

Impacts of Climate Change -

An Integrated Assessment of Coastal Communities

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Introduction

Climate change is a global problem that affects everyone with 1.2 billion people living within 100 km of coast, these populations are increasingly exposed to natural events such as flooding, storm damage, increased prevalence of waterborne or marine related diseases and in some communities, the increasing exposure to fire risk due to changes in the structure and from of coastal and bushland reserves.

The costs of addressing climate change are likely to fall disproportionately on local government authorities, business, industries and local communities.

This paper presents the preliminary findings of a two-year project focused on identifying impacts of climate change on the built environment and addressing local adaption responses to those impacts.

The Westernport Greenhouse Alliance (WPGA) -is undertaking the study in partnership with the CSIRO and the Victorian Department of Sustainability and Environment (DSE) with funding provided by the Federal and State governments.

The objective is to identify a model for application in other regional areas across Australia. Those communities particularly impressed by this study include the coastal communities of Frankston, Casey, Cardinia, Bass Coast and Mornington Peninsula.

The full report from the Westernport Greenhouse Alliance on the study impacts was released in June 2008.

The broad objective of this study is to establish a regional framework for local stakeholders to work on greenhouse gas abatement measures, and other adaption and mitigation measures.

The study is an integrated assessment which seeks to combine by physical social and economic insights on to climate drivers and the determination of relevant information on the regional and local impacts and risks due to change in these drivers.

Climate drivers considered under the study are:

- temperature

- average rainfall
- extreme (high intensity) rainfall
- sea level rise
- storm surge
- fire weather
- wind exposure+ and storms.

In considering the impacts of climate change two periods of time were considered under this study, these being 2030 and 2070.

The briefing to Council will cover the following:

- background to the project
- impacts due to climate change (2030 and 2070)
- risk assessment
- legal implications
- community information.

The information can then be used to assist decision-makers in identifying and implementing adaption and mitigation responses.

Mornington Peninsula Shire Council will over the next six months be conducting a series of community forums and workshops to engage in inform its local communities on the issues and impacts of climate change as they relate specifically to them. This exercise will include the production of a booklet for distribution to all residents on the findings of climate change project.