

**17th NSW Coastal Conference
4-7 November 2008**

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Climate Change, Policy and Programs**

Outline

- The new department
- Climate change and the coast
- Future of coastal management



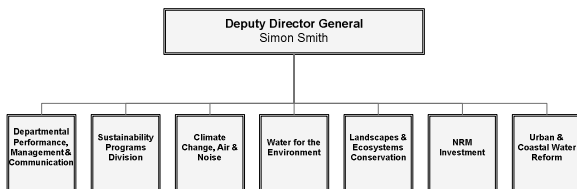
What DECC does

- Climate Change
- National & Marine Parks
- Environmental Regulation (EPA, native veg, threatened species, Aboriginal objects)
- Cultural Heritage
- Biodiversity Conservation
- Sustainability Programs and funding
- Water – urban & coastal, enviro water
- NRM & CMA support

Department of Environment and Climate Change

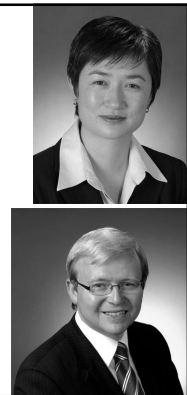


Climate Change, Policy and Programs Group



Climate Change and the Coast

- New roles for state governments
- Complementary mitigation
- Adaptation



NSW Climate Change Action Plan

- Old Greenhouse Plan completed
- New plan for our new roles
- 12 regional workshops
- Regional climate change projections
- Risks and opportunities



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Key Change Projections and Consequences

- Climate
 - Temperature
 - Rainfall
 - Sea-level
- Biophysical
 - Flooding and run-off
 - Fire
 - Soil
 - Biodiversity and landscapes
- Socio-economic

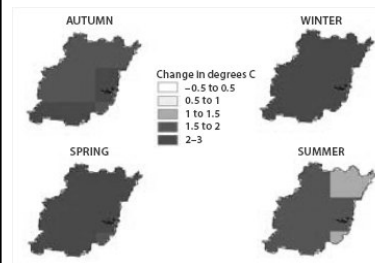
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Temperature Changes

- Metro
- North Coast
- South East
- Hunter
- Illawarra
- Central Coast

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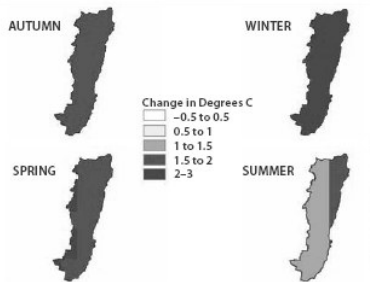
Metro Region Hotter Climate in 2050



Warmer daily temperatures over all seasons

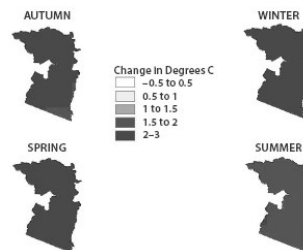
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North Coast Hotter Climate in 2050

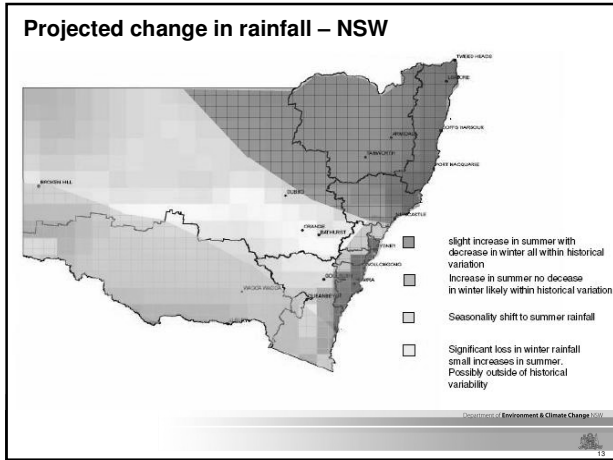


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South East NSW Hotter Climate in 2050



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Sea Level Rise

- 2050: up to 40cm rise in sea level
- 2100: up to 90cm rise in sea level
- Corresponding recession of sandy coastline
- Based on IPCC and CSIRO projections

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Biophysical Impacts

Impacts on coasts

Potential for:

- Coastal inundation and erosion: risks to coastal infrastructure, residential and commercial development
- Settlements along estuaries and beaches are most vulnerable
- Increased flood risk

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Impacts on Soils

Potential for:

- Erosion of river banks
- Sediment deposition, saltwater inundation of floodplains
- Acid sulphate soils to improve in long term

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Impacts on biodiversity

Potential for:

- Most at risk: coastal lowlands, estuarine habitats
- Impacts on migratory shorebirds
- Fish populations likely to decline

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What can we do to prepare?

We all manage risk

- Society has always faced climate risks - no new risks, just changing risk
- We already have strategies in place to assess and manage these risks:
 - Urban and coastal planning
 - Construction standards
 - Flood risk mapping and mitigation
 - Asset management
 - Emergency response
 - Water, health, community services, etc

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Future of Coastal Management

- COAG and climate change adaptation
- Existing ministerial councils
- State and sea level rise
 - Reduce future risks through planning
 - Preparing for unavoidable loss
- DECC program review
- Councils on ground planning and action