17th NSW Coastal Conference
4-7 November 2008

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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

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

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

Metro Region
Hotter Climate in 2050

Warmer daily temperatures over all seasons

North Coast
Hotter Climate in 2050

South East NSW
Hotter Climate in 2050
Projected change in rainfall – NSW

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

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

Impacts on Soils

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

Impacts on biodiversity

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

What can we do to prepare?

We all manage risk

Potential for:
- 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
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