

Byron Shire Climate Change Adaptation Implementation Schedule

Hazard	Risk Analysis*			Adaptation Action	Rank*	Primary Resp.	Support	T/Frame
	2009	2030	2070					
1. Increased Number of Bushfire Prone Days	M	M	H	<p>1.2 Consider climate change scenarios in Bushfire Risk Management Plan</p> <p>Purpose: To integrate anticipated climate change conditions into the Far North Coast Bushfire Risk Management Plan.</p>	1	RFS	PDES	Updated every 5 years
2. Increased Flood Level and Frequency	H	H	E	<p>2.1 Review infrastructure design standards for public works</p> <p>Purpose: To ensure Council's Climate Change Strategic Planning Policy is integrated with the Shire-wide DCP as well as Council's standard capital works contract template and taken into account in the construction of new Council buildings, encompassing floor heights, water penetration, access and landscaping considerations.</p>	2	PDES / AMS	Australia Standards, State & Fed. Govt	2010/11
				<p>2.2 Develop flood education resources</p> <p>Purpose: To build community resilience to flood events by increasing awareness and preparedness to respond to flood impacts e.g. local 'Flood-Safe' guides.</p>	9	SES	AMS, State Govt	2011/12
				<p>2.3 Review development consent conditions in relation to public and private works</p> <p>Purpose: To ensure development controls consider the climate change parameters in Council's Climate Change Strategic Planning Policy and promote adaptation controls.</p>	12	PDES	State Govt	2010/11

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				2.4 Develop Infrastructure Adjustment Plan Purpose: To undertake a climate change sensitivity and exposure assessment of existing Council infrastructure, including fiscal and environmental implications to determine future infrastructure priorities and adaptation responses.	18	AMS	State & Fed. Govt	2012/13
				2.5 Integrate climate change considerations into flood amelioration assessment process Purpose: Integrate climate change considerations into assessment process that determines flood mitigation measures in accordance with the Floodplain Development Manual 2005 to ensure appropriate development within high risk flood zones.	19	PDES, AMS	State & Fed. Govt	2011/12
				2.6 Forward planning for existing communities at risk of elevated flooding Purpose: To ensure that where existing communities will be adversely affected by elevated flooding levels as a result of climate change, that measures are progressively implemented to mitigate, adapt or relocate infrastructure/communities at risk. That if parts or whole communities are to be relocated, their new location is identified through a strategic plan which ensures their timely relocation in combination with infrastructure and services.	Un-ranked	PDES	State Govt	Ongoing
3. Introduction and Proliferation of Exotic Species	H	H	H	3.1 Form alliances with key research bodies Purpose: To ensure the integration of best-practice research with Council's biodiversity management plans and programs.	= 3	PDES	Universities	Ongoing

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				3.2 Implement public education and management campaigns Purpose: To ensure the community has a defined role and ability to participate in pest species management.	5	PDES	DECC	Commenced
				3.3 Develop Pest Species Management Plan Purpose: To provide a comprehensive approach to pest species management in Byron Shire, including identification of new threats.	14	PDES	DECC, DPI	2011/12
4. Decline in Local Economy	M	M	H	4.1 Revise Byron Shire Sustainable Agricultural Strategy Purpose: To sustainably manage prime agricultural land, enhance local/regional food security and allow for economic growth in the agricultural sector.	= 3	PDES	DoP DPI	Ongoing
				4.2 Prepare Economic Diversification Plan Purpose: To establish a strategic approach to the diversification the Shire's economy by identifying opportunities to broaden and strengthen local industries and employment.	17	GM	Fed. Govt, Regional Development Board	2011/12
				4.3 Develop Heatwave Management Plan Purpose: To minimise death and illness resulting from exposure to heatwaves, incorporating retro-fit of buildings, provision of public space facilities, community education and evacuation procedures.	10	NCAHS	RFS, GCS	2013/14
				4.4 Prepare Economic (Community Services and Infrastructure) Adaptation Plan. Purpose: i) To prepare for the increased fiscal cost of adaptation, particularly relating to new	Un-ranked	GM	Fed. Govt, NSW Govt, NOROC, Regional Development	2013/14

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				infrastructure priorities; ii) To prepare for the increased fiscal cost of repeated impacts on the provision of community services and infrastructure; iii) To identify funding models to meet the cost of impacts so as to continue to provide relevant services and re-prioritised infrastructure requirements.			Board	
5. Higher Evaporation and Longer Drought Periods	M	M	H	5.1 Promote integrated water cycle management Purpose: Review asset maintenance and management plans and procedures to promote reuse and water sensitive urban design practices.	7	WRMS, PDES, AMS	Rous Water	Ongoing
				5.2 Increase scale of rates in Council's fees and charges Purpose: To implement an equitable user-pays approach to water service to facilitate demand management.	8	WRMS	Rous Water	2011/12
6. Coastal Erosion and Impacts of Coastal Development	M	H	E	6.1 Implement planned retreat Purpose: Ensure Council is consistent in implementing planned retreat across the coastal zone.	20	PDES	DECC, Fed Govt.	Commenced
				6.2 Finalise and implement Coastal Zone Management Plan Purpose: To provide Council with a comprehensive and consistent approach to Council's management of the coastal zone.				
				6.3 Develop coastal risk community education program Purpose: To ensure that the community is aware of coastal risks.				

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7. Loss of Existing Biodiversity	L	H	E	7.1 Identify vulnerable habitats Purpose: To protect 'at-risk' habitats, such as coastal floodplains and develop biodiversity management framework to facilitate ecological succession on both public and private lands.	15	PDES	DECC	2010/11
8. Increase and spread of disease	L	M	M	8.1 Identification of vector born disease hot-spots and vulnerable communities Purpose: To increase the resilience of local communities against vector born disease, including outbreak alert systems, monitoring and precautionary education.	Un-ranked	PDES	NSW Dept. Health	2011/12
				8.2 Develop a community and visitor education resource Purpose: To ensure that the community is aware of increasing vector born disease risks.				

*Based on 'Byron and Tweed Shire Council's Climate Change Adaptation Report' 2009

Risk Level Descriptors

Extreme	Risks demand urgent attention at the most senior level and cannot be simply accepted as part of routine operations without executive sanction.
High	Risks are the most severe that can be accepted as part of routine operations without executive sanction but they will be the responsibility of the most senior operational management and reported upon at the executive level.
Medium	Risks can be expected to form part of routine operations but they will be explicitly assigned to relevant managers for action, maintained under review and reported upon at senior management level.
Low	Risks will be maintained under review but it is expected that existing controls will be sufficient and no further action will be required to treat them unless they become more severe.

Source: AGO (2006) 'Climate Change Impacts and Risk Management - A guide for Business and Government'

Glossary

AMS	Asset Management Services – Division of Byron Shire Council
DECC	Department of Environment and Climate Change
DoP	Department of Planning
DPI	Department of Primary Industries
GCS	Governance and Community Services – Division of Byron Shire Council
GM	General Manager Section – Division of Byron Shire Council
NCAHS	North Coast Area Health Service
NPWS	National Parks and Wildlife Service
PDES	Planning, Development and Environment Services – Division of Byron Shire Council
RFS	Rural Fire Service
SES	State Emergency Services
WRMS	Water and Recycling Management Services – Division of Byron Shire Council