



Item: 6

Development and Infrastructure Committee: 11 November 2025.

Coastal Erosion and Structures at Risk.

Report by Director of Infrastructure and Organisational Development.

1. Overview

- 1.1. This report presents a strategic assessment of the growing risks posed by coastal erosion to critical infrastructure, particularly roads and associated structures. With several locations projected to become impassable within the next 1-5 years, and current budget constraints limiting preventable action, the Roads Service faces difficult decisions regarding asset preservation and prioritisation.
- 1.2. The report outlines a proposed framework for evaluating which roads should continue to be maintained and which may need to be surrendered, based on risk, cost, and strategic value. It also highlights the need for a structured decision-making process to be embedded within the Roads Management and Maintenance Plan, ensuring transparency and consistency in future actions.
- 1.3. Preventative works will be undertaken at identified locations as far as reasonably practicable, within the constraints of the available budget. The primary purpose of the proposed framework is to provide officers with a clear and consistent basis for decision-making, particularly in scenarios where multiple structural failures may occur within a short timeframe.
- 1.4. All newly identified areas of concern will be assessed and prioritised using this process.

2. Recommendations

- 2.1. It is recommended that members of the Committee:
 - i. Note the increasing risk posed by coastal erosion and other environmental factors to critical infrastructure.
 - ii. Adopt the Coastal Erosion and Structures at Risk procedure, attached as Appendix 1 to this report, as an additional appendix to the Roads Management and Maintenance Plan 2023-2028.

3. Background

- 3.1. In December 2022 the Council approved the Roads Asset Management Plan 2023 – 2028 (RAMP) which implemented a maintenance programme of managed decline. This not only affects the carriageway surface but other associated assets such as bridges and structures. The approved RAMP states that current funding levels “may lead to coastal road networks being closed”.
- 3.2. In December 2023 the Council approved the Roads Management and Maintenance Plan 2023-2028 (RMMP) which implemented the recommendations in Well-Managed Highway Infrastructure: A Code of Practice 2016 to adopt a risk-based approach to roads maintenance.
- 3.3. The Council declared a climate emergency in 2019; in doing so it acknowledges the effects of climate change and its likely impact on the road network.
- 3.4. The 2025/26 budget for Bridges and Structures is £263,200, comprising £100,000 capital and £163,200 revenue.
- 3.5. The following assets failed in recent years:
- 3.6. **Hammar retaining wall, A966, Rendall**
 - i. Following collapse of the retaining wall into the adjacent field in December 2021, an assessment determined that the site posed a significant safety risk to road users. To ensure continued safe access, the road was reduced to a single lane, and temporary traffic lights were installed due to restricted forward visibility at the location.
 - ii. Given the complexity and scale of the repairs – which involved detailed design work and a substantial capital budget – a permanent solution could not be implemented until February 2023.
- 3.7. **Matpow outfall, B9061, Stronsay**
 - i. Initial concerns were raised by the local landowner regarding erosion, and blockage, of the existing outfall. This caused the loch to back up and flood the B9061 on a more frequent basis, sometimes cutting off access to the West side of the Island.
 - ii. In 2022, repairs were undertaken in an attempt to prolong its service life. Although not strictly the Council’s responsibility, maintenance had been undertaken previously to prevent flooding on the road therefore agreement was made with the landowner that the Council would undertake one final repair.

iii. Unfortunately, the repairs proved unsuccessful. It soon became evident that significantly more extensive repairs were required, including installation of deep piles due to the depth of shingle. Given the substantial cost implications and the fact that the asset does not fall under the Council's remit, no further works are planned. As a result, the loch may eventually become tidal.

3.8. **Culvert, Branstane Road, Westray.**

- i. In 2021, reports identified undermining of the retaining walls supporting the structure. Temporary repairs were carried out in an attempt to mitigate further deterioration. However, these measures proved ineffective, and by December 2024, the structure was deemed unsafe and subsequently closed as its structural integrity was severely compromised.
- ii. The road was subsequently closed for six months, cutting off access to three properties. Alternative access was provided by upgrading an existing private track.

4. Proposed Procedure

- 4.1. Once coastal erosion or structural damage is identified, an initial assessment will be carried out to establish the stability of the structure and its suitability for its intended purpose. In most cases this relates to its ability to support and retain a carriageway.
- 4.2. If a carriageway is under threat of collapse, the severity of the damage, and the strategic importance of the road will be evaluated to establish a course of action.
- 4.3. In certain circumstances where no properties are directly affected and traffic volumes are low enough that any alternative routes would not cause substantial impacts on the wider network, permanent road closure may be considered as a viable option.
- 4.4. Initial preventative repairs will be undertaken where possible utilising existing revenue budgets. However, in most cases, permanent repairs will be scheduled as part of the capital Road Asset Replacement Programme for future works.
- 4.5. In the event of emergency closures for road safety, efforts will be made to provide alternative access, in consultation with relevant landowners, to ensure that no properties are left without access.

4.6. The proposed procedure is attached as Appendix 1.

For Further Information please contact:

Matthew Wylie, Team Manager Roads Support, extension 2318,
Email matthew.wylie@orkney.gov.uk

Implications of Report

1. **Financial** – The implementation of the proposed framework and any associated preventative works will be constrained by the existing budget allocation of £263,200 for Bridges and Structures in 2025/26. This includes £100,000 capital and £163,200 revenue funding. Additional financial pressures may arise if multiple failures occur simultaneously or if storm events accelerate asset deterioration. Any additional costs arising from works associated with the Coastal Erosion and Structures at Risk procedure, that cannot be contained within existing budgets will require to come forward as a separate report for consideration.
2. **Legal** – Section 1 of the Roads (Scotland) Act 1984 states that “...a local roads authority shall manage and maintain all such roads in their area as are for the time being entered in a list (in this Act referred to as their “list of public roads”) prepared and kept by them under this section”.
Section 68 of the Roads (Scotland) Act 1984 states that “...the roads authority may, either on their own initiative or at the request of any person, make an order stopping up any road which they consider - (a) has become dangerous to the public other than by reason of its crossing or entering the route of another road which is a public road or of its being affected by the construction or improvement of such other road; or (b) is or will become unnecessary”.
3. **Corporate Governance** – Embedding the procedure within the Roads Management and Maintenance Plan will support consistent and accountable decision-making, aligning with principles of good governance and risk management.
4. **Human Resources** – There are no immediate staffing implications; however, increased monitoring and reactive maintenance may place additional demands on existing resources.
5. **Equalities** – An Equality Impact Assessment has been undertaken and is attached as Appendix 2.
6. **Island Communities Impact** – An Island Community Impact Assessment has been undertaken and is attached as Appendix 3.
7. **Links to Council Plan** – The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Council Plan strategic priorities:
 - Growing our economy.
 - Strengthening our Communities.

- Developing our Infrastructure.
- Transforming our Council.

8. Links to Local Outcomes Improvement Plan – The proposals in this report support and contribute to improved outcomes for communities as outlined in the following Local Outcomes Improvements Plan priorities:

- Cost of Living.
- Sustainable Development.
- Local Equality.
- Improving Population Health.

9. Environmental and Climate Risk – The report directly addresses climate-related risks, aligning with the Council's declared climate emergency and commitment to proactive environmental management.

10. Risk – Failure to adopt a structured approach may result in network deterioration, increased safety risks, and reputational damage. The procedure mitigates these risks through prioritisation and transparency.

11. Procurement – None.

12. Health and Safety – Ensuring timely intervention at high-risk sites is critical to safeguarding public safety.

13. Property and Assets – Insufficient budgets currently available to maintain all assets effectively. Therefore, deterioration and failure of some assets is inevitable. This procedure allows Officers to prioritise repairs, particularly in emergency situations.

14. Information Technology – None.

15. Cost of Living – Potential road closures or reduced access may impact travel costs and connectivity for residents, particularly in remote areas.

List of Background Papers

None.

Appendices

Appendix 1 – Coastal Erosion and Structures at Risk Procedure.

Appendix 2 – Equality Impact Assessment.

Appendix 3 – Island Communities Impact Assessment.

Roads Management and Maintenance Plan 2023 - 2028
 Coastal Erosion and Structures at Risk Procedure





Equality Impact Assessment

The purpose of an Equality Impact Assessment (EqIA) is to improve the work of Orkney Islands Council by making sure it promotes equality and does not discriminate. This assessment records the likely impact of any changes to a proposal or changes by anticipating the consequences and making sure that any negative impacts are eliminated or minimised and positive impacts are maximised.

Should you have any questions or wish for your draft EqIA to be reviewed by our Equality, Diversity and Inclusion Adviser, please contact OD@orkney.gov.uk.

1. Identification of the Proposal or Change

Name of proposal or change being assessed.	Coastal Erosion and Structures at Risk Procedure
Responsible Service and Directorate.	Infrastructure Services Infrastructure and Organisational Development
Date of assessment.	20/10/25
Is the proposal or change existing? (Please indicate if the service is to be deleted, reduced or changed significantly).	A new procedure to sit as an appendix to the Roads Management and Maintenance Plan 2023 – 2028. If approved this may lead to the permanent closure of some roads depending on certain circumstances as detailed in the procedure.

2. Primary Information

What are the intended outcomes of the proposal or change?	To provide a safe road network within the restrictions of available budgets.
Is the proposal or change strategically important?	Yes.
State who is or may be affected by this proposal or change, and how?	<ul style="list-style-type: none">• All drivers – Although access to all properties will be maintained where possible, alternative routes may increase journey times.• Businesses – As above, increased journey times may affect deliveries.

	<ul style="list-style-type: none"> Residents – As above, increased journey times may affect home care arrangements.
How have stakeholders been involved in the development of this proposal or change?	No consultation undertaken.
Is there any existing data and / or research relating to equalities issues in this policy area? Please summarise. E.g. consultations, national surveys, performance data, complaints, service user feedback, academic / consultants' reports, benchmarking.	No.
Is there any existing evidence relating to socio-economic disadvantage and inequalities of outcome in this policy area? Please summarise. E.g. For people living in poverty or for people of low income. See The Fairer Scotland Duty Guidance for Public Bodies for further information.	No.
Could the proposal or change have a differential impact on any of the following equality areas?	Please provide any evidence – positive impacts / benefits, negative impacts and reasons:
1. Race: this includes ethnic or national groups, colour and nationality.	No.
2. Sex: a man or a woman.	No.
3. Sexual Orientation: whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.	No.

4. Gender Reassignment: the process of transitioning from one gender to another.	No.
5. Pregnancy and maternity.	No.
6. Age: people of different ages.	No.
7. Religion or beliefs or none (atheists).	No.
8. Disability: people with disabilities (whether registered or not).	Yes – Although the proposals will maintain access to all properties where possible, it is likely that some routes will have increased journey times. This may affect home care arrangements.
9. Marriage and Civil Partnerships.	No.
10. Caring responsibilities	Yes – Although the proposals will maintain access to all properties where possible, it is likely that some routes will have increased journey times. This may affect home care arrangements.
11. Socio-economic disadvantage.	No.
12. Care experienced.	No.

3. Impact Assessment

Does the analysis above identify any differential impacts which need to be addressed?	No
Does the analysis above identify any potential negative impacts?	Yes
Do you have enough information to make a judgement? If no, what information do you require?	Yes

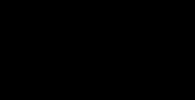
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4. Equality Impact Assessment Action Plan

Please complete the following action plan where you have identified any differential impacts or potential negative impacts in Section 3 of the Equality Impact Assessment.

Impact Identified	Action to be taken	Owner	How will it be monitored	Date Action to be completed
Potential road closures may incur increased journey times affecting home care arrangements.	Ensure engagement with any affected residents/organisations to discuss solutions.	Roads and Grounds	Recorded in appropriate project files. Elected members and Community Councils to be notified when any roads are to be closed.	TBC

5. Sign and Date

Signature:	
Name:	Matthew Wylie

Date:	20/10/25
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Island Communities Impact Assessment

Coastal Erosion and Structures at Risk Procedure

Preliminary Considerations	Response
Please provide a brief description or summary of the policy, strategy or service under review for the purposes of this assessment.	Coastal Erosion and Structures at Risk Procedure
Step 1 – Develop a clear understanding of your objectives	Response
What are the objectives of the policy, strategy or service?	To provide clarity on the appropriate actions to take in the event of coastal erosion or structural failure leading to road closure, noting that insufficient budget is available to protect all roads.
Do you need to consult?	No consultation has been undertaken.
How are islands identified for the purpose of the policy, strategy or service?	All inhabited Islands.
What are the intended impacts/outcomes and how do these potentially differ in the islands?	To provide Officers with a clear procedure to determine the appropriate action to be undertaken in the event of coastal erosion or structural failure leading to road closure. Isles will be assessed against the same procedure as the Mainland.
Is the policy, strategy or service new?	Yes – amendment to existing Roads Management and Maintenance Plan 2023 – 2028.
Step 2 – Gather your data and identify your stakeholders	Response
What data is available about the current situation in the islands?	Various known areas of concern on the Isles road network. Branstane Road in Westray was closed for six months earlier this year with a temporary access provided to affected residents. Similar scenarios are likely in the near future.
Do you need to consult?	No

How does any existing data differ between islands?	Various known areas of concern across the Isles road network. Due to the coastal nature of the road network in Orkney, this is expected to affect all islands equally.
Are there any existing design features or mitigations in place?	Preventative defences are maintained where budgets allow. This is no longer possible at all locations, therefore this procedure aims to provide officers with clear instruction on how to prioritise areas, particularly in the case of multiple concurrent failures.
Step 3 – Consultation	Response
Who do you need to consult with?	N/A
How will you carry out your consultation and in what timescales?	N/A
What questions will you ask when considering how to address island realities?	N/A
What information has already been gathered through consultations and what concerns have been raised previously by island communities?	N/A
Is your consultation robust and meaningful and sufficient to comply with the Section 7 duty?	N/A
Step 4 – Assessment	Response
Does your assessment identify any unique impacts on island communities?	The procedure applies the same criteria across all adopted public roads. Therefore, Isles are not anticipated to be disproportionately affected.
Does your assessment identify any potential barriers or wider impacts?	No
How will you address these?	N/A

You must now determine whether in your opinion your policy, strategy or service is likely to have an effect on an island community, which is significantly different from its effect on other communities (including other island communities).

If your answer is **No** to the above question, a full ICIA will NOT be required and **you can proceed to Step 6**.

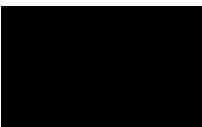
If the answer is **Yes**, an ICIA must be prepared and **you should proceed to Step 5**.

To form your opinion, the following questions should be considered:

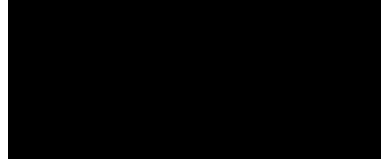
- Does the evidence show different circumstances or different expectations or needs, or different experiences or outcomes (such as different levels of satisfaction, or different rates of participation)?
- Are these different effects likely?
- Are these effects significantly different?
- Could the effect amount to a disadvantage for an island community compared to the Scottish mainland or between island groups?

Step 5 – Preparing your ICIA	Response
In Step 5, you should describe the likely significantly different effect of the policy, strategy or service:	
Assess the extent to which you consider that the policy, strategy or service can be developed or delivered in such a manner as to improve or mitigate, for island communities, the outcomes resulting from it.	
Consider alternative delivery mechanisms and whether further consultation is required.	
Describe how these alternative delivery mechanisms will improve or mitigate outcomes for island communities.	
Identify resources required to improve or mitigate outcomes for island communities.	
Stage 6 – Making adjustments to your work	Response

Should delivery mechanisms/mitigations vary in different communities?	No.
Do you need to consult with island communities in respect of mechanisms or mitigations?	No.
Have island circumstances been factored into the evaluation process?	No.
Have any island-specific indicators/targets been identified that require monitoring?	No.
How will outcomes be measured on the islands?	N/A
How has the policy, strategy or service affected island communities?	N/A
How will lessons learned in this ICIA inform future policy making and service delivery?	No change.
Step 7 – Publishing your ICIA	Response
Have you presented your ICIA in an Easy Read format?	Yes
Does it need to be presented in Gaelic or any other language?	No
Where will you publish your ICIA and will relevant stakeholders be able to easily access it?	OIC Website.
Who will signoff your final ICIA and why?	Lorna Richardson, Head of Infrastructure Services

ICIA completed by:	Matthew Wylie
Position:	Team Manager Roads Support
Signature:	

Date complete:	20/10/25
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ICIA approved by:	Lorna Richardson
Position:	Head of Infrastructure Services
Signature:	 A large black rectangular box used to redact a signature.
Date complete:	21/10/25