

## Dynamic Coast – Scotland's National Coastal Change Assessment

Roseanna Cunningham MSP Cabinet Secretary for Environment, Climate Change and Land Reform.

I want to say thank you very much for everybody being here today to launch this National Coastal Change Assessment. You know, obviously we would want to choose somewhere relatively iconic like St Andrews in which to do it.

I think everybody here knows rising sea levels, increased coastal erosion, erosion enhanced flooding will progressively impact our soft coastlines, our physical assets and our communities.

We can pretend, or we can hope, keep our fingers crossed that it's not happening but it's kind of difficult to ignore the signs especially when climate change projections suggest we should be expecting the more stormy weather in future and I know it's really hard to imagine that Scotland's weather being worse it is. I tweeted the other day about as I say it being one of the few countries in the world where you risk Seasonal Affective Disorder in the middle of so-called summer. I'm reliably informed, no it isn't the only country in the world but there aren't terribly many. So the notion that it's going to become even more difficult to manage it's not one that people particularly want to hear but nevertheless is, whether we like it or not, likely to happen.

Obviously everybody here today is here because they share a common concern about the future under climate change. And we know that our greatest adaptation challenges are likely to be along our coastline. Of course our coastline is shifting naturally all the time. Historically there has always been coastal change, so in one sense, not all erosion is bad. It's just part of the natural process but what we've got to do today is take action that means that we're not locked into a future of increased coastal erosion and flood risks brought by climate change.

We have to value our natural assets, recognise the strength of our saltmarshes, sandy beaches and dunes and the protection they give us because people don't often see that that's part and parcel of their value.

We're here to launch Dynamic Coast, the first full assessment of our coastal vulnerabilities. Where we know we have vulnerabilities we can address them and build resilience. Our failure to act will burden future generations with our repair bills but we can't act when we don't know where we need to put that activity.

So I'd like to take this opportunity to thank everybody who's worked on the three year research project. The project took a partnership approach was jointly managed by the Scottish Government and Dr. Alistair Rennie from SNH. Under Alistair's leadership we've prepared an extensive set of reports to accompany the maps including a National Overview report and separate detailed reports for each of the coastal cells. I'm grateful to SNH for loaning us Alistair for such a long time and I understand that this role will continue. I have also got to thank Prof. Jim Hansom and Dr. James Fitton from the University of Glasgow who carried out the research. By all accounts it's been a mammoth task involving comparison of over 2,000 maps and plotting over a million data points. It's kind of really hard to get your head around that actual work in practice. An expert team to have at the helm of such an important product and this is important because its maps and the reports have got to be scientifically robust. So can I also offer my congratulations to James who completed his PhD while working on the project.

So my thanks also the SEPA and Terry's here, who've been involved with the project from the beginning promoting the links between flooding and erosion. So it's been a priority for the project team to ensure that the outputs are of value to SEPA's role in flood risk management. I understand that Dynamic Coast will support production of the next flood risk management strategies and provision of planning advice. So this is all beginning to tie together. All projects require funding. This one was funded by the Centre of Expertise for Waters. Crew was set up and is funded by the Scottish Government to connect research and policy. And this project is an excellent example of that aim in action. A mark of a project success is often how you deal with unforeseen problems along the way and in my

experience unforeseen problems can be absolutely guaranteed to show up so my thanks go to Ordnance Survey colleagues here today. Where are they? Where's the Ordnance team? Absolutely loving your online presence, can I just say, brilliant fantastic but I know the work you've done here isn't perhaps just as glitzy and outward facing as that. I understand that the project gave you some headaches but you and the research team worked through them successfully to deliver and improved our current product.

So that's an excellent example of agencies working together efficiently to deliver one product that's going to inform many challenges but it will be a more sustainable rail network and if you think about the number, the amount of rail miles in Scotland that are coastal rail miles, you can see immediately where that challenge lies. Ensuring continued access to vital infrastructure or a deeper understanding of the links between coastal erosion and flood risk. All of those things are really important for planning for the future. Projects like this taking long-term commitment by steering group members so I'd like to thank every single one of them for giving their time to such an important project.

Since the 1970s the rates of erosion and accretion have doubled and that pace isn't going to slow down anytime soon, we know that. In fact, it will probably get worse and it will happen faster. If erosion continues at the same rate since 1970s then over 50 buildings are at immediate risk from erosion and over 450 are nearby. Five kilometres of roadway, two kilometres of railway are also expected to be affected by erosion. Significant areas of some airport runways along with cultural and natural heritage sites are also expected to be affected by erosion. In a word of caution because these figures are likely to underestimate serious future risk.

Dynamic Coast is a great basis for us to better plan for future change and future change is going to have to be dealt with. However it's based on past rates and the future may not be so kind. It's to their credit that councils such as Fife and Angus have prepared shoreline management plans and they are already looking forward.

For Historic Environment Scotland another important member of the project steering group, the maps show the impact of erosion on some of our most important and iconic archaeological and historic sites. Orkneys World Heritage Site is currently at risk from a range of environmental climate related factors such as increased storminess and sea level rise which contribute to higher rates of coastal erosion and it would be some irony would it not, given that it was a storm that brought this cultural site to our understanding and notice, if it ended up being a storm that helped to bury it. So you know, we have to understand what potential impact that might be.

The NCCA could be used to inform terrestrial planning as well as regional marine planning decisions. It was great to see a mention of the NCCA in the recent award-winning Pentland Firth and Orkney waters marine special plan. However, let's not think that all our problems are in the future because the good news is that we have problems in the here and now as well. It keeps you guys working because it is a big challenge. We only have to look at the complexities of the erosion and flooding issues in Montrose, not so far away, to understand that we have problems today that need a joint approach, from a wide range of stakeholders, to find a long-term sustainable solution and that's actually the key. The key of all of this is people working together because there isn't a single agency who can do all of this. It has to be a partnership.

Essentially the NCCA will help deliver actions in our climate change adaptation programme encouraging an integrated approach where climate change adaptation and resilience are progressed together.

Dynamic Coast gives Scotland it's most advanced nationally consistent and locally informed understanding of the causes and consequences of coastal change that it has ever had so we have to use it and build on it now.

Congratulations and thank you very much.