

Cultural heritage sites consist of Scotland's tangible culture in the form of buildings, monuments, landscapes and artefacts. Dynamic Coast has shown that the combined threats of coastal flooding and coastal erosion to have increased in recent decades and are expected to worsen with climate change. Planning and action is needed now to reduce the impact on Scotland's heritage. Dynamic Coast provides the evidence base and advice to inform the Scottish Government and the public on the pace of coastal change and allow adaptation and increased resilience.

Who will this impact?

- 874 of Scottish Cultural Heritage sites (1,000 ha) are within 50 m of the coast. 50% (500 ha) lies behind unprotected soft coast at risk of erosion¹ and 11% (110 ha) behind artificial defended coast.
- 210 sites (140 ha) are at risk of erosion by 2050.
- Erosion and flooding can expose and irreparably damage assets, decay stone, metalwork and fabric, reduce ground stability, and increase mould growth at heritage sites.²
- Climate change is increasing the risk of erosional loss and decay of Scotland's treasured buildings and landscapes.

How can Dynamic Coast help you?

- Dynamic Coast provides detailed interactive [maps](#) of how your coastline has changed over the last 100 years, and informs how cultural heritage at the coast may be impacted as rates of erosion increase toward 2050.
- Dynamic Coast has identified the locations and pace of coastal erosion and its impact on our cultural heritage, allowing action to be taken to reduce the risk of further erosion and flooding.
- Dynamic Coast webmaps allow early action to address the risks identified, allowing sites to adapt and enhance resilience whilst there is still time.

What can you do to improve future resilience?

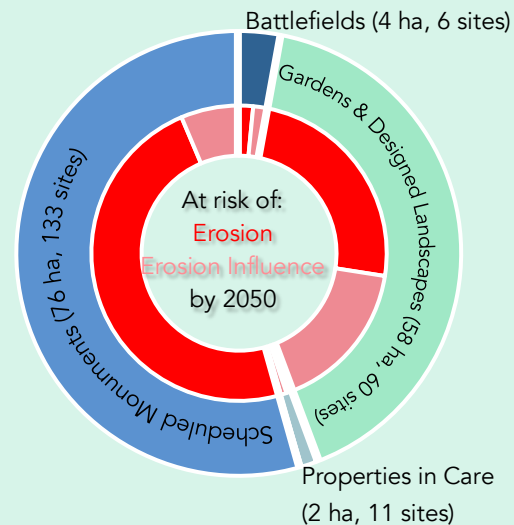
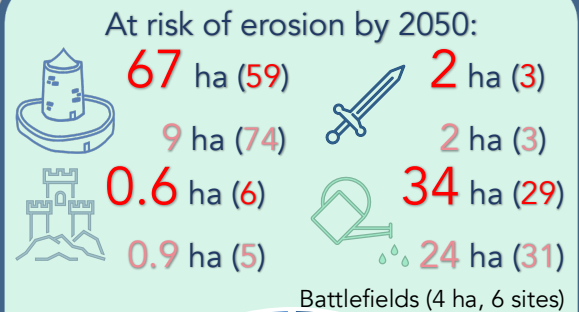
- ✓ To understand how your coast has changed and may change in the future: [view erosion maps here](#) and SEPA's [flood maps here](#)
- ✓ Support further research efforts to monitor changes to our coastlines and the structure of our buildings and landscapes.
- ✓ Help volunteer efforts to engage with site visitors, share knowledge on Scotland's past and present culture, and update our record of the historic environment to plan for the future.
- ✓ Consider alternative management options for at risk sites (e.g. rescue or relocate archaeology versus artificially defend).
- ✓ Make use of key guides like Historic Environment Scotland's Guide To Climate Change Impacts to inform yourself of potential coastal and marine risks to cultural heritage.²
- ✓ As landowners and managers, early adaptation and support of Scotland's [Archaeology Strategy](#) can reduce further costs.

A window of opportunity

- The science is clear, we have a window of opportunity to put in place plans to adapt and improve the protection and resilience of our cultural heritage sites before erosion and flooding worsens.
- Leading heritage sites are using [DynamicCoast.com](#) to plan ahead and Building with Nature to increase their resilience.

Find out more at:

[DynamicCoast.com](#), [historicenvironment.scot](#), [nature.scot](#), [SEPA.org.uk](#)



What does this show?

'Erosion' figures (red) reflect assets that lie seaward of anticipated 2050 high water mark. 'Erosion Influence' figures (pink) reflect assets within the next 10m inland which may also be affected by erosion, storm damage and disruption.

What impact on assets?

Direct risks include temporary flooding issues and/or permanent erosion issues. Increased rates of weathering can damage aged, weak infrastructure. Vegetation edge erosion and soil saturation can destabilise ground and destroy buried artefacts. **Existing artificial defences** are increasingly threatened by rising sea level, increased storm and flood frequency and wave reflection. **Existing natural defences** (beaches, dunes and saltmarsh) are likely to move, narrow and retreat.

Good practice:

Historic Environment Scotland are following their **Climate Action Plan** and have created the high-level **Our Place In Time** strategy to understand, value and protect our cultural heritage under increased climate change risks.³

¹ Dynamic Coast (2021) National Risk Assessment & Fitton, J.M. (2015) A national coastal erosion risk assessment for Scotland. PhD thesis, University of Glasgow

² Historic Environment Scotland (2019) A Guide To Climate Change Impacts. [Online Report](#)

³ Historic Environment Scotland (2020) Climate Action Plan 2020–2025. [Online Report](#)