

Environment and Sustainability Committee

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Inquiry into Coastal Protection in Wales – Evidence from Atkins Limited

Are there barriers to the development of coastal protection in Wales?

Welsh (and UK) Government policy towards Flood and Coastal Erosion Risk Management (FCERM) is more than coastal protection. Protection may not be appropriate, affordable, environmentally sustainable or required on all areas of the coast. It is not possible to prevent or stop all flooding or erosion and building higher and/or more defences in all areas where there is a risk of erosion or flooding is not sustainable.

There has been a general shift from “defence” to “risk management” in the approach and terminology to all flood risk management policy, planning and actions including at the coast.

FCERM is not just about engineering. Responsible management of flooding and coastal erosion risk includes planners, development control officers, politicians, transport and infrastructure managers, residents, farmers, landowners, etc... Some of these groups have a more active role than others.

Language - Policy and strategy documents tend to be aimed at and/or written by flood and erosion risk managers. They contain technical language and information. They are not aimed at planners or a wider audience. They don't help to overcome barriers to integration between coastal engineers and others that may have a role in FCERM either strategically or at a specific location.

Shoreline Management Plans, for example, cover large geographic areas and long time periods (100 years). The complexity of the SMP2 development process, their high level, strategic nature and the technical issues involved (the different types of flooding, the terminology, statutory environmental assessments) make it difficult for non-technical and general members of the public to pick out which elements they need to / should be involved with and comment on.

Link between planning and FCERM – appropriate land use planning and granting of development in locations that do not place an unnecessary management burden on future generations is integral to FCERM. But the link between planning and FCERM is not clearly made and often driven by the personalities of individual coastal engineers and planners.

Coastal engineers and planners use different language. There is a need for FCERM plans and strategies to be “translated” into format and language that is appropriate and accessible for local authority planners so that there is a better understanding of the impact of policies that are being put in place.

Natural defences – the role that natural features play in FCERM is not well understood outside coastal engineers / technical advisors and is not clearly stated in SMPs, potentially leading to decision makers not fully appreciating the need to manage and/or re-build beaches, dunes, salt marsh, etc. or invest in these actions. It is easy to see the investment made in a new coastal defence structure and appreciate its value to protecting the land behind the coast. It is less easy to see and

appreciate the value of investing in adding more sand to a beach or protecting dunes. These natural features also have additional value in terms of tourism, recreation, the environment, landscape and science / culture / history.

Timescales – FCERM plans and acts on long time horizons that do not match well with the timescales of local development plans, politicians, funding streams or individuals.

It is difficult to integrate the 100 year timescales of SMPs and climate change predictions into the 15 year local development plan framework, to grasp what long term changes at the coast might look like or how to incorporate these issues into land use plans without creating an LDP for 100 years.

There is a need for developers and planning development control officers to think about long term issues when considering development – a new school will most likely still be around in 50 or 100 years but the decisions about whether to build it, where to build it and how to build it need to be made now. Planners and developers need practical advice to help them understand the issues and make the necessary decisions on planning consents and applications.

Similarly, infrastructure that is currently located at the coast (substations, railway lines, roads) will, at some point need to be repaired / replaced / upgraded. Some of these structures do not have to be located at the coast, while others may actually function as part of the coastal defences (e.g. a road or rail embankment).

Funding FCERM

There appears to be a disconnect between strategies for FCERM and the funding for specific actions for FCERM. As noted above, strategies, particularly large scale and long term strategies discuss and promote risk management, adaptation and resilience, rather than “defence”.

Funding mechanisms seem to remain linked to the national economic cost-benefit assessment of the investment in terms of reduction to the risk of flooding or coastal erosion (in accordance with HM Treasury Green Book guidance). These assessments consider the capital costs of a project, discounted over time against the economic costs of repairing / replacing damages / losses from flooding and erosion. They continue to be used for more ‘traditional’ large scale approaches. There is more funding to be used for more local scale and / or individual property type schemes as well as resilience and adaptation actions, which can be assessed in the same way as large schemes.

Ecosystem services can also be included in the cost-benefit assessments, although the valuation of such items is much more subjective. Individual property owners can also apply for funding for their own flood risk reduction actions, such as individual demountable flood barriers, however, public awareness of this is low.

It appears that money is allocated separately to capital and non-capital (incl. maintenance) activities an apparent inability to transfer funds between these two separate pots. The budget allocated for non capital activities is included in general local authority budget allocations with no specific directions as to what this is spent on. Additional benefits could be realised if non-capital activities such as increasing awareness of flooding, actions individuals can take, improving resilience, were carried out ‘hand in hand’ with capital schemes. This is the case with river schemes undertaken by the Environment Agency through Flood Awareness Wales, but it less consistent between coastal schemes, happening in association with some projects but not with others.

Sources of funding may also be a barrier to undertaking a capital project when the potential cost of works is greater than a single funding source. Coastal risk management schemes can have wider benefits than just flood and erosion protection – tourism, environmental, recreation, economic development. However, funding for schemes is usually from the coastal defence capital pot. If funding is available from a number of sources, which are treated as a basket of funding, the works may become affordable. UK Government / Defra have recently changed their policy on this such that contributions from other funding sources are excluded from the overall assessment to determine if FCERM funding should be invested in a scheme. However, quantifying the additional benefits of a coastal risk management scheme beyond flood and erosion protection is problematic and can be subjective, and the mechanisms for arranging funding across a basket of sources remain difficult.

Following flood events, funds are made available on an ad-hoc basis from Welsh Government and via insurance claims to clean up and make repairs. Insurance claims only replace what was lost, without reducing the impact of potential future events. Additional funding could be made available to help householders not just recover but improve their resilience to reduce the cost and impacts of future events.

It is not clear if / how strategic planning of spending is managed and the timing of spend may be artificially constrained by financial deadlines. Recent coastal defence projects in Wales have been allocated significant EU funds, which boosts Welsh Government funding. However, EU spending rules place strict deadlines on how and when funds need to be spent. This can lead to artificially compressed timescales for projects.

Design and environmental assessment of projects should progress in parallel with each informing the other. This does occur, to a certain extent, but is usually at the point when a general approach to a scheme has been agreed. . Construction should be timed to occur when it causes least disruption to habitats, species, people, etc. Condensing project timelines means that often a contractor is not procured until after an EIA is complete. Yet projects do not apply for development consents until funds are allocated in case they are unsuccessful in their funding application. Involving designers and contractors in the EIA process gives greater certainty of the methods that will be used and the possible environmental impacts. Greater uncertainty in an EIA can lead to more conditions applied to licences, the need to apply for amendments to licences and potentially greater risk to the environment. Having to work around artificial deadlines can increase risk to everyone – the environment, the client, the contractor, suppliers. This can lead to increased costs and less overall value for money.

Resources

The level of resource available to manage FCERM is limited. The WCMC 1st annual report (2011) highlights the level of staff resource available for each LA with a coastline. Only three of the 15 Maritime Local Authorities (MLAs) (20%) have more than one full time equivalent (FTE) member of staff dealing with coastal flood and erosion risk management, despite the MLAs jointly being responsible for 119 km of defended coastline (29% of the total defended coastline length).

Capacity building and awareness raising is a priority and not just for coastal / flood engineers to manage the coastline. Raising awareness of the risks of flooding and erosion among planners and

development control officers is also key to ensure that development does not take place in inappropriate areas.

Communicating FCERM

The language of FCERM is technical, the timescales long and the areas covered large. These all increase the difficulty in communicating FCERM to non-technical experts, which included planners, developers, politicians and the wider public.

As a member of the public, I don't see a lot of evidence of such communication. That could be a function of not living in an area at risk of flooding. As part of a business that works in the FCERM industry, Atkins is aware of consultations, strategies and individual projects, but often this is as a result of working on a specific project or actively seeking out that information – through email alerts, conferences, networking, etc. Recent innovations such as the Environment Agency's Flood Warning Facebook application are good examples of how communication tools are being developed to engage the wider public and raise awareness. Others include more awareness raised during weather forecasts. However, these deal with current storm / flood warning and not the wider ongoing need to raise awareness prior to an event.

There is a fear that communicating risk of flooding or erosion or putting planning policies in place that limit the type of development or highlight areas for managed realignment could lead to blight, reducing property prices, discouraging investment and leading to people moving away. But without making people aware of risk, it may increase the need to invest in economically unsustainable flood risk schemes, placing a burden on the public purse now and in the future. There is little information relating to whole life costs of "traditional" FCERM versus managed realignment / other approaches, particularly as many of the benefits of other approaches are either non-monetised (e.g. habitat creation, soft defences) or relate to the avoidance of continued maintenance and construction costs for defences.

Communicating FCERM is more than just asking people to comment on a printed document, inviting people to a workshop or holding a public meeting – stakeholders need to know why they should be interested / engaged.