

SYDNEY COASTAL COUNCILS GROUP

'Issues, Needs and New Programs for Local Government'

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EDO Climate Change Seminar - 24 October

- **About the SCCG**
- **Key Climate Issues facing Coastal Councils**
- **Current Situations in Local Government**
- **Limitations of Local Government**
- **Needs for Local Government**
- **New Programs for Local Government**
- **Questions / Comments**



About the SCCG

BACKGROUND

- A Regional Organisation of Councils
- Established in 1989 as 7 'ocean' councils addressing beach sewage pollution (pre ocean outfalls)
- Expanded to include estuarine councils
- SCCG consists of 15 councils adjacent to Sydney's marine and estuarine environments

MEMBERSHIP

- BOTANY
- HORNSBY
- LEICHHARDT
- MANLY
- MOSMAN
- PITTWATER
- RANDWICK
- ROCKDALE
- SUTHERLAND
- SYDNEY
- NORTH SYDNEY
- WARRINGAH
- WAVERLEY
- WILLOUGHBY
- WOOLLAHRA

SCCG represents over 1.3 million Sydney siders



Sydney Coastal Councils Group Inc.



- The SCCG covers 1346 Km²
- 86 km of ocean shoreline,
- Over 340 km of estuarine frontage
- 38 ocean beaches separated by high sandstone and shale cliffs,
- 60 estuarine / harbour beaches
- 4 drowned river valley estuaries (Sydney Harbour, Broken Bay (Hawkesbury), Port Hacking (Bate Bay) and Botany Bay.
- 4 coastal lagoons (Manly, Curl Curl, Dee Why, and Narrabeen)
- the region supports a rich diversity of natural and cultural resources,
- Many natural and landscape features considered significant: 7 National Parks with foreshore access, 10 Aquatic Reserves and 8 Intertidal Protected Areas.

ORGANISATIONAL STRUCTURE

SCCG Secretariat

Sydney Coastal Councils Group Inc.

(Policy and Focus Role)



Executive Committee

(Policy and Management Role)



Technical Committee

(Technical and Implementation)



Working Groups

(Strategy Development Role)

**Directional
Advisory Committees**
(Campaign / Policy Role)



SCCG Aim & Outcomes Statements

AIM

To promote cooperation between, and coordination of actions by member councils in consultation with the broader community on issues of regional significance concerning the sustainable management of the urban coastal environment.

SCCG OUTCOME STATEMENTS

- The **exchange of information** on urban coastal management to member councils is coordinated and facilitated,
- **Community awareness** on matters related to the urban coastal management is enhanced,
- The **role and capacity of member councils** to manage the coastal environment is improved,
- Member **Council interests are represented** on issues in relation to regional and national coastal management
- **Sustainable and Integrated Coastal Zone Planning & Management** is facilitated

Key Climate Issues Facing Coastal Councils

- **Increase in Storm intensity**
 - Less storms (maybe) but more intense
 - Wind speeds / wind directions / cyclones -> storm surges / inundation / erosion
- **Sea level rise (18-59cm by 2100 (IPCC-07) / 9-88cm by 100yrs (IPCC – 01))**
 - *No account of ice sheet decline (past: $<2.7\% \pm 0.6$ / decade, more recently: $\sim 10\%$ / decade)*
 - AIG – 700,000 properties at risk nationally / 200,000 considered vulnerable in NSW
 - Coastal properties at risk (erosion or flooding) over the next century in NSW = \$1 Billion (2005)
- **Changes to rainfall**
 - Regional uncertainty
 - Drought
 - Flooding
 - Infrastructure capacity (eg rainfall intensity)
- **Temperature (Southern Hemisphere 2.4-2.9°C by 2100 (IPCC-07))**
 - General Increase in temperature (both mean & peaks)
 - Increases in heat waves,
 - Issues of energy demand (eg air cond. Requirements, > populations)
 - Heat island effects (urban centers) / Public health concerns
- **Increases in Bushfire incidences**
- **Ecological changes** ecological functions & economic impacts
(wetlands / intertidal areas – farming / industries)
- **Population growth in coastal areas**
 - (eg NSW - 60% increase in 25 years (DOP), 1M nationally to regional areas in 15 yrs (SCT))

Current Situations SCCG (other councils ?)

Survey of SCCG: Kristen Hebert / Ros Taplin (M.U. Grad. School Env.) - 05

SCCG Climate Change Workshop - 05

Ongoing Direct Consultations – 05 - 07

SCCG – CSIRO Climate Change Adaptation Workshops (currently underway)

- < 30% of member councils had any reference to climate change in planning / management policies
- < 30% had undertaken relevant studies (risk / vulnerability assessments or hazard mitigation investigations)
- All councils had undertaken some form of flood studies (Riverine / Floodplain only with little / no account to S.L.R. or storm surge issues)
- 100% of member councils are members of ICLEI – Cities for Climate Protection™ Program (Nationally 2005 – 206/673 Councils, 80% of Aust. population)
- All councils have some form of Development Control Plans addressing energy efficiency (ie Natethers ratings) (NSW - BASIXs requires 25% energy reductions)
- *Councils expressed very mixed community interest in climate change issues (????)*
- All councils continue to express urgent needs for more: Information (*Local*), Advice and Support !!!

Limitations of Local Government

- Capacity / expertise (technical / interpretation / staff turn over)
- Political will and lack of acknowledgement by some Councillors and Staff of issues generally
- Current workloads of professional staff limiting willingness and ability to address issues
- Historical decisions (ie development decisions, land use zonings)
- Historic practices, systems and management approaches (eg councils structures – (ie “silos”)
- Willingness to push the agenda / innovation (by themselves)
- Costs of capital works / infrastructure refurbishment
- Developer pressures / legal uncertainty / legal challenges
- General lack of support & directions from other Governments ..._

Needs of Local Government

- **Information**
- **Model Policy and Practices**
- **Partnerships & Support**
- **Demonstrations / Pilot Projects**

Needs of Local Government

Information

- General information on climate change impacts (applicable at regional and local scales)
- Consistent and digestible at all levels and for various audiences:
 - Professional staff (planners, DA approval, asset managers)
 - Elected representatives
 - Community (inquiries and associated education programs)
 - For the development / infrastructure industry
- Need “standards” (ie best guess) estimates endorsed by Government(s) for: temperature, **SLR, storm surge**, rainfall / flooding) for Mgt plans and EPIs....
- Mechanisms for continuous review and updating (above)
- Available centrally, is consistent and is “marketed” to various audiences..
- Broad Policy and Practice gap analysis (nationally / regional) _

Needs of Local Government

Model Policy / Practices

- A National Framework - define actions and responsibilities (All levels of Govt.) (Mitigation / Adaptation and Coastal Impacts) - A *Climate Change Act*??
- Strategic Planning (policy integration, new / infill development, infrastructure)
- Standard Development Controls / Planning Controls
 - Set backs (FBL), flooding, storm surge, building codes, building design, zoning
- Are State Regional Plans / Standard LEP adequate for Councils ? (117 directions ?)
- Prioritise adaptation activities via a 'systems approach' (by sector & investment)
- Biodiversity management (ecosystems / species)
 - Threatened species / ecological functions
 - Priority management (effort & investment)
 - Invasive species (effort & investment)
- Insurance Risk Assessments (will insurance be available & affordable)
- Emergency management planning and response. (*Coastal Protection Act*) _

Needs of Local Government

Partnerships / Support

- Between Governments (integrated Government responses - W.O.G.)
- Within Governments (multi-disciplinary / cross sectorial approaches)
- Between Governments and
 - Science (eg SCCG & CSIRO , Macquarie University , UNSW - IES)
 - Industry
 - Community
- Development of regional based support mechanisms / services /
 - Associated networks / organisations (peer support, research , pilot projects)
- Needs for legal / legislative compliance & associated W.O.G support in courts to defend development decisions / actions
- **Ongoing commitments of Federal and State Governments**
provide leadership, encouragement and incentives to Local Government, community and industry _

Needs of Local Government

Demonstrations / Pilot Projects

- Science / investigations / (regional and local scales)
- Modeling Scenarios & Local interpretation processes & methods
- Building designs, building codes and their implementation
- Risk management systems / processes
- Decision support tools (priority setting, cost benefit analysis, LCAs)
- Maps (risk and vulnerability mapping–surges, SLR, inundation/flooding) (DoP - Hunter Project)
- Policy implementation, (document processes and failures),
- Monitoring, auditing and review processes _

New Programs for Local Government

Climate Change Legislation & Policy Framework

Title:

- An assessment of Australian and NSW legislation and government policy provisions in relation to climate change relevant to regional and metropolitan NSW coastal councils

Project aims:

- Identify where the terms **climate change, greenhouse and sea level rise** occur with all Acts, Regulations, Environmental Planning Instruments and Policies at Commonwealth, NSW and (NSW) Local Government levels.
- Provide an analysis and interpretation of the responsibility and necessary actions of Councils in NSW to implement the provisions identified.
- Examined potential common law liability

Initial Outcomes:

- 18 instruments out of 127 contained terms of interest:
 - 2 Commonwealth Acts
 - 3 NSW Acts
 - 9 Coastal Council LEPs
 - 4 Government policies



New Programs for Local Government

Summary of Audit

- Very few instruments in NSW even mention climate change. Those that do place few obligations on councils
- Councils are potentially open to liability only where climate change is not considered at all.
- 'Unreasonable' decisions not protected
- Case for reform ? *(next seminar: 'Climate Change Law Reform')*

Common Law Liability

- Exists separately from legislation
- Law of negligence and nuisance most relevant to climate change
- Significantly modified by legislation – protection for Councils in s733 LG Act and Civil Liability Act *(develop and implement a "Coastline Management Plans" in accordance with the NSW Coastline Management Manual" – ie "in good faith"*
- Emerging area, increasing number of potential actions – not settled by courts



New Programs for Local Government

Conclusions

- Currently, few legislative obligations on coastal councils to combat climate change
- Common law liability for negligence strongly restricted by legislation.
- However, likely the law will be amended in future to impose stricter obligations on councils.

What Can Councils Do

- Prohibit/minimise development in high risk areas
- Adopt local climate change policies, including retreat policies where relevant
- Follow *NSW Coastal Policy* and *Coastline Management Manual*
- Amend building controls to ensure 'climate friendly'
- Impose development conditions- eg no removal of sand allowed, monitoring of risks, etc
- Adaptive activities -> eg Beach nourishment



New Programs for Local Government

Research Partnership M.O.U.s

- **UNSW (Institute of Env. Sciences -Masters Program (2004)**
 - ~30 research papers
 - 3 specifically related to Greenhouse / Climate Change
 - Education to reduce emissions
 - Community views and attitudes towards greenhouse issues (NESB focus)
 - Review of existing Climate Change Policy and Regulation
- **Macquarie University (Div. of Environmental & Life Sciences) (2005)**
 - **2005 Workshop** – “Climate Change and the Sydney Coastal Region”
 - **2006-7 Successful NSWGO grant application (PhD Study: Quantifying Value of Sydney’s Beaches** – in order to assess cost / benefit of necessary coastal protection / abatement measures as a result of enhanced climate change impacts **(now with UNSW)**
 - **2007: Briefing notes / Fact Sheets** for SCCG / community
 - Coastal communities in the Sydney coastal region
 - Biodiversity in the Sydney coastal region
 - Human health in the Sydney coastal region
 - Sea level rise in the Sydney coastal region
 - Storm intensity and frequency in the Sydney coastal region



Programs for Local Government

"Systems Approach to Regional Climate Change Adaptation Strategies in Metropolises"

- SCCG partnered with 2 CSIRO Divisions (Sustainable Ecosystems, and Marine and Atmospheric Research) to undertake research on regional approaches to managing climate vulnerability in the Sydney region.



AGO Grant: \$429,665 (Total: \$1,001,179)

Aim:

- To develop and trial a method for a systems approach to regional climate change adaptation strategies in large urban areas



Researchers:

A/Prof. Tim Smith, Dr Cassandra Brooke, Dr Ben Preston, Russell Gorddard, Dr Debbie Abbs, Dr Kathy McInnes (CSIRO)
Geoff Withycombe, Craig Morrison, Beth Beveridge (SCCG)



Australian Government
Department of the Environment and Heritage
Australian Greenhouse Office

"Systems Approach to Regional Climate Change Adaptation Strategies in Metropolises" (cont.)

Key Activities:

Stage 1

- Creation of templates for vulnerability mapping (*human health effects, coastal hazards, urban stormwater runoff, bushfire and ecosystem degradation*)
- Workshops with local governments and other stakeholders to determine regional vulnerabilities and drivers
- Analysis of local government priorities and capacity for adaptation (including existing adaptive measures and adaptive capacity) **3 Case study issues**
- Assessment of transferability of method to other regions

Stage 2

- Demonstration projects – including monitoring & evaluation and action learning

Key Outcomes:

- Developing and testing an integrated (systems) method to generate information about the likely impacts of climate change and feasible adaptation strategies in the Sydney region;
- Deepening the understanding of the likely impacts of climate change and resulting adaptation options in the Sydney region
- Assessing the transferability of the method to other large urban areas

The Future – An integrated approach

- Small steps required via a National (Regional) Framework(s), guidelines, advice, legislation / policy(s)
- Need a “systems” based approach (integration, multi disciplinary approaches)
- Partnerships at all levels are essential
- Need to keep pushing the “precautionary principle”
- Recognise Government(s) investment is inevitable in one form or another
- Need to work more collectively with the research and insurance sectors
- Development of generic approaches / standards and policies for local implementation (*Commonwealth and State*)
- Better and consistent communication (to clear up confusion & provide common messages)
- Federal & State Government(s) to take on lead role:
 - Prioritise efforts through associated funding & policy development programs
 - Develop, collate and distribute tools, methodologies and information
 - Influence markets for better outcomes and driving change (inc. General Incentives (taxation, funding, rebates))
- Undertake – gap analysis (policies, management practices, precedence)
- Share learnings, (Successes & failings) and provide decision support tools) _

A decision making tool ?

(SMH)



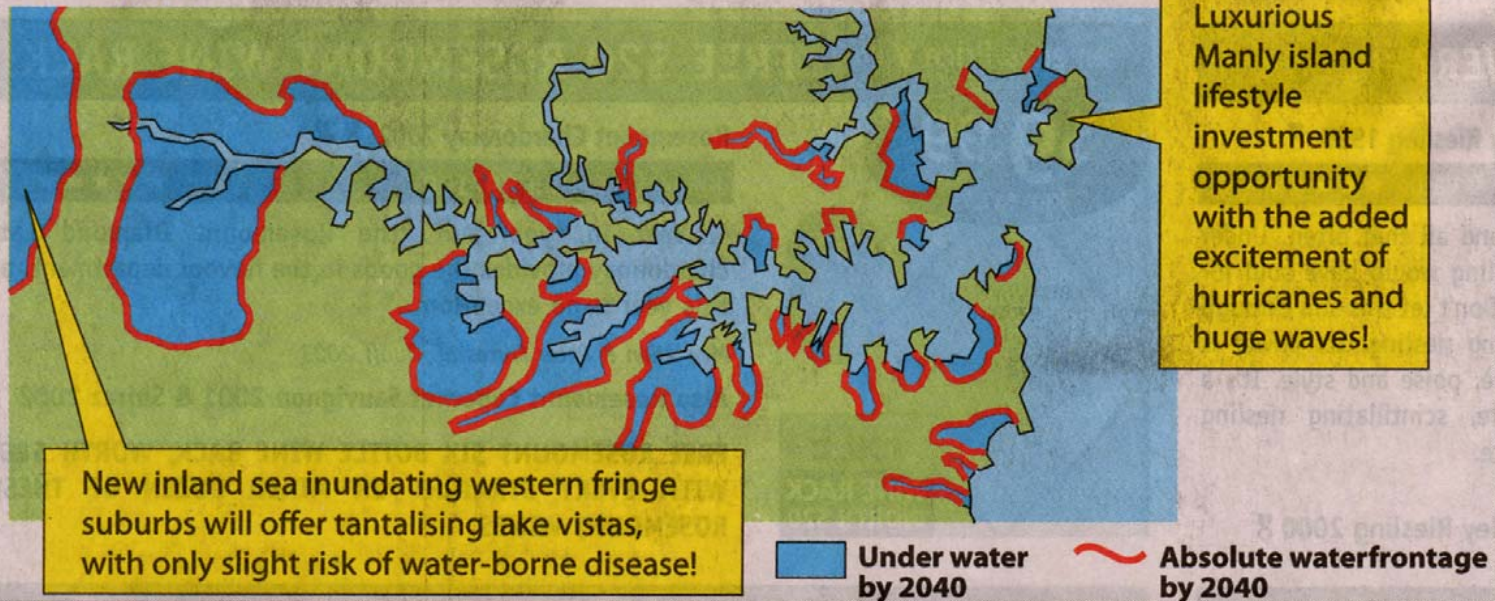
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As the polar icecaps melt, and the seas rise a metre or two, the shape of Sydney will change radically! Make sure today's choices don't leave your investments under water tomorrow!



True Fictions by Chris Henning Any resemblance to reality is purely coincidental

QUESTIONS / COMMENTS ?

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