



## OFFICE OF THE PRIME MINISTER'S CHIEF SCIENCE ADVISOR

Professor Sir Peter Gluckman, ONZ KNZM FRSNZ FMedSci FRS  
Chief Science Advisor

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#### Preparing for coastal change – Ministry for the Environment climate change adaptation reports

Sir Peter Gluckman, the Prime Minister's chief science advisor, welcomes the recent release of the revised guidance on [Coastal Hazards and Climate Change](#) by the Ministry for the Environment, as well as a stocktake report on [Adapting to Climate Change in New Zealand](#) from the Climate Change Adaptation Technical Working Group.

The [guidance](#) represents a major revision of the 2008 version, aiming to promote a more risk-based, adaptive planning approach to managing our coastal communities, infrastructure and the natural environment in the face of increasing risks and uncertain future scenarios.

These future scenarios are uncertain not only because of the inherent variability of climate effects and scientific uncertainties relating to climate modelling. Deep uncertainty also arises from the fact that the range of temperature increases and rising sea levels to which our society may have to adapt is dependent on future developments in climate change mitigation worldwide.

The guidance is to be commended in the way it deals transparently with these uncertainties. Rather than setting a single sea level rise value to guide planning around coastal assets, it sets out four scenarios for New Zealand, based on the best available evidence and climate modelling to cover a range of possible sea levels out to the year 2150. These scenarios are used to test possible adaptation options and consider pathways for flexible management of coastal assets depending on future developments and on exposure, vulnerability, and the value of the assets. This is accomplished by identifying the circumstances and timeframes in which unacceptable levels of risk may be reached – and expressing those circumstances as decision points for where and when a new management pathway is needed.

The goal of this adaptive planning is to accommodate future changes without 'locking in' investments that make changing a management pathway too difficult or costly. It takes community values and objectives – including impacts on social, cultural and economic values – into account in long-term planning. In doing so the guidance promotes adaptive capacity in local government planning and highlights the important role of community engagement in the decision-making process.

The accompanying [stocktake report](#) highlights the fact that there is much work to do to coordinate these planning efforts. In reviewing what New Zealand sectors are doing to adapt to climate change, it found few examples of anticipatory action on adaptation. New Zealand, like the rest of the world, clearly needs to accelerate its efforts in planning for climate change impacts.

For more information see <http://www.mfe.govt.nz/climate-change>

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