

APSE Energy – the Big Energy Summit 2024



Flooding - challenges, opportunities and discussions

James McLeod, Infrastructure Manager



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- Property Flood Resilience / Flood Pod
- Flood Protection Schemes
- Scotland's National Flood Resilience Strategy
- Coastal... adaptation



Introduction

- Region badly hit in 2009
- Flood Risk Management Team established in 2010
- Deliver on the Flood Risk Management (Scotland) Act 2009



Property Flood Resilience

Subsidised PFR Scheme started in 2010

- Help people help themselves
- Two incentives / discounts offered:
 - Products bought by the Council in bulk offering a discount
 - Up to 50% subsidy offered by Council
 - £500 business/£350 residential grant
- Free property survey
- Home Flood Information Visits
- The community help too

PROPERTY FLOOD RESILIENCE PRODUCTS – SUBSIDY PURCHASE SCHEME

Name	
Address	
Town	
Post Code	
Telephone	
E-mail	
Business Name (if applicable)	

I understand that:

- A survey will be carried out to advise on the suitability of the products on offer for my premises.
- The products being offered under this scheme would only protect against flooding through doors, air vents and plumbing inlets, and are installed and maintained at the property owners risk.
- Dumfries and Galloway Council has no responsibility or liability whatsoever for the future maintenance and operation of the flood protection products.
- Dumfries and Galloway Council gives no warranties as to the quality or suitability of the flood protection products and excludes, so far as may be allowed by law, any warranties express or implied by statute, common law or otherwise.
- Prices are correct at time of printing and are subject to change.

I would/would not* be interested in purchasing flood protection products supplied under a Subsidy Scheme and would/would not* like a survey to be carried out. I the undersigned confirm as far as reasonably able that the provided information is correct. * (please tick as appropriate)

Signed: _____ Date: _____

If I was to participate in the scheme I anticipate that I would require:
(please indicate the number(s) of each product)

Ventguard Products Ltd. Floodgate Ltd. Eco Coverage Technology

HydroSnakes Multi Flood Solutions

Completed forms should be returned to: **Brian Templeton**
Flood Risk Management
Cargen Tower, Garroch Business Centre,
Cargenbridge, Dumfries DG2 8PN
<http://www.dumgal.gov.uk/flooding>

Or via email to CommunitiesFlooding@dumgal.gov.uk

The Flood Risk Management Team will use your personal information for the purpose of correspondence and billing. It will be shared with Dumfries & Galloway Council for the purpose of security and record statistics, and will not be used for any other purpose or shared with any other organisations without prior consent from you.

Version 8.0 – July 2023

Dumfries & Galloway

Property Flood Resilience Products available through Subsidy Scheme

How the Property Flood Resilience Product Subsidy Scheme Works

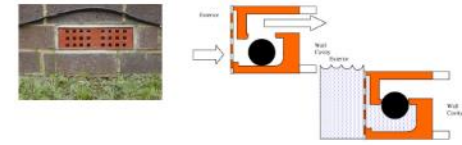
The scheme is available to any business or residential property in Dumfries and Galloway that is identified as being at risk from flooding.

Dumfries and Galloway Council will purchase selected products at cost price and make them available with an additional subsidy against each product. The maximum subsidy is 50% of total cost price up to a maximum of £325.00 for a single residential property or £500.00 for any single business of products/services. In the event of the £325 maximum (residential) or £500 maximum (business) being exceeded then all products over this limit will be sold at cost price. The prices indicated below do not include VAT which will be applicable to products/ services purchased.

Examples of products available through the subsidy scheme are shown on this leaflet. However, the Council will provide a subsidy for equivalent products if requested to do so and details, including receipts, are provided by the applicant.

<http://www.dumgal.gov.uk/flooding> **Scheme valid until budget is used.**

Eco Coverage Technologies www.ecocoverage.co.uk



The Smart Airbrick is a straight replacement for a standard airbrick allowing free airflow under the floorboards eliminating the risk of damp and dry rot and stopping rodent infestation. During flood conditions 4 valve balls float on the floodwater automatically stopping the flow of water under the property.

	Cost price	Subsidised Price	Saving on Cost
Self-closing Vent Cover	£45.00	£22.50	50%

Dumfries & Galloway



Property Flood Resilience

Since 2010:

- 624 applications
 - 153 business and 471 residential
- 2,328 PFR products
 - 697 business and 1,361 residential
- Total Cost of £250K
- 924 Floodgates
- 1,286 absorbent “sandbags”
- 883 vent covers / automatic airbricks

Ventguard Products Ltd. <https://www.ventguard.co.uk/>

Insert rod through Ventguard and airbrick, turn rod vertical and tighten handle.

AIRBRICK SEALED!

Available in two sizes:
Standard 9" x 6" & Small 9" x 3"

	RRP	Cost price	Subsidised Price	Saving on RRP
Standard Ventguard (9x6)	£33.70	£30.50	£15.25	55%
Small Ventguard (9x3)	£31.45	£28.00	£14.00	54%

Multi Flood Solutions

Ventshield is supplied as a complete kit, with full installation and fitting instructions included. After initial installation the Ventshield can be fitted/removed in a matter of seconds. Ventshield is made to last and can be used for covering any type of air vent as well as airbricks.

Available in two standard sizes 9" x 6" & 9" x 3" and one large size 9" x 9".

	RRP	Cost price	Subsidised Price	Saving on RRP
Airbrick Flood Cover 9" x 3"	£30.00	£22.50	£11.25	62%
Airbrick Flood Cover 9" x 6"	£35.00	£26.25	£13.13	62%
Airbrick Flood Cover 9" x 9"	£40.00	£30.00	£15.00	62%

HydroSnake gravitasint.com/products/hydrosnake/

After 2-3 minutes soaking in water

HydroSnake Sandless Sandbags (145 x 25 centimetres each) are activated by simply immersing in water for 2-3 minutes!

	RRP	Cost price	Subsidised Price	Saving on RRP
HydroSnake (pack of 2)	£11.65	£8.00	£4.00	69%

Floodgate Ltd. www.floodgate.ltd.uk

Door guard

Step 1: Horizontal expansion
Step 2: Vertical expansion
Step 3: Floodgate in place

Damslimvent rts.vents.co.uk/blog/index.php/product-ranges/

Rytens Damslimvents fit into rendering weepholes to prevent water ingress during flooding events. They simply fit into existing mortar weep hole vents or can be integrated into new build works.

	RRP	Cost price	Subsidised Price	Saving on RRP
Damslimvent (single)	£0.60	£0.52	£0.26	57%

Stanchion extension

Floodgate comprises of a 25mm thick, steel boxed frame which expands telescopically on the horizontal and vertical plane. The steel frame is enveloped by a 7mm thick neoprene jacket which, when expanded, forms a waterproof seal between it and the aperture it is expanded into.

Due to its unique design, Floodgate does not require any permanent fittings to the property it is protecting, making it ideal for use on listed buildings. It takes approximately 2 minutes to install and, can be installed during a flood event, meaning that little or no warning is required.

Floodgate Products	Size (mm)	RRP	Cost price	Subsidised Price	Saving on RRP
Standard Floodgate	735 - 890	£460.00	£288.89	£144.45	68%
Regular Floodgate	890 - 975	£495.00	£322.22	£161.11	68%
Medium Floodgate	975 - 1175	£520.00	£355.56	£177.78	65%
Replacement Cover	Std / Reg / Med	£60.00	£40.00	£20.00	67%



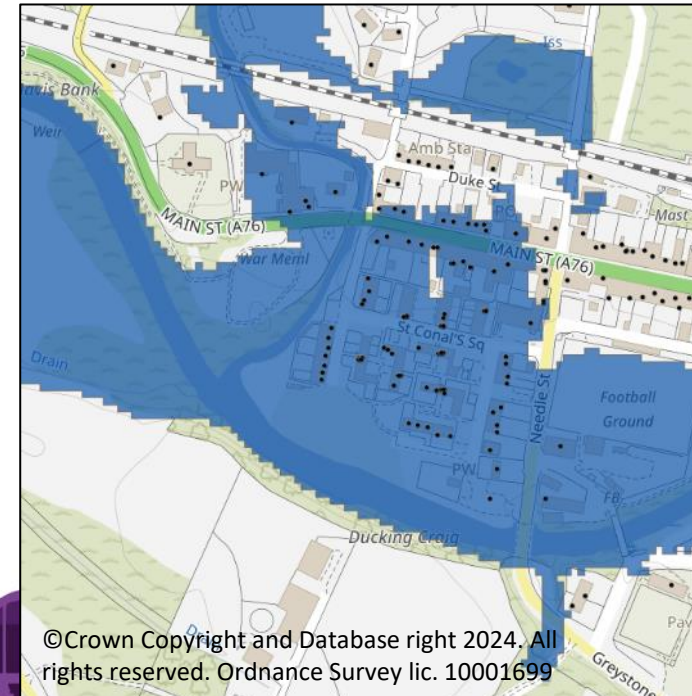
Flood Pod and Flood Trailer

- Flood Pod commissioned in 2011
- A container unit delivered by Scottish Fire & Rescue Service
- Contains gates and absorbent “sandbags”
- Provides a focal point for community in flood locations
- Supplemented with a flood trailer in 2015



Kirkconnel

- A community with a mixture of mainly Register Social Landlord (RSL) property with some privately owned.
- Badly flooded in December 2013 (15 affected – c£0.4m of damage)
- An RSL-led Property Flood Resilience Scheme in place
- Could other long-term, more sustainable solutions be delivered?

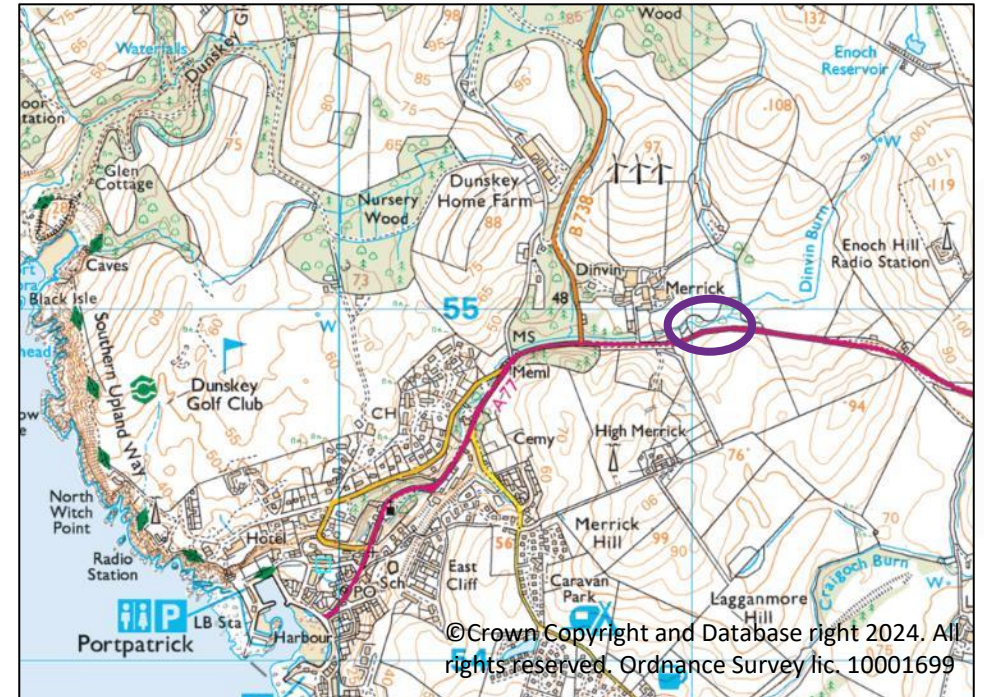


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Flood Schemes in Dumfries and Galloway

- Portpatrick – built 2004/5



Flood Schemes in Dumfries and Galloway

- Whitesands, Dumfries – floods regularly; more than annually.
- Most recent significant (30/12/22) event saw flow rate of 990m³/s and 189 properties affected



©33 Air Solutions



Flood Schemes in Dumfries and Galloway

- Whitesands, Dumfries – confirmed scheme – currently about to enter detailed design stage



Flood Schemes in Dumfries and Galloway

- Newton Stewart – flooded very badly in 2012 and then again in 2015
- Scheme published 2023 – about to progress to a Public Hearing
- Protect 134 properties

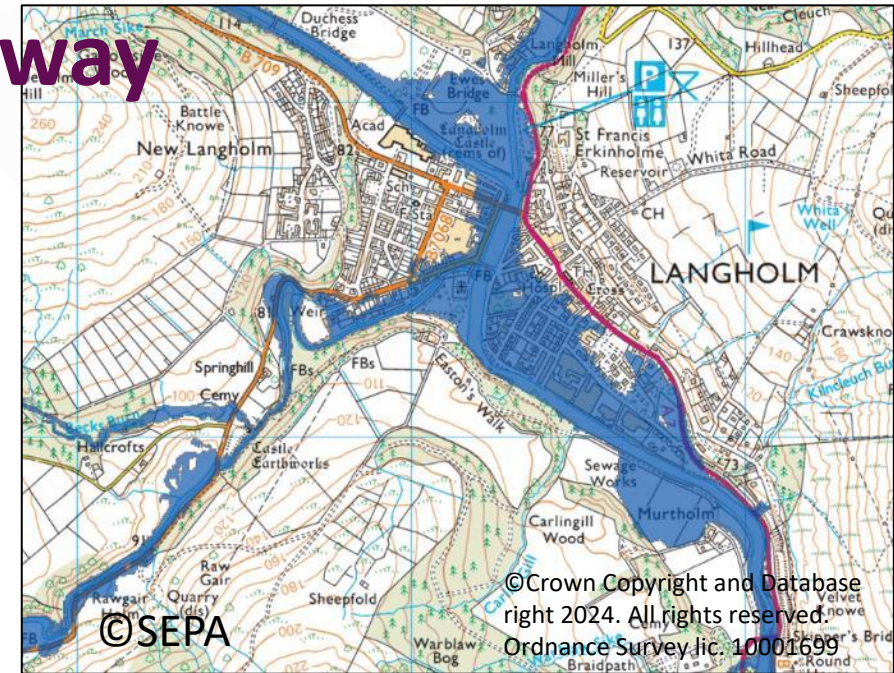


James McLeod



Flood Schemes in Dumfries and Galloway

- Langholm has not flooded in recent memory – but it's got close
- Langholm – scheme now shelved – instead, looking at a PFR scheme
- Protect 262 properties

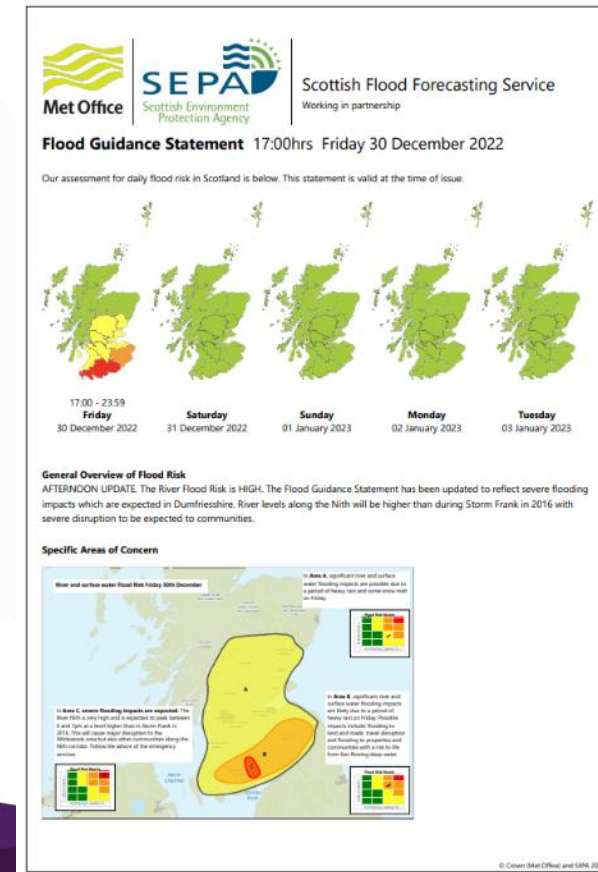


Scotland's National Flood Resilience Strategy

This is led by the Scottish Government

Why do we need a Strategy?

- Our Climate is Changing and there is an increasing flood exposure
- Not delivering actions fast enough, presenting challenge for future generations
- Flooding is our biggest domestic climate adaptation challenge



Scotland's National Flood Resilience Strategy

What is the purpose?

- To change our approach from “fixing flooding problems” to creating flood resilient places
- To lay out principles we must follow to improve flood resilience in the period ahead
- To set out the strategic level changes that we need to make

Make the best use
of all available
resources

Reduce flood
exposure by all
available means



Scotland's National Flood Resilience Strategy

Workshops undertaken in 2023.

Next steps in this co-developed and co-delivered process, led by Scottish Government:

- Drafting of a Strategy Consultation Document
- Public Consultation on draft strategy (Spring 2024) focussed on:
 - People, Places, Processes
- Strategy publication in Autumn 2024.

Processes

Flood resilience is blended into our places at all scales. A broader range of actions are being delivered by a broader range of delivery partners

People

Creating flood resilient places involves our people and communities.

Places

Land management and placemaking decisions follow good practise for flood resilience

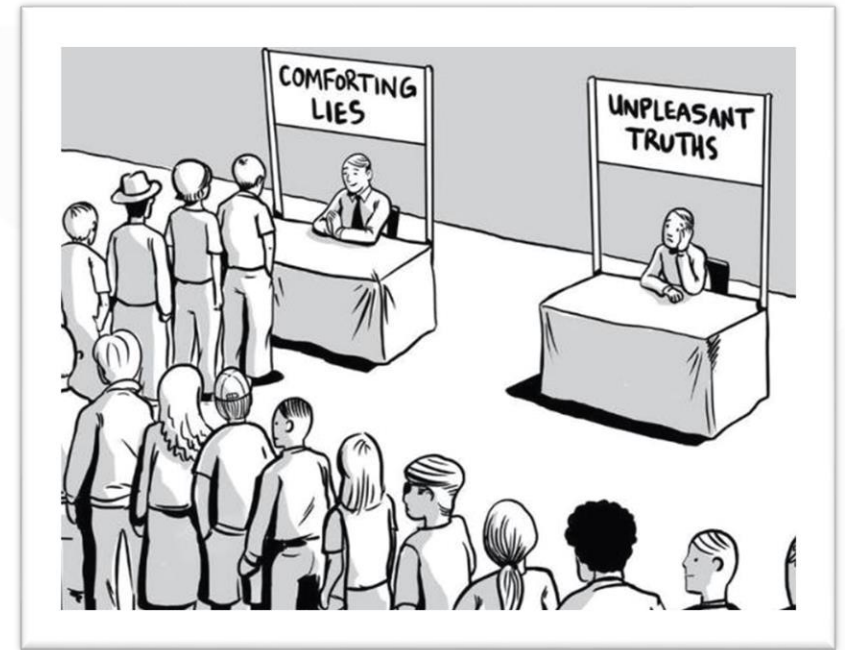
Coastal Flooding and Erosion

Anthropogenic Climate Change is:

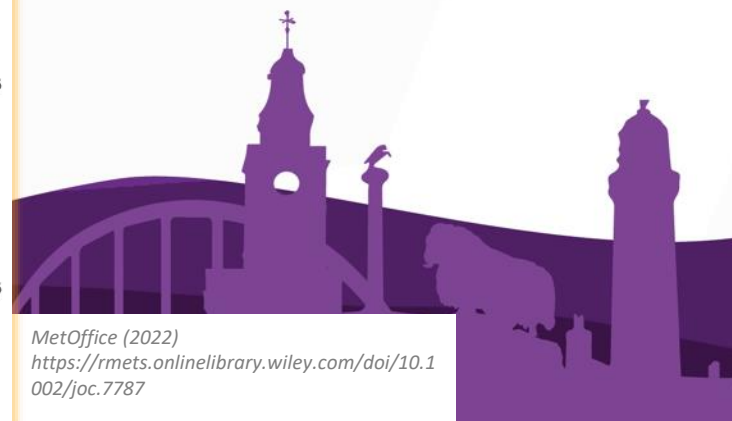
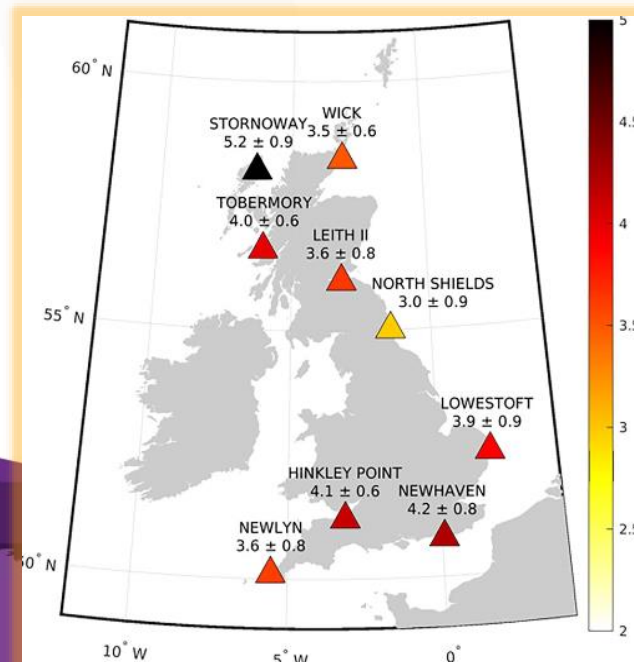
- Rising global Greenhouse Gases
- Rising global air and sea surface temperatures
- Rising relative sea level rise

Now faster than UKCP18 expectations.

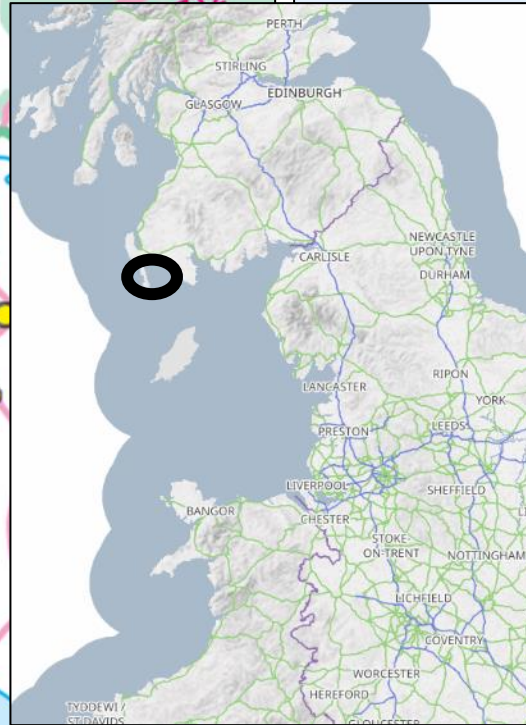
Relative sea level rise
3.6-5.2mm/yr in Scotland



We need to
act NOW

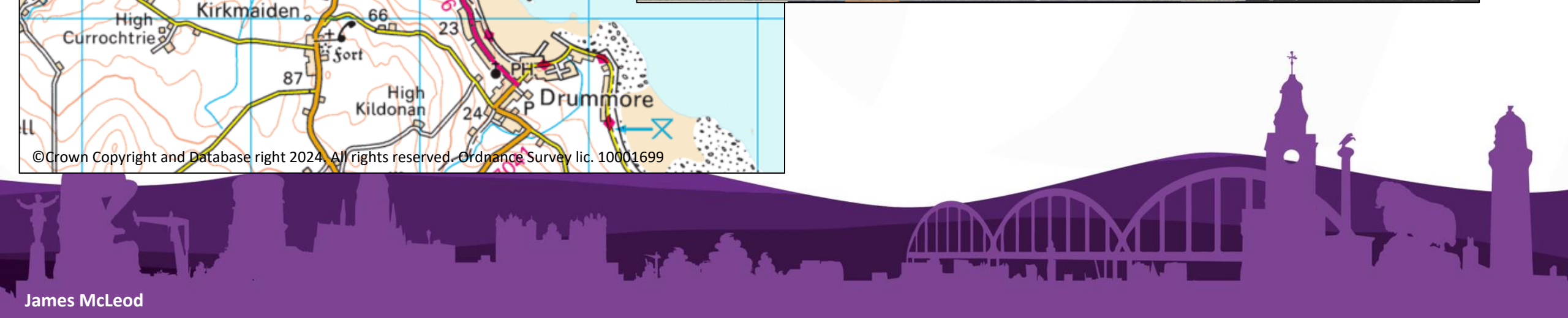
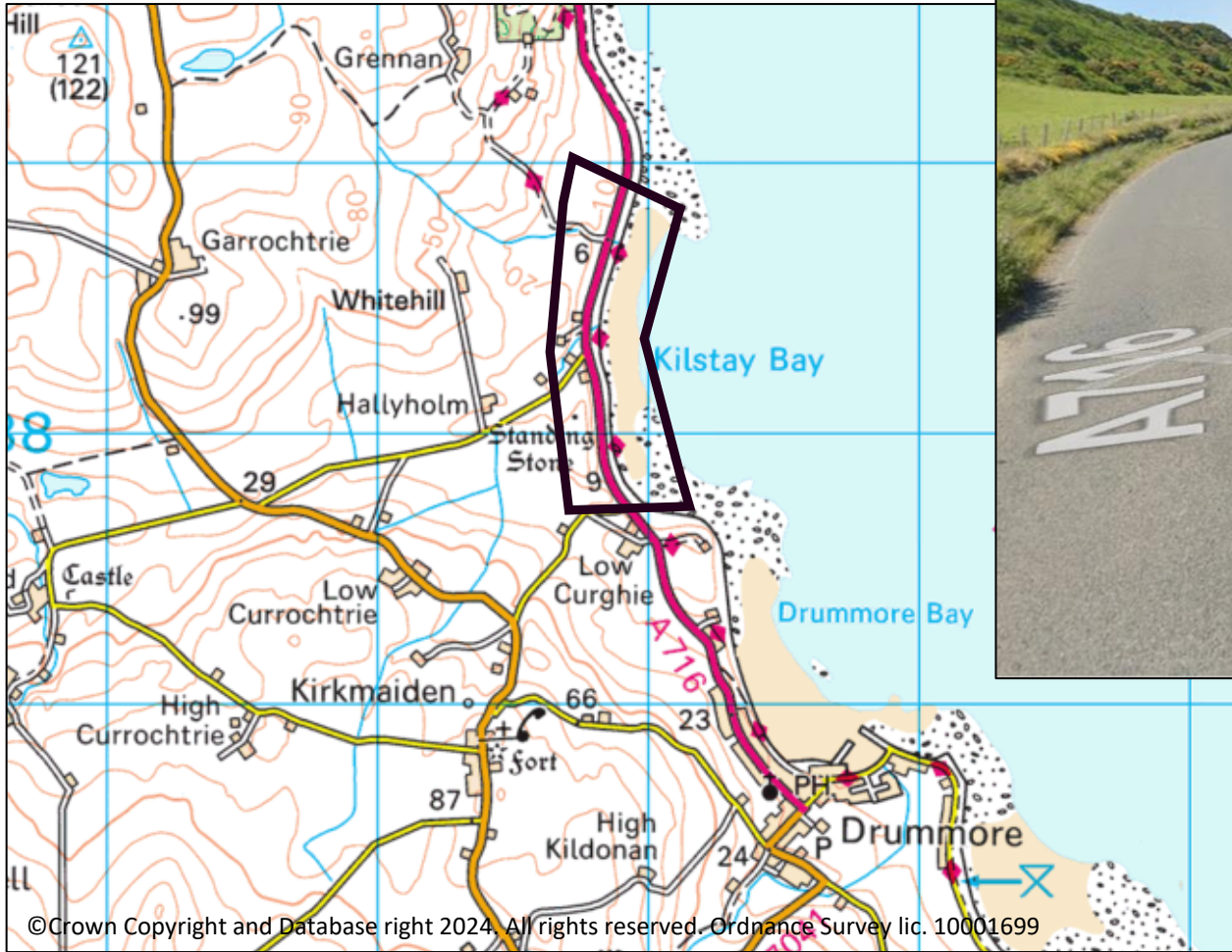


Location – Kilstay Bay



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Location



Sea Level rises at Kilstay Bay

- Given rising sea level, the frequency of flooding and impact of wave thrown debris is expected to increase in the coming decades.

What Event	Current still water levels (mOD)	2050 still water levels (mOD) (UKCP18 RCP8.5 95%) +0.3m	2100 still water levels (mOD) (UKCP18 RCP8.5 95%) +0.94m
MHWS	2.77	3.07	3.71
HAT	3.32	3.62	4.26
1 yr event (annual)	4.07	4.37	5.01
10 yr event (high prob)	4.44	4.74	5.38
1,000 yr event (low prob)	5.11	5.41	6.05

Proper engineering works

- Significant investment over the years >£1M



Current Storm impacts



A716 Road Closure gates

Sunday 09:31

FLOOD WARNING issued for West Luce Bay South. Go to sepa.org.uk/floodupdates or call [0345 9881188](tel:03459881188) using quick dial [24331](tel:24331)



Main Route (A716) and Diversion Route (B7065)

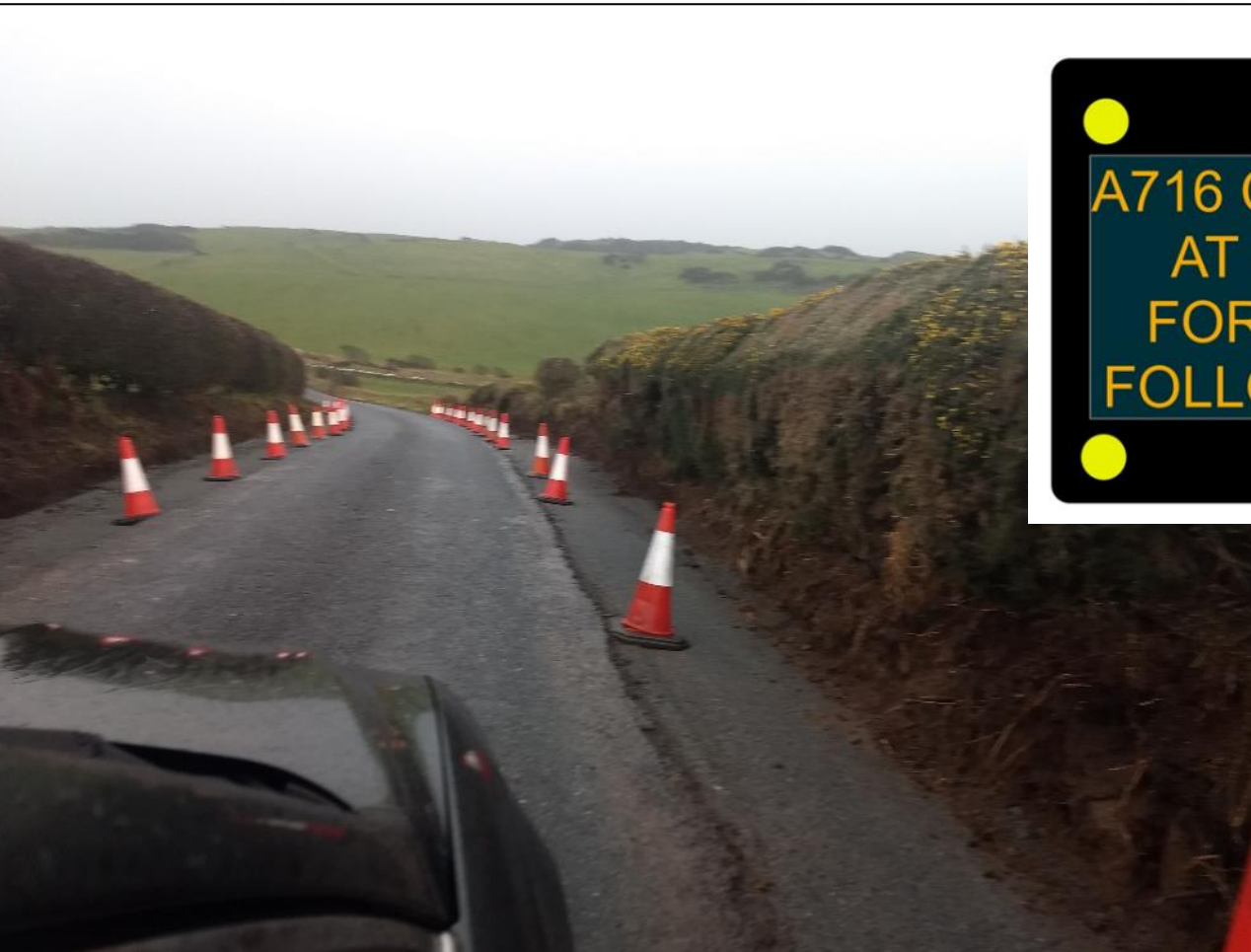


Diversion Route (B7065) Improvements

- Funded from £160K Scottish Government allocation

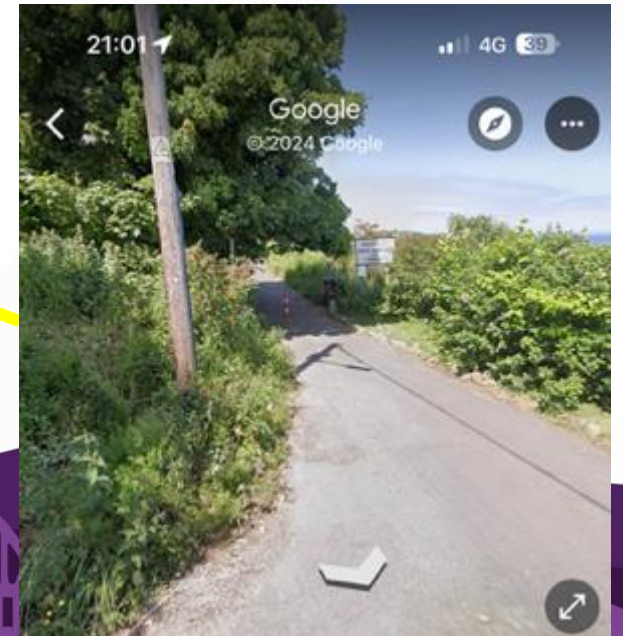
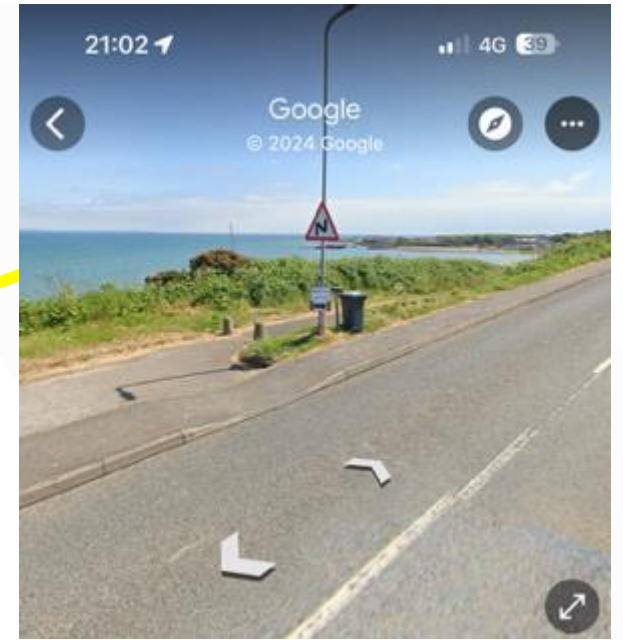
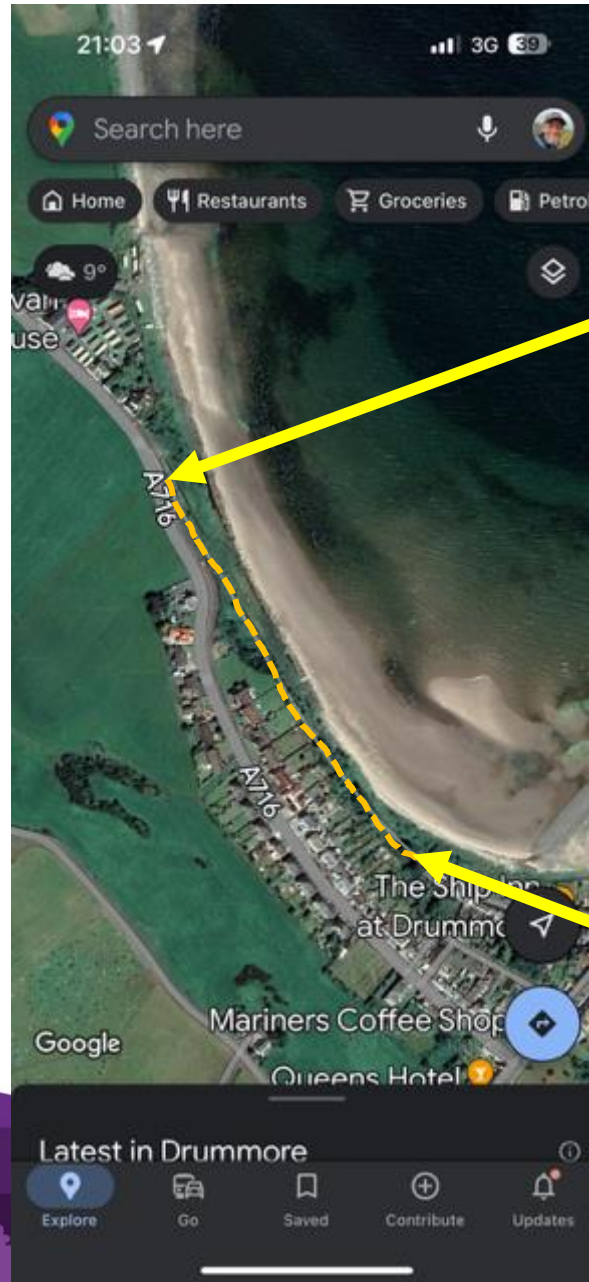


A716 CLOSED AHEAD
AT KILSTAY BAY
FOR A716 NORTH
FOLLOW DIVERSION



Previous abandonment

In the 1980s



A716 Discussion points

- A716 has not been abandoned and properties still access this road.
- And access for six properties within closure section continues to be developed
- Still the main road from the South Rhins, but liable to more frequent closure due to storm events.
- However, some investment into alternative route is being made.
- Study is funded to consider medium to long term options for South Rhins access.



Thanks for listening. Any questions?

Thanks to:
Ali Rennie, NatureScot
David Faichney, Scottish Government

James McLeod

james.mcleod@dumgal.gov.uk