

Coastal Monitoring Update

Clive Moon

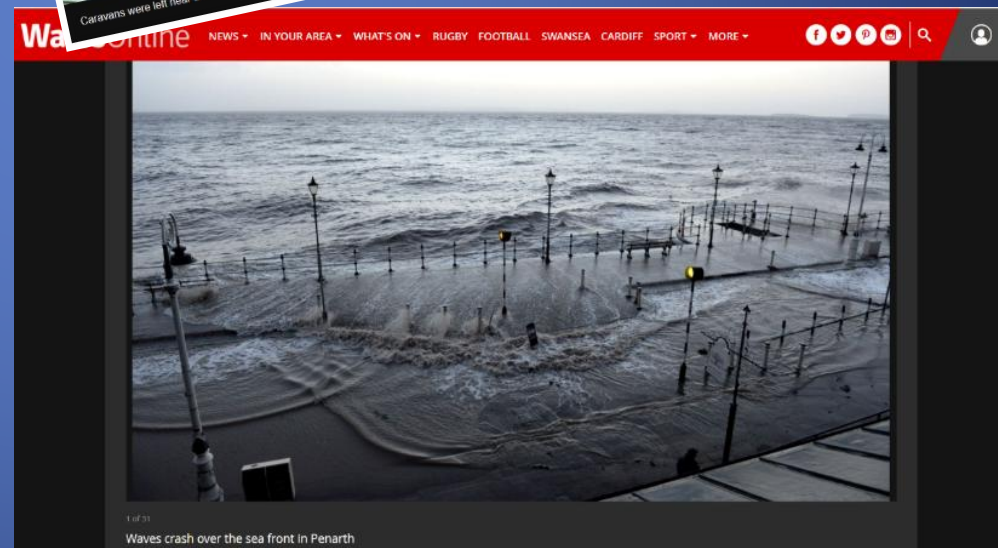
Engineering Manager - Environment

Our coastline

- 45 km of coastline
- 4 km coastal defences
- Approx 572 properties at tidal flood or coastal erosion risk (majority defended up to 1 in 200yr event from flooding)
- > £15.8M land and property
- Critical infrastructure including Aberthaw power station and Barry sewage pumping station
- Tourism and recreation



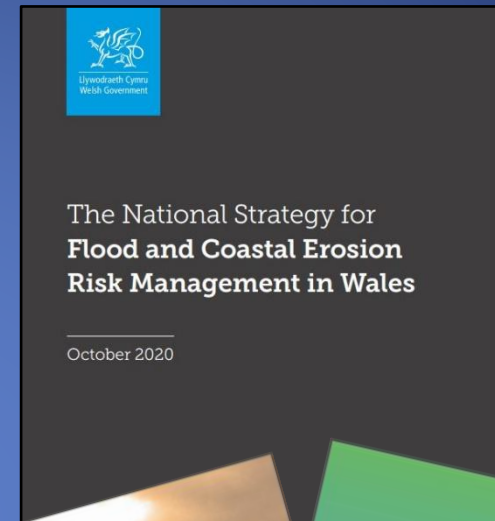
<http://www.bbc.co.uk/news/uk-wales-15629729>



<https://www.walesonline.co.uk/incoming/gallery/storms-hit-the-welsh-coastline-6467593>

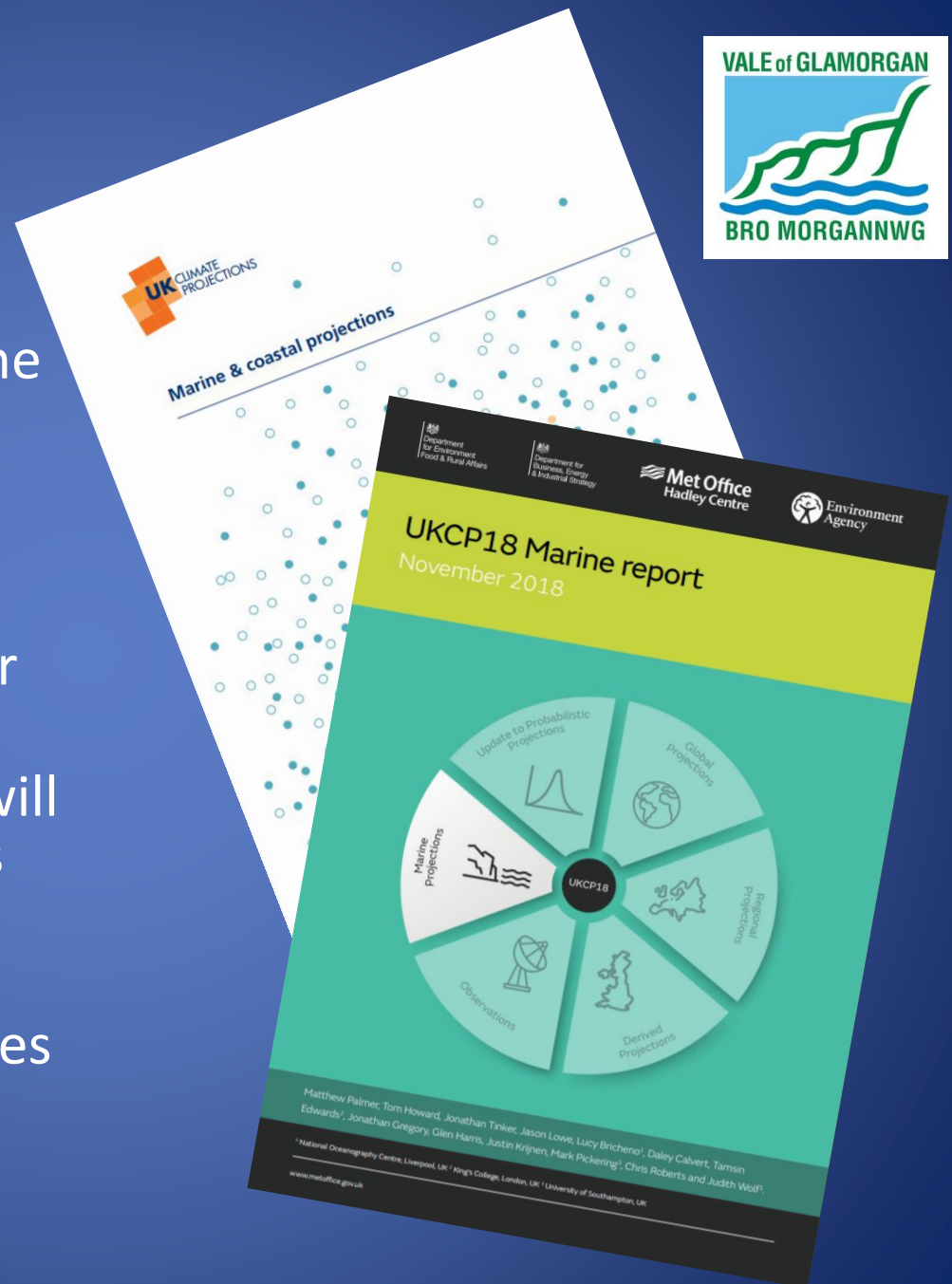
Strategic Context

- Flood and coastal erosion risk managed in accordance with National Strategy for FCERM in Wales
- Two SMPs; Severn Estuary and Lavernock Point to St Ann's Head



Climate change

- UK coastal flood risk is expected to increase over the 21st century and beyond under all climate change scenarios
- Increase in frequency and magnitude of extreme water levels
- Increased future flood risk will be dominated by the effects of time-mean sea level rise
- Vale coastline could experience sea level increases > 1m by 2100



What is the WCMC's role?



Gwyn Nelson
(Programme Manager)



William Russell
(Coastal Process Scientist)



Ben Ranson
(Coastal Process Scientist)



David Hawkins
(Assistant Coastal Process Scientist)



Hannah Richards
(SCBCEG Coastal Officer)

Purpose:
Monitoring coastal change for informed risk management decisions, while promoting continuous learning and education for all stakeholders.

Current Funding Period:
2021-2026

Approved funding:
£2.173M



www.cmac.cymru | www.wcmc.wales

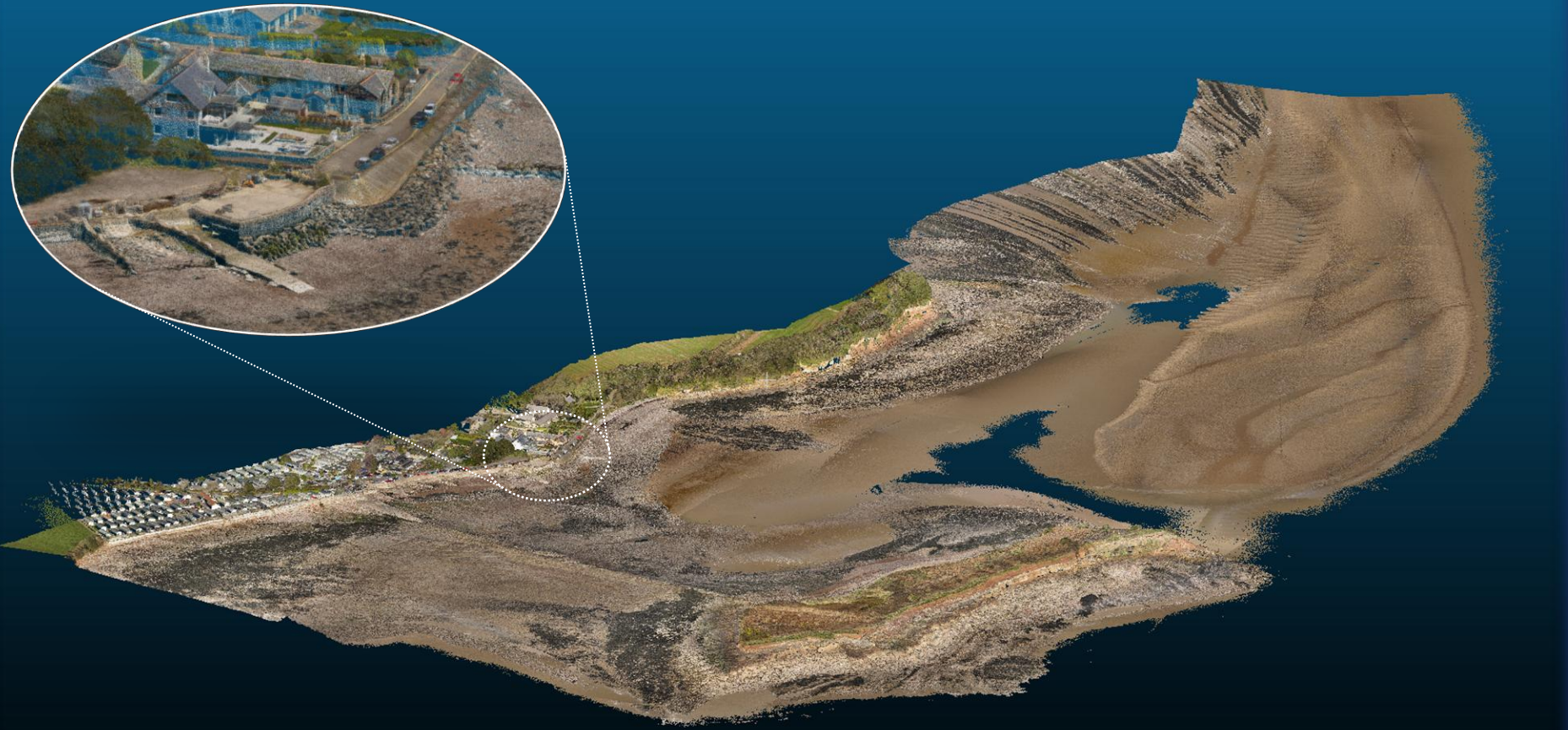


Recent Monitoring



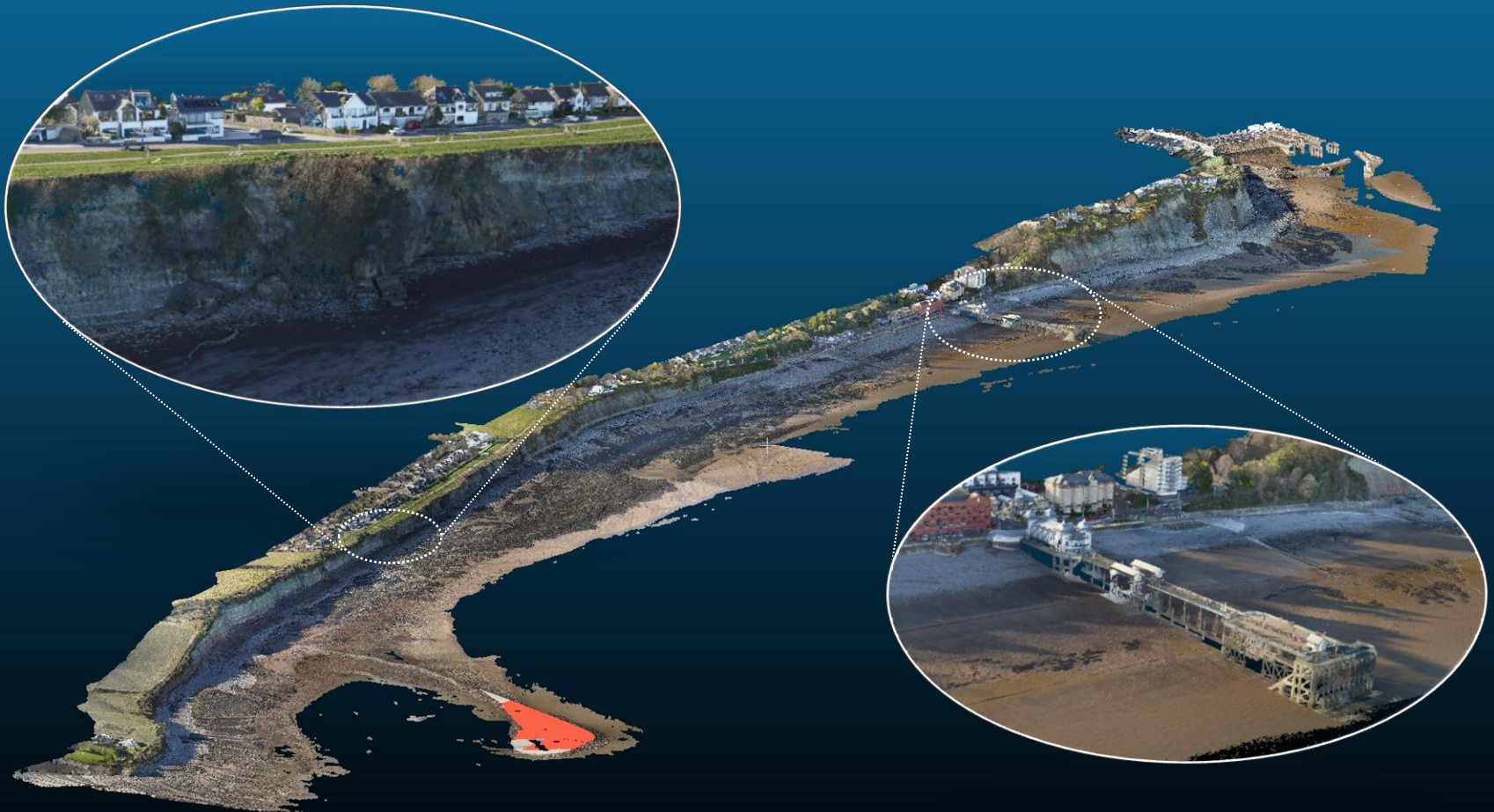
The Knap to Bull Cliff - UAV LiDAR survey March 2025

Recent Monitoring



Sully Island and Swanbridge Bay - UAV LiDAR survey March 2025

Recent Monitoring



Lavernock Point to Penarth Head - UAV LiDAR survey March 2025

Recent Monitoring



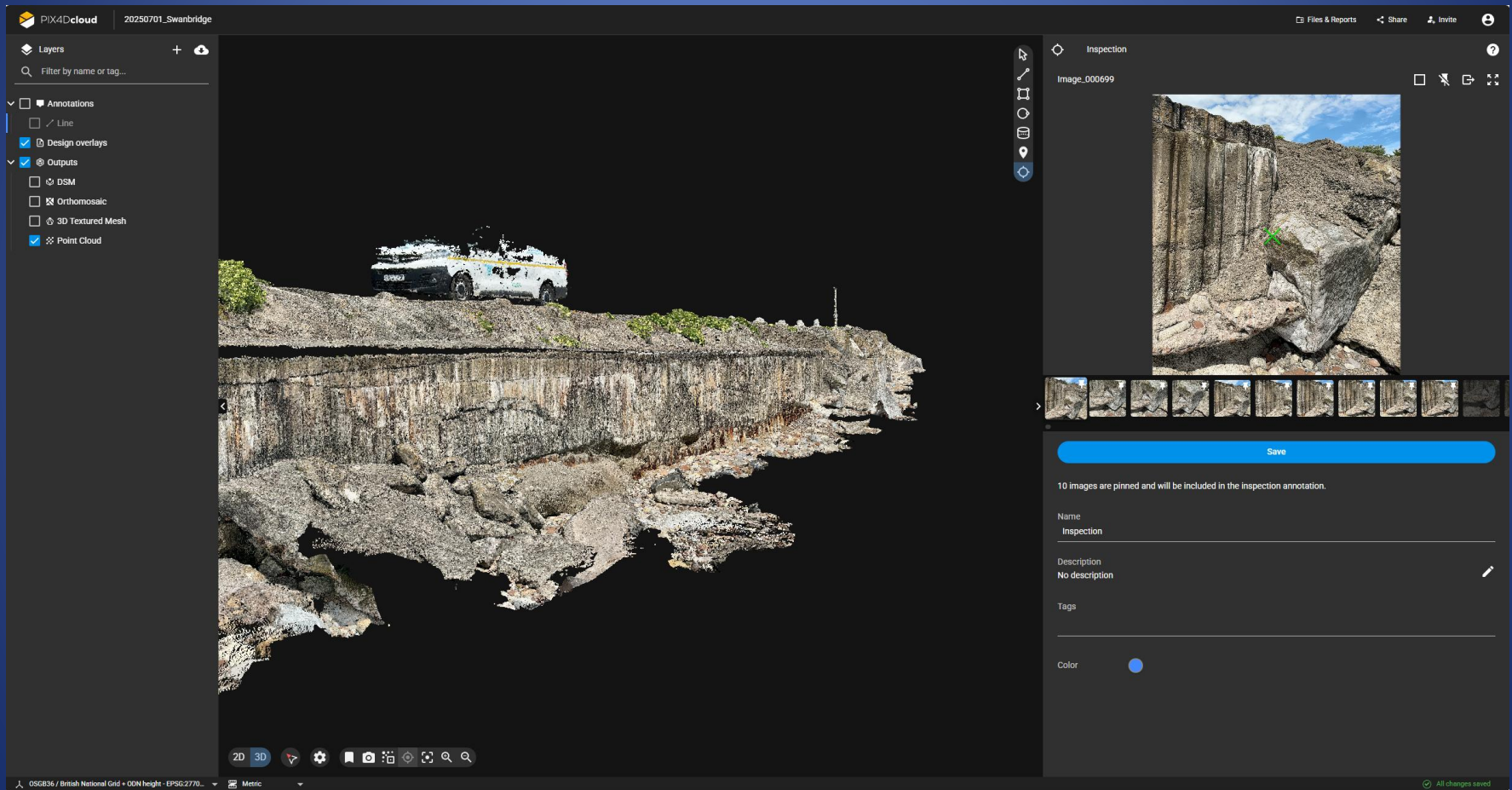
Penarth Head, 11th April 2025

Recent Monitoring



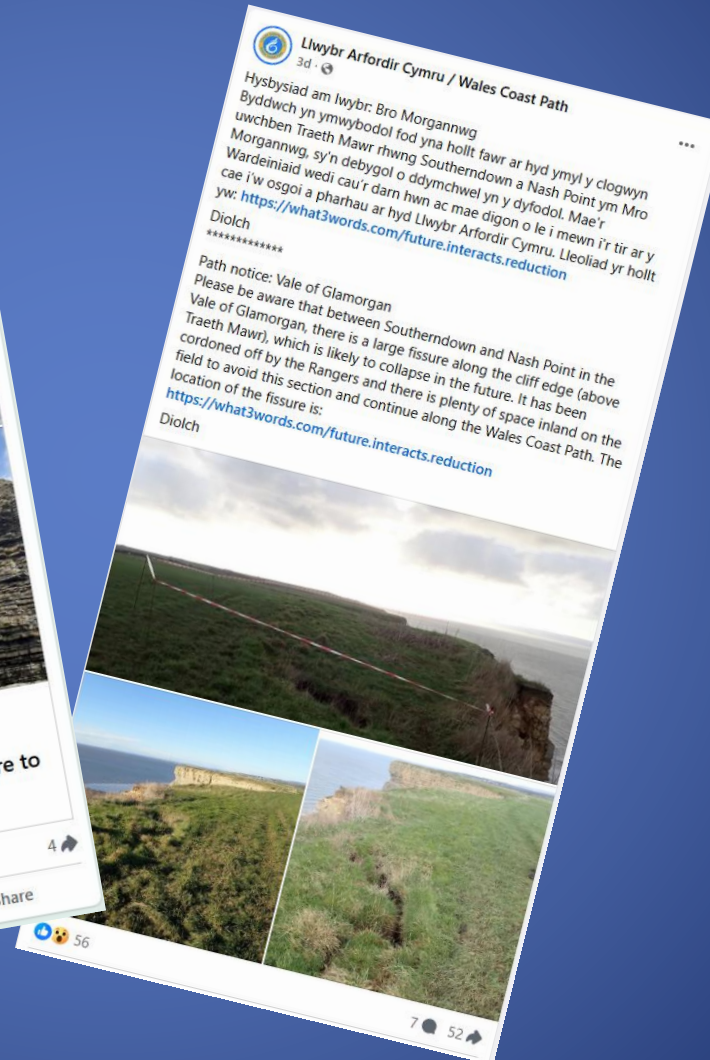
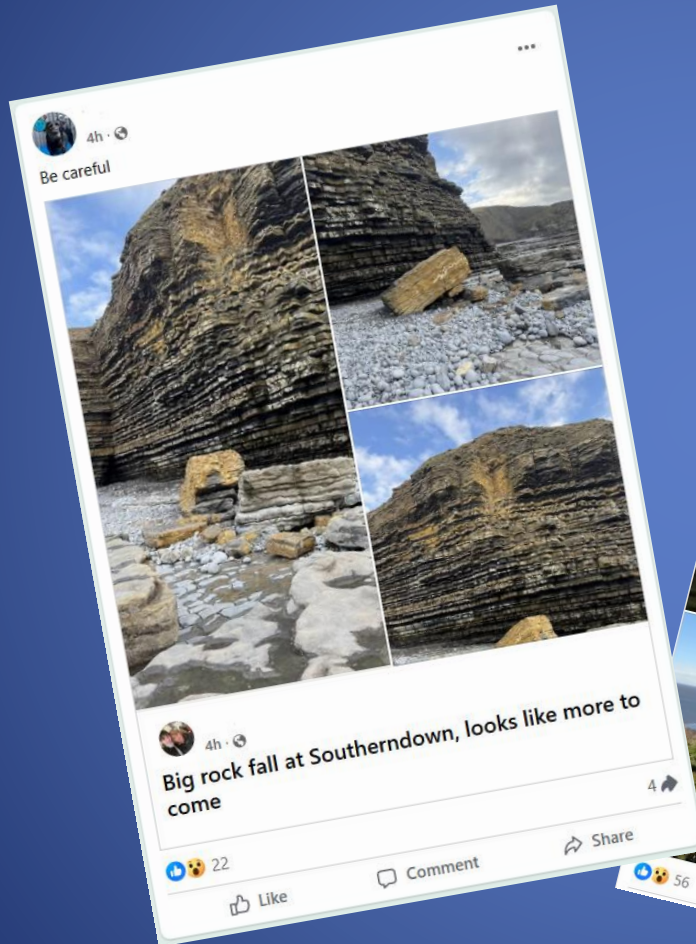
Penarth Head, 11th April 2025

Coastal Asset Monitoring



Swanbridge coastal defences, Pix4DCatch (mobile phone-based) repeat survey 1st July 2025

Latest Reports...



Ongoing Monitoring Aims

- Establish a consistent and routine monitoring regime around coastline
- Inform risk-based approach to managing coastal interests
- Continued support for the WCMC
- Collaboration with academia

Diolch

Thank you

