



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieving International Excellence



MEDIA STATEMENT

Thursday, November 12, 2009

PERTH WATER LEVELS UP TO A METRE HIGHER BY END OF CENTURY

Changes in marine and atmospheric conditions will have significant effects on Western Australia's coastline, inlets, estuaries and rivers in the next 100 years.

Winthrop Professor Chari Pattiaratchi from The University of Western Australia said sea levels around Perth and the South West were now estimated to become up to one metre higher by the end of this century, affecting foreshore developments, beaches and housing.

"The Swan River floods perhaps twice a year now, but by the end of this century it could flood at every high tide," Professor Pattiaratchi said.

"A one-metre sea level rise may not be of great significance in the sparsely populated Kimberley where the tidal range is up to 10 metres. However in the South West, with a less than one-metre tidal difference, a one-metre rise will have significant effects on coastal development."

His research on how the oceans are changing – and the effects of those changes on coastal populations – is part of Western Australian Marine Science Institution's research into the real effects of climate change.

Professor Pattiaratchi said the aim of the research was to contribute to coastal planning guidelines.

"One of the questions is: *What are the implications for coastal infrastructure such as groynes and seawalls?* We need to study the impact of any changes, particularly with respect to changing wave climates, storm surges and rises in sea level," he said.

He is creating past and future models to show what will happen to our sea levels, and what is likely to happen.

"We're using wind fields to predict future wave climate under climate change, and will be able to identify changes and to ascertain whether those changes will be significant. If so, we may need to modify the design criteria when we build groynes, breakwaters, seawalls and other marine structures," he said.

He and his team are looking at sea level rises and the effect on beach stability in different regions along the coast.

For more information about UWA: www.uwa.edu.au

“In the South West we know that the average sea level is increasing so our work now is to project how much it will rise in the next few years,” he said.

“Between Port Bouvard and Two Rocks there are 99 beaches, many of them ‘perched’ on rock or limestone platforms that prevent erosion,” he said.

“Beaches not on these platforms are already eroding so we need to know the extent of future erosion to ensure that the right planning takes place.”

He has developed specialised databases to look at the climate change impact on coastlines between Yanchep and Cape Naturaliste, scaling his modelling down to cover particular towns, cities and communities.

“Our newest climate change models also give us 10 times the resolution of models commonly used in other countries which means we’re in a strong position to make accurate predictions,” he said.

MEDIA REFERENCE

Sue McKenna (WAMSI)

(+61 4) 24 196 771

Janine MacDonald (UWA Public Affairs)

(+61 8) 6488 5563 / (+61 4) 32 637 716