## **Main**Roads

Sunshine Coast Multi-Modal Transport Corridor

Fact Sheet #8

### Climate change

Climate change is described as any long-term significant change in the 'average weather' that a given region experiences.

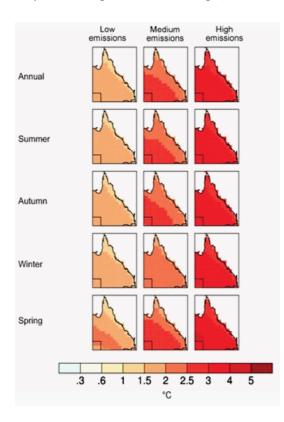
#### Climate change facts

- Most scientists agree that global warming caused by human-generated greenhouse gas emissions is one of the most serious environmental problems facing the world today
- 13% of Australian greenhouse gases are generated from road transport
- Analysis of CSIRO studies on climate change indicates a potential for a 32% increase in rainfall intensity in the Sunshine Coast region due to climate change.

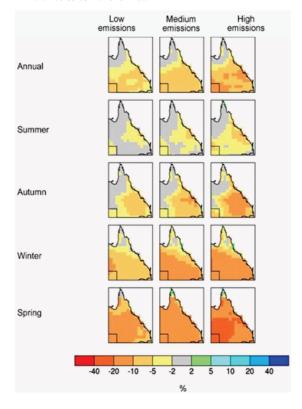
Within Australia, CSIRO research and modelling has identified the following estimates of climate change impact on temperature and rainfall over the next 100 years. Recent indications are, that of the three emission scenarios examined, the 'High emissions' potential is likely.

CSIRO predictions for climate change over the next 100 years for three levels of greenhouse gas emissions:

Temperature change due to climate change (°C)



Rainfall change due to climate change – percentage difference to current rainfall



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### Symptoms of climate change

- increased temperature and solar radiation
- sea level rise
- increased frequency and intensity of storm events, wind speed and hail
- more frequent and more intense droughts
- increased energy, construction maintenance, and fuel costs.

### What does this mean for the MMTC project?

The impact of climate change on the MMTC project will require design consideration of

- increase in sea levels and flooding patterns
- increase in pavement, road and bridge design, heights and openings
- need for improved traffic management strategies and development of other transport modes within the MMTC corridor to achieve higher levels of transport efficiency and manage greenhouse gas generation
- preparation of a Climate Change Impact Statement (CCIS) as part of budget submissions to Queensland Treasury for project funding.

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For more information visit www.mainroads.qld.gov.au (search for "MMTC")

