

# The Big Story

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» Festival-goers brave the wind and rain at the Boardmasters music festival near Newquay in August last year

## Storm warning

A new report from the Met Office warns of increasing summer temperatures, more extreme weather and rising sea levels as climate change becomes the present – not the future. **Olivier Vergnault** looks at what it means to Cornwall

**B**EACHES could be reshaped or stripped of sand, infrastructure will be further damaged, homes will have to be moved, and roads and rail lines shifted away from the coast in order to future proof coastal communities as climate change takes its toll on Cornwall.

With rising sea levels and a change in weather patterns already a reality, hard decisions will have to be taken by politicians with long-term views or future generations will pay the price of our inaction.

The stark warning comes from the concerned voices of climate scientists and business and tourism leaders in the county as climate change is set to take hold over the next decades.

“If there is one certainty it is that sea levels are rising and the climate is changing,” said Professor Gerd Maselink, lead of the coastal processes research group at the University of Plymouth. “We have to be proactive and not stick our heads in the sand or future generations will pay the price because we are not prepared to take the pain now.”

For him the one-off price to pay now may mean making unpalatable political decisions such as moving homes and paying for new roads and rail links away from the coast.

He added: “Why do we keep building houses and roads in flood zones when in 20 or 30 years’ time these areas will be closer to the sea and at greater risk?”

“Moving back houses and roads now is not popular to any politician looking at re-election, but it is a one-off payment now that will future proof infrastructure while building higher sea walls will continue to cost us and our children more and more money as sea levels continue to rise.”

A new Met Office report, called UK Climate Projections 2018, warns of increasing summer temperatures, more extreme weather and rising sea levels by 2100.

Under the most likely projection, sea levels could rise by up to 1.15 metres and there could be up to 35% more rain in winter over the next half century.

Angela Terry, founder of the Climate Alliance and One Home organisation which works to raise awareness of climate change and its impact on society and promote solutions, said: “Climate change used to be in the future but it is very much now and will remain in the now for many years to come.

“Solutions exist and there is a whole

renewable energy sector which is growing. It is good for the economy and can create all-year-round jobs.

“However, the conversation is not happening. How many times do harbour walls have to be rebuilt and houses flooded before people pull their heads out of the sand?”

When Storm Eleanor brought 80mph winds and heavy downpours to large parts of Cornwall last year, the Met Office issued a “danger to life” warning and a plethora of floodwarnings, showing the severity of the storm. NFU Mutual estimates the cost of last year’s storms to farmers in the region at up to £10 million.

Yet the damage Eleanor caused was nothing in comparison to the destruction brought on by the storms of 2014. It took three months for Network Rail’s “Orange Army” and £35 million to repair the section of rail track at Dawlish after it was washed away into the sea just before Christmas.

It meant that the Westcountry was cut off, costing the economy an estimated £1.2 billion.

Climatologists at the University of Exeter have warned that climate change could lead to a threefold increase in powerful storms, with the type of storms we had in 2014 becoming the norm rather than the exception.

With sea levels higher, it will mean that high tides will push further up beaches, erode dunes and cliffs faster and breach sea defences on a regular basis.

Dr Hawcroft said the impact on local communities could be severe, with more intense and extreme storms leading to greater large-scale flooding events – similar to those experienced across Somerset in 2013/14, Cumbria in 2015 and Gloucestershire in 2007.

It is costing £1 million to repair the sea wall at Portreath but one has to wonder how many times it will be repaired before it becomes too costly to do so.

For Mrs Terry, Cornwall bears the brunt of the weather in the UK but will always remain low in the pecking order for climate change infrastructure as it is not very populated. In other words, London will always take precedence.

Kim Conchie, chief executive of the Cornwall Chamber of Commerce, said it is unacceptable to have £100 billion spent on HS2 when Cornwall and the South West do not have weather resilient transport infrastructure.

He said: “For the sixth (biggest) economy in the world we can’t have a

“Climate change will affect us for decades to come that’s why we need to get our infrastructure right. In the meantime, we need contingency plans in place

# 35%

The expected increase in winter rainfall over the next half century according to the Met Office report, called UK Climate Projections 2100

# as climate change changes Cornwall



Ben Birchall

“Climate change used to be in the future but it is very much now

Angela Terry

two-speed Britain with some bits working and other bits not working.

“The cost of opening up a north Dartmoor line or tunnelling through from Newton Abbot to Exeter is a fraction of what HS2 will cost. But it needs to happen because for us the message is simple – Cornwall is open for business regardless of climate change.”

Higher sea levels will mean that in places like Chesil Beach, Slapton Sands or Loe Bar the sea will go over the gravel barriers.

A study by the University of Plymouth has shown that not all beaches eroded by the storms of 2014 have recovered with some of them on the north coast having recovered to 75% of their previous states.

The study showed that a large amount of sand that was eroded and taken offshore remains stored offshore below low tide level. By contrast, the situation on the south coast is slightly more positive because the South West storms of 2013/14 pushed sediment along the coast rather than offshore.

Climate change may also mean there could be less energy to return the sand back to beaches because of calmer conditions in the summer.

Sandless beaches could have an impact on tourism if holidaymakers go somewhere else. Higher tide lines could also mean smaller beaches accessible for a shorter period of time.

Prof Hasselink said: “Most beaches on the Med are nourished and sand is

added to provide more ‘beach space’. That’s a real possibility for beaches in the South West too. Local authorities might have to bring sand in.

“When tourism represents 30% of the Cornish economy it is a conversation that needs to happen.”

Malcolm Bell, chief executive of Visit Cornwall, said making our infrastructure more weather resilient for the decades to come must become a priority.

“We have to get serious about sorting out Dawlish,” he said. “Climate change will affect us for decades to come, that’s why we need to get our infrastructure right. In the meantime, we need contingency plans in place.”

In term of whether climate change will have a direct impact on tourism, the largest sector of Cornwall’s economy, Mr Bell believes it is time to listen to the climate scientists and heed their advice.

He said: “Scientists need to tell us which beaches are under threat from erosion so the industry can prepare for it and make the relevant investment. Climate change will take decades to revert. Knowledge is key here. We need the science and to listen to the scientists and act on their advice.”

Climate change is not all about storms but could mean longer periods of droughts in the summer which in turn will have an impact on farmers and their ability to grow food. In turn it will mean the price of food will go up.

A spokesman for the NFU said: “Farming businesses are more vulnerable to the weather than most. A balance between producing food and reducing greenhouse gas emissions is going to be vital in the years ahead and many farmers are already working hard to reduce greenhouse gas emissions.”