

Sustainable Futures Committee

Meeting Date: Thursday, 07 June, 2018

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

Time: 4:00pm

Please note: Council's Code of Meeting Practice permits the electronic recording and broadcast of the proceedings of meetings of the Council which are open to the public. Your attendance at this meeting is taken as consent to the possibility that your image and/or voice may be recorded and broadcast to the public.

Agenda

	9		
1.	Apologies		
2.	Confirmation of Minutes		
	• Sustain	nable Futures Committee - 1 May 20181	
3.	Declarations of Interest		
4.	Presentations		
	SF18.18	Sue Westaway - Little Eagle - EcoVillage Initiative Red Head Villages Association (RHVA)	
		Sue Westaway, Little Eagle, has requested to address the Sustainable Futures Committee to address the report previously submitted by Larraine Larri, Thursday 1 February 2018 - SF18.7 - EcoVillage Initiative Red Head Villages Association (RHVA).	
	SF18.19	Expo 2019	
		Avalynne Wilby, Assets and Works, will give a presentation on this planned event.	

5. Reports

SF18.20	Outstanding Action Table - Update	9
SF18.21	Solar Garden Formalise Usage of Old North Nowra Waste Depot	10
SF18.22	Progress Update from the Energy Management Coordinator - Darren O'Connell	27
SF18.23	Implementation of NatureMapr in the Shoalhaven	29

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
Larraine 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: Tuesday, 1 May 2018

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

Time: 4:00pm

The following members were present:

Clr Kaye Gartner - Chairperson

Clr Patricia White

Clr Nina Cheyne

Clr Mark Kitchener

Russ Pigg - General Manager - left the meeting 5.52pm

David Brawn

Oisin Sweenev

Robert Hayward

Peter McVay

Larraine Larri

Others present:

Michael Mulvaney - Canberra NatureMapr

Paul Hams – Budawong Coast NatureMapr

Libby Hepburn – Atlas of Life Coastal Wilderness

Michael Jefferis – Budawong Coast NatureMapr

Chris Fulton - Research School of Biology, ANU

Greg Thompson - Shoalhaven Landcare

Kelie Clarke – Manager Environmental Services

Darren O'Connell - Energy Management Coordinator

Mike Harben – Manager Business and Property left the meeting at 6.03pm

Gordon Clark - Manager Strategic Planning

Carmel Krogh - Director, Shoalhaven Water

Andrew Truran - Shoalhaven Water Business Analyst Consultant

Greg Pullen – Manager Economic Development

Marianne Jones - Economic Development Officer

Phil Costello - Group Director, Planning Environment & Development

Jessica Rippon – Executive Manager Communications – left the meeting at 6.01pm

The Chairperson gave an acknowledgement of country.

Apologies / Leave of Absence

A request for leave of absence was received from Clr Alldrick. Apologies were received from Mayor Findley, Clr Levett, and Stephen Dunshea (Director, Finance Corporate and Community Services).



Confirmation of the Minutes

RESOLVED (Peter McVay / David Brawn)

That the Minutes of the Sustainable Futures Committee held on Thursday 01 February 2018 be confirmed.

CARRIED

Declarations of Interest

Nil

PRESENTATIONS

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

HPERM Ref: D18/17750

Associate Professor Chris Fulton, of the Research School of Biology at the Australian National University, is a marine biologist specialising in fish. He also comes from a family of primary producers, so comes to the subject with a different approach.

He asked the Committee to think about the marine estate within the bounds of the Shoalhaven coastline, and the importance of protecting the range of social and economic values that make it iconic. These values include fisheries, recreation such as diving, cultural and indigenous traditions, and all are linked to the Shoalhaven's natural assets. Two examples are the sponge gardens, which are appreciated by divers; and the kelp forests, which constitute what is now termed the Great Southern Reef.

Many iconic south coast species originate in and depend on these kelp forests. However, it is likely the kelp forests will die off soon. He has documented a similar degradation at the same latitude on the WA coastline, which experienced an unprecedented heatwave of 3°C sustained water temperature. This was the most severe heatwave recorded in 100 years, and it wiped out more than 10,000 hectares of kelp forest within a month. It has not regrown, and is now a seaweed turf coastline.

If warming is sustained then eventually corals begin to grow – but this is a disaster for endemic species, which rely on the kelp as habitat and particularly as nurseries for juveniles. There is a demonstrated strong relationship between the number of fish and the percentage of kelp in an environment. The collapse of our kelp forests is not a matter of *if*, but *when*.

Prof Fulton showed a comparison of coastal temperatures on the south east Australian coast between 2004 and 2018. He noted that the major point of impact is Tasmania, which is already losing its kelp due to heating water currents, and there will be major consequences for Hobart's fisheries and tourism.

He believes we can make a difference in the Shoalhaven. If we minimise local threats the environment can bounce back. For example, the northern end of the Great Barrier Reef has the potential to come back, but not the southern end. Small pockets of kelp have been found to carry genomes that resist warming water, and it is hoped there may be sufficient of these to regenerate the kelp forest.

Local attitudes and actions matter – behaviour changes at the individual level do have an impact. Community education is essential. He has encountered a lack of awareness in the community that iconic species are under threat. We need to change perceptions about species such as kelp. Some key but 'common' species are not on the protected list, so this is not a trigger to prevent



development over kelp forests. Community participation in actions such as minimising waste and restoring habitats are also key.

Prof Fulton suggested that public forums are the best way to get the issue of climate change understood by the community, being sure to include scientific perspectives. For example, provide information on how plastics pose a problem for fish as well as for the charismatic species (whales, turtles); or the importance of active habitat rehabilitation programs for seaweeds.

He noted that the currents on the Pacific coast are behaving unpredictably this year – we can only watch as heat anomalies build up. The last three years have seen a large number of anomalies.

Clr Gartner asked what Council can be doing to be supportive. Prof Fulton would like to see a reduction of local threats to the oceans by:

- Looking at more strict regulation of plastics industries in our jurisdiction, and at rethinking
 plastics overall including bans on single use plastics such as straws. Half of all marine
 rubbish in a recent census comprised plastic straws. With the recycling crisis there is a
 large amount of glass and aluminium available to be used as alternatives to plastic.
- Managing waste water more robustly, particularly the overflow of untreated water into the
 ocean during storm events. A risk analysis is needed of how waste water systems will cope
 with rising sea levels coupled with increasing pollutants.

Oisin Sweeny recommended reactivating the community seminar series. Jessica Rippon confirmed that the draft Council communications strategy is in place.

Carmel Krogh agreed on the need to work on water quality and waste water issues. Her team has been discussing with affected communities regarding abandoning assets, as Council cannot guarantee to protect them under worsening conditions, e.g. gravity sewers. Contingency plans are needed as there is increasing concern that assets will fail. We need to look into pressure sewer systems, including the work, investment, and disruption this may require.

Kelie Clarke clarified that the Coastal Zone Management Plan (CZMP) is only focused on the open coast. Council has engaged a coastal engineer to look at highest risk key assets and put value to them. We are required to have an emergency action plan by the CZMP.

She added that Council's Our Coast Our Lifestyle community engagement project had covered issues such as sea level rise and climate change; the project had been educational as well as consultative. This engagement showed the community prefers Council to prioritise essential services aimed at natural assets rather than infrastructure such as seawalls.

CIr Gartner said we need information about the survey's response rate, methodology for community consultation, in order to explain its conclusions. We have no doubt about the data, but she felt that communications are not optimal at the moment.

Kelie said the CZMP has mandatory constituents. Part of the CZMP communications plan is to have a coastal engineer contribute to a video explaining the risk assessment process. There is insufficient time to include more, as the plan must be submitted for certification in the next month or two to be eligible for access to funding to relocate assets. The CZMP has to be approved by Council first. Council has identified the key risks / hot spots on the open coast. We had also looked at hot spots on estuaries but have been told not to include them as the format does not meet the requirements of the new Act.

Jessica recommended that community engagement, which is about both informing and consulting, should draw on existing grassroots movements, rather than Council separately try to produce another initiative.

RESOLVED (Peter McVay / Robert Hayward)

That the presentation be received for information.

CARRIED



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

HPERM Ref: D18/82179

Libby Hepburn (Atlas of Life in the Coastal Wilderness), Dr Michael Mulvaney (Canberra NatureMapr), and Mike Jefferis (Budawong Coast NatureMapr) presented to the Committee on the Atlas of Coastal Wilderness/Nature Mapr, and its potential implementation in the Shoalhaven.

Michael Mulvaney described the process for uploading photographs to the NatureMapr app. Users register with their email address, upload an image from a smartphone or GPS camera, and select a range of the abundance of the species. The image becomes available for any user of the site to suggest an ID, which is sent to an expert moderator to confirm or seek further information. Once confirmed the record is entered into the NaureMapr database. Data can be viewed according to criteria such as species distribution or taxonomic groupings.

NatureMapr in ACT have a team of 80 moderators available to identify photos. Four years ago the database held 30,000, and has grown to 1.25 million records of 5,500 species. Most of these records have come from long standing community group survey and monitoring. The Canberra Nature Map has doubled the known populations / locations of nearly 30% of the threatened species in the ACT. It has also been revealing many first reports of weeds, facilitating quick eradication before they can spread. The app is used used daily in ACT land management, planning and development decisions.

Libby Hepburn followed with a presentation of the Atlas of Life in the Coastal Wilderness, an implementation of NatureMapr based on the South Coast of NSW. Her group is particularly interested in the marine environment compared with the ACT group, which has no coastline. They are a newer group, but have recorded 22,855 sightings of 5,760 species from 393 members. The app aims to encourage poeple to spend more time in nature; to create a rich database for our region; to help the community contribute to science and collaborative environmental decision making; and to work and in partnership with natural resource managers.

Mike Jefferis gave an update on progress on use of the app in the Milton area. The group has received some funding, and other applications are pending, including from this Council. Eurobodalla Council is also to be approached. The project has garnered strong community interest, with 60 people asking to be moderators. SCC staff have been supportive. A soft launch is scheduled for the end of June with a public launch late 2018/early 2019. Since going live on 27 April they already have 12 users, three moderators, and 37 sightings. Libby has offered to run a Bioblitz in the area.

Kelie Clarke proposed that regional weed management committees could become involved. DPI funding could be available, and she offered to organise a meeting with the Regional Organisation of Councils. Bushcare volunteers are also very keen. A further discussion outside this meeting about the role of Council and resourcing behind the scenes to manage the program is required.

Oisin noted the potential overlap with tourism: this could be a significant resource of good publicity for the areas covered. The group confirmed they have been promoting the app to local government tourism bodies. Participation in the program can offer visitors a meaningful activity. Ideas for both tourists and community include running photography competitions, biochasing and geocaching (e.g. find Shoalhaven's tallest tree), linking to the 100 Beach Challenge, and mapping walks that facilitate access to particular species. This could be a tool to support the sustainability tourism model.

The program is asking Council for \$20,000 initial setup costs, plus an annual maintenance of \$10,000. Specific projects would be an additional cost.

RESOLVED (By consent)

That the committee recommend to Shoalhaven Tourism Advisory Group that they receive a



presentation from NatureMapr and Atlas of Life in the Coast Wilderness with a view to bringing this into SCC and enhance the tourism experience, and to co-fund implementation in the Shoalhaven.

CARRIED

REPORTS

SF18.12 Outstanding Action Table - Update

HPERM Ref: D18/115322

Electric vehicle charging: Bob Hayward asked about the timeframe, and confirmed he has encountered no opposition to the proposal from the community in Berry. Gordon Clark confirmed Council has been working with NRMA to select the site. A challenge is using NRMA to work through the issues: how do we determine when it ceases to be a public good and becomes a commercial service? A major issue is obtaining development consent, and putting in place the planning regime. Council's approach is to deal with it as a civil permit process, as with infrastructure and activities within the road reserve. Other councils do require a development application process. We will work up a policy position.

Gordon confirmed that Concil has advocated a minimum of two car spaces at each charging site.

RESOLVED (Robert Hayward / Larraine Larri)

That the Outstanding Action Table be received for information.

CARRIED

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

Kelie Clarke updated the Committee on the Sutherland Shire tree canopy model. She has spoken with their Parks & Reserves team – they have estalished a fee but they have not yet applied it. The working group will look at what can be achieved using existing frameworks. Sutherland has a revolving fund drawn from prosecutions for tree removal, e.g. they recently dealt successfully with a case of clear felling. Their DA conditions include a requirement to replace removed trees with a greater number of new trees. They focus on areas where the community is supportive. They have had success working with government agencies on tree removal and pruning, and replacing trees with more than have removed.

Kelie confirmed that GIS is used to plan the location of tree plantings. Key to gaining community acceptance is the ability for people to bring their concerns early.

The working group has decided to wait for outcome of tree audit and then look at existing programs.

RESOLVED (By consent)

That the Committee accept the progress report for information.

CARRIED



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

HPERM Ref: D18/113136

Jessica Rippon explained the draft communications plan is in place. It has had State, Federal, and grassroots level input. An external organisation headed by Lynelle Johnson is working in the digital space running mentoring and youth groups. A team is working on this project, putting together information and background research. We should receive this in the next couple weeks, and it will be launched after that.

The May/June period is a busy time for Council with ongoing engagement processes, so we can either try to include this or wait until there is more time to do a full launch.

Bob Hayward is to communicate directly with Jessica to set up a meeting.

CIr Gartner reminded the Committee that this large engagement process around the DPOP, Budget, CZMP and other topics is an opportunity for members to attend the community engagements, encourage others to attend, and contribute. Kelie acknowledged there are experts in the community who can share their knowledge. It is important to show this is a community-driven program with Council support. Jessica agreed that events are run more effectively if by the community – it leads to more uptake.

Meeting the pledges is to some extent dependent on the Sustainability Advantage program. Kelie confirmed Council is recruiting a sustainability coordinator, with applications closing next Tuesday. Darren O'Connell is assisting in the meantime. Darren reported there will be a strategic review next week, and that OEH is engaging a consultant for a desktop review.

CIr Gartner asked about the status of budget bids for this Committee, to secure its future and support its work. Phil Costello confirmed it is going into the budget bid process, which will come to the May Ordinary Council meeting.

Action: Jessica to email the Committee community members a schedule of the community engagement sessions.

RESOLVED (Clr Gartner / Peter McVay)

- 1. That the Sustainable Futures Committee receives the action plan for information.
- 2. That the community members meet with the new Group Director of Finance, Corporate and Community Services; Clr Gartner to chair the meeting.

CARRIED

SF18.15 SolarHaven - Shoalhaven Solar Farm

HPERM Ref: D18/122045

Carmel Krogh confirmed that the status of the attachment to the report is confidential, and is not for discussion or distribution outside this Committee.

She said has reconsidered her recommendation on this project, and now prefers not to proceed. The uncertainty in the energy market makes spending \$8m on a project a risk. Council's electricity contract is due for renewal at the end of 2019. The figures for power capacity and the costs indicate that this proposal is not the best option. Given the variability in the report she cannot recommend adopting it; we risk selling ourselves short if we do not consider the broader electricity supply context. Council can instead start to look at some smaller solar farms behind the meter. Discussions are starting this week with Local Government Procurement about the next tender process for the electricity contract. There are complexities with feeding into the grid, and more work needs to be done.

Darren O'Connell is developing the options for a policy. He explained that targets and policy will drive the investment in renewables. We need to look more at science-based considerations. We are in the early stages of discussion but expect the policy to be finalised at the end of 2018.



Larraine asked whether Council's target setting will relate to the Sustainability Advantage work. Darren confirmed that it will; the first area will be business sustainability planning, and looking also more broadly, e.g. at waste. The initial focus will be on energy and emissions.

Investment in renewables will need a groundswell of community engagement, as well as support from the business community. Council has a mandate through the CSP and surveys to activate the people, and Committee members are also contributing.

Clr Gartner noted the Shoalhaven Business Chamber had organised an event on energy, but only seven people had enrolled, so it was cancelled.

RESOLVED (Peter McVay / Larraine Larri)

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.

CARRIED

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

HPERM Ref: D18/127754

Darren O'Connell had spoken to this item during the discussion on SolarHaven, above.

RESOLVED (David Brawn / Clr Cheyne)

That the update be received for information.

CARRIED

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

HPERM Ref: D18/132180

Clr Gartner reported on this two day conference, which had been attended by key people including John Hewson and the head of CSIRO Climate Science. The information presented had been 'horrific'. We have just experienced the hottest April on record, and May will also be a record. We are seeing more complex climate phenomena, such as blocking of climate systems by others, which has not been observed before. The change in climate systems is profound. The conference had suggested there is no hope of staying within a 1.5°C rise in temperature, and a very low expectation of staying within 2.0°C. We have had less autumn rain in the Shoalhaven, and face increasing risks of bushfires, heatwaves, etc.

Commitments to targets are important. We are urged to mitigate carbon emissions and seek other sources of energy. Bob Hayward said building of data and networks in the community will ultimately address these issues – there is a ray of hope.

Clr Cheyne drew the analogy of the body and nutrition with the health and sickness of our planet.

RESOLVED (By consent)

That the Committee receive the report from Clr Kaye Gartner on the Climate Leadership Conference for information.

CARRIED



GENERAL BUSINESS

Clr Cheyne advised that she will be submitting a Notice of Motion to the 26 June Ordinary meeting in support of the Uluru Statement. She asked Committee members to come along if possible.

Kelie Clarke raised the partnership with Griffith University on managing environmental change through planning for transformative pathways. She is hoping to have weekday meetings so people are able to attend.

Peter McVay raised a forthcoming community radio program – Shoalhaven Transition may contact Kelie in relation to this.

There being no further business, the meeting concluded, the time being 6.26pm.

Clr Kaye Gartner CHAIRPERSON



SF18.20 Outstanding Action Table - Update

HPERM Ref: D18/180254

Group: Finance Corporate & Community Services Group

Section: HR, Governance & Customer Services

Attachments: 1. Outstanding Action Table (under separate cover)

Purpose / Summary

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.



SF18.21 **Solar Garden Formalise Usage of Old North Nowra Waste Depot**

HPERM Ref: D18/180646

Group: Assets & Works Group

1. Social Access Garden - Summary Attachments:

- 2. Possibility of North Nowra Landfill Site Being Used as a Solar Farm
- 3. Summary of Council Enquiries
 4. Notice of Motion University of Technology Sydney (UTS) Institute of Sustainable Futures (ISF) Research Project
- 5. Confidential Report Notice of Motion University of Technology Sydney (UTS) - Institute of Sustainable Futures (ISF) Research Project -Strategy & Assets Committee 20 March 2018
- 6. Shoalhaven UTS Social Access solar Garden Study Former North Nowra Waste Disposal
- 7. Shoalhaven Council draft measure participant agreement v2 (under separate cover) 🔲
- 8. ARENA "Solar Gardens to bring rooftop solar to all Australians" media release

Purpose / Summary

The purpose of this report is to allow Council to consider a request from Repower Shoalhaven to reserve the North Nowra Tip Site (as far as Council has the power to do so) for exclusive use of the Social Access Solar Garden Scheme, which is currently in the feasibility determination stage.

Recommendation (Item to be determined under delegated authority)

That Council advise Repower Shoalhaven (as a fellow partner of the Social Access Solar Garden Scheme) that Council supports the location of a Solar Access Farm on the Old Tip Site at North Nowra (Crown Land) and will work with Repower Shoalhaven to gain necessary approvals to use the site for this purpose as the preferred use for this site.

Options

The Council reject the request to formalise an arrangement with Repower Shoalhaven for exclusivity on the North Nowra Tip Site. A rsolluton alonth the followinf lines would be appropiate.

"That Council advise Repower Shoalhaven (as a fellow partner of the Social Access Solar Garden Scheme) that Council does not support the location of a Solar Access Farm on the Old Tip Site at North Nowra and will continue to work with Repower Shoalhaven to identify an alternative site"

This would leave the site available for an alternative use. Previous enquiries by Shoalhaven Cycling Clubs, Shoalhaven Astronomers and an Acrchery Club have been unsuccessful in securing the land.

Implications:



This decision could put the Social Access Solar Garden Scheme in jeopardy as no other suitable site has been found.

Having advised Repower Shoalhaven that it is not prepared to support their request to have exclusive use of the North Nowra Tip Site for the establishment of a Community Solar Gardens Scheme, Council would however work with Repower to find another suitable site.

2. The Council Agree to formalise an arrangement between Repower Shoalhaven and the Shoalhaven City Council for exclusivity on the North Nowra Tip Site.

"That Council advise Repower Shoalhaven (as a fellow partner of the Social Access Solar Garden Scheme) that Council supports the location of a Solar Access Farm on the Old Tip Site at North Nowra and will work with Repower Shoalhaven to gain necessary approvals to use the site for this purpose as the preferred use for this site."

This decision allows Repower Shoalhaven to progress modelling with certainty through the Social Access Solar Gardens feasibility study. If the site becomes operational in the future, the Council may be able to negotiate an agreement whereby some operational and maintenance costs estimated at \$15,000 annually could be paid for by the operator.

<u>Note:</u> Although Council does not own the land, this decision by Council resolves the preferred use for the land, for recommendation to the State Government accordingly.

<u>Implications</u>: The site is "Locked in" from Council's perspective. No further enquiries for the land would be considered by Council unless the Social Access Solar Garden Scheme is determined not feasible.

Background

A Community Solar Garden works by installing a central solar array, generally near a populated centre. Energy customers can purchase or lease panels in the solar array. The electricity generated is then credited on the customers electricity bill. The solar garden allows any customer to participate in the benefit of solar with similar outcomes to having solar installed on their own roof (refer to attachment 1).

Council was made aware of the Community Solar Garden at the Community Energy Conference held in Melbourne in late 2017 which has resulted in ARENA and the Community Power Agency extending an invitation to the Council to be involved in a feasibilty study for a "Social Access Solar Garden". The feasibility study is jointly funded by ARENA and the NSW Government as well as a number of project partner organisations. A team has been formed to support four main prototype teams in five separate locations (Swan hlll Victoria, Blacktown, Shoalhaven and Byron Councils). Repower Shoalhaven, has accepted an invitation to fill the role of technical expert for Shoalhaven Solar garden prototype for the feasibility study.

The two main objectives of the feasibilty team is research and, to develop prototypes for solar gardens business models.

In December 2017 Council was approached (independent of ARENA) by a consortium of local experts from Repower Shoalhaven, to discuss whether Council had a suitable site for the establishment of a Community Solar Garden Scheme. Interest centred around the old North Nowra Tip Site.

Other sites that may suit the needs of Repower Shoalhaven are

- The West Nowra waste facility
- Various Shoal Water sites



The new Animal Shelter Facility (Shoalwater Depot) at South Nowra

On the 21st of Febuary 2018 Council wrote to the Repower Shoalhaven consortium to informed them that other shoalhaven clubs had previously shown interest in the site and advised them to send an official letter of request to Council (refer to attachment 2) for use of the land.

"Council's preliminary enquiries ascertain that the use of the land in question for a solar farm is potentially feasible..."

The following is a summary of Council's findings in relation to the North Nowra Site-

The former North Nowra landfill site is located at Lot 7313 DP1153421 North Nowra with a Permissive Occupancy (PO) through the Crown ref #9626 1966/24.

The PO for the site was granted for the specific purpose as a "garbage depot" or waste landfill, and utilised between 1963 and 1982, when it was closed. It was capped and used to stockpile road building materials while maintaining the leachate management system, with 2 dams, until 2012. Final capping was applied in 2012 and the leachate management system dismantled in accordance with the Environmental Protection Licence (refer to attachment 3). It has undergone ongoing and regular maintenance to stabilise the surface and encourage the growth of grasses.

The EPA licence was active to ensure that long term potential pollution problems did not manifest. The EPA is now satisfied ground and surface water contamination is minimised, but issued an additional requirement for monitoring for landfill gas, which has been continuing for about 4 years. In 2017 a gas vent was installed on the South East corner of the site, with the vent construction and monitoring results submitted to EPA in November 2017 for final release of any further requirements at the former site. No response has been received from EPA.

The land is zoned RE1 – Public Recreation. State Environmental Planning Policy (Infrastructure) 2007 in 34(7) provides that "Except as provided by subclause 8, development for the purpose of a solar energy system may be carried out by any person with consent on any land." This means that a solar farm can be developed on the land with consent. Subclause 8 relates to limiting electricity generating capacity in a residential zone to less than 100 kW.

On the 20th of March 2018 the Council Strategy and Assets Committee Meeting resolved as follows (vide minute no MIN18.190C), (refer to attachment 4);

• "Council accepts the invitation from UTS- ISF to join their Commonwealth and state funded research project, and will provide in-kind assistance".

On the 1st of May 2018 the Repower Shoalhaven consortium formalised their request for Council to provide exclusive use of the old Noth Nowra tip site for the Solar garden. (refer to attachment 5).

"To provide more confidence that the site can be the basis for our concept scheme we are seeking to formalise an arrangement with Council for exclusivity on the site for



a period of 5 years and, should the scheme proceed to implementation, establish the primary terms which would apply for a long-term lease – 25 to 30 years.

On the 11th of May formal agreements for Councils in-kind contribution to the feasibility study were received and now being reviewed for signing (refer to attachment attachment 6). Council's in-kind contribution to the project has been set at \$10,000. This will predominantly consist of staff time and some Council venue hire and catering.

On the 17th of May, ARENA provided a media release for the Solar Garden feasibity study where the Shoalhaven Council is noted as one of the project partners (refer to attachment 7);w

Community Engagement

• On the 23rd of May, Council met with Greg Peterson (Aboriginal Land Council) to discuss the existing Aboriginal land claim on the land. The Council intend to negotiate for the Aboriginal claim to be surrendered. There may be other claims under Section 42 of the Native titles act over the land. Greg was happy to help Council present this proposal to his board in a nattempt to negotiate through the land claim issue.

Policy Implications

Nil.

Financial Implications

Nil. \$10,000 in kind contribution will be funded from existing allocations

Risk Implications

- The site Aboriginal Land Claim cannot be settled (extinguished) or compensation is required to settle is too large.
- The Land Zoning prohibits the site to be used as a solar garden.
- EPA requirements for the site creep due to the intended use
- The time to settle the above risks extends beyond the Solar Garden timeframe.



Social Access Solar Gardens

Summary

The **Social Access Solar Gardens** project will prototype four of the first solar gardens projects in Australia. This summary introduces solar gardens concepts and explains how our project will achieve its objective of developing solar gardens that benefit all electricity users, including vulnerable and low-income customers.

In Australia, 1.8 million solar households now enjoy the benefits of clean, cheap energy produced from solar panels installed on their roofs.

Unfortunately, not every household has a sunny roof suitable for solar. These 'locked out' customers might live in apartments, be renters or have no solar access. Overwhelmingly, the most vulnerable, low-income electricity users in our society fall into this category.

SOCIAL ACCESS SOLAR GARDENS

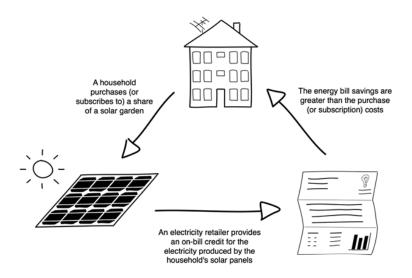
Solar gardens work by installing a central solar array, generally near a population centre. Energy customers can purchase panels in the solar array. The electricity generated is then *credited on the customer's electricity bill*.

With a solar garden, any electricity customer can participate in and benefit from solar energy. The solar panels may be located off-site, but the household receives a financial outcome on their bill, a bit like having solar on their own roof.

Social Access Solar Gardens are a type of Solar Gardens that specifically seek to enable locked out and the most vulnerable and low-income energy users to participate in solar.

Solar gardens are the fastest growing segment in the US solar industry, contributing 200MW of new photovoltaic capacity in 2016. However, here in Australia solar gardens they are not yet available. We want to change that.





ABOUT THIS PROJECT

The project has two major streams of work:

- 1. Research, and
- 2. Development of prototype social access solar gardens business models.

Through the Social Access Solar Gardens project the project partners aim to either:

1. Develop between one and four pilot Solar Gardens that are de-risked and ready to implement and are underpinned by business models that are *desirable* to locked-out energy users, *viable* and *feasible*.¹

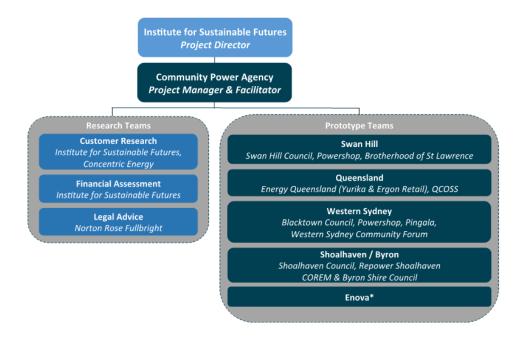
¹ Note this project does not include implementation of Solar Gardens.

^{*} Enova is already developing a different model of a Solar Garden, and will participate in the research streams and provide a case study for the project.



OR

2. Identify the specific barriers that would prevent the Social Access Solar Garden model from working, and identify potential solutions to overcome these barriers. We have pulled together teams of experts to drive the research, which will support four main prototype teams, in five locations – Swan Hill in Victoria, Blacktown, Shoalhaven and Byron in NSW and regional Queensland:





This project was made possible with the funding support from ARENA and the NSW Government, as well a number of the project partner organisations.

For further information please contact Elizabeth Noble | elizabeth@cpagency.org.au

Primary funders







Project partners





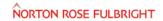






























Bridge Rd, Nowra NSW 2541 **02 4429 3111**Deering St, Ulladulla NSW 2539 **02 4429 8999**

Address all correspondence to

The General Manager, PO Box 42, Nowra NSW 2541 Australia DX5323 Nowra Fax 02 4422 1816

Council Reference: 8596E (D18/54050)

Robert Haywood Repower Shoalhaven

Dear Mr Haywood

Possibility of North Nowra Landfill Site Being Used as a Solar Farm

I refer to your informal approach to Council to ascertain the possibility of using the land occupied by the former landfill site at North Nowra as a solar farm.

Council's preliminary enquiries ascertain that the use of the land in question for a solar farm is potentially feasible, with a summary of our enquiries attached.

This land has attracted interest from a number of community groups and should this land be of interest to you a formal written request outlining the details of your proposed use and proposed terms of that use will need to be made before Council could formally consider your interest.

If you need further information about this matter, please contact Paul Keech, Assets & Works Group on (02) 4429 3298. Please quote Council's reference 8596E (D18/54050).

Yours faithfully

Paul Keech Director, Assets & Works

21/02/2018





Attachment

Summary of Council Enquiries

The 12.2 hectares of land on which the former North Nowra landfill is situated is Crown Land and was operated as a landfill under a permissive occupancy (PO) granted to Council in the 1960's.

The site was used to landfill general waste from the about 1963 until it's closure in 1982. Since then it was capped and used to stockpile road building materials while maintaining the leachate management system, with 2 dams, until 2012.

The Site was later re-capped in 2012 to ensure the cap thickness and Site contours complied with EPA requirements. Ongoing and regular maintenance tasks are performed to stabilise the surface and encourage the growth of grasses.

Environmental Protection Licence

The former landfill was subject to an Environmental Protection Licence issued by the EPA. The licence was activated to ensure that long term potential pollution problems did not manifest. The EPA is satisfied that ground and surface water contamination is minimised, but issued an additional requirement to monitor for landfill gas. In 2017 a gas venting trench was installed on the South East corner of the site, with the vent construction and monitoring results submitted to EPA in November 2017 for final release of any further requirements at the former site.

Permissive Occupancy (PO)

Being Crown Land property operating under a PO, whilst it is reserved from sale it is not land of that Council is appointed Trust Manger. As such upon surrender of the PO the land reverts to the Crown.

However, Council have written to Crown Lands to determine the process of returning the original PO once the EPA have released Council of any further requirements at the site. We also queried whether there is a potential to change the use stated on the PO (for example from garbage depot to solar farm).

Alternative uses

Council has been approached by various organisations/groups to use the site. This includes a group of Shoalhaven cycling clubs, the Shoalhaven astronomers and an archery club.

Restrictions

Being a former landfill the site is classified at potentially contaminated land. This needs to be accommodated in any design, construction work or activity / use.

Geotechnical input is required for the design of any structures, to allow for variable and potentially unpredictable settlement and poor foundation conditions.

Pits, basements or enclosed areas below ground level need to be treated as confined spaces, with a potential for gas accumulation.

There is a current Aboriginal Land Claim over the area.

Precedence

Newcastle City Council are in the process of developing a solar farm on a former inert waste landfill. A contractor was selected through a tender process, only recently awarded and they are now applying for development approval.

The Uleybury Landfill in Northern Adelaide have recently installed a 1.15MW solar PV system on the landfill buffer zone.

The Wollert landfill solar project in Victoria is a pilot scale project to determine the feasibility of installing solar PV on a landfill.





Strategy and Assets Committee – Tuesday 20 March 2018
Page 1

CSA18.5 Notice of Motion - University of Technology

Sydney (UTS) - Institute of Sustainable Futures

(ISF) Research Project

HPERM Ref: D18/86461

Submitted by: Clr Amanda Findley

Clr Kaye Gartner Clr John Wells

Attachments: 1. Background information (Confidential)

2. Contact list (Confidential)

Confidential Item

Local Government Act - Section 10A(2)(c) - Information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.

Local Government Act - Section 10A(2)(d)(ii) - Information that would, if disclosed, confer a commercial advantage on a competitor of the council.

Purpose / Summary

The following Notice of Motion, of which due notice has been given, is submitted for Council's consideration.

Recommendation (Item to be determined under delegated authority)

That Council accepts the invitation from UTS-ISF to join their Commonwealth and State Funded research project, and will provide in-kind assistance.

Explanation

This is a multi stakeholder project which also includes REPOWER Shoalhaven who are considered by UTS-ISF as a priority stakeholder in conjunction with Shoalhaven City Council.

This research project is of national significance and will assist communities all across Australia who endeavour to develop social equity access to renewable energy.

In considering this application Council understands that it has a significant population of people who could benefit from such access which is aimed at reducing energy costs.

Background

UTS - ISF have provided substantial background material which is attached. This opportunity came about through the connections made at the Community Energy Conference held in Melbourne in 2017.





Strategy and Assets Committee – Tuesday 20 March 2018

The Shoalhaven heads community have been inspiring the work on a community access renewable energy project, and three members from this community are part of the sub committee that is working currently on the project. The community members are listed in the attachment for Councillors information.

Note by the General Manager

The matter has been included in "confidential" at the request of the initial proposers of the NoM. The reason for confidentiality is that the Australian Renewable Energy Agency (ARENA) has not announced funding as yet and UTS has asked that the matter remain confidential until the funding is formally announced by ARENA.





Strategy and Assets Committee – Tuesday 20 March 2018

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Repower Shoalhaven Incorporated PO Box 2226, Bomaderry NSW 2541 ABN: 73 379 383 110

General Manager

Shoalhaven City Council

Attention: Peter Herald

Reference: ISF - UTS Social Access Solar Garden Study - former North Nowra Waste Disposal site.

Dear Sir,

The ISF – UTS study has commenced with the Inception meeting scheduled for Friday 4^{th} May and the prototype design workshop on $5/6^{th}$ June.

A critical task assigned to RePower is the development of a concept physical project and to cost all the requirements to implement the project. As a starting point we have identified the former North Nowra Waste Disposal site as suitable for the development of the solar garden. Informally we have established that both Council and Endeavour Energy have assessed the site as acceptable for this purpose. To provide more confidence that the site can be the basis for our concept scheme we are seeking to formalise an arrangement with Council for exclusivity on the site for a period of 5 years and, should the scheme proceed to implementation, establish the primary terms which would apply for a long-term lease – 25 to 30 years.

We fully recognise that the implementation of the scheme will require a raft of other consents and approvals, all of which will carry risks to the implementation. Through the process of developing the concept we will seek to address each of these other requirements. However, the starting point is confirmation that we can proceed on the basis that this site would be available for this use and the terms for such use.

The inception meeting will identify the program of events to complete the study. We anticipate that we will be pressed for time to satisfy the needs of the study, accordingly your early consideration of this request would be greatly appreciated.

Yours faithfully,

Bob Hayward

Convener Repower Shoalhaven Sub-committee - Social Access Solar Garden 0411 154 630 haywarb7@outlook.com







ARENA

Media Release

17 MAY 2018

Solar gardens to bring rooftop solar to all Australians

The Australian Renewable Energy Agency (ARENA) has today announced funding for a feasibility study that could allow the third of Australians who rent, live in apartments or live in low income housing to access the benefits of rooftop solar.

On behalf of the Australian Government, ARENA is providing \$240,000 to the University of Technology Sydney's Institute of Sustainable Futures (ISF) to undertake a feasibility study on 'solar gardens', a popular concept in the United States that is yet to be introduced in Australia.

A solar garden is a centralised solar array that offers consumers the opportunity to purchase or lease solar panels with the electricity generated credited to the customer's energy bill. This provides an innovative solution to accessing renewable energy for those who are unable to place solar on their homes.

The \$555,000 project brings together energy retailers, councils, community energy agencies and social welfare organisation and the NSW Government to examine the viability of a solar garden in five potential locations - Blacktown in western Sydney, Swan Hill in northwest Victoria, Townsville in North Queensland, Shoalhaven and Byron Bay in New South Wales.

The study aims to consider both consumer demand and feasibility, and identify barriers to adoption.

ARENA CEO Ivor Frischknecht said initiatives such as this are an important step in giving the consumer more options when it comes to their energy bills.

"Solar gardens have been popular in the US, with the fast growing market seeing 200 MW of shared solar gardens already in operation."

"Almost a third of Australians are unable to put solar on their roofs because they are renting, live in apartments or live in low income housing. Solar gardens give consumers the benefits of rooftop solar, even if you don't have a roof available to put it on," Mr Frischknecht said.

"We're excited to be supporting the feasibility into a concept that will allow people from all backgrounds and living circumstances to benefit from renewable energy," he said.

ARENA media contacts: 0410 724 227 media@arena.gov.au For more information arena.gov.au



"While over 1.8 million households now enjoy the benefits of cheap solar power, unfortunately not every household owns a sunny roof suitable for solar panels," said ISF Research Associate and Director of Community Power Agency Nicky Ison.

NSW Minister for Energy and Utilities Don Harwin said: "We're excited to be supporting the Social Access Solar Gardens trials because we know that local renewable energy can help consumers save money on their energy bills.

"These trials will help renters, and people in apartments and low-income households who are currently missing out on the benefits of rooftop solar to share in the renewable energy boom currently underway in [NSW]."

The project builds on previous work undertaken by ISF in the ARENA funded project Facilitating Local Network Charges and Virtual Net Metering which explored the theoretical impact of reduced local network charges for partial use of the electricity network, and the conditions required to support local electricity trading.

Primary project funders

ARENA NSW Government

Project partners

Bendigo Sustainability Group Blacktown Council Brotherhood of St Laurence **Byron Shire Council** Community Owned Renewable Energy Mullumbimbi (COREM) Community Power Agency **Energy Queensland Enova Community Energy** Institute for Sustainable Futures, University of Technology Sydney Norton Rose Fullbright Pingala Powershop Queensland Council of Social Services Repower Shoalhaven Shoalhaven Council Swan Hill Shire Council

ARENA media contacts: 0410 724 227 media@arena.gov.au For more information arena.gov.au



SF18.22 Progress Update from the Energy Management Coordinator - Darren O'Connell

HPERM Ref: D18/171487

Group: Shoalhaven Water Group

Section: Water Asset Planning & Development

Purpose / Summary

To receive the Energy Management Coordinator's progress 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.
- 2. The Committee requests further information or actions.

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

Council staff have continued discussions with Local Govt Procurement and the NSW Office of Environment & Heritage to identify opportunities for solar Power Purchase Agreements (solar PPAs) at some of Council's assets, including the Nowra Library, Bomaderry Works Depot, Shoalhaven Regional Gallery and the Shoalhaven Entertainment Centre. A financial tool is currently being evaluated to compare the business case for solar PPAs. Other sites including Shoalhaven Water's assets are being screened for solar PV suitability based on criteria such as daytime energy load profile, roof orientation, roof space and structural integrity, electricity tariffs, etc.

Shoalhaven Council is a joint partner in the Social Access Solar Garden project along with Repower Shoalhaven, Institute for Sustainable Futures (UTS), Community Power Agency and Byron Shire Council. The research project works through a theoretical project to build a solar farm and enable low income energy users to participate in solar power. A two-day workshop with key stakeholders is being held in Nowra on 5-6 June 2018 to progress the project.

Staff Training in Energy Efficiency Opportunities

A one-hour training program titled 'Watts going down at Council' – Council staff training in Energy Efficiency Opportunities, was delivered by Darren O'Connell and Andrew Truran to Shoalhaven Water operations staff on 9 May. This coincided with the presentation of a customised quarterly review to ShoalWater staff by Planet Footprint. The next group



identified for staff training and customised quarterly review is the Holiday Haven Tourist Park managers in July 2018.

Cities Power Partnership

Shoalhaven Council facilitated the second meeting of the 'CPP South East NSW Buddies Group' via teleconference on 17 May 2018. Staff from Shoalhaven, Kiama, Wingecarribee, Eurobodalla and Bega Councils attended and shared work experiences on a range of energy matters. The group intend to submit an application for the national CPP Buddies award that is announced at the CPP Summit being held in Kiama in October 2018. SCC's five CPP pledges are being monitored for progress via an implementation table that breaks down each pledge into a range of tasks. SCC staff continue to participate in the ISJO Energy Working Group to identify regional projects in energy efficiency, emissions reduction and renewable energy.

Sustainability Advantage Program

SCC has commenced the NSW Government's Sustainability Advantage Program with a high level Strategic Review currently being undertaken. The Strategic Review, being conducted by consultants SD Environmental Management as part of the annual membership fee, identifies progress of Council's environmental sustainability policies, plans and commitments. Once the Review is completed, a Management Diagnostic workshop with Directors, Section Managers etc. will take place to scope out what areas Council would like to address in environmental sustainability.

Electric Vehicle (EV) Charging Stations

SCC has formed an internal Working Group to outline the criteria and parameters to assist in the selection of suitable sites for EV charging stations across the LGA. This work will direct future EV charging station installations to ensure that they benefit the wider public and are sited in suitable locations. Darren attended the LGP Sustainable Choice workshop at Shellharbour Council on 7 May and listened to a talk by Gail Broadbent, an EV research specialist. Gail has kindly emailed a range of research papers about EV charging stations, EV policy criteria etc. that will be used for SCC EV policy development.



SF18.23 Implementation of NatureMapr in the Shoalhaven

HPERM Ref: D18/164117

Submitted by: Robert Hayward

Attachments: 1. Atlas of Life Presentation - edited

2. NatureMapr ACT Presentation __

Recommendation (Item to be determined under delegated authority)

That the Sustainable Futures Committee, independent of any undertaking from the Shoalhaven Tourism Advisory Group, consider the funding required - \$20,000 initial set up and \$10,000 annual maintenance – from future Sustainable Futres budgets to ensure the full implementation of the NatureMapr scheme in the Shoalhaven.

Details

The presentations by representatives from NatureMapr and the Atlas of Coastal Wilderness demonstrated the capacity of the scheme to provide multiple benefits for the Shoalhaven community. Please refer to the attached presentations and minutes of the meeting of 1 May 2018.

The Committee resolved to refer the scheme to the Tourism Advisory Group for consideration of co-funding. I seek independent consideration of the implementation of NatureMapr for the following reasons:

- 1. The benefits of this scheme are primarily derived by the residents of the Shoalhaven.
- 2. The scheme provides a unique opportunity for engagement with the Shoalhaven community to observe, record and create of a respository of knowledge on our local ecology. This creation will lead to an enhanced awareness, response and management of our impacts on this ecology.
- 3. This initiative has long term implications with respect to adapting to the impacts of climate change. As such the Sustainable Futures Committee should take full control of the implementation and administration.
- 4. The opportunity to involve tourists in participating is an important but secondary proposition. This opportunity will be best achieved from an established system that has the capacity to stimulate attention and interest in visiting the Shoalhaven.
- 5. Seeking to split the funding responsibility may create an unneccessary delay to the implementation and, in addition, uncertainty as to the future funding of the scheme.

Comment from General Manager

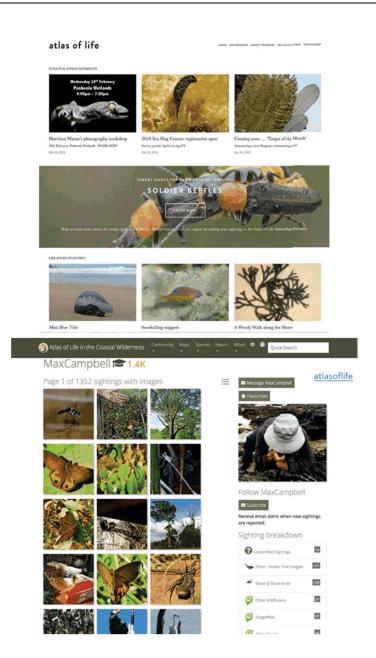
The 2018-19 Council budget has not been adopted at this time, as such budget to the Sustainable Futures Committee has not been determined, as is the case with ensueing years. Any proposed commitment of funds should accordingly acknowledge this position.













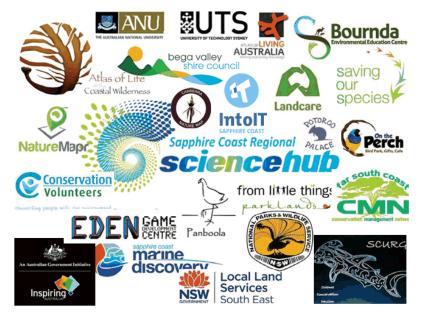






22,855 sightings of **5760 species**

from 393 members





Why build a database of biodiversity community of interest?

- to encourage everyone to spend more time in nature and explore, learn and record what they see
- to create together a rich database for our region and develop skills and understanding
- to help community contribute to science and collaborative environmental decision making
- to work and play in partnership with our natural resource managers



Atlas of Life Budawang Coast NatureMapr

Shoalhaven Sustainable Futures
1 May 2018



Update on Progress



- · Funding contributions received so far
 - Gondwana Fossil Walk
 - · Shoalhaven Landcare
- · Funding applications submitted
 - National Landcare Environmental Small Grants (in collaboration with Atlas of Life and Canberra Nature Map)
 - Local Land Services
- Funding requests in progress
 - · Shoalhaven Council,
 - Eurobodalla Council not approached to date

- · Strong community interest
- Three administrators appointed and received initial training
- Support from SCC Council staff (especially for weed eradication, bushcare and planning purposes)
- Significant interest from moderators wishing to contribute data into NatureMapr,
- Our local version will have lots of local content soon after it commences
- · Soft launch is scheduled for end of June
- · Public event launch later in 2018 or early 2019



NatureMapr Boundary, Domain Name and Website

The boundary of our local NatureMapr will be the LGAs of Shoalhaven and Eurobodalla, Booderee and the adjacent Pacific coast and ocean

Our boundaries align Canberra Nature Map and the Atlas of Life in the Coastal Wilderness



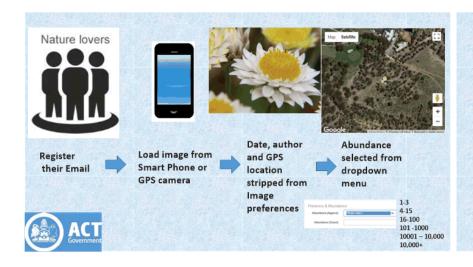
We will shortly register our domain name and establish a website, linked FB page and Twitter account

Next steps & Timeframe



- Boundaries established & taxonomies uploaded
- Moderators registered within 4 weeks
- Data & photographs uploaded from 4 weeks
- Project sites and points of interest identified and established – from 4 weeks
- Contributions commenced by end June
- Soft launch after 30 June
- Specific requirements gathered and customization scoped & costed





Rapid Increase in Information

- In three and half years ACT wildlife data base has gone from 30,000 records of around 200 largely mammals, reptiles, frogs and threatened birds
- to having access to over 1,250,000 records of 5,500 species from all animal, fungi and plant groupings.
- Most of these records have come from long standing community group survey and monitoring. The groups previously did not have confidence in how the ACT government would manage and use their data
- Naturemapr allows groups to have control of information while making it publicly available.





