

Sustainable Futures Committee

Meeting Date: Tuesday, 01 May, 2018
Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra
Time: 4:00pm

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Agenda

1. Apologies

2. Confirmation of Minutes

- Sustainable Futures Committee - 1 February 2018.....1

3. Declarations of Interest

4. Presentations

SF18.10 Marine Climate Change Effects in Our Region -
Assoc. Prof. Chris Fulton

SF18.11 Representatives from Atlas of Life in the Coastal Wilderness,
NatureMapr, and Milton Rural Landcare Nursery - Atlas of Coastal
Wilderness/Nature Mapr - Implementation in the Shoalhaven

*Libby Hepburn (Atlas of Life in the Coastal Wilderness), Dr Michael
Mulvaney (NatureMapr), Paul Hams (Milton Rural Landcare Nursery)
and Mike Jefferis (Milton Rural Landcare Nursery) have been invited
to present to the Committee on the Atlas of Coastal Wilderness/
Nature Mapr, and its implementation in the Shoalhaven.*

5. Reports

SF18.12 Outstanding Action Table - Update7

SF18.13 Progress Report - Sustainable Futures Committee Resolutions -
Nature Based solutions - SF17.30. Tree Audit/Sutherland Shire
Council Indigenous Tree Canopy Model/ SCC Internal Working Group.....19

SF18.14 Progress Report - Cities Power Partnership - group pledges29

SF18.15 SolarHaven - Shoalhaven Solar Farm34

SF18.16 Quarterly Update from Energy Management Coordinator -
Darren O'Connell39

SF18.17 Climate Leadership Conference - 17-19 March 201841

6. General Business

Membership

Clr Gartner – Chairperson
Clr White – Alternate Chairperson
Mayor
All Councillors
General Manager (or nominee) – non-voting
David Brawn
Oisin Sweeney
Robert Hayward
Peter McVay
Lorraine Larri

Quorum – Six (6) voting members

Purpose

The Sustainable Futures Committee will make recommendations to Council with respect to the following:

- Setting emission targets for the Shoalhaven.
- Focusing on energy, including energy efficiency, energy security and renewable energy generation as well as other climate change issues
- Creating and building community capacity for environmentally sustainable living and business.
- Addressing, adapting and building resilience to climate change.
- Appropriate ways to protect, connect and integrate ecological values within our urban and regional context.
- Supporting and promote Waste reduction and resource recovery.
- Building organisational and community capacity to meet the challenges of climate change.
- Engage with and learn from our community business and industry leaders on innovative solutions.
- Establish and/or support renewable energy generation projects in the community.
- Ensure the currency of related strategy, policy and other key Council documents related to the purpose of the Committee.

Delegation

To expend funds allocated to the Sustainable Futures Committee by Council within the approved budget.

MINUTES OF THE SUSTAINABLE FUTURES COMMITTEE

Meeting Date: Thursday, 1 February 2018

Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra

Time: 4:03pm

The following members were present:

Clr Kaye Gartner - Chairperson

Clr Patricia White

Clr Joanna Gash – left the meeting 5.22pm

Clr John Levett

Clr Nina Cheyne

Clr Mark Kitchener

Clr Findley – arrived 4.09pm and left the meeting 5.37pm.

Mr Russ Pigg - General Manager – left the meeting 6.11pm

Mr David Brawn

Mr Oisin Sweeney

Mr Robert Hayward

Mr Peter McVay

Ms Lorraine Larri

Others present

Paul Keech – left the meeting 5.41pm

Phil Costello

Carmel Krogh – left the meeting 5.01pm

Michael Smith

Shane Pickering

Jessica Rippon – left the meeting 5.18pm

Gordon Clark

Darren O'Connell

Note: Carmel Krogh introduced Darren O'Connell – Energy Management Coordinator to the Sustainable Futures Committee.

Apologies / Leave of Absence

Nil

Note: The Committee introduced themselves.

Note: Clr Findley arrived – 4.09pm.

Confirmation of the Minutes

RESOLVED (Peter McVay / Lorraine Larri)

That the Minutes of the Sustainable Futures Committee held on Monday 22 January 2018 be confirmed.

CARRIED

Declarations of Interest

Nil

REPORTS

SF18.3 Outstanding Action Table - Update

HPERM Ref: D18/9735

Note: The Committee discussed the Action Table (attached) and verbal updates were provided and noted where required.

Recommendation (Item to be determined under delegated authority)

That the Outstanding Action Table be received for information.

RESOLVED (By consent)

That the Outstanding Action Table be received for information.

CARRIED

Procedural Motion - Bring Item Forward

RESOLVED (By consent)

That the matter of item SF18.6 - Anthropogenic Climate Disruption Update Discussion of 2017 Climate Data - Clr Gartner be brought forward for consideration.

CARRIED

SF18.6 Anthropogenic Climate Disruption Update Discussion of 2017 Climate Data - Clr Gartner

HPERM Ref: D18/9717

Clr Gartner requested the following link be displayed and provided a verbal update on the website information:

<https://www.climatecouncil.org.au/2017-heat-report>.

Clr Gartner advised that a briefing will be provided to the next meeting on this topic.

The following suggestions were made:

- Invite Will Steffen along to a Sustainable Futures Committee
- Focus on strategic planning
- Emergency Services Groups to be included in discussions for the need for respite areas in the future.

- Arrange for the Coastal Councils to agree to a strategy
- The ACCA Monthly newsletter to be linked out to the group
- Russ Pigg and Jessica Rippon attend the Local Emergency Management Committee and could request that they reassure the community in relation to preparedness for Climate Change.

Note: Carmel Krogh left the meeting, the time being 5.01pm.

RESOLVED (By consent)

That the ACCA Monthly Newsletter be circulated to the community members of the Sustainable Futures Committee.

CARRIED

SF18.4 Sourcing Construction Materials Made From Recycled Plastics

**HPERM Ref:
D18/19185**

The Beyond Plastics Conference was discussed and how in Fiji they are putting recycled plastics within the roads when they are being built.

The Committee was assured that Shoalhaven City Council are already using this technology where possible. The Committee suggested to provide this information to the community.

The Committee was advised that seats, exercise equipment and tiling are possibilities of where Sourcing Construction Materials Made From Recycled Plastics could be implemented.

It was suggested that the Sustainable Futures Committee could request a status report from waste unit in relation to strategies for waste reduction and resource recovery.

Note: Jessica Rippon left the meeting, the time being 5.18pm.

Recommendation

That a report be provided with regard to the proposal for Council to use fully recycled plastics in their outdoor infrastructure for such things as stairs, walkways, lookout platforms, benches, tables and bollards etc.

RESOLVED (By consent)

That the following reports be provided:

1. The proposal for Councils current usage for fully recycled plastics in their outdoor infrastructure for such things as stairs, walkways, lookout platforms, benches, tables and bollards etc.
2. A status report from the Waste Unit in relation to strategies for waste reduction and resource recovery

CARRIED

SF18.5 Education for Locals & Tourists

**HPERM Ref:
D18/24371**

It was discussed that this could be partially a sub-committee action.

Note: Clr Gash left the meeting, the time being 5.22pm.

It was also noted that 2019 might be too soon as this will take a lot of planning.

It was suggested to get in touch with those groups who are already running events.

Recommendation

That

1. This Committee consider a delegation to the Sustainable Living Festival (<http://slf.org.au/events/>) being held in Melbourne from 1-28 February
2. This Committee engage with Economic Development committee, Tourism Committee, Aboriginal Advisory Committee, Berry Small Farms, Shoalhaven Slow Food, Shoalhaven Transition, Zero Carbon Shoalhaven, Shoalhaven Business Chamber, local farmers, schools and community gardens and community groups to hold a similar event in the Shoalhaven in 2019.
3. The role of the Sustainability Project Officer include planning for greater synergies between and support for schools, TAFE, local organisations and SCC i.e. including towards a Shoalhaven Sustainable Living Festival and integration of Sustainability Education initiatives (e.g. Sustainable Schools Program, Eco-Schools, Kreative Koalas, The Archibull Prize).

RESOLVED (By consent)

That

1. The report Education for Locals & Tourists be received for information.
2. Community members and Councillors convene a working party to discuss further direction in relation to:
 - a. Engaging with Business Economic Development Committee, Shoalhaven Tourism Advisory Group, Aboriginal Advisory Committee, Shoalhaven Natural Resources and Floodplain Management Committee, Berry Small Farms, Shoalhaven Slow Food, Shoalhaven Transition, Zero Carbon Shoalhaven, Shoalhaven Business Chamber, local farmers, schools and community gardens and community groups to hold a similar event in the Shoalhaven in 2019.
 - b. The role of the Sustainability Project Officer include planning for greater synergies between and support for schools, TAFE, local organisations and SCC i.e. including towards a Shoalhaven Sustainable Living Festival and integration of Sustainability Education initiatives (e.g. Sustainable Schools Program, Eco-Schools, Kreative Koalas, The Archibull Prize).
 - c. That a representative from the Business and Employment Development Committee, Shoalhaven Tourism Advisory Group, Aboriginal Advisory Committee and Shoalhaven Natural Resources and Floodplain Management Committee be invited to join the working party.

CARRIED

GENERAL BUSINESS

**SF18.6 ANTHROPOGENIC CLIMATE DISRUPTION UPDATE
DISCUSSION OF 2017 CLIMATE DATA - CLR GARTNER**

**HPERM REF:
D18/9717**

Note: This item was dealt with earlier in the meeting.

ADDENDUM REPORTS

SF18.7 EcoVillage Initiative Red Head Villages Association (RHVA)

**HPERM Ref:
D18/26110**

The purpose of the report was to begin looking at village atmosphere and how it is about to change.

An overview of the report was provided.

It was advised that this has gained community support, and the working party are investigating the appropriateness and there is hope to lead into more strategic planning.

Note: Cllr Findley left the meeting, the time being 5.37pm.

Lorraine Larri advised that she reports back to the Red Head Villages Association (RHVA) after each meeting.

Recommendation (Item to be determined under delegated authority)

That the Committee receive the report for information.

RESOLVED (By consent)

That the Committee receive the report - EcoVillage Initiative Red Head Villages Association (RHVA) for information

CARRIED

SF18.8 Shoalhaven Biodiversity Strategy 2020-2030

**HPERM Ref:
D18/26115**

Note: Paul Keech left the meeting, the time being 5.41pm.

Shoalhaven City Councils existing strategy is covered under the Illawarra Strategic Plan and the South Coast Regional Conservation plan. Council has not previously been requested to have a specific Biodiversity Strategy.

It was advised that the State Government had changed the Crown Lands Act which will involve Crown Land & Council negotiating what Crown Land is transferred over to the Local Government Authority. Shoalhaven City Council has been advised that the negotiations will take place in 2019/2020.

The following suggestions were made in respect to the Biodiversity Strategy:

- This requires further work and will need to go to Council
- Invest in resourcing in a holistic plan across Shoalhaven
- Audit potential weaknesses gaps in layers instead of comprehensive long term strategy that could be addressed within resources
- The Committee to engage with staff for way forward in relation to a time frame, resources and budget required.
- Unless this ties in with LEP or other requirements can be difficult for staff to undertake
- Look for funding through 2018/19 budget for resourcing to address this
- A mapping exercise be undertaken by a working party and report back to the Committee and the mapping exercise to be added to action plan, this would include where the Committee want to be and ways forward, complete with timeframes initially to assist in prioritising.

Recommendation (Item to be determined under delegated authority)

That Shoalhaven City Council, via the Sustainable Futures Committee, discuss the need for the development of a biodiversity strategy for the Shoalhaven LGA to be completed by 2020 and to cover the period 2020-2030, and investigate the possibility of funding for a strategy through the NSW Environment Trust.

RESOLVED (By consent)

That a Working Committee of Councillors and Community Members be formed to map the Committees priorities and seek preliminary information in relation to the above report including speaking to other Councils who have undertaken similar projects to find advantages.

CARRIED

SF18.9 Review and extension of NSW Regional Forest Agreements**HPERM Ref:**
D18/26125

The NSW Regional Forest Agreements have been in place for 20 years and therefore it was suggested there is room for improvement.

It was decided that the proposed recommendation would need to be resolved by the Ordinary Meeting of Council and it would not be able to be resolved prior to 23 February 2018.

Note: Russ left the meeting, the time being 6.11pm.

Recommendation

That Shoalhaven City Council;

1. via the Sustainable Futures Committee, make a submission to the NSW Government on the RFA review;
2. request an extension to the consultation period due to the size of the report and the tight timeframe (February 23rd) given the absence of staff over the holiday season

RESOLVED (By consent)

That.

1. Council staff request an extension to the consultation period due to the size of the report and the tight timeframe (February 23rd) given the absence of staff over the holiday season
2. Provided the extension is granted, the Committee draft a submission
3. Oisin Sweeney report to the Sustainable Futures Committee prior to submitting this submission to Council to be resolved.

CARRIED

There being no further business, the meeting concluded, the time being 6.15pm.

Clr Kaye Gartner
CHAIRPERSON

SF18.12 Outstanding Action Table - Update

HPERM Ref: D18/115322

Group: Finance Corporate & Community Services Group
Section: HR, Governance & Customer Services

Attachments: 1. Sustainable Futures Committee - Outstanding Actions Table - 1 May 2018 [↓](#)

Purpose / Summary

To advise the Sustainable Futures Committee of all resolutions/actions and provide an update.

Recommendation (Item to be determined under delegated authority)

That the Outstanding Action Table be received for information.

Options

1. As recommended

Implications: Nil

2. An alternative recommendation relevant to the content of the Table.

Implications: unknown

Background

It was requested by the Chair that a table be created and reported to each meeting on the outstanding actions/resolutions and updates be provided.

Sustainable Futures Committee Outstanding Actions Table

Action/Resolution	Date	Person and Group Responsible	Comments	Finalised
Energy Management Internal Audit Report – That the Sustainable Futures Committee 1. Receive and note the contents of the report. 2. Provide any further directions to Council on energy management. 3. The General Manager seek to employ a dedicated resource and that funding come from the savings that the resource would produce	19/7/17	Carmel Krogh – Shoalhaven Water	Carmel provided a verbal update, and tabled Darren O'Connell's Councils Energy Management Coordinators work plan for January – July 2018. Please note this is subject to change. Darren provided a verbal update on the plan and possible developments. 15/11/2017 Contract resource currently being utilised and fixed for 6 months.	15/11/2017 Action completed by: Carmel Krogh
Cities Power Partnership – That Council 1. Decide to partner with other South East Coast Councils through this program i.e. Kiama, Eurobodalla and Bega Valley 2. Call a meeting of Mayors and General Managers of these Councils, to take place by mid-November, to formalise this partnership. 3. Staff establish formal liaisons with partner Councils for information exchange and joint project funding and management. 4. To adopt the Cities Power Partnership Pledges.*	17/8/17 and resolved unchanged at August Ordinary	Kelie Clarke – Planning, Environment and Development	1. & 2. Shoalhaven City Council along with Kiama, Eurobodalla and Bega Valley have all joined the Climate Council's Cities Power Partnership but who we are partnered with is unclear. Seeking clarification from CPP. CPP not discussed at last Mayors & GMs meeting. 3. Staff have met with Bega and Kiama relevant staff and in contact our 3 coastal neighbouring councils re exchanging information. No formal agreements between staff but all happy to share information and knowledge freely. 4. Environmental Planner and Sustainability Officer following up with Group Directors re Pledges for each group. Corporate & Community Group – Director on leave in lead up to report due date. Asset & Works Group – Review of PAMP yet to occur due to staff shortages.	

Sustainable Futures Committee Outstanding Actions Table

			PE&D Group – Energy efficiency benchmarks discuss at last developers forum where it was noted that the increased requirements of BASIX already set a high “benchmark” and creating problems for developers. Council’s DCP includes objectives related to ESD with specific objectives in section 5.13 (residential allotment layout) with criteria and acceptable solutions in P87 requiring solar access and north orientation for living areas. Shoalwater – Callala Treatment Plant solar project in planning stage and progressing.	
Renewable Energy Management – Progress – That Council support the preparation of documents for Expressions of Interest for land-based and floating solar projects with different funding models.	12/10/17 Resolved unchanged at October Ordinary	Carmel Krogh – Shoalhaven Water	Carmel Krogh provided a verbal update on the proposed Sewer Treatment Plant Project in Callala; the draft business case could be ready for distribution to the Committee by March. Currently advice is being sought for the estimated projections.	
Helping Nature Help People – That Council investigate the development and implementation of a Policy to facilitate nature-based solutions to strengthen the wellbeing and resilience of Shoalhaven residents and their environments, starting with the urban canopy as a nature based solution	12/10/17 Resolved unchanged at October Ordinary	Kelie Clarke – Planning, Environment and Development	Ties in with Nature Based Solutions resolution (see below) with an audit putting a dollar value on the ecosystem and public health benefits to provide a background for development of the policy.	
Weird Winter – 1. The Committee receives the Climate Council Report on Australia’s 2017 Winter Weather. 2. Use the graphics from climate councils website as a contribution to the your neighbourhood newsletter.	12/10/17	Jessica Rippon – General Managers Group	Comment – Jessica Rippon (28/03/2018) The proposal to use the graphics from the climate change council will be considered as part of Council’s overall communication approach for the quarter that the in your neighbourhood newsletter is released. The graphics can be incorporated as part of the overarching communications strategy that is developed for the Committee.	Action completed by: Jessica Rippon

Sustainable Futures Committee Outstanding Actions Table

<p>Education for Locals and Tourists – That:</p> <ol style="list-style-type: none"> 1. The Committee commence a community education program for locals and tourists this summer. 2. Committee invite Communications staff to a round table discussion of themes for 2017 summer season. 3. This roundtable discuss how committee members can contribute content to the summer communications program. 	12/10/17	Jessica Rippon – General Managers Group	A roundtable discussion occurred between the communications team and the committee and a draft plan has been developed.	19/04/2018 Action completed by: Jessica Rippon
<p>Global Covenant of Mayors for Climate and Energy –</p> <p>That the Sustainable Futures Committee receive the report - Global Covenant of Mayors for Climate and Energy for information and reconsider joining in 12months time.</p>	29/11/17	Kelie Clarke – Planning, Environment and Development	This matter will be reconsidered in November 2018.	
<p>Nature-based solutions - urban ecology - options for Implementation –</p> <p>That the Committee</p> <ol style="list-style-type: none"> 1. Invite Sutherland Shire Council to present their award winning model for bringing back an indigenous tree canopy with a view to implementing such a model in the Shoalhaven; and 2. Undertake a selected audit of the urban tree canopy to help Council understand the economic and other values trees provide to the communities of the Shoalhaven; and 	29/11/17	Michael Smith and Gordon Clark – Planning, Environment and Development	1.Sutherland Shire Council advised (10.1.18) they could not send the relevant officer (Canopy Co-ordinator) to present to the committee but have invited Shoalhaven City Council relevant staff to Sutherland to meet with the Canopy Co-ordinator who will run through the model, take staff on a tour of sites and community nursery and provide information to Shoalhaven City Council for a presentation to the Sustainable Futures Committee. Council staff attended Sutherland Council with other regional councils on 8/2/18. Overview of program to be given at Tree Management Working Group.	1. Completed.

Sustainable Futures Committee Outstanding Actions Table

<p>3. Establish an internal working group with representatives from Environmental Services, Recreation Community & Culture, City Design Unit and Strategic Planning to investigate options for amendments to the DCP to incorporate the practical retention of remnant vegetation generally and specifically in urban release areas and report and liaise with the Committee.</p>			<p>2.No staff available or experienced in auditing trees to give a dollar value for trees. Environmental Services has obtained a quote from an institution with prior experience in auditing trees. The quote contains two options; one audit based on a desktop assessment using aerial photos (\$5K-10K taking 2-3 weeks) and the other a field based assessment (\$30K-40K taking 12-15 weeks) to provide an economic (and environmental and social) benefit value for trees in a selected area.</p> <p>Sustainable Futures Com allocated funds for audit. Quotes being sought. See D18/23856 (SF18.1)</p> <p>3. Working group established. First meeting scheduled for 21/2/18</p> <p>13/02/2018 Action completed by: Michael Smith</p> <p>Working group meeting on 21 February 2018 – postponed from earlier date due to key staff unavailability / holidays.</p>	<p>3. Completed – working group established.</p>
<p>Draft Shoalhaven City Council Sustainable Futures Committee Strategy Outcomes Hierarchy –</p> <p>That</p> <p>1. The Sustainable Futures Committee accept the Draft Outcomes Hierarchy as a way of describing its strategy and use it as a point of reference for discussions within Shoalhaven City Council and externally with the broader Shoalhaven Community.</p>	<p>29/11/17</p>	<p>Kelie Clarke – Planning, Environment and Development</p> <p>and Craig Milburn – Finance Corporate and Community Services (part 3 only)</p>	<p>18/12/2017- Sharon Neradil</p> <p>Sustainable Futures Committee met on 12 Dec 2017 to discuss the budget</p>	

Sustainable Futures Committee Outstanding Actions Table

<p>2. The Sustainable Futures Committee continue to update the draft as a result of engagement with the community or significant policy changes by federal or state governments impacting on the future of sustainable business practices.</p> <p>3. That the working party (Bob Hayward, Peter McVay, Clr Gartner, Clr White, Craig Milburn) evaluate the distribution of the budget, in line with the outcomes of the hierarchy and update the Sustainable Futures Committee at the next meeting.</p>				
<p>Proposed Street Tree Policy Amendments –</p> <p>That the Sustainable Futures Committee make a submission to Council in relation to the document on exhibition currently - Streetscape Design Towns and Villages Policy, which closes 12 January 2018.</p>	29/11/17	Kelie Clarke – Planning, Environment and Development	<p>Not actioned. DCP draft Chapter 18 “Streetscape design for town and village centres” reviewed by Environmental Planner with Strategic Planner. If the intent of the submission was to increase the plantings / species composition then the Streetscape Technical Manual is the appropriate document for review. Clarification required.</p> <p>A verbal update was provided and it was advised that the Berry Forum made a submission and it was not relevant to the Sustainable Futures Committee.</p>	
<p>Climate Change - Impacts on Human Health –</p> <p>That the Sustainable Futures Committee:</p> <ol style="list-style-type: none"> Note the information provided by the attachment Staff submit a report to Council containing the following 	29/11/17	Kelie Clarke – Planning, Environment and Development	<p>Oisin Sweeney was advised to contact Sara McMahon regarding setting up the briefing in line with the meeting, however it would also depend on when the report was written.</p>	

Sustainable Futures Committee Outstanding Actions Table

<p>recommendation from the Sustainable Futures Committee:</p> <p><i>Council undertakes to communicate the health impacts of climate change to the community through the planned communication strategy.</i></p> <p>3. Invite one of the Health Doctors to brief Councillors directly prior to the Council Ordinary Meeting that the report is being submitted to on the impacts of climate change on human health.</p> <p>Note: That this not be actioned until someone is available to brief the Council.</p>				
<p>Committee Budget</p> <p>That the Committee</p> <ol style="list-style-type: none"> 1. Allocate \$4,000 from its budget to join the NSW OEH Sustainability Advantage Program; and 2. Allocate up to \$40,000 from its budget for staff resources to implement the Program; and 3. Allocate \$6,000 from its budget to undertake a selected audit of the urban tree canopy; and 4. Should there be any remaining funds from the budget this be directed to the development of a communications plan. 	22/01/2018	Kelie Clarke – Planning, Environment and Development	Shane Pickering advised that the \$6,000 in part 3 would only cover phase 1 of the selected audit of the urban tree canopy.	

Sustainable Futures Committee Outstanding Actions Table

<p>Sourcing Construction Materials Made from Recycled Plastics</p> <p>That the following reports be provided:</p> <ol style="list-style-type: none"> 1. The proposal for Councils current usage for fully recycled plastics in their outdoor infrastructure for such things as stairs, walkways, lookout platforms, benches, tables and bollards etc. 2. A status report from the Waste Unit in relation to strategies for waste reduction and resource recovery. 	<p>01/02/2018</p>	<p>David Hojem Assets and Works (1)</p> <p>Roslyn Homes Assets and Works (2)</p>	<p>Part 2 assigned to Ros Holmes because they can incorporate the use of recycled materials into their designs.</p>	
<p>Education for Locals and Tourists</p> <p>That</p> <ol style="list-style-type: none"> 1. The report Education for Locals & Tourists be received for information. 2. Community members and Councillors convene a working party to discuss further direction in relation to: <ol style="list-style-type: none"> a. Engaging with Business Economic Development committee, Shoalhaven Tourism Advisory Group, Aboriginal Advisory Committee, Shoalhaven Natural Resources and Floodplain Management Committee, Berry Small Farms, Shoalhaven Slow Food, Shoalhaven Transition, Zero Carbon Shoalhaven, Shoalhaven Business Chamber, local farmers, schools and community gardens and community groups to hold a 	<p>01/02/2018</p>	<p>Sara McMahon – Finance Corporate and Community Services</p>	<p>14/03/2018</p> <p>Meeting scheduled 7/6/18 - prior to meeting as requested - have sent notification to chair of BEDC, STAG, AAC and SNRFMC all to nominate a representative to attend working party</p> <p>To be removed after the meeting has been held on 7 June 2018.</p>	

Sustainable Futures Committee Outstanding Actions Table

<p>similar event in the Shoalhaven in 2019.</p> <p>b. The role of the Sustainability Project Officer include planning for greater synergies between and support for schools, TAFE, local organisations and SCC i.e. including towards a Shoalhaven Sustainable Living Festival and integration of Sustainability Education initiatives (e.g. Sustainable Schools Program, Eco-Schools, Kreative Koalas, The Archibull Prize).</p> <p>c. That a representative from the Business and Employment Development Committee, Shoalhaven Tourism Advisory Group, Aboriginal Advisory Committee and Shoalhaven Natural Resources and Floodplain Management Committee be invited to join the working party.</p>				
<p>Shoalhaven Biodiversity Strategy 2020-2030</p> <p>That a Working Committee of Councillors and Community Members be formed to map the Committees priorities and seek preliminary information in relation to the above report including speaking to other Councils who have undertaken similar projects to find advantages.</p>	01/02/2018	Brooke Aldous – Finance Corporate and Community Services	09/03/2018 Awaiting advice from Cllr Gartner on date of proposed working party meeting.	

Sustainable Futures Committee Outstanding Actions Table

Review and extension of NSW Regional Forest Agreements That. 1. Council staff request an extension to the consultation period due to the size of the report and the tight timeframe (February 23 rd) given the absence of staff over the holiday season 2. Provided the extension is granted, the Committee draft a submission 3. Oisin Sweeney report to the Sustainable Futures Committee prior to submitting this submission to Council to be resolved.	01/02/2018	Kelie Clarke Planning, Environment and Development & Oisin Sweeney		
Partnership with Griffith University – Workshops That 1. Council partner in a research project with Griffith University funded by the Australian Research Council (ARC) Discovery grant titled “managing environmental change through planning for transformative pathways”; and 2. Interested Committee members participate in the project by attending workshops facilitated by Griffith University.	22/01/2018	Kelie Clarke	15/03/2018 - Donna Hayden Item 1. Letter of support D18/85899 emailed to Dr Darryl Low-Choy - Griffith University	

Sustainable Futures Committee Outstanding Actions Table

Pledges	Group	Comments
Work Together and Influence Pledge: <i>Implement an education and behaviour change program to influence and build resilience and adaptive capacity of council officers, local residents and businesses within the municipality to drive the shift to renewable energy, energy efficiency and sustainable transport</i>	General Managers Group	<ul style="list-style-type: none"> Discussions have been held with the Sustainable Futures Committee regarding the GM pledge. This has included a workshop around communication options for the delivery of this pledge and other projects of the Committee. At this time budget has not been allocated to the pledge however existing resources and budget with the Executive Strategy Section will be used to deliver various communications regarding renewable energy and sustainability A draft communication plan has been developed. This plan will be finalised in discussion with the Committee in the next month. The plan will be implemented over the coming months through the use of Councils existing communication tools such as Facebook and e-news. Discussions have also been held with the RFS to develop collaborative communications regarding bushfire risk and extreme weather conditions. Individual marketing strategies are also being developed for Council's Waste, Compliance and Environmental units. It is expected that these plans will also deliver increased communications with our community, about a range of environmental initiatives and sustainable practices.
Work Together and Influence Pledge: <i>Set city-level renewable energy targets, emissions reduction targets and sustainable energy policies to provide a common goal and shared expectation for residents and businesses.</i>	Corporate and Community	Comment – Director Finance Corporate and Community (23/01/2018) The Committee have decided to participate in the NSW OEH sustainability advantage program. As I understand this program will assist in council developing the base line data that will be needed for a discussion around what levels reductions etc. need to be set.
Transport Pledge: <i>Encourage sustainable transport use (e.g. ride share / electric vehicles, public transport, walking and cycling) through Council transport planning and design – in the form of a PAMP review.</i>	Assets and Works	MIN18.199, 27/03/2018 That Council 1. Support in principle the proposal received from the NRMA Pty Ltd (Bringing electric vehicle fast- charging to Berry – January 2018) and authorise the General Manager to work through its implementation and delivery with the NRMA Pty Ltd and relevant stakeholders; and

Sustainable Futures Committee Outstanding Actions Table

		2. Prepare a policy position on the Electric Vehicle Charging facilities that seek to use public land, including public reserves, road reserves, car parks and other freehold land used as open space.
Energy Efficiency Pledge: <i>Investigate/recommend minimum energy efficiency benchmarks for all planning applications in consultation with the local developers forum</i>	Planning, Environment and Development	
Renewable Energy Pledge: <i>Install renewable energy pilot plant on water/sewer assets where viable</i>	Shoalhaven Water	

SF18.13 Progress Report - Sustainable Futures Committee Resolutions - Nature Based solutions - SF17.30. Tree Audit/Sutherland Shire Council Indigenous Tree Canopy Model/ SCC Internal Working Group

HPERM Ref: D18/113114

Group: Planning Environment & Development Group
Section: Environmental Services

Attachments:

1. Tree audit proposal - University of Technology Sydney - Nature Based Solutions (1)- resolution SF17.30 - Sustainable Futures Committee [↓](#)
2. Tree Audit - Nowra CBD area - Surface Temp differences Shade vs Full Sun 37degree day - 14 Feb 2018 - Sustainable Futures Committee [↓](#)
3. Sutherland Shire Council award winning Green Streets presentation (under separate cover) [⇒](#)

Purpose / Summary

Update the Committee on the progress of the “Nature-based solutions – urban ecology – options for Implementation” resolutions of 29 November 2017;

Recommendation (Item to be determined under delegated authority)

That the Committee accept the progress report for information.

Options

1. As recommended.

Implications: Nil

2. The Committee could adopt an alternative recommendation.

Implications: Unknown

Background

On 29 November 2017, the Sustainable Futures Committee resolved to:

1. *Invite Sutherland Shire Council to present their award-winning model for bringing back an indigenous tree canopy with a view to implementing such a model in the Shoalhaven; and*
2. *Undertake a selected audit of the urban tree canopy to help Council understand the economic and other values trees provide to the communities of the Shoalhaven; and*
3. *Establish an internal working group with representatives from Environmental Services, Recreation Community & Culture, City Design Unit and Strategic Planning to investigate options for amendments to the DCP to incorporate the practical retention of remnant vegetation generally and specifically in urban release areas and report and liaise with the Committee.*

SF18.13

Progress on actions

1. Sutherland Shire Council's model for bringing back an indigenous tree canopy

Sutherland Shire Council invited staff from Shoalhaven, Wollongong and Kiama Council areas to their offices on Thursday 8 February 2018 for a presentation of their model for Bringing Back our Indigenous Tree Canopy followed by a tour of their community nursery and some planting projects. Four staff from Council attended and came away inspired by what they have achieved and believing a similar model could be implemented in the Shoalhaven. It was very noticable on the tour of their planting projects the number of young trees throughout Sutherland compared to the Shoalhaven on footpaths and other areas of public land which will allow for a less disrupted tree canopy as older trees require replacement at the end of their useful life.

The Sutherland model involves providing the right tools (DCP provisions and controls, funding, and a native plant selector) for the community to select and help maintain trees planted on public land such as road reserves in front of their homes. The trees are grown from locally sourced seed in a council funded community nursery run by volunteers with the trees (local indigenous species) being protected after planting to achieve high survival rates. The community is supported by a team of council staff who have engaged the local volunteers. The funding for the model comes from environmental fines, landscape inspection fees, tree removal application fees, and offset planting deeds of agreement. Funding for the model has increased from \$70K in 2012 to \$500K in 2017. Seventy seven projects planting 7,420 trees have been completed since 2012.

The PowerPoint presentation slides of the Sutherland presentation are contained in attachment 3 and contain further information including some projects completed in industrial areas and along major roads.

As requested by Councillor White, below is an example of the signage Sutherland Shire Council uses to identify sites of illegal tree removal and poisoning.





SF18.13

2. *Selected urban tree canopy audit*

On 22 January 2018 the Committee resolved to allocate \$6000 from its budget to undertake a selected audit of the urban tree canopy (TRIM reference D17/425034).

Council approached the University of Technology Sydney (UTS) and University of Wollongong to quote on undertaking the audit for a predetermined area in St Georges Basin using the i-Tree software <https://www.itreetools.org/>

The University of Wollongong declined to provide a quote after initially being interested in the project.

The UTS provided a proposal (refer to attachment 1) for an audit using i-Tree software based on air-photo interpretation of vegetation within the predetermined area (identified in the quote). UTS has undertaken a similar project measuring air pollution removal, carbon storage and sequestration and economic potential of tree canopy covers in Sydney: <https://www.uts.edu.au/about/faculty-design-architecture-and-building/what-we-do/research/research-projects/measuring>

Due the budget available, UTS can only do a desk-based audit that does not distinguish between native and exotic vegetation or provide a more extensive audit of the values and benefits trees provide. In terms of providing a simple measure of the cooling benefits trees provide in an urban environment (Graham St Nowra, Harry Sawkins Park, and outside Nowra Library), Council's Environmental Assessment Officer undertook some temperature measurements on a 37°C day to quantify the benefit to people a tree canopy can provide in terms of relief from high temperatures (see attachment 2).

Council is expecting the Audit report by end of May / mid June 2018.

3. Working group

An Internal Working Group made up of eight officers from Assets & Works, Finance Corporate & Community, and Planning Environment & Development groups met in March with three of the group having attended the Sutherland Shire Council's tour and presentation day. The presentation material from the Sutherland tour was presented to the rest of the group and ways of potentially implementing a similar model to the Shoalhaven were discussed. Discussion focussed on what resources Council does and does not currently have (such as funding). Council does have a small community nursery and volunteers to grow indigenous trees though it would need to be expanded if the Sutherland model was to be implemented in the Shoalhaven. The group recognises an increase in staff resources would also be required to implement the model and be subject to the extent of funding model.

The working group also discussed the UTS tree audit proposal and feedback from the group was included in the final brief to UTS.

Attendees at the working group agreed to meet regularly to work more collaboratively in relation to tree issues and to review the results, when available, of the UTS Tree Audit.

Community Engagement

Shoalhaven City Council receives a small number of enquires (three so far for 2018) by way of correspondence and representations from NSW government members and/or from residents concerned at the removal of trees within the Shoalhaven and the impacts this has on our environment. Community members have specifically asked what Council is doing to ensure a tree canopy is maintained. These are saved in Council's record management system TRIM (reference # 7378E – Health & Environment – Tree preservation – Council requirements).

Financial Implications

The above actions have been implemented within existing Council budgets and the Committee's budget (as per the resolution of 22 January 2018 – TRIM D17/425034).

The financial implications should Shoalhaven City Council decide to implement the Sutherland model for bringing back an indigenous tree canopy would have to be investigated.

Risk Implications

Continuing to lose canopy trees from the urban areas of the Shoalhaven City risks the city's ability to successfully adapt to or mitigate the impacts of Climate Change, specifically urban heat island effects and loss of urban wildlife and usable passive recreation areas.

Project Proposal

Assessment of environmental, economic and social benefits of trees in a Shoalhaven City Council case study

1 Introduction

This project proposal is prepared for the Shoalhaven City Council for conducting an evaluation of the environmental, economic and social benefits of trees in the following selected project site located within the Council area. The site is located in St. Georges Basin area in Jervis Bay in close proximity to natural areas and has been impacted by urbanisation. The project area is bounded by Lorilyn Avenue in the south, the Wool Lane connecting up to Cammaray Drive in the east, and Cammaray Drive in the west followed by Claylands Drive in the north. Fig 1, shows the final boundary of the project site.



Fig 1: Project boundary (Aerial photo source: Shoalhaven City Council)

The analysis would be conducted using Geographic Information Systems (GIS) methods, relevant i-tree modelling software and a literature review of social benefits of trees. i-Tree was initially developed by the United States Department of Agriculture (USDA) Forest Service. This software could be applied for quantifying environmental benefits and economic values of air pollution removal, building energy savings, and carbon sequestration and storage provided by the trees.

2. Aerial photo based urban tree assessment

Assessment of environmental, economic and social benefits of trees in a Shoalhaven City Council case study (aerial photo based)

Outline of the process

- Site analysis to identify specific characteristics of the project site;
- Land cover/land use pattern – measuring area and percentage cover (using i-tree modelling software and GIS analysis) from an aerial photo;
- Environmental analysis of the site (using i-tree modelling software) from an aerial photo;
- Economic benefit analysis of the site (using i-tree modelling software);
- A brief literature review on social benefits of urban trees;
- Preparation of the report and submission to the Council;

Deliverables

1. A report on the project site will be submitted to the Council containing the following outputs and a discussion.
 - Spatial distributions of land cover/land use pattern: areas and percentages;
 - Environmental benefits of the trees on the project site from:
 - annual total air pollution removal (for example, removal of carbon monoxide, and nitrogen dioxide etc.);
 - annual total onsite carbon dioxide (CO₂) sequestration capacity;
 - total carbon dioxide (CO₂) storage in the biomass of the trees;
 - Economic values of the trees on the project site in Australian dollars for:
 - annual total air pollution removal;
 - annual total carbon dioxide (CO₂) sequestration;
 - total carbon dioxide (CO₂) storage;
 - Social benefits
 - A brief literature review on social benefits of urban trees;
2. Submission of a peer reviewed conference paper at a national conference (if permissible from the Council) after completion of the project.

Project duration

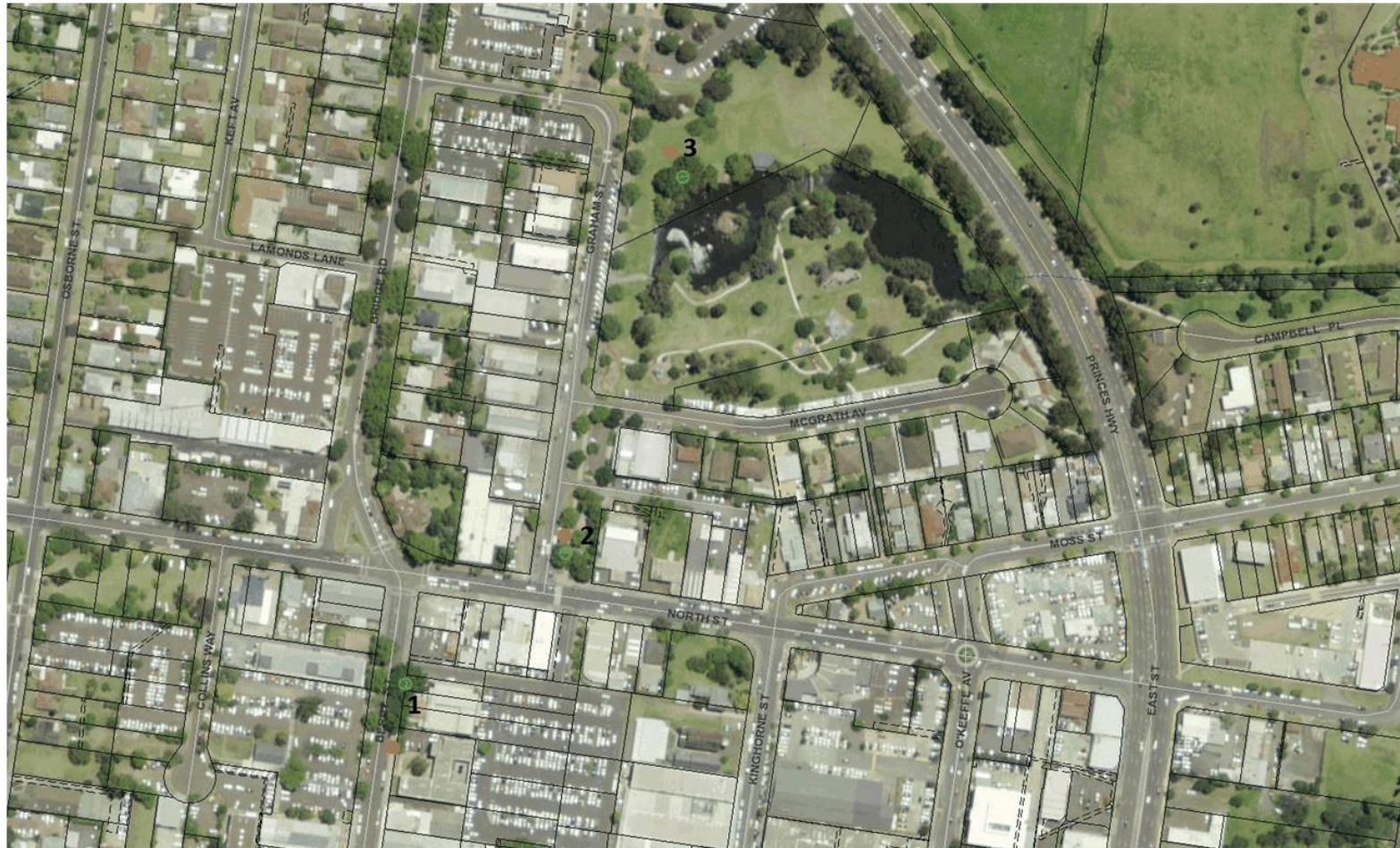
The project duration required for this aerial photo based urban tree assessment would be approximately between 2 to 3 weeks.

Data required

A recent georeferenced aerial photograph and property boundaries from the Council's GIS database for the project site is to be supplied by the Council to the University of Technology Sydney for the project.

Comparison of surface temperatures between shaded and full-sun locations

Temperatures recorded during the afternoon of 14 February 2018, with air temperature at 37°C.



Green dots indicate shaded locations, orange dots indicate locations shaded by trees

Site 1.



Site 1 - shaded



Site 1 – full sun

Site 2.



Site 2 – shaded



Site 2 – full sun

Site 3.



Site 3 – shaded



Site 3 – full sun

SF18.14 Progress Report - Cities Power Partnership - group pledges

HPERM Ref: D18/113136

Group: Planning Environment & Development Group
Section: Environmental Services

Attachments: 1. City Powers Partnership pledges implementation action table [↓](#)

Purpose / Summary

To document the action plan for the implementation of the Shoalhaven City Council's Cities Power Partnership group pledges.

Recommendation (Item to be determined under delegated authority)

That the Sustainable Futures Committee receives the action plan for information.

Options

1. As recommended
Implications: Nil
2. The Committee could adopt an alternative action plan
Implications: Unknown

Background

On 22 August 2017 at the Ordinary Meeting of Council it was resolved to adopt 5 City Powers Partnership pledges, one for each group within Council.

General Managers Group Pledge: Work Together and Influence - Implement an education and behaviour change program to influence and build resilience and adaptive capacity of council officers, local residents and businesses within the municipality to drive the shift to renewable energy, energy efficiency and sustainable transport

Corporate and Community Group Pledge: Work Together and Influence – Set city-level renewable energy targets, emissions reduction targets and sustainable energy policies to provide a common goal and shared expectation for residents and businesses

Assets and Works Group Pledge: Transport – Encourage sustainable transport use (e.g. ride share / electric vehicles, public transport, walking and cycling) through Council transport planning and design – in the form of a PAMP review.

Planning, Environment and Development Services: Energy Efficiency Pledge -: Investigate/recommend minimum energy efficiency benchmarks for all planning applications in consultation with the local developer's forum

Shoalhaven Water Group Pledge: Renewable Energy – Install renewable energy pilot plant on water/sewer assets where viable.

Implementation Action Plan

The attached action plan documents implementation of the pledges and how they are to be implemented.

Each group's pledge, determined by Group Directors, has been discussed with the designated officer or officers for each Group and formed the attached action plan for implementation.

Financial Implications

All actions are to be implemented through existing group budgets or with funds allocated from the Sustainable Futures budget (as per the resolution of 22 January 2018 – TRIM D17/425034), except for the Shoalhaven Water Group's proposed Solar Farm which will require the approval of Council to proceed.

Risk Implications

NA

City Powers Partnership pledges implementation action plan table

General Managers Group Pledge: Work Together and Influence - <i>Implement an education and behaviour change program to influence and build resilience and adaptive capacity of council officers, local residents and businesses within the municipality to drive the shift to renewable energy, energy efficiency and sustainable transport</i>			
Action	Timeframe	Budget	Responsibility
"Energy Efficiency" training across council with Energy Management Co-ordinator to look at and improve the energy efficiency of Council Assets	Starting May 2018 with water / sewer operators. Other sections that could be trained to benefit council in terms of energy efficiency to be identified and trained by 30 June 2018	Staff time – within existing budget	Training to be delivered by Energy Management Co-ordinator
Produce a communications plan with local residents and businesses	Communication plan with local residents and businesses developed and finalised following discussions with the Committee in March / April 2018. Assistance from the digital business hub in developing content is ongoing.	Within existing budgets	Executive Manager - Communications
Proposed Solar and Battery Public Workshop	June 2018	Within existing budgets	Coordinated by Energy Management Coordinator

Corporate and Community Group Pledge: Work Together and Influence – <i>Set city-level renewable energy targets, emissions reduction targets and sustainable energy policies to provide a common goal and shared expectation for residents and businesses</i>			
Action	Timeframe	Budget	Responsibility
Employ a Sustainability Coordinator	Interim tasks being overseen by Energy Management Coordinator until position filled – recruitment process underway	From Sustainable Futures Committee budget (TRIM reference D17/425034)	Environmental Services
Join NSW Government's Sustainability Advantage Program (SA Program)	Joined	\$4,000 Membership Fee from Sustainable Futures Committee budget	

Through the SA Program, utilise their allocated consultant to undertake a “strategic review” followed by a “management diagnostic” with the aim to follow the “Business Planning for Sustainability” module	April – June 2018	As above	Energy Management Coordinator Environmental Services Manager
Propose energy and emissions reduction targets based on corporate and community consultation.	July 2018	Within existing budget	Energy Management Coordinator

Assets and Works Group Pledge: Transport – <i>Encourage sustainable transport use (e.g. ride share / electric vehicles, public transport, walking and cycling) through Council transport planning and design – in the form of a PAMP review.</i>			
Action	Timeframe	Budget	Responsibility
PAMP/Bike Plan review – proposed to be integrated into a new Active Transport Strategy to align with NSW Government Policy	PAMP/Bike Plans reviewed annually	No budget has been provided so has to be absorbed into workloads as time permits	Traffic & Transport Unit
Partner with NRMA to install an EV Fast Charging Station in Berry	2018	NRMA funded	NRMA SCC – Property Unit
Support and implement ‘South East Electric Highway’ proposal with Eurobodalla Shire Council	2018	Nil	Mayor CPP Buddies Group

Planning, Environment and Development Services (PED) Energy Efficiency Pledge: <i>Investigate/recommend minimum energy efficiency benchmarks for all planning applications in consultation with the local developer’s forum</i>			
Action	Timeframe	Budget	Responsibility
Shoalhaven Building Awards – promote Sustainable Building Category	Awards in November 2018 or March 2019		PED

Develop standard for energy efficiency in houses beyond BASIX requirements			
Work with local construction / building company to promote energy efficient, affordable and accessible home designs.	2018 - Council and developer to pre-endorse submitted home designs for inclusion in a local subdivision.	Within existing budgets	Environmental Services and Building & Compliance
Review DCP Chapter 13 to include a standard for energy efficiency	Short term priority	In accordance with work program	Strategic Planning
Review DCP Subdivisions Chapter to include relevant considerations regarding energy efficiency	Medium term priority	In accordance with work program	Strategic Planning
Tree Audit (outcome of SF17.30 will provide link to remnant trees and sustainability / energy efficiency)	Short term priority	\$6000 allocated from Sustainable Futures Committee budget	Environmental Services

Shoalhaven Water Group Pledge: Renewable Energy – <i>Install renewable energy pilot plant on water/sewer assets where viable.</i>			
Action	Timeframe	Budget	Responsibility
Engage consultant to prepare business case for proposed Solar Farm	Completed	\$17,000	Shoalhaven Water
Conduct initial investigation of proposed Solar Farm site for environmental and site constraints	Completed	\$2,000	SCC Shoalhaven Water
Seek approval from council to proceed with 5MW Solar Farm at Callala Wastewater Treatment Plant – presentation to Sustainable Futures Committee in 1 May 2018 meeting	May 2018	Nil	Carmel Krogh
Subject to Council approval, Request for Tender, Construction and Commissioning of Solar Farm	Tender – Q3 2018 Construction – 2019 Commissioning – Q4 2019	Up to \$10M	Shoalhaven Water

SF18.15 SolarHaven - Shoalhaven Solar Farm

HPERM Ref: D18/122045

Group: Shoalhaven Water Group
Section: Water Asset Planning & Development

Attachments: 1. 100% Renewables Preliminary Business Case (Confidential - under separate cover)

Purpose / Summary

Shoalhaven Water has been developing a business case for a mid-scale solar farm project on un-utilised land owned by Council within the grounds of Callala Wastewater Treatment Plant. This report provides an update on the work to date.

Recommendation

That the Committee determine that:

1. The report be received for information
2. Further analysis and discussion be undertaken on other possible sites and the Callala site be further considered in the preparation for the new electricity contracts.

Options

1. Adopt the recommendation.

Implications: The previous Committee direction will continue with further analyses.

2. Council could determine not to proceed with the project or parts of the project.

Implications: Council propose an alternative resolution.

Background

The October 2017 meeting of the Sustainable Futures Committee resolved to support the preparation of documents for Expressions of Interest for land-based and floating solar projects with different funding models.

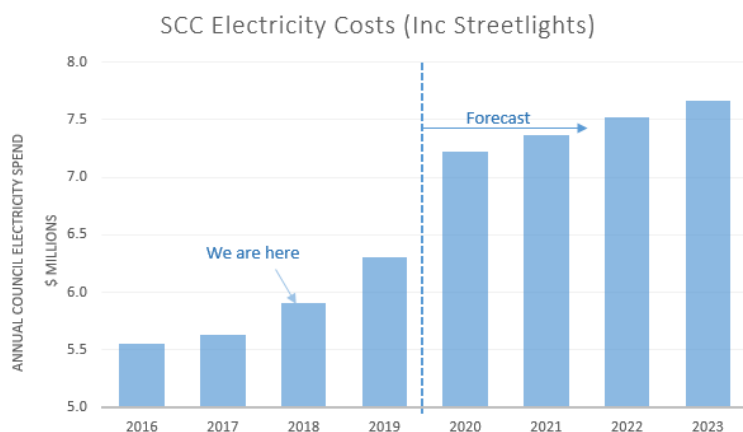
In order to more clearly understand the issues involved in delivering such a project, some available land within the Callala Sewage Treatment (designated as Area A in this report) has been considered in some detail as it has some very positive characteristics that would make it suitable for a solar farm, i.e.:

1. Up to 10ha of identified land
2. North facing slope with no shading
3. Proximity to 33kV network substation
4. Council own the land
5. Mostly cleared available area
6. Existing Roads and Infrastructure
7. Enclosed Secure Site

8. Long plant operational life

Independent external renewable energy consultants were engaged to generate a business case and financial model for a proposal for a solar farm on this site.

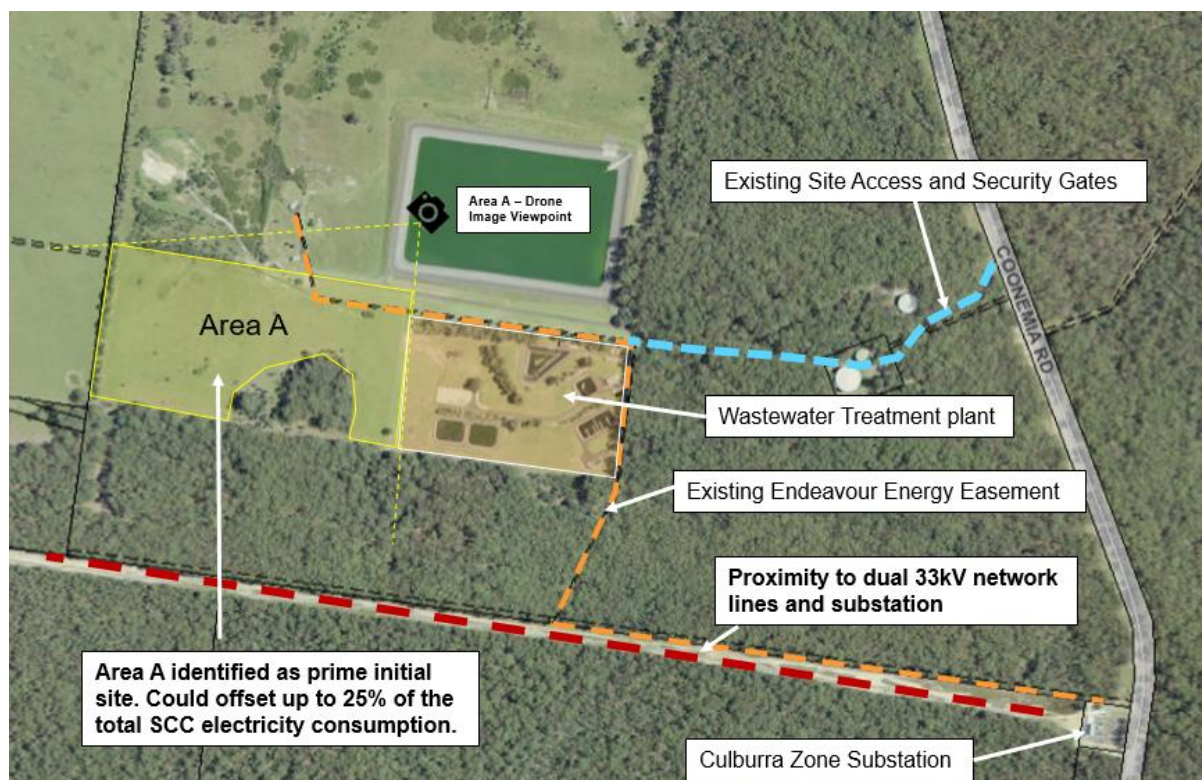
Shoalhaven City Council's electricity prices are due to rise sharply over the next few years. The current rates are very favourable from contracts negotiated in 2014 when wholesale prices were much lower. These contracts are due for renewal in 2020 and the likely scenario is that the prices offered will be at least 25% higher than in 2016/2017. This could result in an additional \$1M in electricity costs annually. The diagrams below summarise the current contract and possible future contract prices.



Energy Rates	Energy Rates \$/MWh excluding GST		
Period	Peak Time	Shoulder Time	Off Peak Time
Large Sites Contract Pricing	NSW/ACT: 7am - 9am and 5pm - 8pm (EST) on Business Days	NSW/ACT: 9am - 5pm(EST) and 8pm - 10pm (EST) on Business Days	NSW/ACT: All times other than Peak Time and Shoulder Time.
Year 1: 01/01/2016 to 31/12/2016	\$50.21	\$50.21	\$34.56
Year 2: 01/01/2017 to 31/12/2017	\$53.43	\$53.43	\$35.68
Year 3: 01/01/2018 to 31/12/2018	\$54.77	\$54.77	\$38.16
Year 4: 01/01/2019 to 31/12/2019	\$62.40	\$62.40	\$42.31
Future Contract	\$85+	\$85+	\$65+

Callala Site

The figures below show the area that would be available at the Callala site and a preliminary layout for a 6ha solar farm. The preliminary design consists of a 3.94MW plant, and would include 14,000 x 350W panels that could generate approximately 7.6GWh of electricity per year. Council's total electricity usage is approximately 36GWh per year. The estimated cost of such a plant is expected to be between \$7.6M and \$8.6M. There is also scope to increase the size of the preliminary design up to 5MW by removing the western fringe of trees to allow the panels to come right to the boundary.



Callala Wastewater Treatment Plant



Area A – Drone Image

SF18.15



Commercial Contracting Models

There are two main options for setting up a solar farm:

<h2>EPC(M)</h2> <p>Engineer Procure Construct (Maintain)</p>	<h2>PPA</h2> <p>Power Purchase Agreement</p>
<ul style="list-style-type: none"> • Council invests capital and directly or indirectly project manages the construction and ongoing maintenance of the asset • Council has ownership of solar farm • Takes on management and risk of ongoing performance 	<ul style="list-style-type: none"> • Cost paid off over long term, based on power purchase at \$/MWh • Rate covers all costs incl. financing, construction and maintenance • No capital investment • PPA project developer owns solar farm, leases the land and ensures generation performance

It is expected that a commercial company offering a PPA will incorporate retail finance costs, credit risks and profit margins in to the PPA price, which ultimately means under a PPA Council will generally end up paying more than owning and operating the asset. Council can also look over a longer term than commercial investors who typically demand swift payback. The project could also consider the option for future battery storage when the technology becomes more cost effective.

Planning Considerations

Shoalhaven Water requested a Development Advisory Unit meeting and identified a pathway to successful development consent. The application comes under Infrastructure SEPP (>\$5M Capital Investment Value) and the consent authority is the Joint Regional Planning Authority. Council should remain DA applicant (more control, reduce risk of variation costs, internal assistance etc.).

Two separate environmental visits to site revealed no threatened species found, however further follow up assessments are required. A preliminary connection advice letter already received from Endeavour Energy stating the connection is possible and preferred at 33kV.

SF18.15

Policy Implications

The direction that Council ultimately takes should be consistent with the Integrated Strategic Plan and its “Renewable Energy Installations on Council Assets Policy”. Some of the directions in these documents include:

- “Develop solar, wind and other renewable energy sources for Council”
- “Embrace renewable energy to protect Council and its community against future increases in the cost of energy provision”.
- “Promote solar, wind and other renewable energy sources as options for energy provision”.
- “Prioritise its capital investment in renewable energy solutions, giving high priority to its high energy-use and more publicly visible assets”.

Shoalhaven Water Group also have a Cities Power Partnership Pledge to “*Install renewable energy pilot plant on water/sewer assets where viable*”

Financial Implications

The business case for two key EPCM options has been developed, including:

- EPCM and sell fixed priced off-take including Large Scale Renewable Energy Certificates
- EPCM and receive Spot market revenue

There are a number of scenarios and assumptions that affect the analysis of the financial implications. The report by 100% renewables is attached for the committee’s information.

SF18.16 Quarterly Update from Energy Management Coordinator - Darren O'Connell

HPERM Ref: D18/127754

Group: Shoalhaven Water Group
Section: Water Asset Planning & Development

Purpose / Summary

To receive the Energy Management Coordinator's quarterly update.

Recommendation (Item to be determined under delegated authority)

That the update be received for information.

Options

1. That the update be received for information.

Background

The position of energy management coordinator is currently being filled on a part-time basis (3 days per week). The information below provides a summary of the major work activities for the coordinator over the last 3 months.

Solar panels (photovoltaics or PV) on Council Assets

A screening tool was used to prioritise all Council assets for solar PV suitability. The screening criteria included daytime electricity load profiling, roof space, roof orientation, pricing tariffs, etc. Discussions were also held with Asset Managers to gauge any future expected changes to asset roofs and site conditions. This exercise identified around 30 assets that were very suitable for potentially a total of 500 kW of solar PV installations.

Financing this large scale 500 kW of rooftop solar PV would cost in the order of \$500,000 and is not considered feasible in the next 18 months from Council's existing budget. However, an alternative financing option has just become available through a Local Government Procurement contract for Solar Power Purchase Agreements (PPAs). Under a solar PPA, a solar provider installs and maintains a solar system on Council's asset roof and Council commits to purchase the power produced by the system for an agreed price (typically 20% less than standard price) and period (10, 15 or 20 years). The purchased power can then be used on site which avoids the more expensive grid supplied electricity. A solar PPA allows Council to gain the benefits of solar power without the capital outlay of purchasing the system. After the contract period expires the system is typically 'gifted' to Council to reap further energy savings for the life of the panels (~25+ years). Repower Shoalhaven offers similar solar PPAs that are community financed, as opposed to the LGP option which is through private companies.

Further work is being undertaken to investigate specific sites for the PPAs with possible financial support from OEH/LGP.

Staff Training in Energy Efficiency Opportunities

A 1-hour training program has been developed for Shoalhaven Council staff to educate them on energy literacy and energy efficiency opportunities in their workplace. The face-to-face training session is being delivered from May 2018 to a range of SCC work teams including water/wastewater operators, Property & Assets, Environmental, etc. It aims to empower staff to identify energy savings in their own work area and implement sustainable work practices.

Cities Power Partnership

Shoalhaven Council coordinated the first meeting of the 'CPP South East NSW Buddies Group' in Batemans Bay on 7 February 2018. Energy-related staff from Shoalhaven, Kiama, Wingecarribee, Eurobodalla and Bega Councils attended and shared work experiences on a range of energy matters, including electric vehicle charging stations (the 'south-east electric highway proposal'), solar farms, energy contracts, etc.

Shoalhaven Council submitted an abstract on the Callala Solar Farm proposal for the CPP Summit being held in Kiama in October 2018.

The five CPP pledges are being monitored for progress. There have been some discussions with relevant staff about the preparation of an energy policy with emission/renewable energy targets. This should help to drive investment in renewable energy and energy efficiency across Council and the community.

Shoalhaven Council staff are also attending the ISJO Energy Working Group to identify regional projects in energy efficiency, emissions reduction and renewable energy.

Sustainability Advantage Program

Shoalhaven Council is now a full financial member of the NSW Government's Sustainability Advantage Program. The program will commence with a high level Strategic Review by a consultant to identify Council's current commitments to sustainability programs and targets. This will be followed by a Management Diagnostic workshop with Directors, Section Managers etc. to scope out what areas Council would like to address under the program and what modules should be commenced.

Plant Footprint

Several meetings have taken place over recent months with staff from Planet Footprint to improve the energy monitoring and reporting services for Council. This includes the inclusion of natural gas and street lighting to the tracked utilities, as well as improved Business Intelligence data reporting. A quarterly Performance Review is scheduled in the near future with Council's Asset Managers.

SF18.17 Climate Leadership Conference - 17-19 March 2018

HPERM Ref: D18/132180

Submitted by: Clr Kaye Gartner

Attachments: 1. Climate Leadership Conference - Helen Cleugh Presentation [↓](#)
2. Climate Leadership Conference - Andy Pitman Presentation [↓](#)
3. Terence Jeyaretnam Presentation [↓](#)

Purpose / Summary

To provide a report from Clr Kaye Gartner on the Climate Leadership Conference held in Sydney, 17-19 March 2018, in accordance with Clause 3.3(e) of the Council Members – Payment of Expenses and Provision of Facilities Policy.

Recommendation

That Council

1. Receive the report from Clr Kaye Gartner on the Climate Leadership Conference for information.
2. Review its Sustainability Action Plan 2011-2016
3. Review its Climate Change Action Plan

Options

1. Receive the report for information
2. Request further information on the conference

The Climate Leadership Conference, Sydney, 17-19 March 2018

This conference brought together 36 leaders in business, science, and all levels of government to discuss the state of knowledge of our rapidly changing climate and the clear opportunities and risks this rapidly changing climate presents to business, government and society.

Business leaders had a lot to say about risks and opportunities. Increasingly, at international and local levels, governance bodies are calling for corporations to disclose their exposure to climate change.

Increasingly, business is looking for the opportunities in transitioning towards a zero carbon future.

Terence Jeyaretnam, from EY (Ernst and Young) presented the international drivers for increased transparency around disclosing the financial risks posed by climate change (p 9). He outlined key disclosure questions for management:

1. In what ways will climate change risk impact the organisation?
2. What are the risks and opportunities for the organisation resulting from the transition and physical risks?

3. What could the financial impacts of climate risks be under a business-as-usual and a two degree scenario?
4. What are your governance and risk management processes for monitoring and managing the transition and physical risks?
5. How does the organisation ensure consistency of the disclosures made across the corporate communication mediums?

Innes Willox, CEO, Australian Industry Group was clear in his call for consistent climate policy at federal level to allow business to make long term investments in the transition to a low carbon economy. Ian Lieblich, Sustainability Co-ordinator with Investa Property Group outlined his fund's responses to climate change. Investa experiences both high demand for and high returns on its 6 star Green investment products.

Leading scientists had the challenging task of telling us how serious our current situation is.

Dr Helen Cleugh, Chief climate scientist, CSIRO, Climate Science Centre stated:

- Human influence on climate is clear
- Global warming is unequivocal
- Many observed changes in climate are unprecedented on timescales of decades or millennia i.e. they are unprecedented in human history
- Climate will continue to change in future
- Climate Change is an environmental and financial risk
- Australia's already variable climate is changing – with significant impact to our ecosystems, health, infrastructure and economy

Key points: See slides pp 12 -18

Dr Andy Pitman, ARC Centre of Excellence for Climate Extremes, backed up Dr Cleugh's position, and focussed on the impacts of extreme and compound climate risks:

- Our planet is warming due to CO2 emissions by human activity
- Rate of increase of *emissions* is slowing, but CO2 concentrations continue to rise.
- ***No hope of staying within 1.5 degrees C increase***
- ***Low probability of avoiding 2 degree C, the Paris Treaty target***
- Australia is already experiencing approximately 1 degree of warming above early 20th century temperatures.
- Observed measurements are exceeding modelled projections
- Compound climate events are new and create widespread extreme events

Key Points: slides pp 7-12

Globally, sub-national governments are leading the response to climate change and the transition to the low carbon economy.

- OEH has produced multiple guides and multiple projects to support communities to adapt to our changing climate.
- NPWS has plans in place which detail which species to attempt to rescue from extinction and how to do it.
- City of Adelaide is driving towards being the world's first carbon neutral city.

Implications for Leadership in the Shoalhaven

OEH documents based on the science available in 2010 show the Illawarra and Shoalhaven already experience less spring and autumn rain, with implications for our agricultural and marine industries.

Our community is currently exposed to:

- major health risks due to heatwaves
- health risks for very young and elderly
- increasing extreme weather events
- increasing severe fire risk
- increasing severe flood risk
- worsening reduction in biodiversity
- Increasing risk due to rapid sea level rises
- opportunity risk
- economic risk of reliance on carbon heavy industry
- economic opportunity of developing clean, green economy
- due to rapid sea level rises

Australia's changing climate

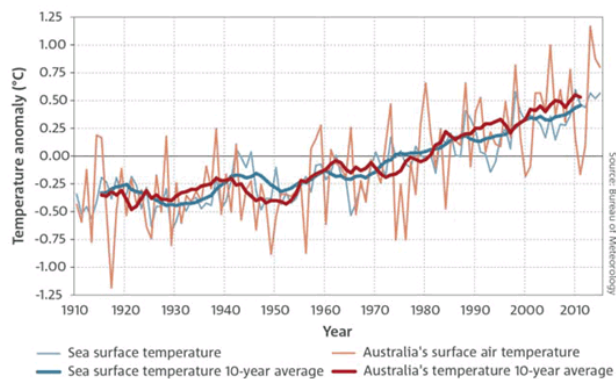


Australian Government
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Temperature

Australia's mean surface air and surrounding sea surface temperatures have increased by around 1°C since 1910.



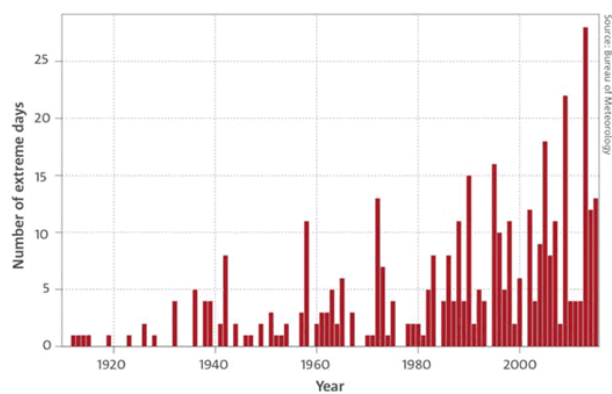
Australia's changing climate



Australian Government
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Temperature



Number of days in each year where the Australian area-averaged daily mean temperature is extreme

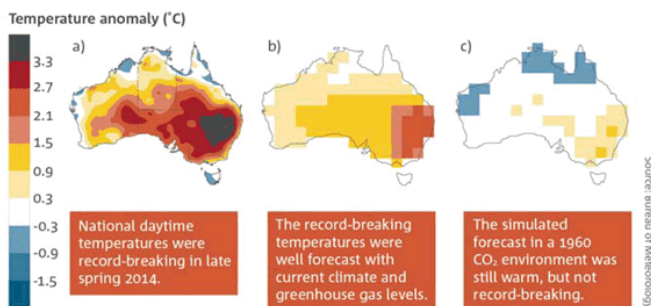
Australia's changing climate



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Determining the cause of extreme weather events



Attributing the role of human factors in extremes

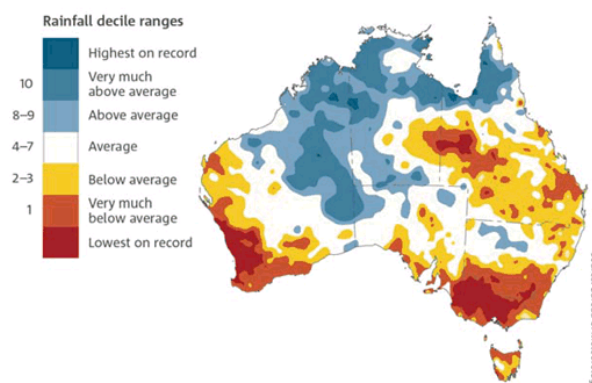
Australia's changing climate



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Rainfall



Southern growing season (April – October)
rainfall deciles for 1996 - 2015

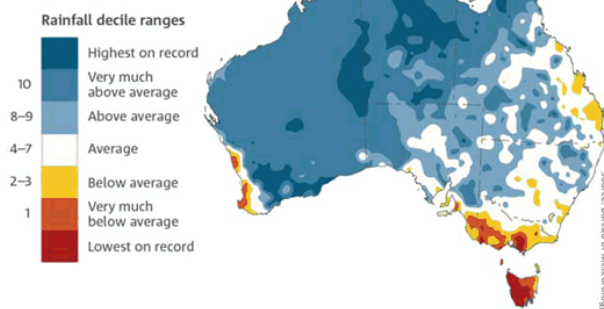
Australia's changing climate



Australian Government
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Rainfall



Northern wet season (October – April)
rainfall deciles for 1996 - 2015

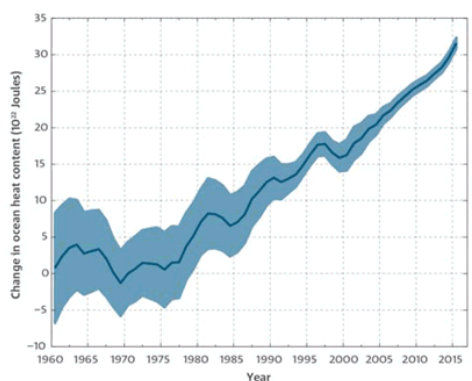
Oceans and cryosphere



Australian Government
Bureau of Meteorology



Ocean temperature and heat content



Oceans and cryosphere

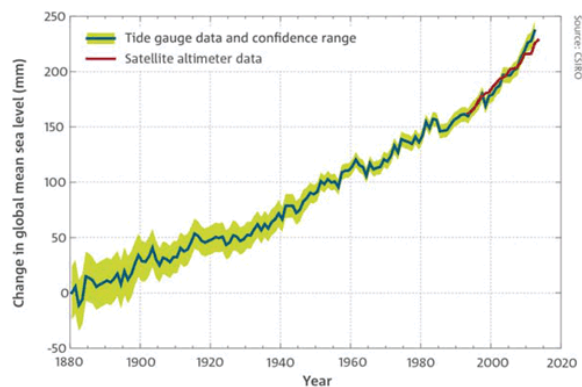


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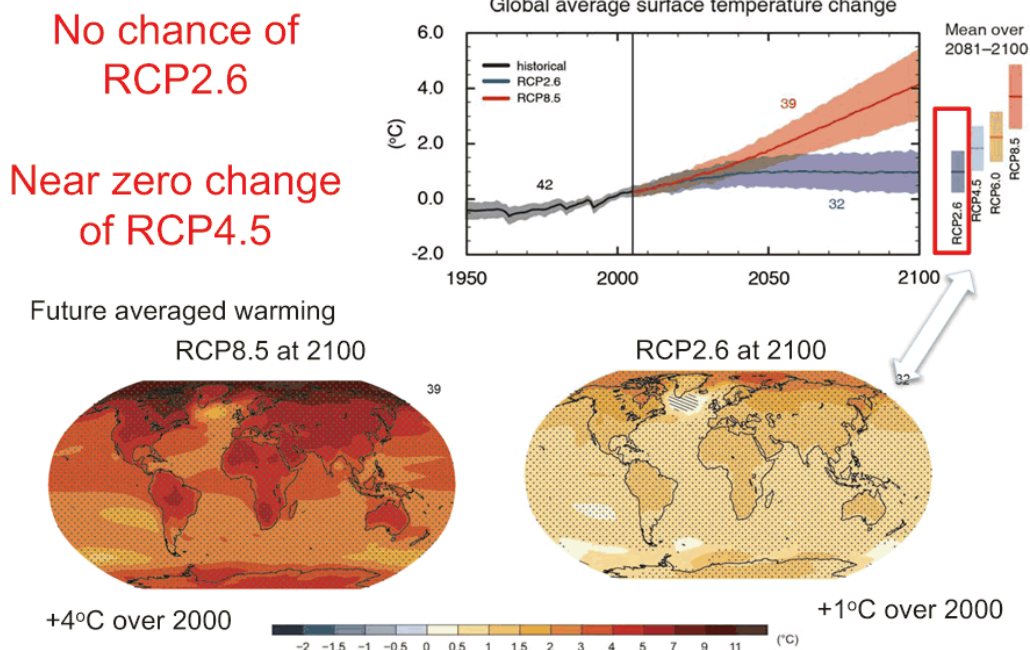
Globally-averaged sea level has risen over 20 cm since late 19th century



Sea level



Future temperatures

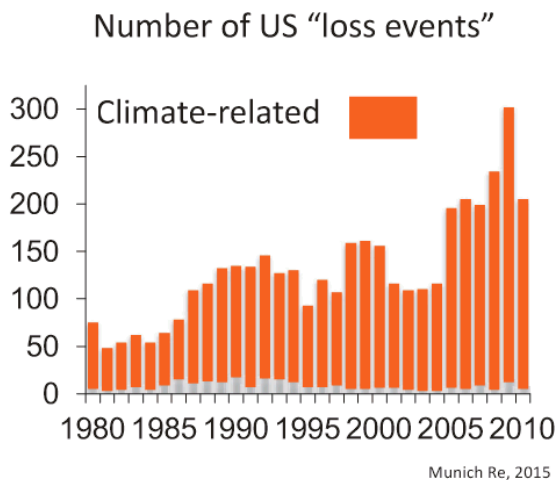


From averages to extremes



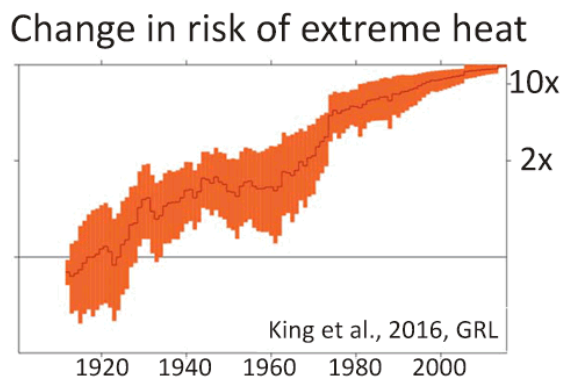
Why Climate Extremes?

- Biggest global health threat of the 21st century [The Lancet Commission, 2015]
- Financial risk: Investors managing \$24 trillion signed the 2014 Global Investor Statement on Climate Change



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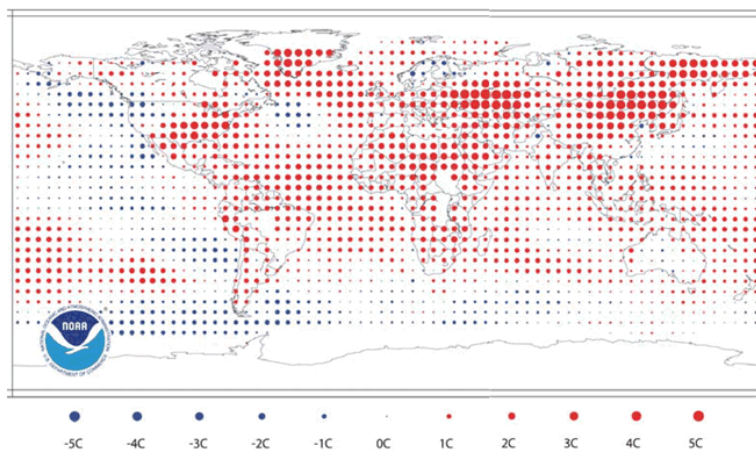


Heat wave event, 2010

Temperature Anomalies June 2010

(with respect to a 1971-2000 base period)

National Climatic Data Center/NESDIS/NOAA

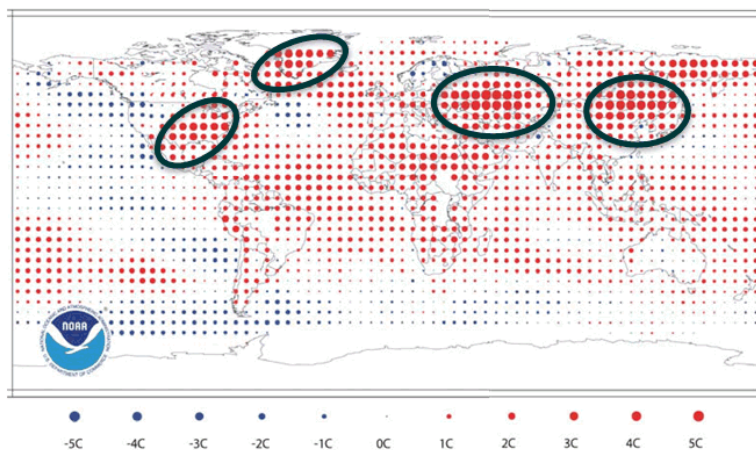


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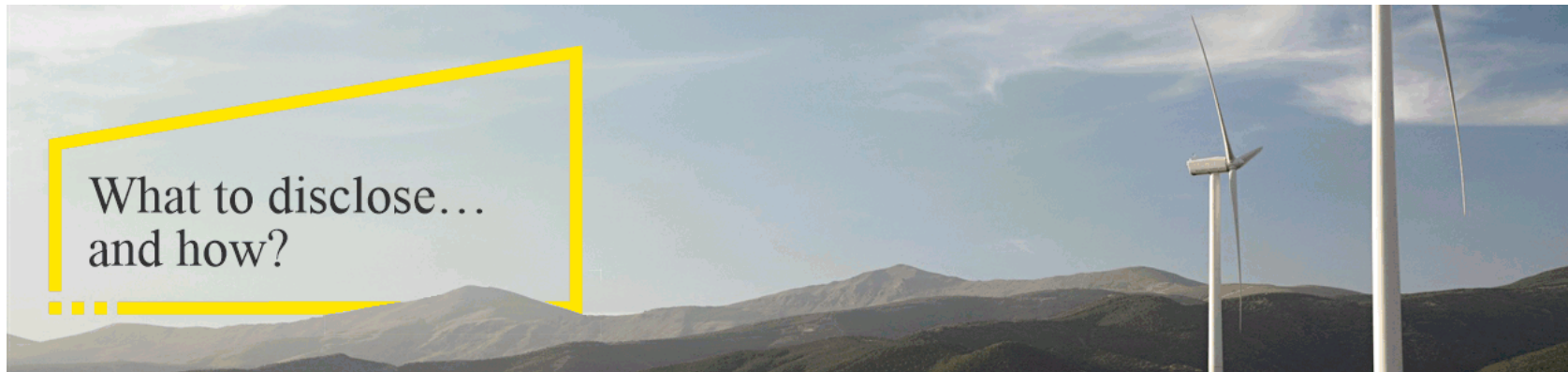
Globally, only +0.66°C above average

53.6°C in SE Russia

US\$500 billion losses

A compound event:
associated with shifts in
the jet stream

Coincident with severe
flooding in Asia



Drivers for more transparency

- 1** Geoff Summerhayes' speech on **climate change challenges and prudential risks** on behalf of Australian Prudential Regulation Authority (APRA)
- 2** Noel Hutley QC legal opinion on **climate change and director duties**
- 3** **Investor demands and shareholder resolutions** (AGL, Origin Energy, Rio Tinto, BHP Billiton)
- 4** **Legal cases** (CBA, ExxonMobil, Peabody Energy)
- 5** Large companies have **publically committed** to the TCFD including Acciona, ANZ, BHP Billiton, CBUS, HSBC, Singapore Exchange, Swiss Re, Tata Steel, Unilever