

Research and analysis: Trialling a new approach to beach replenishment in Poole Bay

The trial tested a new approach to beach replenishment in Poole Bay. The concept was to make use of locally dredged sediment and place it near the shore, allowing the prevailing waves and tidal currents to move material toward and along the beach. A similar approach has been used widely in the Netherlands and more recently in Denmark. The trial was the first of its kind in the UK.

Research and analysis: Understanding the performance of flood forecasting models

Understanding the performance of the flood forecasting models operated in real-time by the Environment Agency, Natural Resources Wales and the national Flood Forecasting Centre is crucial to the informed use of model outputs for flood guidance across England and Wales. It is also essential to guide future strategic investment in flood incident management.

This report presents the results of the first nationwide analysis of the performance of the various flood forecasting models operated by local centres on the National Flood Forecasting System. The analysis is based on Wales and the English geographical regions that align to the old Environment Agency region names.

Research and analysis: Sediment budget analysis: practitioner guide

The Environment Agency has developed a practitioner's guide on sediment budgets. The guide's main aim is to support flood and coastal erosion risk management practitioners by explaining the need for sediment budget analysis and developing best practice in its application. Use of the guide will

provide consistency in the execution and interpretation of sediment budget analysis. It will also help to improve the transparency of decision-making, as the consistent approach will mean stakeholders have greater understanding in the supporting evidence used to calculate a sediment budget.

A sediment budget summarises the balance of inputs and outputs for a defined system (such as an estuary) and time period. This helps determine if a system has an overall surplus (accretion) or deficit (erosion) of material. If the accretion and erosion figures are equal, then the system is considered to be in balance.

Research and analysis: Optimising the accuracy of radar products with dual polarisation

Rainfall forecast data generated at the Met Office is vital for providing weather and flood warnings, and this project has looked at ways of improving the accuracy and reliability of the radar network as well as fully exploiting and bringing into operation the latest technology.

Radar is particularly important in detecting localised rainfall (often not detected or under-sampled by rain gauge networks), especially where it falls on catchments prone to flash flooding. The upgrade to the UKs dual polarisation radar network in 2016 and the updated data analysis methods from this study means that we can make a step change in the accuracy of rainfall estimates, in particular in very intense precipitation, where radar estimates are most valuable.

Press release: PM call with Prime Minister Turnbull: 16 March 2018

The Prime Minister spoke to the Prime Minister of Australia, Malcolm Turnbull, this morning about the attack on Sergei Skripal and his daughter and the reckless endangerment of the British public through the use of a military grade nerve agent developed by Russia.

Prime Minister Turnbull said he joined the Prime Minister in her condemnation of the appalling act and expressed his complete solidarity with the UK and

its response to the attack.

The Prime Minister explained how she had visited the site at Salisbury yesterday and reiterated how the act represented an unlawful use of force by the Russian state against the UK.

On the UK's response, she explained how it will expel 23 Russian diplomats who have been identified as undeclared Russian intelligence officers, develop new legislative powers to harden our defences against such hostile activity and suspend all planned high-level contacts between the UK and the Russian Federation.

She thanked Prime Minister Turnbull for his strong support and they agreed on the importance of the international community coming together to take a stand against this despicable act.