Rising sea threatens coastline

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St Peter's Church: theatened by climate change

(PhysOrg.com) -- Experts at The University of Manchester are to produce a detailed picture of the public's views on the uncertain future of a 250-mile-stretch of coastline.

Large parts of the coast between Anglesey and Carlisle are likely to be adversely affected by rising sea levels and erosion over the next hundred years.

The area is home to some of Britain's most celebrated wildlife, important transport links, densely populated coastal towns and cities and the nuclear reactor at Sellafield.

Drs Richard Kingston and Adam Barker from the University's School of Environment and Development have launched a website which allows

the public to add their views to an online coastal map.

“The Lancashire, Cumbrian and Welsh coastlines contain a number of low lying or vulnerable sections which are particularly at risk from the adverse impacts of climate change.

“If local agencies are forced to abandon sections of our coast to the advancing sea, then this can only be effectively done with the knowledge and understanding of local communities,” said Dr Barker.

“Clearly it’s a pressing issue: large parts of the coastline - some of which are highly populated - are likely to recede. At the same time however, local authorities are under pressure to release more land for development.

“Something needs to be done to manage this transition as effectively as possible and to involve the people who live in these areas in the decision-making process."

According to the UK Climate Change Impacts Programme which helps coastal communities adapt to rising sea levels, tidal highs around Britain's coast are expected to rise by between 10 and 34 inches by 2080.

Dr Barker added: “The policy options communities have to face are either abandoning the coast to the advancing sea, managed retreat, investing in measures which will hold the existing line or in some cases, advancement of the existing line."

Threatened areas include Morecambe Bay where the historic St Peters Church in Heysham is under attack from coastal erosion. The nuclear reactor at Sellafield in Cumbria is also vulnerable.

And Formby Sands in Lancashire -home to endangered red squirrels and

the rare Natterjack toad could recede by more than 400 meters in 100 years according to research carried out by the National Trust last year.

Also at risk is Cemlyn bay and lagoon in Anglesey. The beauty spot is known for its population of terns and other wildlife which may not be able to adapt to changing salinity levels caused by sea flooding.

Now the public will be able to have their say using interactive maps stored on Google and using geographic information system (GIS) technology.

Anyone will be able to click on the area where they live and add their view on what should be done.

Dr Kingston said: “This project is about utilising new technology to make it easier for the public to engage with proposals to manage the changing coastline.

“It will provide invaluable help to the North West England and North Wales Coastal Group who are currently preparing a Shoreline Management Plan.

“The plan is the means by which the Coastal Group will determine the best way to look after the coast in a sustainable way for the next 100 years.

“It is essential that it adequately deals with the issues and concerns of the communities and businesses by using the best information available to them.

”If you don’t properly involve the public, then poorly developed and unpopular planning decisions will result.”

Blackpool, which is one of the lead local authorities on the consultation, has recently invested £65 million on improving and replacing its sea wall and flood defences.

Councilor Maxine Callow, Cabinet Member for Regeneration and Tourism, said: “The development of our sea wall is essential to protect the homes of our residents and our visitor economy. The investment made has protected around 1,500 homes and businesses from flood.”

Provided by University of Manchester