



MINUTES

CERTIFICATION OF CONFIRMATION OF COMMITTEE MEETING MINUTES

4 JUNE 2013

I, Ms Francesca Lefante, hereby certify that the following minutes [pages 1 to 77] of the Meeting of **CHIEF EXECUTIVE OFFICERS ADVISORY COMMITTEE** held on 4 June 2013 were confirmed at a meeting of the Committee held on 6 August 2013.

A handwritten signature in black ink, appearing to be 'F. Lefante', written over a horizontal line.

Signature

Ms Francesca Lefante

Person presiding at the Committee Meeting held on 6 August 2013

CHIEF EXECUTIVE OFFICERS ADVISORY COMMITTEE

MINUTES

4 June 2013

(REF: COMMITTEES-15479)

A meeting of the Chief Executive Officers Advisory Committee was held at the EMRC Administration Office, 1st Floor, 226 Great Eastern Highway, BELMONT WA 6104 on **Tuesday, 4 June 2013**. The meeting commenced at **12:30pm**.

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1 DECLARATION OF OPENING AND ANNOUNCEMENT OF VISITORS

The Chairman opened the meeting at 12:30pm.

2 ATTENDANCE, APOLOGIES AND LEAVE OF ABSENCE PREVIOUSLY APPROVED

Committee Members

Ms Francesca Lefante (Chairman)	Chief Executive Officer	City of Bayswater
Mr Bob Jarvis (Deputy Chairman)	Chief Executive Officer	Town of Bassendean
Mr Stuart Cole	Chief Executive Officer	City of Belmont
Ms Rhonda Hardy	Director Corporate Services	Shire of Kalamunda
Mr Mike Foley	Chief Executive Officer	City of Swan
Mr Peter Schneider	Chief Executive Officer	EMRC

Apologies

Mr Clayton Higham	Acting Chief Executive Officer	Shire of Kalamunda
Mr Jonathan Throssell	Chief Executive Officer	Shire of Mundaring

EMRC Officers

Mrs Marilyn Horgan	Director Regional Services
Ms Theresa Eckstein	Executive Assistant to Chief Executive Officer (Minutes)

3 DISCLOSURE OF INTERESTS

Nil

4 ANNOUNCEMENT BY THE CHAIRMAN OR PERSON PRESIDING WITHOUT DISCUSSION

Nil

5 CONFIRMATION OF MINUTES OF PREVIOUS MEETINGS

5.1 MINUTES OF THE CHIEF EXECUTIVE OFFICERS ADVISORY COMMITTEE MEETING HELD ON 2 APRIL 2013

That the minutes of the Chief Executive Officers Advisory Committee meeting held on 2 April 2013, which have been distributed, be confirmed.

CEOAC RESOLUTION(S)

MOVED MR COLE

SECONDED MR FOLEY

THAT THE MINUTES OF THE CHIEF EXECUTIVE OFFICERS ADVISORY COMMITTEE MEETING HELD ON 2 APRIL 2013 WHICH HAVE BEEN DISTRIBUTED, BE CONFIRMED.

CARRIED UNANIMOUSLY

6 PRESENTATIONS

Nil



7 ANNOUNCEMENT OF CONFIDENTIAL MATTERS FOR WHICH THE MEETING MAY BE CLOSED TO THE PUBLIC

Nil

8 BUSINESS NOT DEALT WITH FROM A PREVIOUS MEETING

Nil



9 REPORTS OF OFFICERS

9.1 SPONSORSHIP PROPOSAL FOR REGIONAL YOUTH WORK SUMMIT

REFERENCE: COMMITTEES-15588

PURPOSE OF REPORT

To seek Council approval of a sponsorship request for \$10,369 from the Rise Community Support Network to assist in the delivery of the Youth Work Summit 2013.

KEY ISSUES AND RECOMMENDATION(S)

- The EMRC has administered an Occasional Grants and Sponsorship Policy since 2001. Subject to approval through the annual budget process, an amount of \$30,000 is allocated for this purpose.
- Sponsorship through the Occasional Grants and Sponsorship Policy has been requested by the Rise Community Support Network to assist in the delivery of an inaugural Youth Work Summit 2013.
- The project aligns with the regional youth projects proposed in the Regional Services Project Funding Summary 2013/2014 – 2017/2018 to promote collaboration, peer support and training opportunities for those working with young people in Perth's Eastern Region.
- The Rise Community Support Network sponsorship application has been assessed against the criteria within the EMRC's Occasional Grants/Sponsorship Policy, receiving 39 points out of a maximum of 45 points. Under the policy, a benchmark of 27 points is required before sponsorship applications are provided to Council.

Recommendation(s)

That Council approves sponsorship of \$10,369 from the Occasional Grants and Sponsorship Policy 2013/2014 to the Rise Community Support Network to assist in the delivery of the Youth Work Summit 2013, subject to the approval of the 2013/2014 budget.

SOURCE OF REPORT

Director Regional Services

BACKGROUND

The EMRC has administered an Occasional Grants and Sponsorship Policy since 2001 (Policy 3.4 EMRC-121640). The aim of EMRC's Occasional Grants and Sponsorship Policy is to support, through 'once only' non recurrent grants and sponsorships, significant initiatives that contribute to the achievement of regional development strategies as defined in the EMRC's Strategic Plan.

Funding may be available to member Councils and regionally based not for profit organisations to support community-based proposals that aim to achieve the EMRC's strategic objectives or assist the EMRC to achieve its aims through increased profile and awareness in the community of its role, programmes and services. Subject to approval through the annual budget process, an amount of \$30,000 is allocated for this purpose.

Major events supported through the EMRC Occasional Grants and Sponsorship Policy have included:

- Town of Bassendean Centennial Concert featuring Rolf Harris held in 2001 - \$25,000;
- Shire of Mundaring Centennial Concert featuring WA Symphony Orchestra held in 2003 - \$25,000;
- Canoe World Championships held in Bayswater in 2005 - \$25,000;



Item 9.1 continued

- Visitor Servicing Conference held in Swan in 2006 - \$20,000;
- Tour de Perth national road cycling race held in Kalamunda and Mundaring in 2007- \$7,350;
- National Transplant Games hosted by Belmont in 2008 - \$20,000;
- Public Transport Forums held in partnership with Curtin University in 2010 - \$15,000;
- Maylands Sustainable Forum in 2011 - \$8,000; and
- Cities as Water Supply Catchments Program to establish a Cooperative Research Centre for Water Sensitive in 2011 - \$10,000.

REPORT

An application for sponsorship through the Occasional Grants and Sponsorship Policy has been received from the Rise Community Support Network to assist in the delivery of an inaugural regional Youth Work Summit 2013 in Perth's Eastern Region.

The Rise Community Support Network works with young people who may be struggling in areas of homelessness, education, relationships and family issues. Through the Swan Networking, Engagement, Strategy and Training project (Swan NEST), the Rise Community Support Network is working to develop an integrated youth service system in the north eastern region.

To be held on 23 August 2013, the Youth Work Summit will contribute to strengthening partnerships, collaboration and strategic development of the youth sector in the region. The aim of the Summit is two-fold:

- To showcase both the good practice expertise and skills within the north east region and those delivered in the broader youth work industry; and
- To increase awareness of best practice approaches to strengthening collaboration, sector development and youth inclusive practice.

Being the inaugural Summit for the region, it is anticipated that between 50 - 100 delegates will attend predominantly from the local government and the not-for-profit sector. The Summit is aimed at individuals and services that work directly with young people and/or offer a support and planning role to young people in the north east metropolitan region.

A call for abstracts will go out to all agencies delivering youth services in the north east region who can deliver on one of the three workshop themes:

1. Creating new opportunities through partnership;
2. Youth workers as partners in fostering sector leadership; and
3. Engaging young people as a participatory partner.

The Rise Community Support Network is seeking sponsorship of \$10,369 to assist in the delivery of the Youth Work Summit 2013. The sponsorship application has been assessed against the assessment criteria endorsed by Council, receiving a total score of 39 points out of a maximum of 45 points as outlined in the Occasional Grants and Sponsorship Policy Assessment Form (Attached). Under the EMRC's Occasional Grants and Sponsorship Policy, a proposal must receive a minimum benchmark level of 27 points before being considered by Council.

Key considerations in making the assessment included:

- All member Council youth workers will be invited to attend the Summit;
- The project aligns with the regional youth projects proposed in the Regional Services Project Funding Summary 2013/2014 – 2017/2018 to promote collaboration, peer support and training opportunities for those working with young people in Perth's Eastern Region;
- The project is a new initiative that supports the development of a regional youth network and provides support for agencies involved in the provision of youth services in the region;



Item 9.1 continued

- The EMRC's logo will appear on the Youth Work Summit Programme and the EMRC will receive two complementary full day registrations for the Summit, an information stall at the Youth Work Summit for promotion and information provision and the opportunity for banner placement at the Youth Work Summit;
- The Youth Work Summit is supported by the Youth Affairs Council of Western Australia (YACWA), Parkerville Children and Youth Care Inc and the City of Swan who are represented on the Summit working group along with representatives from Sorcit Partnerships Brokers and the Rise Youth Connections Program;
- The North East Youth Organisations Network (covering youth organisations in Bassendean, Mundaring and Swan) supports the Summit; and
- There is the opportunity to develop relationships with youth service agencies across the Region which support the delivery of EMRC regional youth projects. These activities support those underway or proposed by member Councils, the community sector and government and complement the direction and initiatives already outlined in the Regional Economic Development Strategy, the Regional Environment Strategy and the Regional Advocacy Strategy.

It is proposed that the Rise Community Support Network receive sponsorship of \$10,369 towards the delivery of the inaugural Youth Work Summit 2013.

STRATEGIC/POLICY IMPLICATIONS

EMRC 2022 – 10 Year Strategic Plan

Key Result Area 2 - Social Opportunities

- To facilitate social opportunities within the region and assist member Councils achieve their social outcomes.

Key Result Area 3 - Economic Development

- To facilitate the sustainable economic development of the region.

Policy 3.4 Occasional Grants / Sponsorship Policy

FINANCIAL IMPLICATIONS

Regional Development Grant/Sponsorship funding of \$30,000 is allocated in 2013/2014 Budget.

SUSTAINABILITY IMPLICATIONS

Strengthening regional networks and enhancing the skills of those working within the youth sector will improve the quality of services provided by agencies and will provide greater opportunities for resource sharing and collaboration between agencies. Strong regional networks can support the development of additional programs, services and facilities across the Region thereby improving access and services for young people.



Item 9.1 continued

MEMBER COUNCIL IMPLICATIONS

Member Council	Implication Details
Town of Bassendean City of Bayswater City of Belmont Shire of Kalamunda Shire of Mundaring City of Swan	Member Councils will have the opportunity to participate in the Youth Work Summit 2013 to strengthen partnerships, collaboration and strategic development of the youth sector in the eastern region.

ATTACHMENT(S)

Occasional Grants and Sponsorship Policy Assessment Form (Ref: Committees-15623)

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION(S)

That Council approves sponsorship of \$10,369 from the Occasional Grants and Sponsorship Policy 2013/2014 to the Rise Community Support Network to assist in the delivery of the Youth Work Summit 2013, subject to the approval of the 2013/2014 budget.

CEOAC RECOMMENDATION(S)

MOVED MR FOLEY

SECONDED MR COLE

That Council approves sponsorship of \$10,369 from the Occasional Grants and Sponsorship Policy 2013/2014 to the Rise Community Support Network to assist in the delivery of the Youth Work Summit 2013, subject to the approval of the 2013/2014 budget.

CARRIED UNANIMOUSLY



3.4 Occasional Grants and Sponsorship Policy

Assessment Form

PURPOSE

To provide once off non recurrent grant funding or sponsorship to support significant initiatives conducted in Perth's Eastern Region.

POLICY STATEMENT

1. The EMRC facilitates the development and implementation of regional strategies and the provision of services and initiatives for the benefit of Perth's Eastern Region.
2. The aim of EMRC's Occasional Grants and Sponsorship Policy is to support, through 'once only' non recurrent grants and sponsorships significant initiatives that contribute to the achievement of regional development strategies as defined in the EMRC's Strategic Plan:
3. This does not preclude consideration of funding initiatives other than regional development which may be provided for in the whole range of EMRC objectives and strategies.
4. Funding may be available from the EMRC to member Councils and regionally based not for profit organisations to support community-based proposals that aim to achieve the EMRC's strategic objectives, or, assist the EMRC to achieve its aims through increased profile and awareness in the community of its role, programmes and services.
5. All proposals will be assessed against the following assessment criteria which has been endorsed by Council and will be subject to review from time to time.
6. Proposals that meet the accepted benchmark will be referred to Council for consideration.
7. A proposal must receive a minimum benchmark level of 27 points in order to be referred to Council for consideration. Council will be advised of all proposals received that do not achieve the minimum benchmark through officer reports and/or information bulletins.

ASSESSMENT

Please mark score for each criteria.

Project Title	High level	Moderate level	Medium level	Minimum level	Low level	Does not address
Youth Work Summit 2013						
The proposal has the potential to benefit most of the region or at least three member Councils. Comments: <i>This proposal has the potential to benefit all six member Councils.</i>	5 X	4	3	2	1	0
The proposal will have a high positive impact or make a significant contribution to economic development and/or community development in the region. Comments:	5	4 X	3	2	1	0
The proposal has clearly defined sustainable and measurable outcomes. Comments:	5	4 X	3	2	1	0
The proposal is accessible by all sections of the community that it is targeting. Comments: <i>A full day registration to the proposed Summit will cost attendees \$50.</i>	5	4 X	3	2	1	0
The proposal represents a new initiative and does not duplicate or adversely impact on existing services/facilities in the region. Comments:	5	4 X	3	2	1	0
The degree of support/contributions the proposal has received from groups/stakeholders in the region. Comments: <i>The proposal is supported by the Youth Affairs Council of WA, City of Swan and other organisations on the Summit working group.</i>	5	4 X	3	2	1	0
The proposal represents good 'value for money'. Comments: <i>The proposal will support implementation of prioritised actions in the Regional Youth Futures programme and builds on several other funding sources.</i>	5 X	4	3	2	1	0
The proposal has the potential to seed a new initiative into the region. Comments:	5	4 X	3	2	1	0
The proposal will build and strengthen relationships amongst stakeholders in the region. Comments: <i>The proposed Youth Work Summit 2013 will bring together individuals and service providers from across Perth's Eastern Region.</i>	5 X	4	3	2	1	0



Project Title	Youth Work Summit 2013
Total Score Received	39 /45
Assessed by	Samantha Robshaw
Position	Acting Manager Regional Development
Date	14/05/2013
Submission referred to Council	20/06/2013

Associated Documents

3.4 Occasional Grants/Sponsorship Policy	EMRC 121640
EMRC Occasional Grants and Sponsorship Policy Application Form	EMRC 158836
EMRC Occasional Grants and Sponsorship Application Guidelines	EMRC 158830



9.2 FUTURE PROOFING PERTH'S EASTERN REGION

REFERENCE: COMMITTEES-15661

PURPOSE OF REPORT

To provide the outcomes of a review of the *Future Proofing Perth's Eastern Region* project and seek Council approval for proposed actions to inform the development a new Regional Climate Change Adaptation Action Plan for 2013-14 to 2015-2016.

KEY ISSUES AND RECOMMENDATION(S)

- Adapting to the changing climate, particularly in South West WA, represents one of the biggest challenges and opportunities faced by Local Government and must be addressed in a continuing and sustained manner at both a regional and local level.
- Council approved the Future Proofing Perth's Eastern Region - Regional Climate Change Adaptation Action Plan (RCCAAP) 2009-2013 on 24 September 2009. The Plan identified regional risks and actions to assist local government operations, services and communities in adapting and building resilience to climate change.
- The RCCAAP has been utilised for advocacy for climate change adaptation action throughout the Region and to better position the EMRC and its member Councils to leverage funding, such as \$647,000 from the federal government's Community Energy Efficiency Program.
- Since approval of the RCCAAP, each member Council has also developed, or is in the process of developing, Local Climate Change Adaptation Action Plans (LCCAAPs).
- In May 2012, the EMRC and the majority of its member Councils signed the Western Australian Local Government Declaration on Climate Change, recognising the significant and continuing effects that climate change will have on the Region and pledging ongoing action on climate change mitigation and adaptation.
- Both the RCCAAP and LCCAAPs contain actions which extend beyond 2013, and some LCCAAP actions are noted to continue at least until 2030.
- In October 2012, Council approved to continue implementation of the *Future Proofing Perth's Eastern Region* project to June 2015, and to consider proposed future actions following a review of the *Regional Climate Change Adaptation Action Plan (RCCAAP) 2009-2013*.
- Upon consultation with the Regional Environment Advisory Group (REAG) and other staff within Member Councils, it is now proposed that the timeframe for a revised series of actions be extended to June 2016.

Recommendation(s)

That:

1. Council supports continued action on climate change through implementation of the *Future Proofing Perth's Eastern Region* project until June 2016.
2. Council approves the proposed actions outlined in the attached Report Regional Climate Change Adaptation Action Plan 2009-2013 Major Review for inclusion in a new Regional Climate Change Adaptation Action Plan for 2013-2014 to 2015-2016.

SOURCE OF REPORT

Director Regional Services
Manager Environmental Services



Item 9.2 continued

BACKGROUND

During the EMRC's 2007-2008 strategic planning processes, the EMRC and member Councils identified climate change as a key emerging issue affecting the Region.

A report on Future Proofing Perth's Eastern Region – Adapting to Climate Change was presented to Council on 21 February 2008. Council resolved to (Ref: Committees-7378):

- "1. SUPPORT THE FUTURE PROOFING PERTH'S EASTERN REGION – ADAPTING TO CLIMATE CHANGE PROJECT.*
- 2. CONSIDER \$43,375 FOR ALLOCATION IN THE 2008/09 BUDGET FOR IMPLEMENTATION OF FUTURE PROOFING PERTH'S EASTERN REGION – ADAPTING TO CLIMATE CHANGE SUBJECT TO FUNDING SUPPORT OF \$50,000 THROUGH THE AUSTRALIAN GREENHOUSE OFFICE LOCAL ADAPTATION PATHWAYS PROGRAM."*

In May 2008, the EMRC received \$50,000 funding from the Australian Government's Department of Climate Change (formerly Australian Greenhouse Office) Local Adaptation Pathways Programme to assist the Region to undertake climate change risk assessments and adaptation planning. On that basis, Council agreed to contribute funding of \$43,375 to the project.

Development of the future proofing project and a regional adaptation action plan occurred through activities including formation of a steering group, production of an issues paper, a regional forum, as well as adaptation planning and risk assessment workshops and reports. (Ref: Committees-9699).

On 24 September 2009, Council approved the *Future Proofing Perth's Eastern Region - Regional Climate Change Adaptation Action Plan (RCCAAP) 2009-2013* which identified regional risks and actions that will better assist local government operations and services, and their communities, in adapting and building resilience to climate change. (Ref: Committees-9869) Since approval of the RCCAAP, the EMRC and member Councils have been recognised as leaders in understanding and adapting to climate change.

The Future Proofing project is based on the application of a risk assessment methodology accredited by the Australian Government. It complements and overarches other emission reduction initiatives the Region is involved in, or has previously been involved in, including Cities for Climate Protection (CCP), Perth Solar City, ICLEI Water Campaign, Water and Energy Auditing, Achieving Carbon Emissions Reduction (ACER) project, and various Swan-Helena River initiatives.

The majority of member Councils have reinforced their ongoing commitment to climate change mitigation and adaptation by signing a Local Government Declaration on Climate Change, and producing their own specific Local Climate Change Adaptation Action Plans (LCCAAPs), with the support of the EMRC.

A combination of the RCCAAP and LCCAAPs have resulted in the EMRC and its member Councils being at the forefront of adapting to the changing climate of the South West WA region.

At the Ordinary Meeting of Council of 18 October 2012, Council agreed to the following actions (Ref: Committees-14753):

- 1. COUNCIL APPROVES THE CONTINUATION OF THE IMPLEMENTATION OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN 2009-2013 TO JUNE 2015.*
- 2. COUNCIL NOTES THAT A REVIEW OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN 2009-2013 WILL BE UNDERTAKEN IN 2013 AND PROPOSED ACTIONS FOR 2014-2015 WILL BE PRESENTED TO COUNCIL IN JUNE 2013.*
- 3. COUNCIL AGREES TO CONSIDER INCLUSION OF \$50,000 IN THE 2013-2014 AND 2014-2015 EMRC BUDGETS FOR THE CONTINUED IMPLEMENTATION OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN TO 2015 AND ASSISTANCE TO MEMBER COUNCILS FOR IMPLEMENTATION OF THEIR LOCAL CLIMATE CHANGE ADAPTATION ACTION PLANS.*



Item 9.2 continued

4. **COUNCIL NOTES THAT A MEMBER COUNCIL CONTRIBUTION OF \$15,000 PER ANNUM IS PROPOSED TO PROGRESS REGIONAL INITIATIVES UNDER THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN AND ASSIST WITH LOCAL CLIMATE CHANGE ADAPTATION ACTION PLANS TO 2015."**

REPORT

Upon reviewing the RCCAAP 2009–2013, and after consulting with the Regional Environment Advisory Group (REAG) and other staff within Member Councils, it is proposed that the timeframe for a revised series of actions be extended to June 2016, and that these actions inform a new Regional Climate Change Adaptation Action Plan (RCCAAP) for the 2013-2016 period.

The key reasons for extending the actions to 2016 are to have a more realistic timeframe to complete priority actions, and to align the RCCAAP with WA State Government election cycles. A timeframe to June 2016 will allow sufficient time for another review to be completed and the potential for the Action Plan to be redeveloped and then promoted to politicians prior to the March 2017 state elections.

The *Regional Climate Change Adaptation Action Plan (RCCAAP) 2009–2013* identified 82 actions across ten Priority Risk Areas, in order to begin the long-term process of addressing adaptation.

Throughout the 2009 – 2013 period, progress has been positive at a regional and local level across each of the Priority Risk Areas, with adaptation beginning to be embedded or 'mainstreamed' within the decision-making and operation of member Councils and their communities.

The RCCAAP has also guided each member Council in developing their own Local Climate Change Adaptation Action Plan (LCCAAP), further enabling the integration and embedding of adaptation measures across all departments within each Council and into the day to day planning and decision making of Councils.

The actions identified in the RCCAAP have successfully guided and advanced advocacy for climate change adaptation throughout the region. Multiple agencies have been made aware of the Region's needs and priorities, including WALGA, CSIRO, Swan River Trust, DFES (formerly FESA), DEC's Climate Change Unit, and the State Departments of Planning, Water, and Health.

A number of opportunities have arisen for EMRC and member Council input into key State policies and strategies, such as the Draft State Planning Strategy, so that decisions made at a State level support adaptation at a local level. The EMRC have made a number of such submissions, including on alternatives to overhead power, and on the State Coastal Planning Policy, which resulted in an amendment of the coastal setback distance.

Networks have been created and strengthened through representation of adaptation needs on committees including WALGA's Climate Change Senior Officers Group and the Cooperative Research Centre (CRC) for Water Sensitive Cities. EMRC have also contributed to university research and the creation of a framework to assist Local Governments to mainstream adaptation into their planning and operations.

The RCCAAP has better positioned the EMRC and its member Councils to identify and leverage emerging opportunities. An example of such leverage can be seen in the development of EMRC energy and water auditing services, and the successful application for \$647,000 in regional funding through the Australian government's Community Energy Efficiency Program (CEEP), one of only seven WA recipients from the 63 successful applicants across Australia.

The EMRC have coordinated the Perth Solar City project for the Region since 2009, produced and disseminated an issues paper in relation to the carbon price and have introduced the ACER project for monitoring participating member Council's carbon emissions, as well as Home Energy Audit Kits.



Item 9.2 continued

Member Councils have been provided with regular and timely information on a range of adaptation issues such as risks to infrastructure and better infrastructure design, water reuse, seasonal water resource updates, emergency management upgrades, mapping of Acid Sulfate Soils, heat stress, updated floodplain data, as well as research done on flood modelling for the region, including the predicted impacts of sea level rise and storm surge. Upcoming climate change risk awareness seminars are being planned, tailored to each local government service area, such as planning, community health, and parks and gardens.

A 2011 forum provided elected members and staff with information on the important insurance and legal implications of climate change impacts for Local Government, implications for planning approvals and building designs, and factoring climate change adaptation into decision making and emergency management.

The attached Major Review of the RCCAAP 2009–2013 report provides an overview of what has been achieved in relation to Perth’s Eastern Region adapting to climate change. The Report contains the full analysis and results of the review, with each action reviewed to identify those fully or partially completed, and which actions needed clarification, rewording, or consolidation with other actions. The outcome is a revised series of actions shown as Table One to inform the development of a Regional Climate Change Adaptation Action Plan (RCCAAP) for 2013–2014 to 2015–2016.

Table 1 Proposed Actions to inform the Regional Climate Change Adaptation Action Plan 2013-2014 to 2015-2016

Priority Risk Area 1 – Infrastructure Failure	
1.1	Continue to advocate to DoP/WAPC and other relevant agencies for ongoing support and education of member Council Planners so that climate change adaptation is incorporated into planning frameworks at a State and Local level.
1.2	Continue to advocate to DoW and relevant agencies for more specific flood modelling for the Region, including the influence of sea level rise and storm surge, so that member Council's can phase in more robust and appropriate actions to adapt.
1.3	Continue to advocate to DoW and relevant agencies for mapping of groundwater levels and subsidence risks in the Region.
1.4	Continue to provide member Councils with best practice approaches for assessing the risks to their infrastructure from climate change. Provide training as necessary.
1.5	Continue to advocate to Water Corporation and relevant agencies to phase in appropriate upgrades to drainage systems in order to cope with flash flooding from the more intense storm events associated with climate change.
1.6	Continue to advocate to WAPC to acquire land in areas at increased risk of flooding due to climate change.
Priority Risk Area 2 – Impacts on Essential Services	
2.1 Power Loss	
2.1.1	Continue to advocate for the delivery of a reliable power supply with the ability to reduce risks in extreme natural disaster conditions (eg. Intense bushfires and storms).
2.1.2	Continue to keep member Councils informed of the latest power and fuel supply solutions and technologies.
2.1.3	Continue to advocate to State Government agencies to develop a public awareness campaign of the potential impacts of climate change.
2.1.4	Continue to advocate to relevant government agencies for residential/industry rebates and incentives to assist energy efficiency and in the transition to renewable energy.



Item 9.2 continued

2.2 Water Availability	
2.2.1	Work with relevant agencies to increase community awareness and improved water conservation measures, including tighter water efficiency targets and increased water recycling.
2.2.2	Advocate to State Government for increased resources for enforcement of regulations relating to Downstream water supply.
Priority Risk Area 3 – Watercourse Damage and Loss	
3.1 Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS)	
3.1.1	Continue to provide member Councils with ongoing information and developments in relation to ASS, including improved mapping of ASS and PASS locations and risk areas.
3.2 Foreshore Erosion and Subsidence	
3.2.1	Continue to partner with the Swan River Trust to work with private landholders in the Region to apply best practice stabilisation techniques to protect the foreshore.
3.2.2	Continue to liaise with relevant agencies to increase community awareness and action for the prevention of river bank erosion.
3.2.3	Continue to advocate for increased awareness and funding for regional projects to protect river foreshore assets.
3.2.4	Continue to provide support for the use of the SRT Best Practice Approaches to Foreshore Stabilisation Manual within member Council's and advocate to State Government for increased funding for river bank management.
3.3 Flooding	
3.3.1	Factor climate change into project briefs for interpretation plan for trails and heritage along Swan and Helena Rivers.
3.4 Sedimentation	
3.4.1	Assist in education about runoff and sedimentation issues and the role the community can play in reducing impacts.
3.4.2	Continue to investigate opportunities to work with relevant agencies to minimise sediment in the stormwater system, reduce blockages and further improve water quality (e.g. water sensitive urban design).
3.4.3	Continue to update and promote the utilisation of relevant policy and guidelines within EMRC's NRM Policy Manual for managing sedimentation issues.
Priority Risk Area 4 – Increasing Bushfires	
4.1	Work with DFES and other relevant agencies to increase awareness within the community about bushfire issues in a changing climate and the role of the local community in reducing the impacts.
4.2	Facilitate a forum of member Council planning and fire control officers and other relevant stakeholders (e.g. DFES) to discuss issues in relation to the built environment and bushfire risk in a changing climate.
4.3	Advocate to State Government and relevant agencies to continue to improve emergency warning systems.
Priority Risk Area 5 – Water Decline and Reduced Water Quality	
5.1	Through the ICLEI Water Campaign™ activities and advocacy to the DoH, continue to support member Councils in identifying sites for the increased and safe use of recycled water.
5.2	Continue to monitor research on actual and potential changes in rainfall and the impact on regional water resources.



Item 9.2 continued

5.3	Advocate to State Government and relevant agencies to address water quality and leaching issues through the provision of sewerage services to industrial areas.
5.4	Continue to support participating member Council's water quality and water conservation actions through the Water Campaign™ program.
Priority Risk Area 6 – Greenhouse Gas Emissions and Related Air Pollution	
6.1	Monitor developments at the Australian Government level in relation to energy efficiency and mitigation of greenhouse emissions.
6.2	Continue to provide emissions monitoring for participating member Councils and support mitigation actions (i.e. ACER program).
6.3	Investigate opportunities to assist member Councils and the community to adapt to a low carbon environment.
Priority Risk Area 7 – Loss of Ecosystems and Provision of Public Open Space	
7.1	Monitor emerging issues for pest and weed management in relation to climate change.
7.2	Work to enable landowners to mitigate the impacts of climate change on the natural features on their properties (particularly along the river, watercourses and bushland areas).
7.3	Develop research priorities for biodiversity adaptation to climate change.
7.4	Provide practical information to local communities on how to reduce stressors such as erosion or pollution.
7.5	Work with relevant agencies to identify and protect aquatic ecosystems that are important for providing connectivity and potential refugia in the landscape under likely future climate scenarios.
Priority Risk Area 8 – Decline in Population Health and Wellbeing	
8.1 Health	
8.1.1	Advocate to State Government for continued education of the community about heat stress and other potential impacts of climate change on human health.
8.1.2	Provide education/training for member council staff about heat stress and other potential impacts of climate change on human health.
8.2 Displaced People	
8.2.1	Monitor information on the potential impacts of 'climate refugees' on housing and community services in the Region.
Priority Risk Area 9 – Economic – Challenges and Opportunities	
Actions as per EMRC Regional Strategies, including transport (RITS) and economic development (REDS).	
Priority Risk Area 10 – Changing Leadership and Development Requirements	
10.1	Continue to monitor and inform member Councils of changes in LG legal liabilities with respect to climate change.
10.2	Continue to assist member Councils with implementation of LCCAAP's.
10.3	Ensure incorporation of climate change risks into EMRC's regional strategies and actions, such as transport and economic development.
10.4	Continue to provide up-to-date and relevant climate change information to member Councils in a timely manner.
10.5	Work with State Government Departments and relevant agencies to raise community awareness of the implications of climate change and provide practical steps they can take to adapt.
10.6	Continue to investigate further studies on regional scenarios/analogues and the implications for member Councils.



Item 9.2 continued

10.7	Advocate to State Government for funding to implement the proposed actions in the Government's 'Adapting to our changing climate', and to build policy cohesion across all agencies regarding adaptation.
10.8	Continue to advocate to WALGA to provide leadership in best practices for Local Government adaptation.
10.9	Continue to monitor job specific information, training and resources required by LG staff regarding adaptation.

The Australian Local Government Association notes that "addressing climate change is one of the greatest imperatives of the 21st Century" (ALGA 2010). Adapting to our changing climate, particularly in South West WA, represents one of the biggest challenges and opportunities faced by Local Government and must be addressed in a continuing and sustained manner at both a regional and local level.

Climate change adaptation is at an early stage and it is an emerging issue that necessitates a long-term approach, with regular monitoring and evaluation of progress, the incorporation of new information and knowledge as it becomes available, and sometimes a good deal of patience and persistence.

A number of the actions proposed for 2013–2016 highlight this by the fact that they were in the original RCCAAP and have progressed somewhat, however continued action is still required. It is proposed that the timeframe for a revised series of actions be extended to June 2016, and that these actions inform a new Regional Climate Change Adaptation Action Plan (RCCAAP) for 2013-2014 to 2015-2016.

The draft Regional Climate Change Adaptation Action Plan (RCCAAP) for 2013-2014 to 2015-2016 will be prepared and presented to Council in September 2013.

STRATEGIC/POLICY IMPLICATIONS

Key Result Area 1 – Environmental Sustainability

- 1.5 To contribute towards improved regional air, water & land quality and regional biodiversity conservation
- 1.6 To address climate change issues within the Region

Key Result Area 4 – Good Governance

- 4.1 To improve Member Council and EMRC financial viability
- 4.2 To provide advice and advocacy on issues affecting Perth's Eastern Region

FINANCIAL IMPLICATIONS

The implementation plan will be partially met from the EMRC's budget allocation of \$50,000 per year. Proposed contributions of \$15,000 per year per member Council (excluding Swan) to support the Regional and Local Action Plans have been included for consideration in the annual member Council budget proposals.

SUSTAINABILITY IMPLICATIONS

The environmental, social and economic costs of not adapting to climate change will be significant without adequate adaptation strategies in place.



Item 9.2 continued

Continuing a commitment to climate change adaptation at both a regional and local level will:

- Ensure EMRC and its member Councils remain leaders in the area of climate change adaptation;
- Promote resilience and support local communities in partnership with Local Government to improve the management of the local environment and community public assets;
- Secure future-focussed transport, planning and building systems that support low emissions and accommodate a changed climate;
- Identify and support vulnerable communities in Perth's Eastern Region to adjust to the cost of a low emissions economy so they are not further disadvantaged as a result of climate change; and
- Promote innovation and regional security in order to position the Region for economic opportunities resulting from climate change such as new industry, markets and technologies.

MEMBER COUNCIL IMPLICATIONS

Member Council

Implication Details

Town of Bassendean

City of Bayswater

City of Belmont

Shire of Kalamunda

Shire of Mundaring

City of Swan

Continuing a commitment to climate change adaptation at both a regional and local level will ensure future liability issues can be addressed now and reduce the potential for member Councils to face litigation resulting from a lack of climate change adaptation planning.

It is proposed that a contribution of \$15,000 from each member Council is allocated per year. These funds will be used to progress Regional and Local Climate Change Adaptation Action Plans for member Councils and included for consideration in the annual budget process.

The City of Swan withdrew from the Future Proofing project in July 2010

ATTACHMENT(S)

Major Review - EMRC (Ref: Committees-15629) Regional Climate Change Adaptation Action Plan 2009–2013

VOTING REQUIREMENT

Simple Majority

RECOMMENDATION(S)

That:

1. Council supports continued action on climate change through implementation of the *Future Proofing Perth's Eastern Region* project until June 2016.
2. Council approves the proposed actions outlined in the attached Report Regional Climate Change Adaptation Action Plan 2009-2013 Major Review for inclusion in a new Regional Climate Change Adaptation Action Plan for 2013-2014 to 2015-2016.



Item 9.2 continued

CEOAC RECOMMENDATION(S)

MOVED MR COLE

SECONDED MS HARDY

That:

1. Council supports continued action on climate change through implementation of the *Future Proofing Perth's Eastern Region* project until June 2016.
2. Council approves the proposed actions outlined in the attached Report Regional Climate Change Adaptation Action Plan 2009-2013 Major Review for inclusion in a new Regional Climate Change Adaptation Action Plan for 2013-2014 to 2015-2016.

CARRIED UNANIMOUSLY

A decorative graphic on the right side of the title bar, consisting of a yellow and dark blue semi-circle overlapping a white circle.

**Regional Climate Change Adaptation Action Plan
2009-2013**

Major Review

June 2013

DRAFT

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Acknowledgements

The EMRC would like to thank the members of the Regional Environment Advisory Group for their input and feedback on the review of the Regional Climate Change Adaptation Action Plan (RCCAAP) 2009 - 2013 and the development of a new Action Plan for 2013 – 2016.

Executive Summary

During the EMRC's 2007-2008 strategic planning process, climate change was identified as a key emerging issue affecting Perth's Eastern Region.

The Regional Climate Change Adaptation Action Plan (RCCAAP) 2009 – 2013 used a risk management methodology to identify a series of 82 actions across ten Priority Risk Areas, in order to begin the long-term process of addressing adaptation.

Since that time, the majority of the member Councils has reinforced their ongoing commitment to adaptation by signing a Local Government Declaration on Climate Change, and producing their own specific Local Climate Change Adaptation Action Plans (LCCAAPs).

The actions identified in the RCCAAP have successfully guided and advanced advocacy for climate change adaptation needs and priorities throughout the region. Input has been provided for key State policies and strategies, such as the Draft State Planning Strategy, so that decisions made at a State level support adaptation at a local level. Submissions include alternatives to overhead power and the State Coastal Planning Policy, which resulted in an amendment of the coastal setback distance.

Networks have been created and strengthened through representation of adaptation needs on committees including WALGA's Climate Change Senior Officers Group and the Cooperative Research Centre (CRC) for Water Sensitive Cities. The EMRC has also contributed to university research and the creation of a framework to assist Local Governments to mainstream adaptation into their planning and operations.

The RCCAAP has better positioned the EMRC and its member Councils to identify and leverage emerging opportunities, such as energy and water auditing services, funding through the Community Energy Efficiency Program (CEEP), and Perth Solar City and ACER projects.

RCCAAP actioning has helped keep member Councils and their communities informed of the latest best practice climate change impact and adaptation information and knowledge and provided appropriate resources and training for Council staff.

Climate change adaptation is at an early stage and it is an emerging issue that necessitates a long-term approach, with regular monitoring and evaluation of progress, and the incorporation of new information

and knowledge as it becomes available. A number of the actions proposed for 2013 – 2016 highlight this by the fact that they were in the original RCCAAP, have progressed somewhat, but we must ‘continue to’ act on them, and continue to provide our community and our staff with the knowledge, skills and support to plan and implement adaptation actions.

This major review of the RCCAAP 2009 – 2013 provides an overview of what has been achieved thus far in relation to Perth’s Eastern Region adapting to climate change. It has looked closely at each of the Actions to identify which have been fully or partially completed, and which Actions needed clarification, rewording, or consolidation with other Actions. The outcome is a revised series of Actions to inform the development of a Regional Climate Change Adaptation Action Plan (RCCAAP) for the 2013-2016 period.

Member Councils and the EMRC are to be congratulated for their foresight in the development of climate change adaptation strategies and actions for the benefit of Perth’s Eastern Region.

DRAFT

Purpose of this Report

The purpose of this report is to present the findings of the desk top based Major Review of the Regional Climate Change Adaptation Action Plan (RCCAAP) 2009 - 2013. This review provides an update on the progress of the Action Plan for member Councils and also provides recommendations for the future development of an Action Plan for 2013 - 2016.

Background

The Regional Climate Change Adaptation Action Plan (RCCAAP) 2009 - 2013 was developed from 2007 to 2009 by the EMRC in partnership with its member Councils. The RCCAAP conveys the shared vision of the member Councils and the many stakeholders involved in its development.

Throughout the lifetime of the RCCAAP, member Councils have been regularly informed of progress across the ten Priority Risk Areas identified. At the same time, and as one of the 82 actions in the RCCAAP, member Councils have gone on to develop their own Local Climate Change Adaptation Action Plan (LCCAAP).

One full-time officer has been employed at the EMRC to facilitate implementation of the RCCAAP and assist in the development and implementation of each LCCAAP. Until now, a formal review of the RCCAAP has not been undertaken.

At the EMRC Council meeting of 18 October 2012 the following actions were recommended and carried unanimously:

1. COUNCIL APPROVES THE CONTINUATION OF THE IMPLEMENTATION OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN 2009-2013 TO JUNE 2015.
2. COUNCIL NOTES THAT A REVIEW OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN 2009-2013 WILL BE UNDERTAKEN IN 2013 AND PROPOSED ACTIONS FOR 2014-2015 WILL BE PRESENTED TO COUNCIL IN JUNE 2013.
3. COUNCIL AGREES TO CONSIDER INCLUSION OF \$50,000 IN THE 2013-2014 AND 2014-2015 EMRC BUDGETS FOR THE CONTINUED IMPLEMENTATION OF THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN TO 2015 AND ASSISTANCE TO MEMBER COUNCILS FOR IMPLEMENTATION OF THEIR LOCAL CLIMATE CHANGE ADAPTATION ACTION PLANS.
4. COUNCIL NOTES THAT A MEMBER COUNCIL CONTRIBUTION OF \$15,000 PER ANNUM IS PROPOSED TO PROGRESS REGIONAL INITIATIVES UNDER THE FUTURE PROOFING PERTH'S EASTERN REGION - REGIONAL CLIMATE CHANGE ADAPTATION ACTION PLAN AND ASSIST WITH LOCAL CLIMATE CHANGE ADAPTATION ACTION PLANS TO 2015.

(Ref: Committees 14753)

Major Review

The findings and recommendations from the major review are outlined below. For simplicity, the format of this review will follow the structure and sequencing of the RCCAAP 2009 – 2013.

RCCAAP Timeframe

The EMRC recommend a new timeframe for the RCCAAP. The new timeframe is recommended to be from 2013 - 2016, as it allows the Action Plan to align with WA State Government election cycles.

The *Electoral and Constitution Amendment Act 2011 (WA)* established fixed election dates with elections to be held on the second Saturday in March every four years. The next State Election will be held on Saturday, 11 March 2017¹.

The proposed timeframe for the RCCAAP will allow for another major review to be undertaken in early 2016. This provides sufficient time for a major review to be completed and the potential for the Action Plan to be redeveloped and then promoted to politicians prior to the March 2017 State elections. It is additionally recommended that annual reviews be undertaken.

Introduction

The EMRC recommend that:

- the text in the Introduction section be updated as deemed necessary, such as referencing that the City of Swan is no longer participating after withdrawing from the project in 2010
- the Table showing “How Climate Change is likely to affect Perth’s Eastern Region” be updated if necessary, according to the latest predictions from the IPCC and other more localised agencies
- the above updates to the Table be referenced in the text. For example, it should be noted if there has been a variance since 2007 in the IPCC’s predictions of sea level rise by 2030 outside of the range of 3 to 17cm
- a Background section be included in the Introduction or added separately to acknowledge the adaptation work that has already been undertaken in the region, through the RCCAAP 2009 – 2013 and in the development of each LCCAAP.

¹http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BN/2011-2012/AustElections

Regional Strategic Framework for Climate Change Adaptation

The EMRC recommend that:

- the text be updated as deemed necessary

The Role of Government in Adaptation

No recommended changes.

Vision Statement

No recommended changes.

Aim and Principles

No recommended changes.

Priority Risk Areas

No recommended changes.

Risk Analysis

No recommended changes.

Implementation

No recommended changes.

Timeframes

The EMRC recommend that:

- any reference in this section to *Timeframe* be changed to *Timelines* to distinguish the action implementation from the *Timeframe* of the RCCAAP (i.e. 2013-2016) mentioned above
- the Timelines be updated as follows:
 - Ongoing (in progress)*
 - Immediate (2013-2014)
 - Short (2014-2015)
 - Medium (2015-2016)
 - Long (2016-)
- the Comment column be removed
- The Comments in the Ongoing section of the table be placed below the table with an asterisk* to reference them to the Ongoing timeline

Monitoring and Review

The EMRC recommend that:

- the text be updated to indicate that a major review was undertaken in 2013 and that the next major review will be in early 2016.

Acronyms and Abbreviations

Fire and Emergency Services Authority (FESA) Name Change

Fire and Emergency Services Authority (FESA) has had its name changed to the Department of Fire and Emergency Services (DFES). All relevant actions in the RCCAAP will be updated to incorporate this change of name.

Review of Actions

Each of the 82 Actions in the RCCAAP (2009 – 2013) were reviewed with a view to identifying what had been achieved, as well as:

- which actions had been completed and could be deleted
- which actions had been partially completed or were ongoing
- which actions needed to be reworded and/or could be consolidated with other similar actions, and
- new actions that could be added

In addition, Timeframes and Risk Levels for each action were reviewed.

On review, it was felt that the RCCAAP (2009 – 2013):

- contained too many actions to be able to focus on the key priorities in the timeframe given
- contained too much repetition across various Actions and Risk Areas
- contained some actions that were 'too wordy'
- contained some actions that were too broad and others that were too specific
- should work to remove any barriers that hamper implementation of LCCAAPs, and
- take care to avoid repetition with newly developed LCCAAP actions

For ease of reading, at the end of each Risk Area review there is a table which summarises the information presented and the recommendations provided.

Priority Risk Area 1

Infrastructure Failure

Introductory text

No recommended changes.

Actions 1.1 and 1.9

Action 1.1 *Advocate to Department of Planning to hold workshops with Local Government Planners to ensure appropriate planning frameworks are in place to address climate change.*

Action 1.9 *Undertake a regional project developing guidelines that could be incorporated into Local Planning Schemes and development of guidance notes, checklists and Local Planning Policies that member Councils could adopt.*

Actions 1.1 and 1.9 are essentially about member Council (mC) Planning staff having the knowledge, skills and support to plan for the impacts of climate change. The outcomes sought could be seen to be that:

- Local Government (LG) planning staff are educated in climate change risks and adaptation measures
- climate change adaptation is considered in LG planning strategies and decisions
- State Government planning guidelines and policies support LG in adapting to climate change.

During the 2009 – 2013 RCCAAP period, EMRC presented details about relevant actions from the RCCAAP to WALGA and Department of Planning (DoP)/WA Planning Commission (WAPC) staff, detailing Local Government (LG) needs regarding planning policies and guidelines.

In February, 2013, WALGA posted member Councils an information pack regarding adaptation issues requiring consideration by Local Governments as part of land use planning and decision making, providing some guidance as to how these issues may be addressed by the planning system.

Opportunities for member Council input into adaptation planning are provided when DoP/WAPC consults on a range of State Policies and Strategies, such as the:

- Draft State Planning Strategy
- R Codes Review
- Amendment of State Planning Policy (SPP) 2.6: State Coastal Planning Policy
- Liveable Neighbourhoods Review

Member Councils were advised that the Draft State Planning Strategy was open for comment until March 2013, and EMRC provided a Submission to this review. EMRC also provided a Submission on the SPP 2.6: State Coastal Planning Policy, for which the coastal setback distance was recently amended. The Liveable Neighbourhoods Review is currently open for comment.

Moving forward to the revised RCCAAP 2013-2016, the EMRC recommends that Actions 1.1 and 1.9 be merged and reworded to:

Continue to advocate to DoP/WAPC and other relevant agencies for ongoing support and education of member Council Planners so that climate change adaptation is incorporated into planning frameworks at a State and Local level.

As part of this 'new' action, beginning in 2013, the EMRC are proposing to deliver climate change risk awareness seminars for LG staff, including Planning staff, as part of developing skills in incorporating adaptation into their day-to-day work and in future planning.

Member Councils were informed that the LG Planning Association was holding its annual legal update seminar in April, 2013, which was focused on the challenges Local Governments face when approving development in areas that will become the subject of climate change.

Action 1.2

Action 1.2 *Advocate to DoW to utilise and update existing flood modelling to identify priority areas and infrastructure across the region at high risk of flooding. Disseminate on ground implications information to member Councils.*

A significant amount of work has been completed on this action. Member Councils have been:

- informed of general 'bucket-fill' mapping in the region for three sea-level rise scenarios of 0.5m, 0.8m and 1.1m (Geoscience Aust.)
- provided with recent modelling research on the possibility of flooding along the Swan River under current conditions and possible future sea level rise scenarios of 0.5m, 1m and 1.5m (University of WA, School of Environmental Systems Engineering)
- given early access to site-specific advice on updated floodplain data for the region (DoW's Swan Estuary floodplain mapping)

As mentioned earlier, EMRC also provided a Submission on the SPP 2.6: State Coastal Planning Policy, for which the coastal setback distance was recently amended. This Submission was forwarded to the Hon. Lynn MacLaren for inclusion in the Green's Draft Climate Change Readiness (Coastal Planning and Protection) Bill 2012.

More technical (i.e. topography/bathymetry data) and locally specific flood modelling is still required for mC's to be able to identify priority areas and assets at risk and make adaptation decisions with more certainty.

EMRC recommends rewording Action 1.2 to:

Continue to advocate to DoW and relevant agencies for more specific flood modelling for the Region, including the influence of sea level rise and storm surge, so that member Council's can phase in more robust and appropriate actions to adapt.

Action 1.3

Action 1.3 *Advocate to DoW/WC to provide maps of areas in region at high risk of subsidence due to lowering of the groundwater table which may lead to building subsidence and damage to built assets. Disseminate on ground implications information to member Councils.*

EMRC have advocated to DoW's groundwater group for the provision of such mapping. At present, this information does not exist.

EMRC recommends rewording Action 1.3 to:

Continue to advocate to DoW and relevant agencies for mapping of groundwater levels and subsidence risks in the Region.

Action 1.4

Action 1.4 *Investigate the benefits of the EMRC joining the Green Building Council of Australia. If feasible to join then provide relevant information to member Councils to assist with factoring in green building design when building or renovating community assets.*

Some mC's are already members of the Green Building Council of Australia and EMRC is a member of the Sustainable Energy Association (SEA).

Plentiful information now exists on best practice 'green' building design and information on green retrofitting is provided to mCs as it comes to hand, and as part of EMRC's energy and water auditing services. Such practices and principles have become much more mainstreamed over the last few years, along with changes to legislation such as Building Codes. The EMRC feels that this action is no longer required.

Recommendation: **Delete Action 1.4.**

Action 1.5

Action 1.5 *Investigate a risk assessment framework that provides for a best practice approach to undertaking risk assessments of climate change upon specific infrastructure (e.g. roads, paths, play areas etc). Provide training to member Councils on how to use the framework.*

A number of risk assessment frameworks are in the public domain and are transferrable to infrastructure risk assessments and climate change. EMRC utilised such a framework with mC's in the development of the RCCAAP and LCCAAP's - the AGO's *Climate Change Impacts and Risk Management: A guide to business and government.*

EMRC provided mC's with information on *Infrastructure risk assessments – Improving resilience for essential services*, along with reports on managing risks to Australian infrastructure (The Climate Institute), and specific road design guidelines utilised by VicRoads and Main Roads WA (MRWA).

The information to be obtained from a number of other RCCAAP Actions (such as more specific flood modelling) will help to give more certainty and clarity to assessing risks to specific infrastructure.

EMRC recommends rewording Action 1.5 to:

Continue to provide member Councils with best practice approaches for assessing the risks to their infrastructure from climate change. Provide training as necessary.

(Note: this should change to effectively become Action 1.4).

Action 1.6

Action 1.6 *Investigate and feed back to member Councils on actions Water Corporation are undertaking with drainage in relation to climate change.*

EMRC have linked mC's to staff from DoW's Infrastructure Planning Branch should they wish for more information on actions being undertaken regarding drainage infrastructure in specific locations.

Recently, WALGA together with the Swan River Trust, the Department of Water and Water Corporation, have signed a formal commitment to collaboratively improve drainage management within the Swan Canning Coastal catchment - the *Urban Drainage Partnership Agreement*.

EMRC recommends rewording Action 1.6 to:

Continue to advocate to Water Corporation and relevant agencies to phase in appropriate upgrades to drainage systems in order to cope with flash flooding from the more intense storm events associated with climate change.

(Note: this should change to effectively become Action 1.5).

Action 1.7

Action 1.7 *Provide advice to member Councils on the risks to infrastructure and effective adaptation strategies developed through the ongoing development of the National Adaptation Research Plan (NARP).*

EMRC have kept mC's informed of NARP progress specifically related to NCCARF's National Climate Change Adaptation Research Plan for Settlements and Infrastructure. EMRC provided mC's with the recently released *The Role of Regulation in Facilitating or Constraining Adaptation to Climate Change for Australian Infrastructure*, produced by the Australian Government's Department of Climate Change and Energy Efficiency (DCCEE).

NCCARF, and thus the NARP, is due to close as of end of June 2013. The EMRC informs mC's of relevant information in this area as it comes to hand. The EMRC feels that this action is very specific and repeats the work already being undertaken through other Actions.

Recommendation: **Delete Action 1.7.**

Action 1.8

Action 1.8 *Identify existing information, gaps and partnerships in relation to the impacts of climate change on Local Government infrastructure (i.e. roads, paths, drainage) in Perth's Eastern Region. Share information with member Councils.*

The EMRC provided mC's with MRWA's report on *Major Roads at Potential Risk due to Climate Change*. MRWA planners and designers now formally consider the implications of sea level rise and temperature on infrastructure. MRWA are also now considering the implications of changing rainfall patterns on drainage networks.

This Action is similar to others in the RCCAAP, notably 1.5 and 1.7. Therefore, it is felt that this Action should be deleted.

Recommendation: **Delete Action 1.8.**

Action 1.9

See Action 1.1.

Action 1.10

Action 1.10 *Advocate MRWA to improve signage along roads in areas which may be increasingly subject to flood risk.*

This follows on from other Actions regarding first knowing specifically where future flooding is more likely to occur, more often. Member Councils have been informed that MRWA road designers now formally consider the implications of sea level rise, and MRWA have recently begun considering the implications of changing rainfall patterns on drainage networks. It is felt that improving signage will be a natural follow-on when increased flooding begins to occur.

Recommendation: **Delete Action 1.10.**

Action 1.11 (a)

Action 1.11 (a) *Advocate for a review of 'Australian Standard 2870:1996 for Residential slabs and footings – Construction' to ensure adequate climate change tolerances have been considered in relation to ground subsidence.*

The EMRC have pursued this Action and been advised that Australian Standard 2870 was reviewed in 2011 and can be purchased from SAI Global. Neither Standards Australia, the Australian Building

Codes Board or the State Building Control Administrator (Department of Commerce) were able to advise if climate change/subsidence tolerances were included in that review and incorporated in the 2011 Edition.

This Action is very specific and again it is felt that the work done through other RCCAAP Actions will enable this. The National Construction Code (NCC) has been developed to incorporate all on-site construction requirements into a single code. The NCC includes the Building Code of Australia (BCA).

Recommendation: **Delete Action 1.11 (a).**

Action 1.11 (b)

Action 1.11 (b) *Advocate to State Government/WAPC to support codes of practice for ground subsidence and to develop guidance notes for Local Government to support the Australian Standard.*

EMRC have informed mC's that DoP/WAPC currently have no specific plans to undertake this Action, but that, as per Actions 1.1 and 1.9, opportunities for mC input in this area are provided when DoP/WAPC consults on a range of State Policies and Strategies. Therefore, it is felt that this specific Action is already a part of providing support to mC Planning/Building staff, as stated in revised Action 1.1.

Recommendation: **Delete Action 1.11 (b).**

Action 1.12

Action 1.12 *Through the SHRME, advocate to WAPC to acquire land in areas at high risk of flooding i.e. along foreshore and within close proximity to Local Government infrastructure and incorporate appropriate buffers to development along the foreshore.*

As per Action 1.2, EMRC provided a Submission to DoP/WAPC's SPP 2.6 (including revised setback distances), gained access to further data on the predicted local impacts of sea level rise, and informed mC's of access to DoW site-specific advice on updated floodplain data for the region. WAPC does undertake the acquisition of some identified foreshore land, but subdivision policies also require the ceding of such land in appropriate circumstances.

This Action ties in with the work of the SHRMF and other RCCAAP Actions regarding updates to flood modelling. As per Action 1.2, the DoW recently released its updated floodplain data for the region. More localised, technical and specific flood modelling is still required in order to accurately inform Action 1.12.

EMRC recommends rewording Action 1.12 to:

Continue to advocate to WAPC to acquire land in areas at increased risk of flooding due to climate change.

(Note: this should change to effectively become Action 1.6).

Summary – Review of Priority Risk Area 1 – Infrastructure Failure

Action (2009-2013)	Alteration	New Action (2013-2016)
1.1	Merged with 1.9 and reworded.	<i>Continue to advocate to DoP/WAPC and other relevant agencies for ongoing support and education of member Council Planners so that climate change adaptation is incorporated into planning frameworks at a State and Local level.</i>
1.2	Reword.	<i>Continue to advocate to DoW and relevant agencies for more specific flood modelling for the Region, including the influence of sea level rise and storm surge, so that member Council's can phase in more robust and appropriate actions to adapt.</i>
1.3	Reword.	<i>Continue to advocate to DoW and relevant agencies for mapping of groundwater levels and subsidence risks in the Region.</i>
1.4	Delete.	-
1.5	Reword. Now Action 1.4.	<i>Continue to provide member Councils with best practice approaches for assessing the risks to their infrastructure from climate change. Provide training as necessary.</i>
1.6	Reword. Now Action 1.5.	<i>Continue to advocate to Water Corporation and relevant agencies to phase in appropriate upgrades to drainage systems in order to cope with flash flooding from the more intense storm events associated with climate change.</i>
1.7	Delete.	-
1.8	Delete.	-
1.9	Merged with 1.1 and reworded.	See 1.1.
1.10	Delete.	-
1.11a	Delete.	-
1.11b	Delete.	-
1.12	Reword. Now Action 1.6.	<i>Continue to advocate to WAPC to acquire land in areas at increased risk of flooding due to climate change.</i>

Priority Risk Area 2

Impacts on Essential Services

2.1 Power Loss

Introductory text

No recommended changes.

Action 2.1.1

Action 2.1.1 *Advocate to State Government regarding the need to decrease the disruption of power supply to the region by increasing funding support for alternatives to overhead power.*

EMRC made a submission to Energy2031 and has a watching brief on the review of the State Underground Power Program (SUPP). In its pre-budget submission, EMRC advocated for a trial of bushfire vulnerability of powerlines in the Perth Hills as part of Round 6 of the SUPP, to support both The Report of the Perth Hills Bushfire February 2011 and Energy2031.

EMRC recommends rewording Action 2.1.1 to:

Continue to advocate for the delivery of a reliable power supply with the ability to reduce risks in extreme natural disaster conditions (eg. Intense bushfires and storms).

Action 2.1.2

Action 2.1.2 *Investigate current research and directions on power and fuel supply solutions and technologies and keep member Councils informed through the development of a bi-annual climate change newsletter.*

EMRC has kept mC's informed of developments on fuel and power supply solutions and technologies through its networks, as well as Perth Solar City, ACER and Regional Integrated Transport Strategy (RITS) projects. EMRC made submissions to Energy2031 and Low Carbon Communities, and was successful in its application for \$647,000 of Community Energy Efficiency Program (CEEP) funding, which included utilisation of new solutions and technologies.

EMRC has an ongoing watching brief in this area, utilising its networks and access to timely information. In lieu of a newsletter, EMRC provides relevant information to Council officers as it

comes to hand. It was agreed that a bi-annual newsletter would not be an efficient and effective way to keep mC's informed, as such ever-changing information can become out-of-date very quickly.

EMRC recommends rewording Action 2.1.2 to:

Continue to keep member Councils informed of the latest power and fuel supply solutions and technologies.

Action 2.1.3

Action 2.1.3 *Advocate to State Government agencies to develop a public awareness campaign of the potential impacts of climate change and how they may affect electricity and fuel supply.*

EMRC have continued to advocate to DEC's Climate Change Unit and other agencies for a public awareness campaign on the practical implications of a changing climate. In attempts to raise public awareness about climate change impacts on fuel and electricity supply, the EMRC has advocated with Curtin University to State transport and planning departments on public transport issues.

EMRC recommends rewording Action 2.1.1 to encompass not just electricity and fuel, but public awareness of the wider range of practical implications of a changing climate:

Continue to advocate to State Government agencies to develop a public awareness campaign of the potential impacts of climate change.

Action 2.1.4

Action 2.1.4 *Advocate to State Government and Australian Government for measured incentives for alternative energy and improve energy efficiency through the continuation of rebate schemes for installation of insulation, renewable energy systems, solar hot water systems in private residences and local industry and promote schemes through existing community communication channels across the region.*

EMRC has advocated in this area via various written submissions and through Perth Solar City project initiatives. Various local, state and federal incentives and rebates have been enacted in the past 5 years.

The EMRC received significant funding through the CEEP grants, and continues to seek funding to improve industry and householder awareness of the benefits of energy efficiency, namely through the suite of Australian Government Clean Energy Fund grants.

EMRC recommends rewording Action 2.1.4 to:

Continue to advocate to relevant government agencies for residential/industry rebates and incentives to assist energy efficiency and in the transition to renewable energy.

2.2 Water Availability

Introductory text

No recommended changes.

Action 2.2.1

Action 2.2.1 *Increase awareness of water efficiency through ensuring this topic is included in all opportunities, such as through 'Living Smart' and the Water Campaign™, where community engagement is occurring throughout the region.*

Along with its past coordination of Living Smart, EMRC is increasing community water awareness throughout the region via ongoing coordination of the Water Campaign™ and Water Action Plans with Councils. Water auditing has been added to the services EMRC can provide. Along with the general community awareness initiatives mentioned in Action 2.1.3, it is felt that this Action can be incorporated into a reworded Action 2.2.3 (see below).

Recommendation: **Delete. Incorporated into Action 2.2.3.**

Action 2.2.2

Action 2.2.2 *Investigate BCA regulations on grey water retrofitting for all building types and provide ongoing updates on progress to member Councils.*

As well as its work on the Water Campaign™ with mC's, EMRC's Environment Consultants produced a 'Reuse of Greywater in WA' Discussion Paper and continue to advocate to DoH, DoW and other agencies for updated policy and guidelines for greywater re-use. The Australian Building Codes Board's (ABCB's) National Construction Code (NCC) now includes the Building Code of Australia (BCA).

Again, and considering other RCCAAP Actions, it is felt that this Action can be incorporated into a reworded Action 2.2.3 (see below).

Recommendation: **Delete. Incorporated into Action 2.2.3.**

Action 2.2.3

Action 2.2.3 *Advocate State Government to support/strengthen regulations that call for water efficiency targets and expand greywater reuse application areas including indoor use.*

Along with ongoing work on the Water Campaign™, the Waterwise Councils program, water auditing and with Water Action Plans across mC's and the community, the EMRC continue to advocate for stronger targets on water use and more sensible regulations and actions on water reuse.

EMRC recommends rewording Action 2.2.3 and to also incorporate Actions 2.2.1, 2.2.2, and 2.2.4 and 2.2.5:

Work with relevant agencies to increase community awareness and improved water conservation measures, including tighter water efficiency targets and increased water recycling.

(Note: this should change to effectively become Action 2.2.1).

Action 2.2.4

Action 2.2.4 *Investigate Code of Practice for the Reuse of Greywater in Western Australia (2005) to determine approved applications of greywater and provide ongoing information support to member Councils.*

As mentioned above, EMRC's Environment Consultants produced and disseminated a 'Reuse of Greywater in WA' Discussion Paper. EMRC continues to stay on top of any changes to water recycling practices through Water Campaign™ projects and other networks.

Recommendation: **Delete. Incorporated into Action 2.2.3.**

Action 2.2.5

Action 2.2.5 *Investigate Australian Guidelines for Water Recycling: Storm Water Harvesting and Reuse (draft May 2008) with a focus on rainwater harvesting and reuse. Provide ongoing information support to member Councils.*

In 2011/12, EMRC submitted a detailed grant application for stormwater harvesting and re-use across the region. With its involvement with the CRC for Water Sensitive Cities, further research will be conducted on water recycling. As with the above actions, EMRC is able to provide information and support on a range of water conservation and re-use measures, including storm and rainwater.

Recommendation: **Delete. Incorporated into Action 2.2.3.**

Action 2.2.6

Action 2.2.6 *Advocate to State Government for increased resources for enforcement of regulations relating to Downstream water supply.*

This Action came about as a result of some citizens constructing or modifying illegal dams without development approvals, which limited environmental flows and water for ecosystems. The Swan River Trust and EMRC have made attempts to strengthen enforcement, with the EMRC drafting a letter to the water minister for a review of the Rights in Water and Irrigation Act. In 2011, Perth Region NRM conducted a workshop based on this Action.

Recommendation: **Unchanged.**

Advocate to State Government for increased resources for enforcement of regulations relating to Downstream water supply.

(Note: this should change to effectively become Action 2.2.2).

Summary – Review of Priority Risk Area 2 – Impacts on Essential Services

Action (2009-2013)	Alteration	New Action (2013-2016)
2.1 Power Loss		
2.1.1	Reword.	<i>Continue to advocate for the delivery of a reliable power supply with the ability to reduce risks in extreme natural disaster conditions (eg. Intense bushfires and storms).</i>

2.1.2	Reword.	<i>Continue to keep member Councils informed of the latest power and fuel supply solutions and technologies.</i>
2.1.3	Reword.	<i>Continue to advocate to State Government agencies to develop a public awareness campaign of the potential impacts of climate change.</i>
2.1.4	Reword.	<i>Continue to advocate to relevant government agencies for residential/industry rebates and incentives to assist energy efficiency and in the transition to renewable energy.</i>
2.2 Water availability		
2.2.1	Delete. Merge with 2.2.3.	See 2.2.3
2.2.2	Delete. Merge with 2.2.3.	See 2.2.3
2.2.3	Reword. Now Action 2.2.1.	<i>Work with relevant agencies to increase community awareness and improved water conservation measures, including tighter water efficiency targets and increased water recycling.</i>
2.2.4	Delete. Merge with 2.2.3.	See 2.2.3
2.2.5	Delete. Merge with 2.2.3.	See 2.2.3
2.2.6	Unchanged. Now Action 2.2.2.	<i>Advocate to State Government for increased resources for enforcement of regulations relating to Downstream water supply.</i>

Priority Risk Area 3

Watercourse Damage and Loss

3.1 Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS)

Introductory text

No recommended changes.

Action 3.1.1

Action 3.1.1 *Increase awareness of ASS (in liaison with DEC) and provide all relevant local government officers across the region with ongoing information and developments in relation to ASS.*

EMRC has alerted mC staff of mapping of Acid Sulfate Soils (ASS) in the region via the Landgate website. EMRC has also monitored information in the ASSAY (acid sulfate soils) quarterly newsletters and kept mC's informed of local issues of relevance. EMRC have linked mC's to expert staff within DoW for groundwater management around ASS.

EMRC recommends rewording Action 3.1.1 to:

Continue to provide member Councils with ongoing information and developments in relation to ASS, including improved mapping of ASS and PASS locations and risk areas.

Action 3.1.2

Action 3.1.2 *Provide a forum for all relevant local government officers and other stakeholders who have an interest in learning or updating their knowledge about ASS.*

DoW/DEC provides information on ASS as well as annual training for LG Officers.

Recommendation: **Delete Action 3.1.2.**

Action 3.1.3

Action 3.1.3 *Advocate to the State Government for improved mapping of ASS & PASS identifying locations and advising Member Councils of risk areas.*

DEC has compiled broad-scale risk maps for several coastal regions of WA where a high or moderate probability of ASS occurrence has been identified. This Action has now been incorporated into Action 3.1.1.

Recommendation: **Delete. Incorporated into Action 3.1.1.**

3.2 Foreshore Erosion and Subsidence

Introductory text

No recommended changes.

Action 3.2.1

Action 3.2.1 *Work with WAPC and SRT to support an improved understanding and application of best practice stabilisation techniques for private landholders of foreshores within the region.*

EMRC partnered with the Swan River Trust in 2009 to produce the Best Management Practices for Foreshore Stabilisation (2009) report. The report provides locally relevant information on a range of best practice techniques to improve foreshore stabilisation management.

A decision support framework has also been developed to assist the identification of appropriate foreshore stabilisation techniques for specific site situations and provides information to ensure that specialist advice for stabilisation is targeted and cost effective.

EMRC staff have received specific training in best practice foreshore stabilisation techniques and how to practically apply them. EMRC sought funding for a private land conservation (PLC) officer via a biodiversity grant.

EMRC recommends rewording Action 3.2.1 to:

Continue to partner with the Swan River Trust to work with private landholders in the Region to apply best practice stabilisation techniques to protect the foreshore.

Action 3.2.2

Action 3.2.2 *Increase community awareness and behaviour change towards river bank erosion and subsidence issues affecting the Swan and Helena Rivers in Perth's Eastern Region through existing regional communication channels and improved signage around the river.*

EMRC is working for change on river bank erosion and subsidence through the Swan and Helena Rivers Management Framework including the Swan Helena River Foreshore Interpretation Plan (SHRFIP), Heritage Audit and Statement of Significance.

EMRC is also a steering group member of the Swan River Trust's Swan Canning Riverpark Iconic Trails Master Plan Project which considers signage issues around the riverpark area.

EMRC recommends rewording Action 3.2.2 to:

Continue to liaise with relevant agencies to increase community awareness and action for the prevention of river bank erosion.

Action 3.2.3

Action 3.2.3 *Advocate for increased political awareness and funding for regional projects to protect river foreshore assets.*

EMRC was a member of the now defunct WALGA Swan-Canning Policy Forum and consistently advocates for increased political awareness and funding to protect river foreshore assets. Australian Government funding has been sought and Swan River foreshore issues have been the focus of advocacy to Federal and State Governments. Regional Development Australia (RDA) Perth have identified the Swan and Canning Rivers as a priority, identifying that they add enormous value to the urban landscape's ecological, social, cultural and amenity qualities.

EMRC recommends rewording Action 3.2.3 to:

Continue to advocate for increased awareness and funding for regional projects to protect river foreshore assets.

Action 3.2.4

Action 3.2.4 *Promote and provide support for the use of the SRT Best Practice Approaches to Foreshore Stabilisation manual within member Councils and advocate to State Government to develop improved policies for river bank management.*

EMRC promotes the use of SRT best practice methods for foreshore stabilisation and consistently advocates to the State for improved river bank management policies. EMRC participated in the development of the River Protection Strategy.

EMRC has submitted a number of funding applications to the Australian Government for funding for restoration of foreshores within Perth's Eastern Region. Unfortunately all submissions to date have been unsuccessful.

EMRC recommends rewording Action 3.2.4 to:

Continue to provide support for the use of the SRT Best Practice Approaches to Foreshore Stabilisation Manual within member Council's and advocate to State Government for increased funding for river bank management.

3.3 Flooding

Introductory text

No recommended changes.

Action 3.3.1

Action 3.3.1 *Factor climate change into project brief for interpretation plan for trails and heritage along Swan and Helena Rivers.*

EMRC's SHRMF Officer is working with the SRT to incorporate climate change into the interpretation plan and overall framework, such as factoring predicted sea-level rise into the River Protection Strategy. The Swan River Trust in Partnership with the National Trust are in the process of developing an Interpretation Plan for the entire Swan Riverpark area. EMRC have completed stage 1 of an Interpretation Plan for the river area within our region and have been attempting to source funding for the Interpretation Plan. A decision has been made to wait for the outcomes of the Swan River Trust project before moving forward.

Recommendation: **Unchanged.**

Factor climate change into project briefs for interpretation plan for trails and heritage along Swan and Helena Rivers.

Action 3.3.2

Action 3.3.2 *In partnership with SRT, DIA, HCWA and relevant heritage bodies, identify priority places from SHRMF Heritage Audit vulnerable to flooding; investigate research methods for protecting these sites; and seek commitment for funding and monitoring.*

EMRC's Environment Consultant helped develop the 2009 Heritage Audit and is investigating heritage sites that may be vulnerable to flooding.

The EMRC suggests that this action is accounted for by other RCCAAP Actions which deal with assessing flooding risks.

Recommendation: **Delete Action 3.3.2.**

3.4 Sedimentation

Introductory text

No recommended changes.

Action 3.4.1

Action 3.4.1 *Develop and disseminate community information through existing communication mechanisms for educating residents about runoff and sedimentation issues and the role of the local community in reducing the impacts, including access to funding programs for community landcare actions. Target building and construction i.e. developers, builders, land owners. Hand out with information with building licenses etc.*

EMRC has looked to implement community education about runoff and sedimentation through input to avenues such as Local Planning Schemes and the Private Land Conservation Strategy. EMRC has thus far begun work in this area with the Shire of Mundaring.

State Government funding was announced in September 2012 to help reduce nutrient loads from catchments entering the Swan and Canning rivers under the Swan Canning Water Quality Improvement Plan (SCWQIP), including Ellen Brook and Bayswater Brook.

EMRC recommends rewording Action 3.4.1 to:

Assist in education about runoff and sedimentation issues and the role the community can play in reducing impacts.

This Action is likely to be part of EMRC's proposed Environmental Education program, beginning in 2013.

Action 3.4.2

Action 3.4.2 *Seek funding for a sustainability/environmental education officer for the region.*

For 2013-2014, EMRC is proposing an environmental education officer to deliver a range of programs for mC's, including some of the education components of the RCCAAP. The EMRC has applied for a number of grants for an education officer but none have been successful to date.

Recommendation: **Delete Action 3.4.2.**

Action 3.4.3

Action 3.4.3 *Investigate opportunities to work in partnership with SRT and relevant member Councils through the WQIP process for BMP for drainage (i.e. installation of "living" drains in industrial areas) to minimise sediment in the stormwater system, reduce blockages and improve water quality.*

Work has been done on this Action in Bayswater and in some Eastern region tributaries.

As mentioned above, in 2013, WALGA together with the Swan River Trust, the Department of Water and Water Corporation, have signed a formal commitment to collaboratively improve drainage management within the Swan Canning Coastal catchment.

EMRC was successful in its 2013 application for the Helping the Helena project, a \$37,500 grant which will involve water quality monitoring of pollutants. Preference will be given to those sites known to be in the receiving environment for point and/or diffuse source pollutants.

Through the Eastern Hills Catchment Management Program (EHCMP), the shires of Kalamunda and Mundaring, the City of Swan and the Swan River Trust work to engage community groups in NRM activities along tributaries of the Swan River. Community groups with the assistance of the EHCMP leverage funds from external organisations to undertake restoration work. The EHCMP assists community groups to plan, project manage and assist with implementation of Swan River Trust Alcoa Landcare Program (SALP) Grant applications. The outcomes from revegetation projects are improved water quality, increased biodiversity and resilience and a community that is connected and involved in work that protects, enhances and conserves our natural environment.

EMRC recommends rewording Action 3.4.3 to:

Continue to investigate opportunities to work with relevant agencies to minimise sediment in the stormwater system, reduce blockages and further improve water quality (e.g. water sensitive urban design).

(Note: this should change to effectively become Action 3.4.2).

Action 3.4.4

Action 3.4.4 *Promote the utilisation of relevant policy and guidelines within EMRC's NRM Policy Manual for managing sedimentation issues.*

Whenever relevant, the EMRC utilises its NRM Policy Manual for managing sedimentation. EMRC is continuing to seek funding opportunities to further update the Manual.

EMRC recommends rewording Action 3.4.4 to:

Continue to update and promote the utilisation of relevant policy and guidelines within EMRC's NRM Policy Manual for managing sedimentation issues.

(Note: this should change to effectively become Action 3.4.3).

Summary – Review of Priority Risk Area 3 – Watercourse Damage and Loss

Action (2009-2013)	Alteration	New Action (2013-2016)
3.1 Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS)		
3.1.1	Reword.	<i>Continue to provide member Councils with ongoing information and developments in relation to ASS, including improved mapping of ASS and PASS locations and risk areas.</i>
3.1.2	Delete.	-
3.1.3	Merged with 3.1.3. Delete.	-
3.2 Foreshore Erosion and Subsidence		
3.2.1	Reword.	<i>Continue to partner with the Swan River Trust to work with private landholders in the Region to apply best practice stabilisation techniques to protect the foreshore.</i>
3.2.2	Reword.	<i>Continue to liaise with relevant agencies to increase community awareness and action for the prevention of river bank erosion.</i>
3.2.3	Reword.	<i>Continue to advocate for increased awareness and funding for regional projects to protect river foreshore assets.</i>
3.2.4	Reword.	<i>Continue to provide support for the use of the SRT Best Practice Approaches to Foreshore Stabilisation Manual within member Council's and advocate to State Government for increased funding for river bank management.</i>
3.3 Flooding		
3.3.1	Unchanged.	<i>Factor climate change into project briefs for interpretation plan for trails and heritage along Swan and Helena Rivers.</i>
3.3.2	Delete	-
3.4 Sedimentation		
3.4.1	Reword.	<i>Assist in education about runoff and sedimentation issues and the role the community can play in reducing impacts.</i>
3.4.2	Delete.	-
3.4.3	Reword. Now Action 3.4.2.	<i>Continue to investigate opportunities to work with relevant agencies to minimise sediment in the stormwater system, reduce blockages and further improve water quality (e.g. water sensitive urban design).</i>
3.4.4	Reword. Now Action 3.4.3.	<i>Continue to update and promote the utilisation of relevant policy and guidelines within EMRC's NRM Policy Manual for managing sedimentation issues.</i>

Priority Risk Area 4

Increasing Bushfires

Introductory text

No recommended changes.

Action 4.1

Action 4.1 *Increase awareness within the community of acceptable burning regimes to improve air quality by disseminating community information through existing communication channels.*

EMRC attended Perth's first Air Quality Forum in March 2012 and disseminated to mC's a Report Card on the achievements of the Perth Air Quality Management Plan (AQMP).

This Action may be part of EMRC's new Environmental Education program. Nonetheless, it is an action that is not specifically focused on adaptation and would seem to be more suited to be part of mC's LCCAAPs through usual local communication channels.

Recommendation: **Delete Action 4.1.**

Action 4.2

Action 4.2 *Advocate, support and encourage DFES to increase awareness of bushfire in Perth's Eastern Region including mitigation and control measures. Disseminate community information through existing communication mechanisms and channels for educating residents about bushfire issues (climate change) and the role of the local community in reducing the impacts.*

EMRC have worked to incorporate bushfire awareness into its Bush Skills for the Hills (BSFTH) program. Again, the communication side of this Action is best suited to LCCAAPs and local channels. It is also another Action that might be incorporated into EMRC's Environmental Education program.

EMRC recommends rewording Action 4.1 to:

Work with DFES and other relevant agencies to increase awareness within the community about bushfire issues in a changing climate and the role of the local community in reducing the impacts.

(Note: this should change to effectively become Action 4.1).

Action 4.3

Action 4.3 *Facilitate a forum of relevant member Council planning and fire control officers and other relevant stakeholders (e.g. DFES) to discuss issues in relation to the built environment and bushfire risk in a changing climate.*

As part of its Environmental Education program, EMRC is proposing a series of seminars in 2013 for LG staff from varied Departments. One such seminar is planned to include Planning and Ranger staff to discuss bushfire risk in a changing climate.

Recommendation: **Unchanged.**

Facilitate a forum of member Council planning and fire control officers and other relevant stakeholders (e.g. DFES) to discuss issues in relation to the built environment and bushfire risk in a changing climate.

(Note: this should change to effectively become Action 4.2).

Action 4.4

Action 4.4 *Advocate for a change to the Bushfire Act to authorise Local Governments to act all year to order pre-season work.*

EMRC recommends that this Action would most appropriately be discussed at the proposed forum, above.

Recommendation: **Delete Action 4.4.**

Action 4.5

Action 4.5 *Advocate to State Government to improve communication infrastructure for emergency warnings.*

This is an Action that is not just relevant for bushfires, but for other emergencies and disaster management.

Member Councils were informed of a new fire warning and SMS system developed by DFES. EMRC has also provided details of upgrades to the national Emergency Alert telephone warning system.

This is an area in which authorities are continually looking into to improve. Member Councils have existing emergency management plans.

EMRC recommends rewording Action 4.5 to:

Advocate to State Government and relevant agencies to continue to improve emergency warning systems.

(Note: this should change to effectively become Action 4.3).

Summary – Review of Priority Risk Area 4 – Increasing Bushfires

Action (2009-2013)	Alteration	New Action (2013-2016)
4.1	Delete.	-
4.2	Reword. Now Action 4.1.	<i>Work with DFES and other relevant agencies to increase awareness within the community about bushfire issues in a changing climate and the role of the local community in reducing the impacts.</i>
4.3	Unchanged. Now Action 4.2.	<i>Facilitate a forum of member Council planning and fire control officers and other relevant stakeholders (e.g. DFES) to discuss issues in relation to the built environment and bushfire risk in a changing climate.</i>
4.4	Delete.	-
4.5	Reword. Now Action 4.3.	<i>Advocate to State Government and relevant agencies to continue to improve emergency warning systems.</i>

Priority Risk Area 5

Water Decline and Reduced Water Quality

Introductory text

No recommended changes.

Action 5.1

Action 5.1 *Through the Water Campaign™ support member Councils in identifying sites across the region such as leisure and community centres where greywater use will not pose a problem to human health or the receiving environment. Continue to share water quality best management practice information.*

There is some crossover here with Actions in Risk Area 2.2 – Water Availability.

Through its Water Campaign™ networks and links with agencies such as DoH, EMRC has access to best practice regarding the safe and effective use of recycled water in mC facilities. EMRC have produced a paper on 'Reuse of Greywater in WA' and continue to monitor water quality best management practice and any changes in legislation on the water reuse. With its involvement with the CRC for Water Sensitive Cities, further research will be conducted on water recycling.

EMRC recommends rewording Action 5.1 to:

Through the ICLEI Water Campaign™ activities and advocacy to the DoH, continue to support member Councils in identifying sites for the increased and safe use of recycled water.

Action 5.2

Action 5.2 *Keep abreast of State and Australian Govt research on the potential changes in rainfall and identify impacts on the region to water resources and advise member Councils.*

EMRC provide mCs with relevant information as it comes to hand, including quarterly DoW seasonal updates on water resources.

EMRC recommends rewording Action 5.2 to:

Continue to monitor research on actual and potential changes in rainfall and the impact on regional water resources.

Action 5.3

Action 5.3 *Advocate to the State Government for valid and user friendly reports on water quality monitoring of surface and groundwaters throughout the region.*

EMRC was successful in its recent application for the 'Helping the Helena' project, a \$37,500 grant which will involve water quality monitoring of pollutants. Preference will be given to those sites known to be in the receiving environment for point and/or diffuse source pollutants.

Each week, the SRT and the DoW conduct extensive water quality sampling as part of the Swan Canning Water Quality Improvement Plan (SCWQIP). Such information is available on the SRT website.

Recommendation: **Delete Action 5.3.**

Action 5.4

Action 5.4 *Advocate to DoH in relation to the introduction of appropriate legislation for ongoing monitoring and soil testing for sites where greywater is applied, and for greater regulation on compliance of health issues with respect to greywater and rainwater.*

This action is implicit in the new Action 5.1, regarding the safe use of recycled water.

Recommendation: **Delete Action 5.4.**

Action 5.5

Action 5.5 *Advocate to State Government to consider ways for providing sewerage services to industrial areas, and other areas where feasible to address water quality and leaching issues.*

EMRC recommends rewording Action 5.5 to:

Advocate to State Government and relevant agencies to address water quality and leaching issues through the provision of sewerage services to industrial areas.

(Note: this should change to effectively become Action 5.3).

Action 5.6

Action 5.6 *Continue to support member Councils water quality and water conservation actions through the Water Campaign™ programme, including:*

- *Inventory and data management;*
- *Action planning;*
- *Water efficient appliances;*
- *Rainwater tanks; and*
- *Greywater use.*

The Water Campaign™ has become an established program within mC's and has seen many also undertake water audits and achieve Waterwise Council status.

EMRC recommends rewording Action 5.6 to:

Continue to support participating member Council's water quality and water conservation actions through the Water Campaign™ program.

(Note: this should change to effectively become Action 5.4).

Summary – Review of Priority Risk Area 5 – Water Decline and Reduced Water Quality

Action (2009-2013)	Alteration	New Action (2013-2016)
5.1	Reword.	<i>Through the ICLEI Water Campaign™ activities and advocacy to the DoH, continue to support member Councils in identifying sites for the increased and safe use of recycled water.</i>
5.2	Reword.	<i>Continue to monitor research on actual and potential changes in rainfall and the impact on regional water resources.</i>
5.3	Delete.	-
5.4	Delete.	-
5.5	Reword. Now Action 5.3	<i>Advocate to State Government and relevant agencies to address water quality and leaching issues through the provision of sewerage services to industrial areas.</i>
5.6	Reword. Now Action 5.4	<i>Continue to support participating member Council's water quality and water conservation actions through the Water Campaign™ program.</i>

Priority Risk Area 6

Greenhouse Gas Emissions and Related Air Pollution

Introductory text

No recommended changes.

Action 6.1

Action 6.1 *Monitor development on the Australian Government's policy making front in relation to the Emissions Trading Scheme (ETS), National Greenhouse and Energy and Reporting Framework (NGERS) and the National Strategy on Energy Efficiency and provide advice and any opportunities to member Councils.*

EMRC has written submissions on behalf of the region, and produced and disseminated an issues paper in relation to the carbon price. EMRC continues to monitor the latest developments, as well as provide advice regarding any funding or other relevant opportunities.

EMRC recommends rewording Action 6.1 to:

Monitor developments at the Australian Government level in relation to energy efficiency and mitigation of greenhouse emissions.

Action 6.2

Action 6.2 *Investigate options for an emission abatement measuring process that can be utilised in accord with the introduction of ETS and report to member Councils.*

EMRC has introduced and implemented the NGERS-compliant Achieving Carbon Emissions Reductions (ACER) program to assist Councils to measure carbon emissions. EMRC is also able to undertake energy audits.

EMRC recommends rewording Action 6.2 to:

Continue to provide emissions monitoring for participating member Councils and support mitigation actions (i.e. ACER program).

Action 6.3

Action 6.3 *Work with State Government through the Perth Solar City project to assist Local Governments and their communities to adapt to a low carbon environment by:*

- *promoting the use of solar technologies to generate energy and hot water;*
- *undertaking a smart grid pilot program;*
- *trialing direct load control mechanisms and simpler time of use tariffs to reduce energy use and costs;*
- *implementing a Living Smart program in the region;*
- *providing free home energy audits;*
- *implementing demonstration projects at Local Government facilities to demonstrate solar technologies and energy efficiency and demand measures;*
- *provide opportunities for home owners, tenants, schools and businesses to participate in the Perth Solar City project; and*
- *Undertake a cost payback study for installing renewable energy infrastructure such as solar lighting on public buildings.*

EMRC has coordinated the Perth Solar City project throughout the region, which has undertaken most of these actions over the last few years. The ACER program has introduced Home Energy Audit Kits, which are available for residents to borrow from their local mC Library.

EMRC is investigating projects to assist small business energy efficiency and submitted an unsuccessful funding application to the Federal Government in partnership with Edith Cowan University. EMRC was successful in its application for \$647,000 of CEEP funding, which included utilisation and demonstration of new solutions and technologies for energy efficiency.

EMRC recommends rewording Action 6.3 to:

Investigate opportunities to assist member Councils and the community to adapt to a low carbon environment.

Action 6.4

Action 6.4 *Advocate to Western Power/Synergy for the establishment of a suburb/Local Government area database of energy consumption levels and disseminate with electricity bills.*

Such information now exists at switchthefuture.com.au

Recommendation: **Delete Action 6.4.**

Action 6.5

Action 6.5 *Continue to support member Councils in their emission mitigations actions.*

This action has now been incorporated into the new Action 6.2.

Recommendation: **Delete Action 6.5.**

Summary – Review of Priority Risk Area 6 - Greenhouse Gas Emissions and Related Air Pollution

Action (2009-2013)	Alteration	New Action (2013-2016)
6.1	Reword.	<i>Monitor developments at the Australian Government level in relation to energy efficiency and mitigation of greenhouse emissions.</i>
6.2	Reword.	<i>Continue to provide emissions monitoring for participating member Councils and support mitigation actions (i.e. ACER program).</i>
6.3	Reword.	<i>Investigate opportunities to assist member Councils and the community to adapt to a low carbon environment.</i>
6.4	Delete.	-
6.5	Delete.	-

Priority Risk Area 7

Loss of Ecosystems and Provision of Public Open Space

Introductory text

No recommended changes.

Action 7.1

Action 7.1 *Seek information from SRT on progress of oxygenation river project and advise member Councils of the outcomes.*

Information, including results of weekly monitoring, on the Guildford and Caversham oxygenation plants is readily available from the SRT website: <http://www.swanrivertrust.wa.gov.au/the-river-system/tackling-the-issues/addressing-water-quality-and-ecological-health/oxygenation>

Recommendation: **Delete Action 7.1.**

Action 7.2

Action 7.2 *Research existing best management practice guidelines on pest and weed management in relation to climate change and refer material to member Councils. Provide a coordinated approach to funding and activities.*

EMRC ran two chemical free weed management workshops in 2011 and 2012. Moving forward, EMRC have proposed ongoing analysis of best management practice guidelines on pest and weed management in a changing climate. EMRC, through the Eastern Hills Catchment Management Program (EHCMP), are working on a coordinated approach with SRT.

EMRC recommends rewording Action 7.2 to:

Monitor emerging issues for pest and weed management in relation to climate change.

(Note: this should change to effectively become Action 7.1).

Action 7.3

Action 7.3 *Work with relevant member Councils and other stakeholders to identify and progress mechanisms to enable landowners to understand and mitigate the impacts of climate change on the natural features on their properties (particularly along the river, watercourses and bushland areas).*

EMRC have sought funding to employ a private land conservation (PLC) Officer who will work with landholders to understand and mitigate the impacts of climate change on the natural features of their properties.

EMRC recommends rewording Action 7.3 to:

Work to enable landowners to mitigate the impacts of climate change on the natural features on their properties (particularly along the river, watercourses and bushland areas).

(Note: this should change to effectively become Action 7.2).

Additional Actions

The EMRC recommends the addition of the following actions:

- ***Develop research priorities for biodiversity adaptation to climate change (now Action 7.3)***
- ***Provide practical information to local communities on how to reduce stressors such as erosion or pollution (now Action 7.4)***
- ***Work with relevant agencies to identify and protect aquatic ecosystems that are important for providing connectivity and potential refugia in the landscape under likely future climate scenarios (now Action 7.5)***

Summary – Review of Priority Risk Area 7 - Loss of Ecosystems and Provision of Public Open Space

Action (2009-2013)	Alteration	New Action (2013-2016)
7.1	Delete.	-
7.2	Reword. Now Action 7.1.	<i>Monitor emerging issues for pest and weed management in relation to climate change.</i>
7.3	Reword. Now Action 7.2.	<i>Work to enable landowners to mitigate the impacts of climate change on the natural features on their properties (particularly along the river, watercourses and bushland areas).</i>

Additional actions

-	Additional action. Action 7.3	<i>Develop research priorities for biodiversity adaptation to climate change.</i>
-	Additional action. Action 7.4	<i>Provide practical information to local communities on how to reduce stressors such as erosion or pollution.</i>
-	Additional action. Action 7.5	<i>Work with relevant agencies to identify and protect aquatic ecosystems that are important for providing connectivity and potential refugia in the landscape under likely future climate scenarios.</i>

DRAFT

Priority Risk Area 8

Decline in Population Health and Wellbeing

8.1 Health

Introductory text

No recommended changes.

Action 8.1.1

Action 8.1.1 *Advocate to State Government to develop an education program to assist vulnerable community members to protect them against heat stress.*

The DoH has a Heatwave Policy, which EMRC has provided to Council officers. Education is activated as part of the response to a heatwave event. EMRC is also advocating for education to enable advanced community preparation/planning against heat stress.

EMRC have provided reports on 'Heat implications for health and climate change adaptation' and 'Health impacts of climate change: Adaptation strategies for Western Australia'. Information from the latter is being used to inform Government and community policy and decision making for community adaptations.

EMRC recommends rewording Action 8.1.1 to:

Advocate to State Government for continued education of the community about heat stress and other potential impacts of climate change on human health.

Action 8.1.2

Action 8.1.2 *Provide staff training/education on potential mental, physical and social health impacts of heat stress, vector-borne disease etc.*

The DoH is looking at developing a package of information for LG's, but this is still at the planning stage. In the meantime, EMRC have provided a couple of examples to mC's from Victoria's Health Department. EMRC are proposing climate change risk awareness education seminars for LG staff in 2013, which will include health information.

EMRC recommends rewording Action 8.1.2 to:

Provide education/training for member Council staff about heat stress and other potential impacts of climate change on human health.

Action 8.1.3

Action 8.1.3 *Review and update event risk management guidelines for events held in the region in relation to the health implications of climate change e.g. heat stress, mosquito vector-borne disease.*

Guidelines for Bush Skills for the Hills events and other outdoor activities include recommendations and precautions when working outdoors in relation to hot weather. Further precautions are undertaken in the event of extreme heat and heatwave events, which have been trending upwards. EMRC continues to maintain a watching brief on any disease movements.

The EMRC considers that event risk management is implicit in Action 8.1.2 regarding education of mC staff, including events and HR staff, who are responsible for updating guidelines.

Recommendation: **Delete Action 8.1.3.**

8.2 Displaced People

Introductory text

No recommended changes.

Action 8.2.1

Action 8.2.1 *Advocate to the State/Australian Government to ensure they have a robust policy on displaced people due to climate change. Seek advice on potential intake / increased population (climate change refugees) and potential impacts on housing targets and community services.*

The EMRC considers that the Australian government must respond to the displacement of people by working with the UN to ensure that appropriate recognition is given to 'climate refugees'.

Although the details needed for this Action, such as numbers and impacts of displaced people, are somewhat premature, EMRC has a watching brief on any movement on this issue. Contact has been made with the Friends of the Earth organisation who are particularly active on this matter.

EMRC recommends rewording Action 8.2.1 to:

Monitor information on the potential impacts of 'climate refugees' on housing and community services in the Region.

Summary – Review of Priority Risk Area 8 - Decline in Population Health and Wellbeing

Action (2009-2013)	Alteration	New Action (2013-2016)
8.1 Health		
8.1.1.	Reword.	<i>Advocate to State Government for continued education of the community about heat stress and other potential impacts of climate change on human health.</i>
8.1.2.	Reword.	<i>Provide education/training for member council staff about heat stress and other potential impacts of climate change on human health.</i>
8.1.3.	Delete.	-
8.2 Displaced People		
8.2.1.	Reword.	<i>Monitor information on the potential impacts of 'climate refugees' on housing and community services in the Region.</i>

Priority Risk Area 9

Economic – Challenges and Opportunities

Introductory text

No recommended changes, except for the below comments.

Actions 9.1 – 9.7

The EMRC recommends that the text for this section remains but the Actions 9.1 to 9.7 are removed. All of the Actions listed are essentially incorporated into either EMRC's Regional Economic Development Strategy (REDS) and/or Regional Integrated Transport Strategy (RITS). Additionally, the EMRC ensures that environmental impacts are considered or incorporated into new or reviewed regional strategies and actions. The EMRC recommends an additional sentence be added to the RCCAAP 2013 – 2016 text to specifically reference the REDS and the RITS.

The new Action 10.3 below, makes reference to ensuring the incorporation of climate change risks into regional strategies and actions (eg. across transport; economic development; etc).

Activity of note in the preceding period relating to these Actions, includes rollout of the Perth Solar City program and employment of a regional TravelSmart officer. EMRC is continuing to seek funding specifically for business energy efficiency. An unsuccessful application was made in 2012 for funding in Round 1 of the Australian Government's Energy Efficiency Information Grants (EEIG) for small-medium enterprises. EMRC's Regional Environment Strategy (RES) also includes strategies to assist businesses to adapt to issues resulting from climate change.

The EMRC recommends:

- **that the text for this section remains but the Actions 9.1 to 9.7 are removed**
- **an additional sentence be added to the RCCAAP 2013 – 2016 text to specifically reference the REDS and the RITS.**

Priority Risk Area 10

Changing Leadership and Development Requirements

Introductory text

No recommended changes.

Action 10.1

Action 10.1 *Facilitate a regional forum on insurance and litigation in relation to climate change impacts for local government.*

In 2011, EMRC coordinated a forum on LG insurance and litigation issues in relation to climate change impacts and will continue to provide the latest information and any new case studies that come to hand.

EMRC recommends rewording Action 10.1 to:

Continue to monitor and inform member Councils of changes in LG legal liabilities with respect to climate change.

Action 10.2

Action 10.2 *Undertake a program that facilitates the development of Local Climate Change Adaptation Action Plans (LCCAAP) for all member Councils.*

This action has either been completed, or is awaiting Council approval, for all participating mC's.

EMRC recommends rewording Action 10.2 to:

Continue to assist member Councils with implementation of LCCAAP's.

Action 10.3

Action 10.3 *Ensure climate change predictions/information is considered in regional decision making processes.*

Endorsement of the (WALGA) Climate Change Declaration and a LCCAAP for each mC will no doubt assist in embedding climate change into local decision-making. As mentioned in Priority Risk Area 9, EMRC incorporates the latest information on environmental issues and climate change into regional decision-making and regional strategies.

EMRC recommends rewording Action 10.3 to:

Ensure incorporation of climate change risks into EMRC's regional strategies and actions, such as transport and economic development.

Action 10.4

Action 10.4 *Provide climate change information of particular relevance to member Councils (climate change newsletter).*

As you will note from this review, a large, but select volume of information has been provided to mC's over the preceding period. As mentioned earlier, it was felt that a newsletter was not the most effective method of providing the information mC's require.

EMRC recommends rewording Action 10.4 to:

Continue to provide up-to-date and relevant climate change information to member Councils in a timely manner.

Action 10.5

Action 10.5 *Advocate to State Government to run workshops on climate change with the community on practical steps to adapt.*

Community workshops on climate change adaptation have not been forthcoming from the State government or other agencies. Thus, the EMRC is preparing to deliver such workshops, beginning in 2013. However, education will be an ongoing process, so action in this area must continue.

EMRC recommends rewording Action 10.5 to:

Work with State Government Departments and relevant agencies to raise community awareness of the implications of climate change and provide practical steps they can take to adapt.

Action 10.6

Action 10.6 *Develop a communication and engagement strategy that brings together all the community engagement elements through the RCCAAP in order to deliver the most efficient and cost effective approach.*

EMRC developed a communication and engagement strategy but limited resources have prevented full implementation. The most cost effective and efficient method of engaging and communicating would be through the development of a strategy that could be rolled out state-wide. Actions in the RCCAAP 2009 – 2013 mentioning communication and engagement include:

- rebate schemes
- awareness of water efficiency
- riverbank erosion/subsidence
- runoff/sedimentation
- acceptable burning regimes
- bushfire in a changing climate
- managing heat stress

In this case, one size does not fit all. Therefore, it would be best to deliver communications specifically for each of these areas at the time of implementation of each of the Actions. This Action (10.6) is incorporated into Actions throughout the RCCAAP which mention engagement and communication, and also into Action 10.5.

Recommendation: **Delete Action 10.6.**

Action 10.7

Action 10.7 *Investigate costs and seek funding for CSIRO/BOM to develop regional scenarios for climate change. If costs are too high advocate for government funding to support. Use scenarios to determine the impacts on the region and disseminate information to member Councils.*

EMRC provided mC's with the results of a WA study on regional scenarios or 'analogues' by NCCARF, as well as information regarding the BoM releasing a major upgrade in 2012 to its forecast and warning services for WA.

EMRC recommends rewording Action 10.7 to:

Continue to investigate further studies on regional scenarios/analogues and the implications for member Councils.

(Note: this should change to effectively become Action 10.6).

Action 10.8

Action 10.8 *Advocate to Department of Premier and Cabinet and Office of Climate Change to develop a policy position and to build policy cohesion across all agencies in regards to climate change adaptation.*

Recently, EMRC has again met with staff from DEC's Climate Change Unit (CCU) to familiarise them with the Actions in the RCCAAP 2009 – 2013 and to advocate for cohesion across state agencies regarding adaptation. EMRC forwarded the 2012 state climate change adaptation and mitigation Strategy to mC's, entitled 'Adapting to our changing climate'.

EMRC recommends rewording Action 10.8 to:

Advocate to State Government for funding to implement the proposed actions in the Government's 'Adapting to our changing climate', and to build policy cohesion across all agencies regarding adaptation.

(Note: this should change to effectively become Action 10.7).

Action 10.9

Action 10.9 *Advocate to WALGA to provide leadership in best mitigation and adaptation practices for Local Government.*

EMRC, through the Climate Change Senior Officers Group (CCSOG) continues to work with and advocate to WALGA for leadership and best practice in adaptation. WALGA has identified preferred suppliers for LG, has developed a climate change management Toolkit, and plans on developing a LG climate change training package. Climate Change Declarations, developed through WALGA, have been signed by all but one member Council. WALGA is continuing to work on improving its climate change mapping project which is designed to assist LG in information sharing and reducing duplication of adaptation project work and research.

EMRC recommends rewording Action 10.9 to:

Continue to advocate to WALGA to provide leadership in best practices for Local Government adaptation.

(Note: this should change to effectively become Action 10.8).

Action 10.10

Action 10.10 *Partner with WALGA to survey and identify staff involved in climate affected business units to identify job specific information, training and resources that they will require. Advocate to WAPC and WALGA to develop training for Planning Officers to assist them to assess development applications and ensure buildings comply with State Government adopted environmental design requirements.*

WALGA have proposed the development of a training package for Councillors/Council staff in climate affected business units, with a particular focus on Planning Officers. EMRC has continued to liaise with WALGA to encourage these seminars. In the meantime, EMRC is proposing a series of seminars in 2013 for LG staff from varied Departments, including Planning staff. A brief survey has been sent by EMRC to mC staff to help more closely define the content of the tailored seminars.

EMRC recommends rewording Action 10.10 to:

Continue to monitor and provide job specific information, training and resources required by LG staff regarding adaptation.

(Note: this should change to effectively become Action 10.9).

Action 10.11

Action 10.11 *Advocate to the State and Australian Government's to clarify what are the legal liabilities facing the three levels of government with respect to climate change.*

This Action is essentially the same as new Action 10.1.

Recommendation: **Delete Action 10.11.**

Action 10.12

Action 10.12 *Advocate to WALGA to develop Councillor/Staff training module and conduct workshops on legislative/policy changes to ensure understanding of the legal implications of not enforcing preventative measures.*

This Action has been addressed and will continue to be addressed through a combination of Actions 10.1 and 10.10.

Recommendation: **Delete Action 10.12.**

Action 10.13

Action 10.13 *Advocate to BCA/DPI/WAPC to develop standard planning conditions that incorporate climate change. (i.e. building design and construction, building ratings, water savings, subdivision – appropriate development areas etc).*

EMRC has continued to advocate via WALGA to the DoP/WAPC and BCA to develop standard planning conditions that incorporate climate change. WAPC has undertaken a review of the Model Subdivision Conditions. Recently, resources have been distributed to assist member Council's actions in the area of land use planning and decision making, providing guidance as to how adaptation issues may be addressed by the planning system.

This Action is addressed in Action 1.1.

Recommendation: **Delete Action 10.13.**

Action 10.14

Action 10.14 *Advocate to WALGA and DEC to engage qualified personnel for advice on legal liability relating to climate change.*

Again, a forum was held in 2011 on LG insurance and litigation issues in relation to climate change impacts. Advice on climate change and LG legal liability is available via WALGA's Local Government Insurance Services (LGIS). Additionally, this action is also addressed through a combination of Actions 10.1 and 10.10.

Recommendation: **Delete Action 10.14.**

Action 10.15

Action 10.15 *Advocate to universities for the integration of climate change, energy and water efficient building design principles to be incorporated into planning, building and design oriented courses.*

UWA, ECU and Murdoch University all run courses in the areas of either climate change or green building design and it is increasingly becoming mainstreamed into a range of other courses.

Recommendation: **Delete Action 10.15.**

Action 10.16

Action 10.16 *Develop a quality assurance program incorporating a process for assessing/rating planning decisions to ensure climate change risks are considered and can be quantified.*

DoP/WAPC have advised that they have no specific plans to undertake this action at present. This Action will require ongoing advocacy and is addressed by Action 1.1.

Recommendation: **Delete Action 10.16.**

Action 10.17

Action 10.17 *Advocate to DPI/WAPC to incorporate a peer review feedback mechanism into planning decisions to ensure climate change is considered.*

Again, DoP/WAPC have advised that they have no specific plans to undertake this action at present. This Action will require ongoing advocacy and is also addressed by Action 1.1.

Recommendation: **Delete Action 10.17.**

Summary – Review of Priority Risk Area 10 - Changing Leadership and Development Requirements

Action (2009-2013)	Alteration	New Action (2013-2016)
10.1	Reword.	<i>Continue to monitor and inform member Councils of changes in LG legal liabilities with respect to climate change.</i>
10.2	Reword.	<i>Continue to assist member Councils with implementation of LCCAAP's.</i>
10.3	Reword.	<i>Ensure incorporation of climate change risks into EMRC's regional strategies and actions, such as transport and economic development.</i>
10.4	Reword.	<i>Continue to provide up-to-date and relevant climate change information to member Councils in a timely manner.</i>
10.5	Reword.	<i>Work with State Government Departments and relevant agencies to raise community awareness of the implications of climate change and provide practical steps they can take to adapt.</i>
10.6	Delete.	-
10.7	Reword. Now Action 10.6.	<i>Continue to investigate further studies on regional scenarios/analogues and the implications for member Councils.</i>
10.8	Reword. Now Action 10.7.	<i>Advocate to State Government for funding to implement the proposed actions in the Government's 'Adapting to our changing climate', and to build policy cohesion across all agencies regarding adaptation.</i>
10.9	Reword. Now Action 10.8.	<i>Continue to advocate to WALGA to provide leadership in best practices for Local Government adaptation.</i>
10.10	Reword. Now Action 10.9.	<i>Continue to monitor job specific information, training and resources required by LG staff regarding adaptation.</i>
10.11	Delete.	-
10.12	Delete.	-
10.13	Delete.	-
10.14	Delete.	-
10.15	Delete.	-
10.16	Delete.	-
10.17	Delete.	-

APPENDIX A

Proposed RCCAAP Actions 2013 – 2016

Priority Risk Area 1 – Infrastructure Failure	
1.1	Continue to advocate to DoP/WAPC and other relevant agencies for ongoing support and education of member Council Planners so that climate change adaptation is incorporated into planning frameworks at a State and Local level.
1.2	Continue to advocate to DoW and relevant agencies for more specific flood modelling for the Region, including the influence of sea level rise and storm surge, so that member Council's can phase in more robust and appropriate actions to adapt.
1.3	Continue to advocate to DoW and relevant agencies for mapping of groundwater levels and subsidence risks in the Region.
1.4	Continue to provide member Councils with best practice approaches for assessing the risks to their infrastructure from climate change. Provide training as necessary.
1.5	Continue to advocate to Water Corporation and relevant agencies to phase in appropriate upgrades to drainage systems in order to cope with flash flooding from the more intense storm events associated with climate change.
1.6	Continue to advocate to WAPC to acquire land in areas at increased risk of flooding due to climate change.
Priority Risk Area 2 – Impacts on Essential Services	
2.1 Power Loss	
2.1.1	Continue to advocate for the delivery of a reliable power supply with the ability to reduce risks in extreme natural disaster conditions (eg. Intense bushfires and storms).
2.1.2	Continue to keep member Councils informed of the latest power and fuel supply solutions and technologies.
2.1.3	Continue to advocate to State Government agencies to develop a public awareness campaign of the potential impacts of climate change.
2.1.4	Continue to advocate to relevant government agencies for residential/industry rebates and incentives to assist energy efficiency and in the transition to renewable energy.
2.2 Water Availability	
2.2.1	Work with relevant agencies to increase community awareness and improved water conservation measures, including tighter water efficiency targets and increased water recycling.
2.2.2	Advocate to State Government for increased resources for enforcement of regulations relating to Downstream water supply.
Priority Risk Area 3 – Watercourse Damage and Loss	
3.1 Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS)	
3.1.1	Continue to provide member Councils with ongoing information and developments in relation to ASS, including improved mapping of ASS and PASS locations and risk areas.
3.2 Foreshore Erosion and Subsidence	
3.2.1	Continue to partner with the Swan River Trust to work with private landholders in the Region to apply best practice stabilisation techniques to protect the foreshore.
3.2.2	Continue to liaise with relevant agencies to increase community awareness and action for the prevention of river bank erosion.
3.2.3	Continue to advocate for increased awareness and funding for regional projects to protect river foreshore assets.
3.2.4	Continue to provide support for the use of the SRT Best Practice Approaches to Foreshore Stabilisation Manual within member Council's and advocate to State Government for increased funding for river bank management.
3.3 Flooding	
3.3.1	Factor climate change into project briefs for interpretation plan for trails and heritage along Swan and Helena Rivers.
3.4 Sedimentation	
3.4.1	Assist in education about runoff and sedimentation issues and the role the community can play in reducing impacts.
3.4.2	Continue to investigate opportunities to work with relevant agencies to minimise sediment in the stormwater system, reduce blockages and further improve water quality (e.g. water sensitive urban design).
3.4.3	Continue to update and promote the utilisation of relevant policy and guidelines within EMRC's NRM Policy Manual for managing sedimentation issues.
Priority Risk Area 4 – Increasing Bushfires	
4.1	Work with DFES and other relevant agencies to increase awareness within the community about bushfire issues in a changing climate and the role of the local community in reducing the impacts.
4.2	Facilitate a forum of member Council planning and fire control officers and other relevant stakeholders (e.g. DFES) to discuss issues in relation to the built environment and bushfire risk in a changing climate.
4.3	Advocate to State Government and relevant agencies to continue to improve emergency warning systems.

Priority Risk Area 5 – Water Decline and Reduced Water Quality	
5.1	Through the ICLEI Water Campaign™ activities and advocacy to the DoH, continue to support member Councils in identifying sites for the increased and safe use of recycled water.
5.2	Continue to monitor research on actual and potential changes in rainfall and the impact on regional water resources.
5.3	Advocate to State Government and relevant agencies to address water quality and leaching issues through the provision of sewerage services to industrial areas.
5.4	Continue to support participating member Council's water quality and water conservation actions through the Water Campaign™ program.
Priority Risk Area 6 – Greenhouse Gas Emissions and Related Air Pollution	
6.1	Monitor developments at the Australian Government level in relation to energy efficiency and mitigation of greenhouse emissions.
6.2	Continue to provide emissions monitoring for participating member Councils and support mitigation actions (i.e. ACER program).
6.3	Investigate opportunities to assist member Councils and the community to adapt to a low carbon environment.
Priority Risk Area 7 – Loss of Ecosystems and Provision of Public Open Space	
7.1	Monitor emerging issues for pest and weed management in relation to climate change.
7.2	Work to enable landowners to mitigate the impacts of climate change on the natural features on their properties (particularly along the river, watercourses and bushland areas).
7.3	Develop research priorities for biodiversity adaptation to climate change.
7.4	Provide practical information to local communities on how to reduce stressors such as erosion or pollution.
7.5	Work with relevant agencies to identify and protect aquatic ecosystems that are important for providing connectivity and potential refugia in the landscape under likely future climate scenarios.
Priority Risk Area 8 – Decline in Population Health and Wellbeing	
8.1 Health	
8.1.1	Advocate to State Government for continued education of the community about heat stress and other potential impacts of climate change on human health.
8.1.2	Provide education/training for member council staff about heat stress and other potential impacts of climate change on human health.
8.2 Displaced People	
8.2.1	Monitor information on the potential impacts of 'climate refugees' on housing and community services in the Region.
Priority Risk Area 9 – Economic – Challenges and Opportunities	
Actions as per EMRC Regional Strategies, including transport (RITS) and economic development (REDS).	
Priority Risk Area 10 – Changing Leadership and Development Requirements	
10.1	Continue to monitor and inform member Councils of changes in LG legal liabilities with respect to climate change.
10.2	Continue to assist member Councils with implementation of LCCAAP's.
10.3	Ensure incorporation of climate change risks into EMRC's regional strategies and actions, such as transport and economic development.
10.4	Continue to provide up-to-date and relevant climate change information to member Councils in a timely manner.
10.5	Work with State Government Departments and relevant agencies to raise community awareness of the implications of climate change and provide practical steps they can take to adapt.
10.6	Continue to investigate further studies on regional scenarios/analogues and the implications for member Councils.
10.7	Advocate to State Government for funding to implement the proposed actions in the Government's 'Adapting to our changing climate', and to build policy cohesion across all agencies regarding adaptation.
10.8	Continue to advocate to WALGA to provide leadership in best practices for Local Government adaptation.
10.9	Continue to monitor job specific information, training and resources required by LG staff regarding adaptation.



9.3 ITEMS CONTAINED IN THE INFORMATION BULLETIN

REFERENCE: COMMITTEES-15480

The following items are included in the Information Bulletin, which accompanies the Agenda.

1. REGIONAL SERVICES

- 1.1 REGIONAL ECONOMIC DEVELOPMENT STRATEGY – MINOR REVIEW
(Ref: Committees-15551)
- 1.2 PERTH HILLS TRAILS MASTER PLAN (Ref: Committees-15581)

RECOMMENDATION

That Council notes the items contained in the Information Bulletin.

CEOAC RESOLUTION

MOVED MR FOLEY

SECONDED MR COLE

THAT COUNCIL NOTES THE ITEMS CONTAINED IN THE INFORMATION BULLETIN.

CARRIED UNANIMOUSLY



10 CONFIDENTIAL MATTERS FOR WHICH THE MEETING MAY BE CLOSED TO THE PUBLIC

Nil

11 GENERAL BUSINESS

11.1 EVENTS IN THE REGION

7 June 2013	EMRC	Cocktail Function - 30 th Anniversary Celebration
3 – 4 August 2013	EMRC	Avon Descent Family Fun Days
31 August 2013	City of Bayswater	Mayoral Dinner
5 October 2013	City of Belmont	Mayoral Dinner

11.2 OTHER GENERAL BUSINESS

Nil

12 FUTURE MEETINGS OF THE CHIEF EXECUTIVE OFFICERS ADVISORY COMMITTEE

The next meeting of the Chief Executive Officers Advisory Committee will be held on **2 July 2013 (informal)** at the City of Bayswater, 61 Broun Avenue, Morley WA 6062 commencing at 12:30pm with lunch at 12noon.

Future Meetings 2013

Chief Executive Officers' Advisory Committee (CEOAC) meetings commencing at 12 noon:

Tuesday	2	July (informal)	at	City of Bayswater
Tuesday	6	August	at	EMRC Administration Office
Tuesday	3	September	at	EMRC Administration Office
Tuesday	8	October (informal)	at	City of Swan
Tuesday	19	November	at	EMRC Administration Office

Mr Jarvis advised that he will be an apology for 6 August 2013 CEOAC meeting and Mr Michael Costarella, Director Corporate Services will be deputising.

13 DECLARATION OF CLOSURE OF MEETING

There being no further business the meeting was closed at 12:40pm.