a flood
Practical advice on what to do to protect yourself and your property.



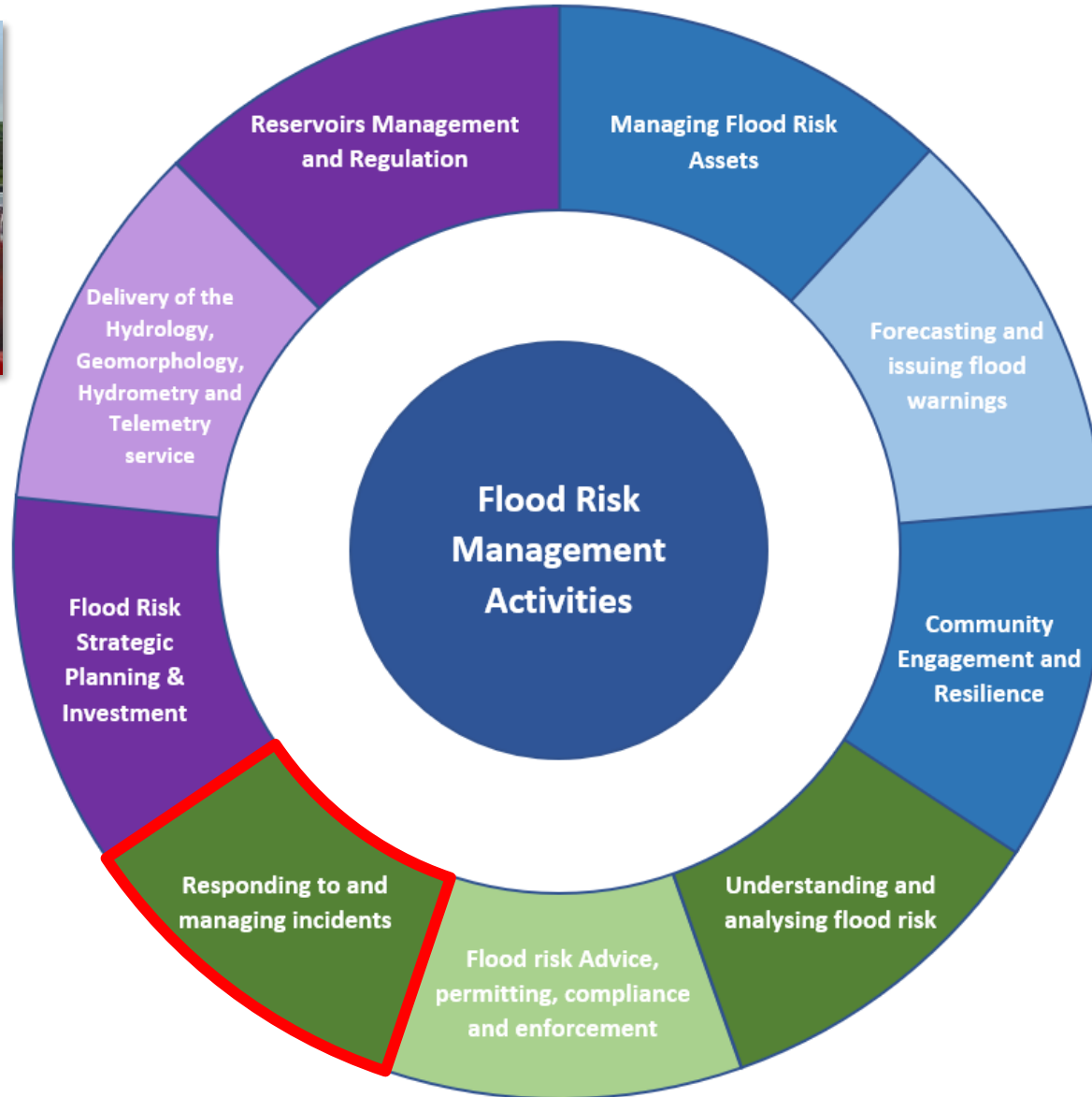
Understanding and analysing flood risk



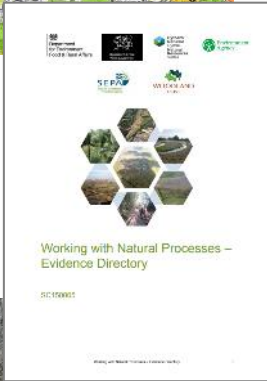
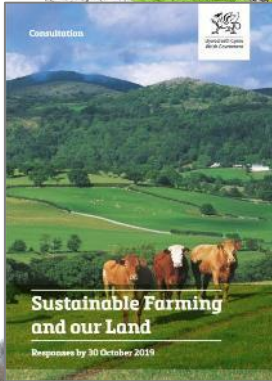
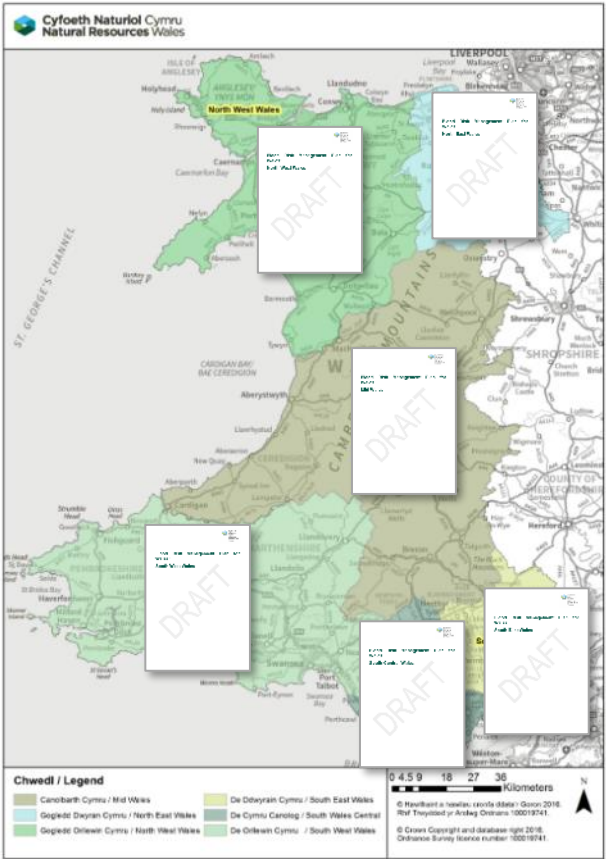
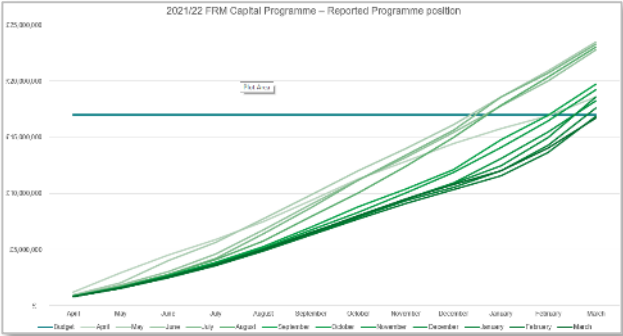
Flood risk advice, permitting, compliance and enforcement



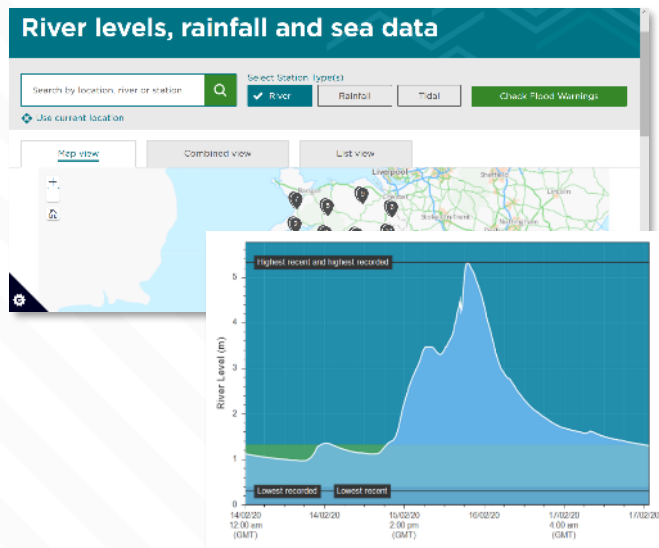
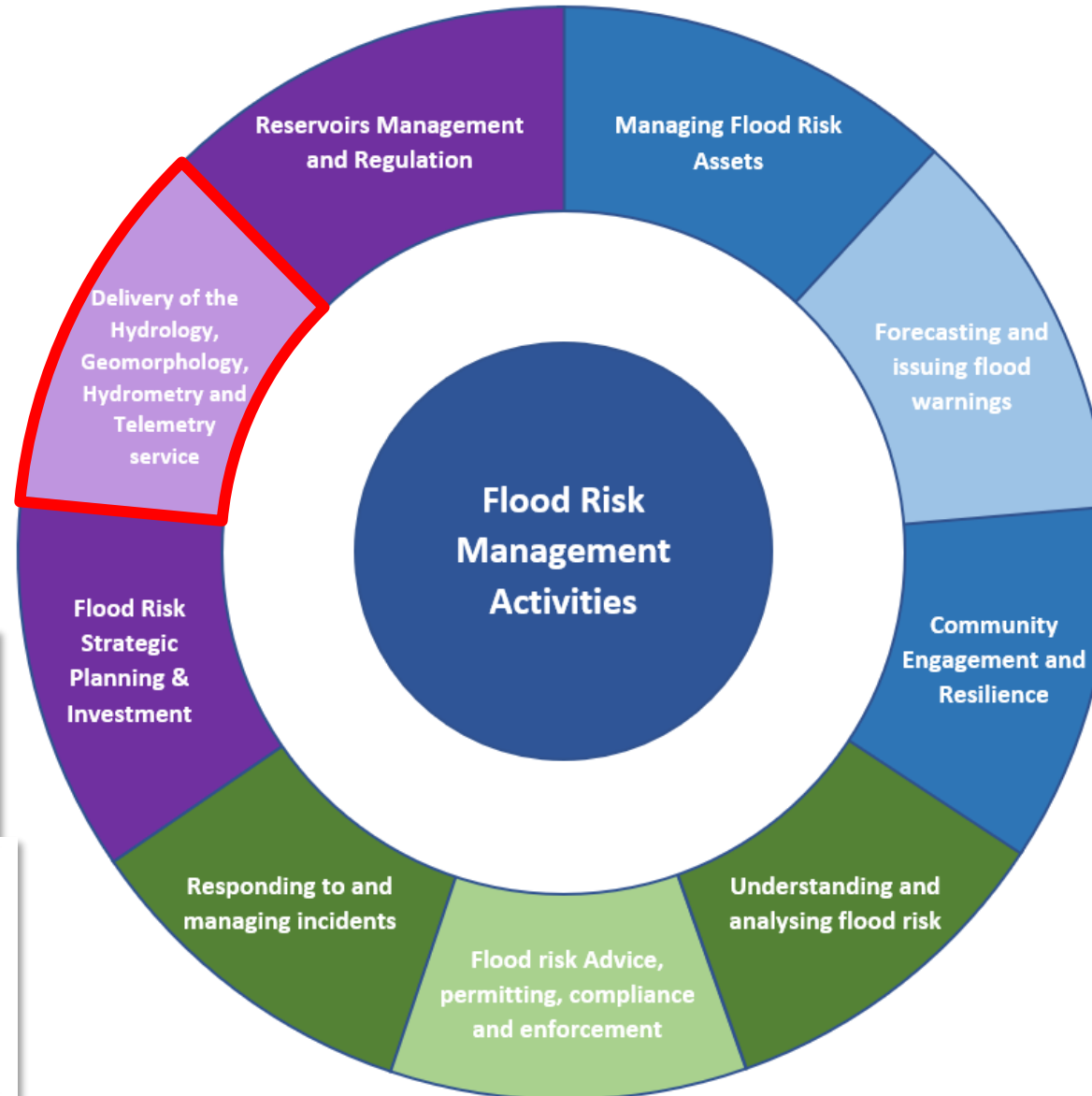
Responding to and managing incidents



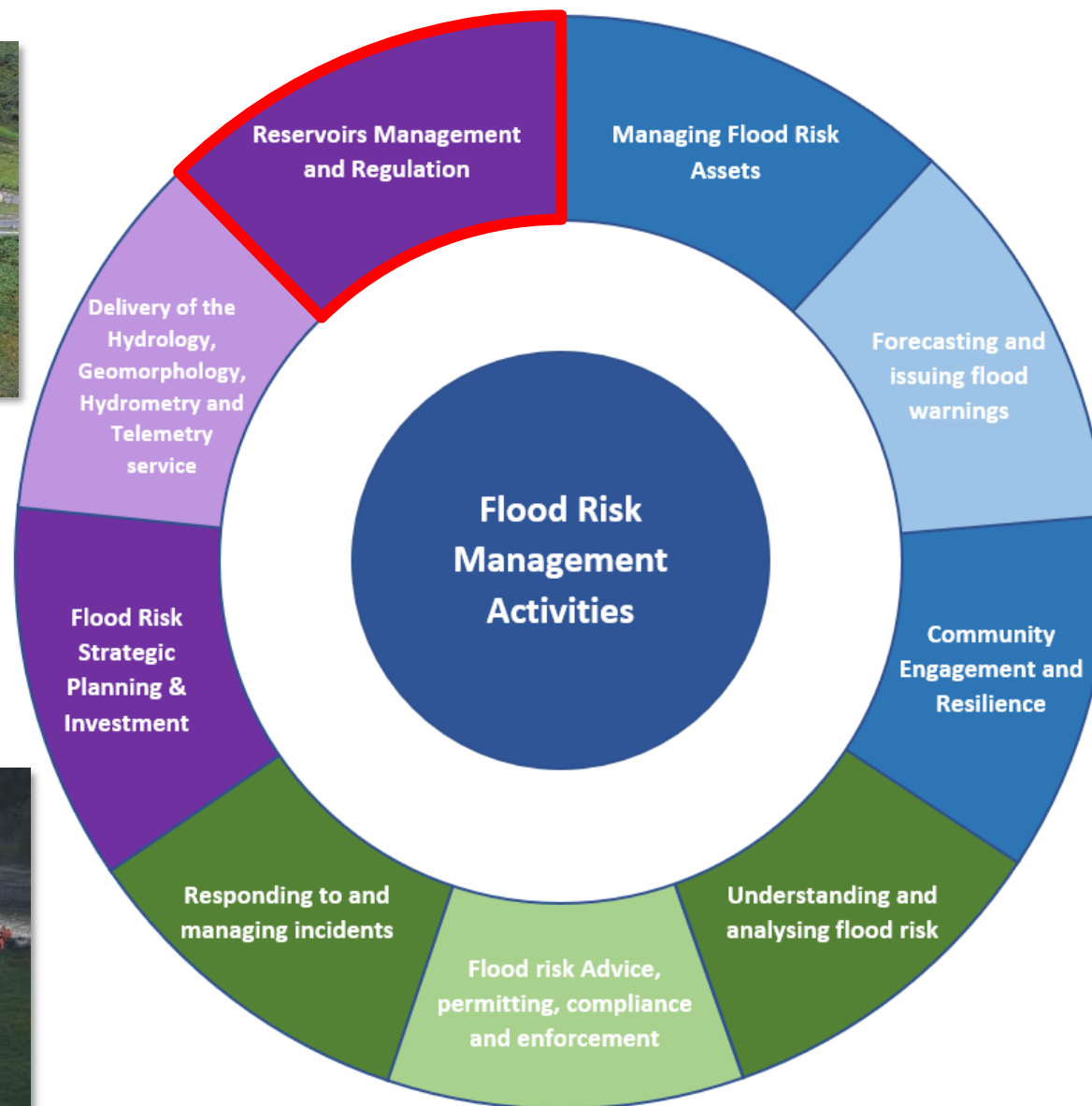
Strategic Planning and Investment



Hydrology, Hydrometry and Telemetry



Reservoir management and regulation



Question - What do we do first?



Stephenson Street, Newport

£5m

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Dinas Dinlle, Gwynedd

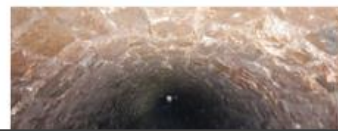
£5m

Shoreline Management Plan indicates a policy of Managed Realignment in the future

79 properties at risk, over 400 holiday caravans and a Wales Air Ambulance Airfield

142nd on the Communities at Risk Register

Long term strategic plan required to assess options for the ongoing management of the area, significant potential to develop coastal squeeze related compensatory habitat.



River Ritec, Tenby, Pembrokeshire

£3m

Major refurbishment of an existing NRW asset

Benefitting 33 properties, a railway line and a caravan park

97th on the Communities at Risk Register

There are concerns over the long-term integrity of the culvert, installed in the 1860s. If left unattended and complete failure occurred it is likely there would be fluvial and tidal flooding.

Llanfair Talhaiarn, Conwy

£2m

Flood impacted community

33 properties at risk and recently flooded

281st on the Communities at Risk Register

A new scheme to address a known flooding problem where a small town regularly suffers from flooding. The scheme consists of various elements including the replacement and upgrade of the culvert and a new flood

Merthyr Hyd

Refurbishment of weir and gauging hut structure

Supports Flood Warning System for over 1,700 local properties and local understanding of hydrology

Replacement of NRW's Flood Warning System

£3m

Significant ICT Development and Innovation project

Improved efficiency and effectiveness of a key NRW service which currently supports over 112,000 registered customers

Existing system relies on a joint contract with the Environment Agency and legacy agreements with suppliers which we have been instructed will be withdrawn imminently as the existing services reach "end of life".

Construction of Reservoir Safety led improvements

Sustains protection to 800 properties but driven by Reservoir Act (1975) legal compliance

Development of a National Asset Database

£3m

Significant ICT Development and Innovation project

Improved data management relating to over 4,000 NRW assets and an unknown number of Local Authority (x22) structures

Mandated to NRW to deliver on behalf of Wales through Welsh Government's National FCERM Strategy and reiterated through the annual Remit Letter

Links to enhancements of existing AMX and FRAW systems and datasets but requires substantial and complex staffing input



Ynysybwl, Rhondda Cynon Taf

£2m

Flood impacted community

17 properties at risk and recently flooded

147th on the Communities at Risk Register

During Storm Dennis (2020), flood waters from the Nant Clydach overtopped the highway wall which runs along the length of the Terrace, flooding 17 properties. The flooding experienced was extreme, with rapid onset and internal property flood depths above 6ft at the lowest lying houses. The Minister for Climate Change and local Senedd Members have demanded action.



Shoreline Management Plan indicates a policy of Managed Realignment

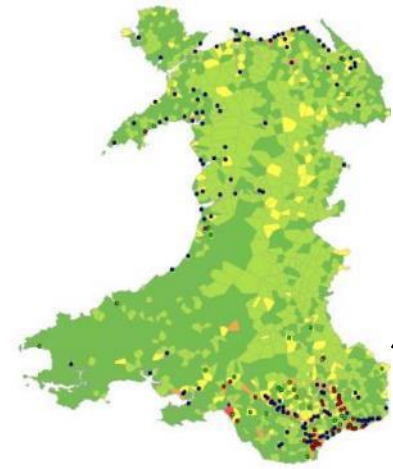
Isolated properties benefitting, however environmentally sensitive area

96th on the Communities at Risk Register

Damage to and breaches of existing flood defences is increasing, resulting in increased maintenance and emergency repairs. Any significant works likely to trigger coastal squeeze impacts and compensatory habitat requirements. Long term strategic plan required.

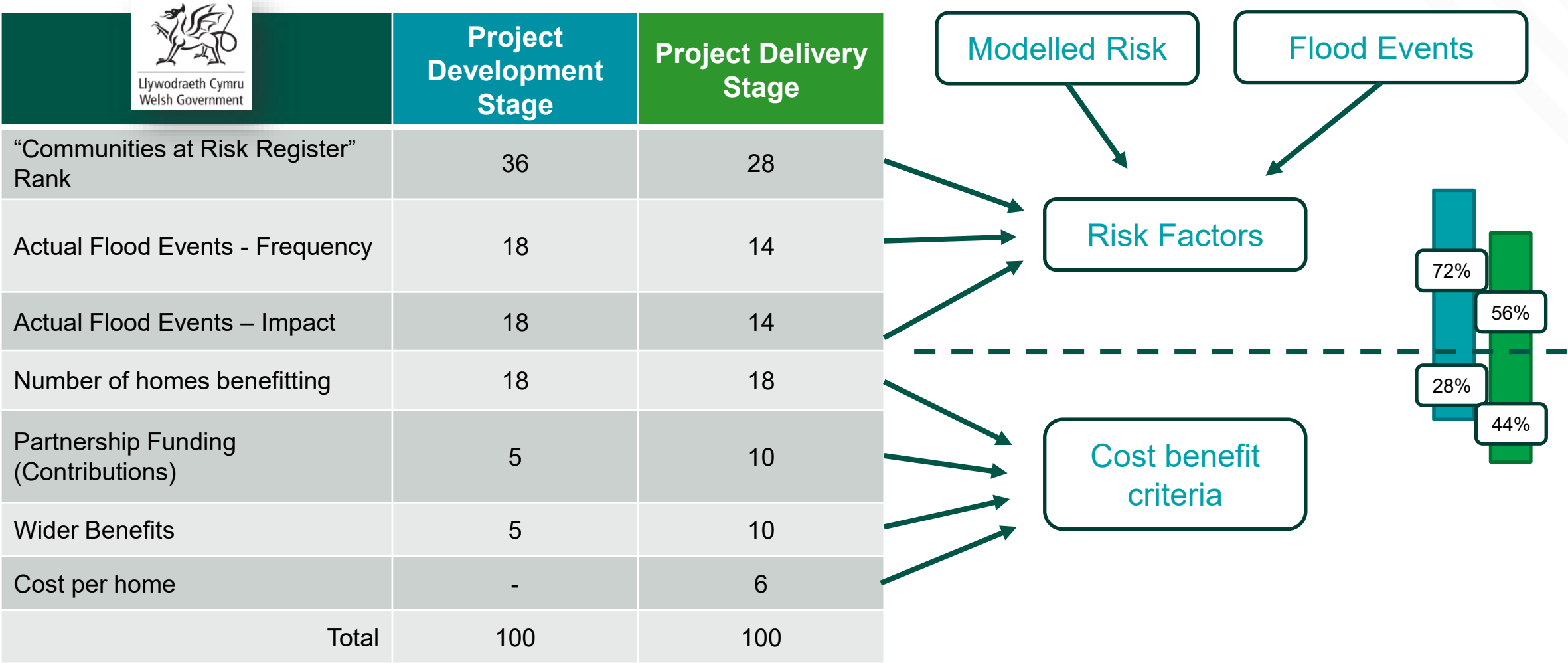


How do we prioritise our projects and programme?

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Prioritisation Factors

Welsh Government project prioritisation method



The Communities at Risk Register

Flood Map

Receptors (Addresses)

Receptors at Risk

Hazard

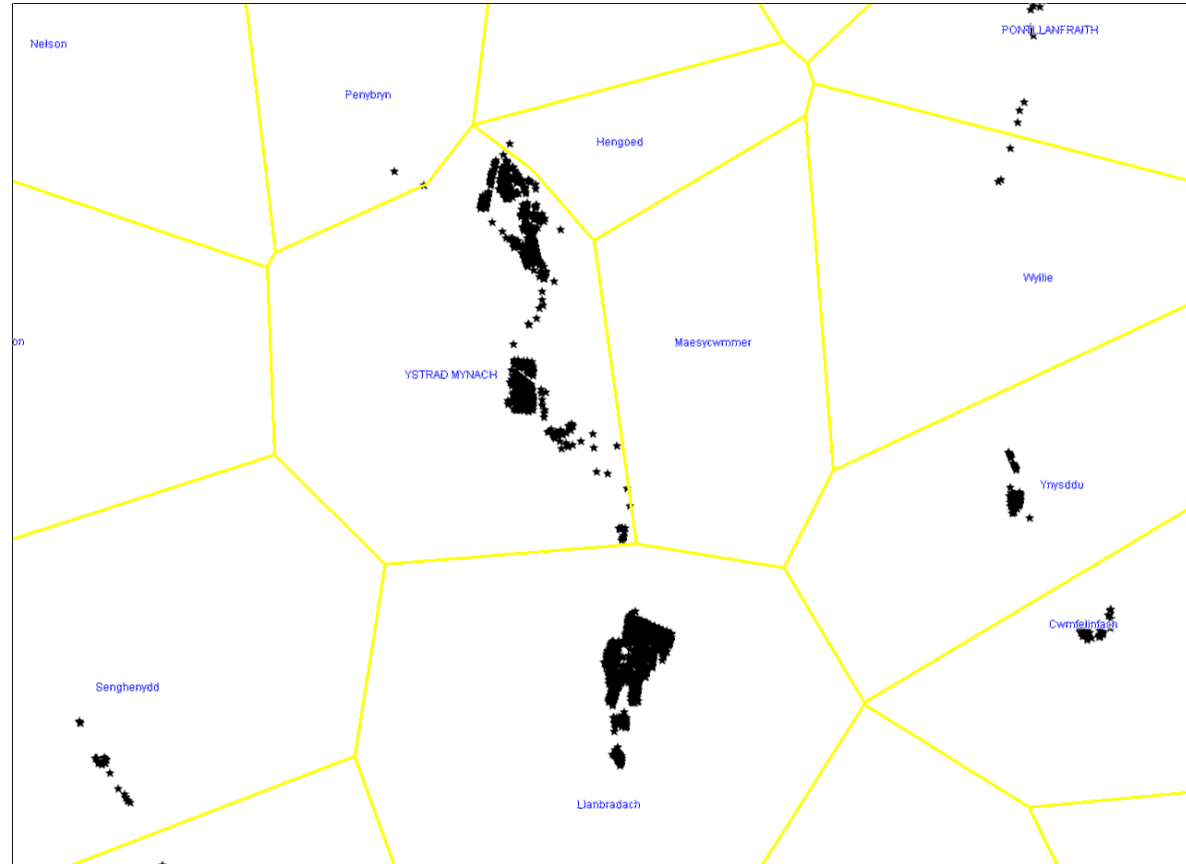
Speed of Onset

Vulnerability

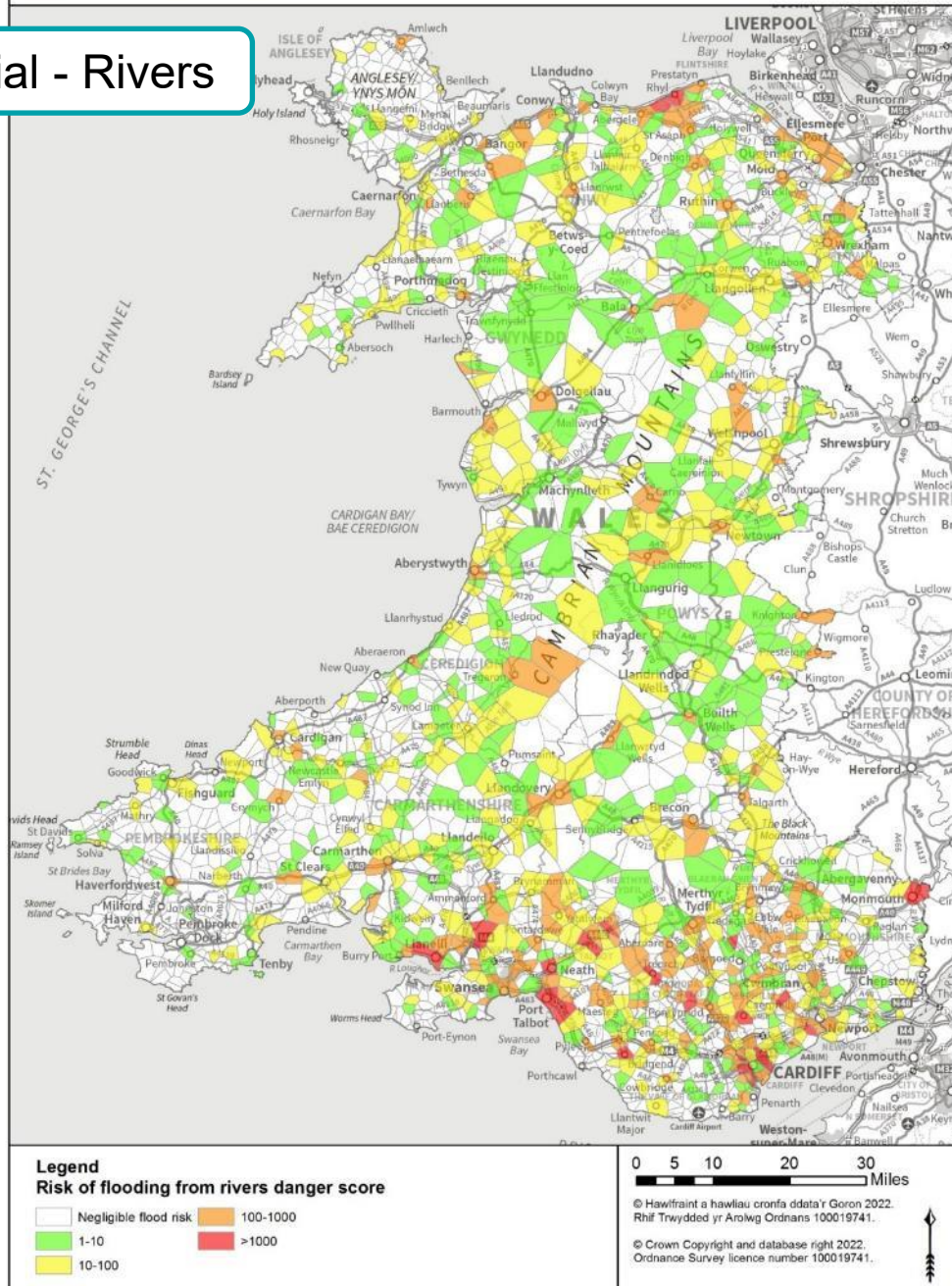
Flood Warnings

Flood Defences

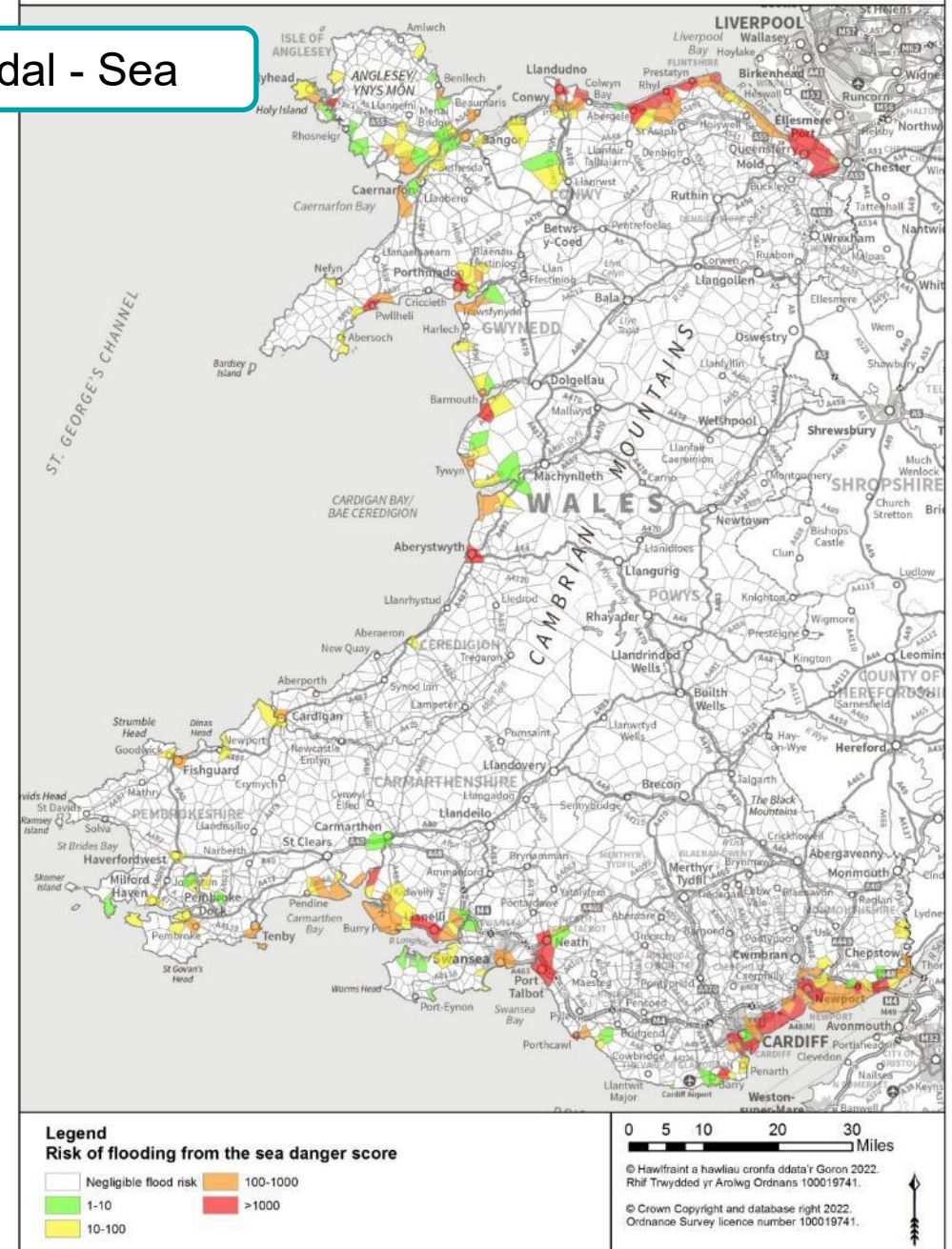
Grouped by Communities



Fluvial - Rivers



Tidal - Sea



Reminder

Welsh Government project prioritisation method

	Project Development Stage	Project Delivery Stage
“Communities at Risk Register” Rank	36	28
Actual Flood Events - Frequency	18	14
Actual Flood Events – Impact	18	14
Number of homes benefitting	18	18
Partnership Funding (Contributions)	5	10
Wider Benefits	5	10
Cost per home	-	6
Total	100	100

NRW Project Planning - what happens next?

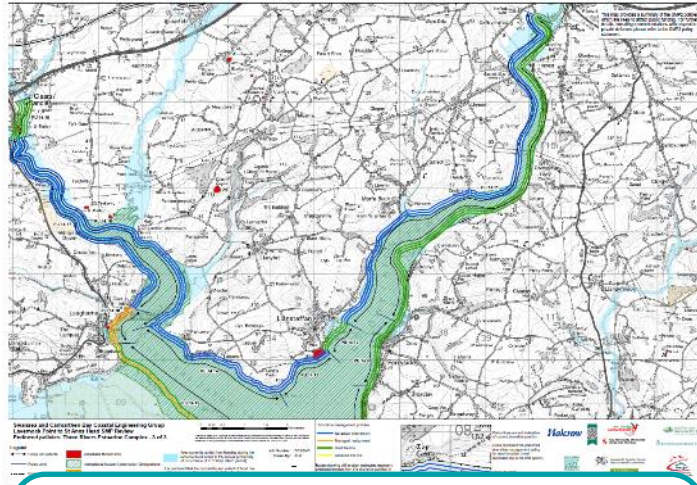
Other things need to be considered



Major Floods – Reactive work



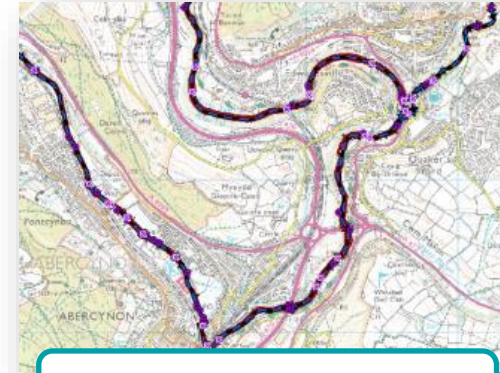
Aging Assets – Failing Structures



Climate Change – Need for Adaptation - Long term strategic thinking



Legal Drivers – Reservoirs, Public Safety



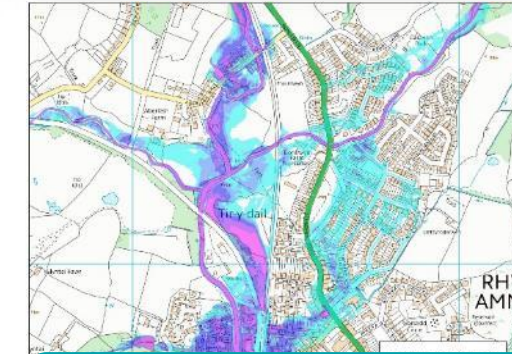
System Development



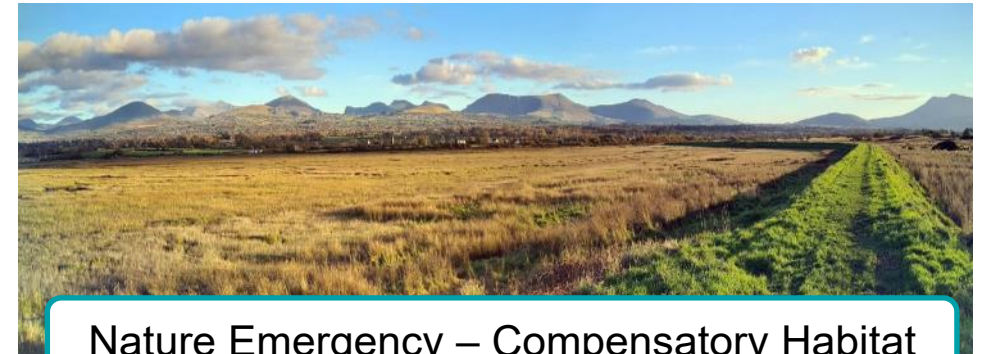
Plant and Equipment



Political Expectation



Project Pipeline Development



Nature Emergency – Compensatory Habitat

Diolch - Many thanks

