

#Edinburgh2050

In 2016, the city of Edinburgh began a conversation about its future to create a vision for 2050: what priorities should the vision include and how might they be delivered.

During their first year, '2050 Edinburgh City Vision' spoke to thousands of stakeholders in Edinburgh – in community halls and schools, in board rooms and conference centres and online, each expressing part of a vision for what Edinburgh could be in 2050.

The following blogpost was written by experts at the University of Glasgow focusing on a sustainable Edinburgh shoreline.

A thriving coastal city with wildlife and beaches on your doorstep

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12 December 2017

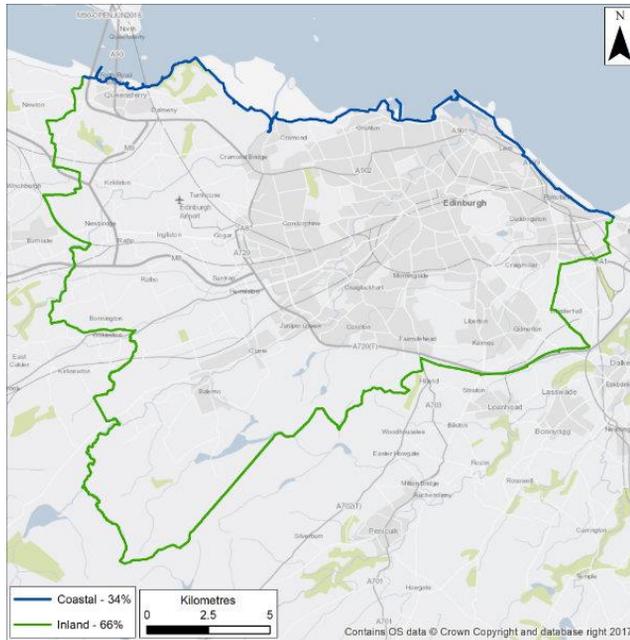
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In the latest in our series of posts from thought leaders, scientists Larissa Naylor, James Fitton and Jim Hansom from the University of Glasgow join forces to share their vision for a sustainable city coastline. #urbancoastadapt

When you think of Edinburgh, what springs to mind?

The castle, the festival, Holyrood, Arthur's seat and historic buildings are hallmarks of Edinburgh. What if we told you that Edinburgh has all of this with the added benefit of being a seaside city? Locals will know of coastal areas like Portobello, Cramond and the shore of Leith but if you think of Edinburgh as a clock, the city's boundary is the sea from 11 until 3, or 34% of the city's limits.



Edinburgh
by sea –
imagine
that!

Historic, Current and Future Coast

Edinburgh's coast, its beaches and communities have changed through time. There wasn't always a fixed coastline. Much of Edinburgh's coast has historically been reclaimed from the sea. Approximately 34% of the City of Edinburgh's current political boundary today is the coast. It is also heavily engineered, such as the sea walls and harbour at Leith, resulting in 74% of Edinburgh's coastline being classified as artificial. As our coast is made up of soft sediments, it is naturally inherently susceptible to coastal erosion. The extensive reclamation and hard engineering means that the natural state of the coast has long been forgotten – a significant number of buildings and infrastructure worth over £300 million have been built in locations that would be at risk to coastal erosion if the coastal defences were damaged or removed.

What does the future hold?

“Nearly a fifth of [Scotland's coastline](#) is at risk of erosion, threatening some of the country's most prized land and infrastructure within the next 30 years”. Rates of [coastal erosion](#) across Scotland have doubled since the 1970s – soft sediment areas like Edinburgh's coast are especially prone to future erosion risks.

With the growing pressures of climate change – sea level rise, coastal flooding and coastal erosion – the coast and our activities around it will need to change again. With risks of climate change come opportunities to re-explore Edinburgh's coast, and the benefits it can provide for nature AND people. We can choose what we want our [future coast and communities](#) to look like, and now is the time to act.

Two ways of seeing the future

We can view the future of Edinburgh's coast in two ways: business as usual or an adaptive future. In the first scenario, where we maintain the current coastline through hard engineering we can have a future where Edinburgh's back is turned away from the coast with higher sea defences, narrower beaches and more frequent storm damage and flooding – with little benefit to business, wildlife and communities. Growing amounts of scarce council resources will have to be spent on building and maintaining hard structures or responding to increased flooding – rather than on other services for society.

Or we can take a more adaptive path where we collaboratively and strategically work to change our activities on land to make our coast and communities more resilient. Can we identify activity or land uses along Edinburgh's coast that may be better moved elsewhere to improve coastal resilience and economic benefits for society? Or can we use nature to create public amenity spaces that double as natural flood protection? And where we do decide to maintain hard coastal engineering, can we enhance its [value](#) and people wherever possible? We can think of these as [windows](#) we can open to make space for a resilient, seaside Edinburgh. The key is to make this work for people AND nature. Let's take a look at how we could do this:

By 2050, there may be less demand for private cars and so the car dealerships that currently line Edinburgh's waterfront can be moved or disappear all together. This would provide space for beaches between Portobello and Leith to move inland as sea levels rise, allowing Edinburgh's beaches to grow and beachside economies to flourish. Cyclists, electric cars and electric buses would scoot along the A199 that would have green bridges and underpasses connecting the beaches to local communities and wildlife. This would transform Edinburgh's relationship with the coast, providing a significantly better environment for people and nature, and improving economic and community resilience to coastal change.

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