

Era Surf Club Build Capstone Recruitment Environmental Award Nomination

ENTRANT DETAILS

Name of nomination:	Era Surf Life Saving Club Renovation
First Name:	Malcolm
Surname:	Garder
Position:	Honorary Vice President
Organisation:	Era Surf Life Saving Club
Phone:	9810 3639
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Street address:	26 Wharf Rd
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Postcode of the actual project location	2232
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INTRODUCTION

Era Surf Club is located at Era Beach, within the Royal National Park about 50km south of the Sydney CBD. There is no road access and the beach can only be accessed by a 2km walking track from Garrawarra Farm, by the coastal track from Garie Beach, 2.5km to the north or by sea on a quiet surf day.

As well as the surf club there are approximately 85 cabins, or shacks, many built during the Depression and used by people struggling to get by and supplementing their diet by catching fish and rabbits. The shacks are now used as weekenders and the shack owners form the Era Beach cabin community. The surf life saving club, established in 1938, is a central focus of the community and currently has 80 active, 60 junior and 120 associate members, travelling from all over Sydney and beyond. Many of the shack owners provide voluntary services as surf life savers, land care members, surf club committee members and the local Fireguard. The shacks and the Era Beach cabin community are listed on the National Trust, Australian Heritage Commission and NSW State Heritage Register.

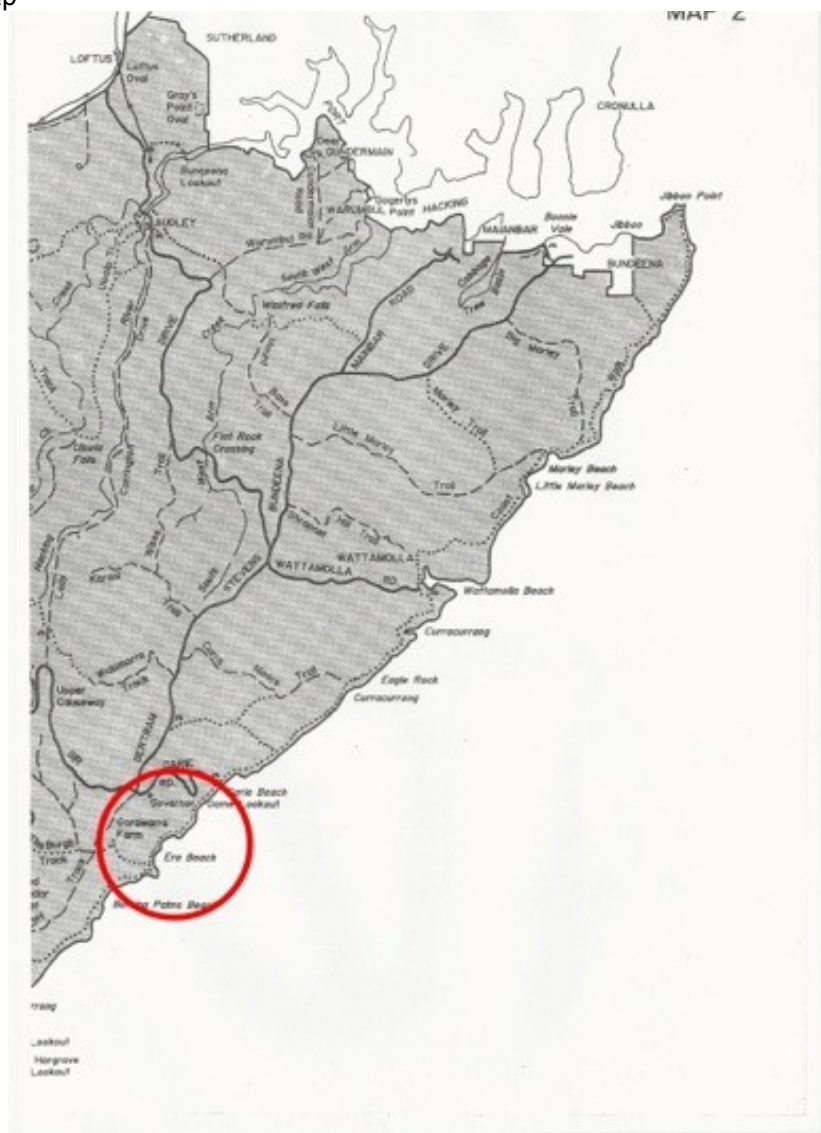
The clubhouse is located on land subject to a long term licence from the NPWS and serves a number of important functions for the community and for bushwalkers, campers and other users of the area. The clubhouse required renovations and extensions to satisfy the Surf Life Saving Association of Australia's Occupational Health and Safety requirements for an active surf club. However, the project also provided an opportunity to improve the functionality, sustainability and useability of the surf club.

See location map and photos under.





Locality Map



CRITERIA

Commencement date and completion date of project:

Construction commenced in June 2012 and was completed in April 2013. Following its completion, the surf club now provides a safe facility that has been used more regularly and for a wider range of activities than previously, enhancing its role as the social and operational core of the Era Beach community.

Technology/systems used in the project and examples of how the project achieves environmental innovation:

The club house is located in an isolated area of the Royal National Park. The area has been State Heritage Listed and adjoins an Aboriginal Midden, creek and surf beach. The area has no services, no road access, no electricity, no water or sewerage.

However with early community involvement the project evolved to accommodate elements such as rooftop solar, which can supply most of the club's energy needs, palatable rainwater storage tanks, eco-friendly toilets, storage areas for surf patrol, Fireguard and Land Care equipment and an all-weather area for Surf Life Saving training activities. Another key design consideration was the indoor/outdoor area for social activities, plus kitchen, beverage service area and cool room.

The community was overwhelmingly supportive of the project, with approximately 100 people volunteering time (approximately 800 man hours) and labour to haul materials and contribute to the construction on weekends over a period of 10 months. The project was designed, project managed and built in-house, utilising skills and trades within the community, including:

- carpenters, engineers, labourers, tilers, painters, draftsmen, project management, environmental management, plumbers, electricians, fridge mechanics, roofers, concreters, and glaziers.

In addition the following specialist external contractors were engaged:

- Touchdown Helicopters – heavy materials transport, concrete pours
- Targett Engineering and Building – structural engineers
- BCA Logic – Building Code of Australia sign off
- Environmental Equipment Pty Ltd – eco-friendly composting toilets design
- La Perouse Aboriginal Land Council – ground works monitoring
- carpenters for roof conversion
- garage door and window shutter installation.

The challenging location generated innovative solutions during the construction phase, including:

- Approximately 100 helicopter lifts to haul materials in from the top of the escarpment, including concrete pours for the floor slabs, saving man hours and time.
- The use of Elasto Plastic Concrete Synthetic Fibres as an alternative to steel reinforcement, developed in consultation with structural engineers, to create a long-lasting, rust-proof concrete floor slabs in response to the high salt environment.
- Two concrete kibles were used and the slab was poured from the kibble suspended by 30 metre long line, while the empty kibble was refilled from the mixer on the road 700 metres above the beach. A four to five minute turn round was achieved to reduce helicopter time. The aerial pour requires the kibble to be held steady at about one metre above the ground, the pilot relies on the ground crew member and the concreters to judge the height of the kibble over the pour. Also power to the rotors has to be adjusted during the pour to make up for the loss in weight as concrete pours from the kibble. Such concrete pours are very difficult and only rarely used.



Kibble on 30m long line from helicopter



Energy sustainability:

- Previously a diesel generator was used to operate the lights, fridges, bar and radio/TV during surf patrol hours and for social functions. Each social function required approximately 40-50L diesel, and at roughly 20 events per year this amounted to 800-1000L diesel. In addition, the diesel was brought in by inflatable rescue boat (IRB), using approximately 5L petrol each trip (IRB brings in 50L diesel per trip). This equated to annual average greenhouse gas (GHG) emissions of approximately 2,900 kg CO₂-e.
- With the installation of the new 2.5kW solar system the surf club now uses renewable energy for 90 percent of its electricity needs. Additional solar is planned for installation which will reduce the use of the back-up generator to emergency use only.
- The total estimated GHG emissions resulting from operation of the upgraded surf club is now >300 kg CO₂-e and will decrease to >50 kg CO₂-e once the new solar is installed.

Water efficiency:

- The installation of new 4,000L capacity rainwater tanks provides for more than enough water for potable uses (e.g. for general use and social events, as well as providing bushwalkers with water refills) as well as emergency water supply for the Fireguard. In addition the two new composting toilets do not require any water for their operation.

Eco-friendly toilets

- Two 'RotaLoo' composting toilets were installed in the new surf clubs. These toilets require no water, are odourless and require very little maintenance.



Rear of Clubhouse showing exterior of composting toilets, also water storage tanks.



Rooftop Solar panels

Nature of environmental, social and financial benefits achieved by the project for the site and the broader community:

Environmental:

- Solar Energy - With the installation of the new 2.5kW solar system the surf club now uses renewable energy for 90 percent of its electricity needs.
- Eco-friendly toilets – composting toilets without water.
- Water storage - The installation of new 4,000L capacity rainwater tanks

Safety and amenity:

The upgraded surf club now meets the SLSA OHS requirements, particularly with the new first aid room, indoor training area and a more useable surf patrol radio room. The addition of adequate equipment storage space, improved ventilation and lighting, clean drinking water and facilities such as a kitchen and toilets have improved the general amenity of the club.



Improved Functionality and Usability:

The new surf club design not only meets OH&S requirements but accommodates all previous uses and allows for additional uses to address the broader community's needs, including:

- More surf club social functions
- Kids/community movie nights
- Land care and Fireguard meetings and training
- District and Nippers surf carnivals
- All-weather life saving training facility



New gear shed with IRB (Inflatable Rubber boat) and rescue boards.

With regard to the increase in social functions, previously social functions were reliant on how much diesel there was to operate the surf club. The new solar system means diesel is no longer a limiting factor and, with the more functional design and additional facilities (kitchen, cold room, toilets), the surf club can now hold more social events than previously, ranging from the spontaneous happy hour to football grand final nights to New Year's Eve celebrations.

See photos of construction and workers in Photo Scrap Book attached.

Financial sustainability:

The upgraded surf club has resulted in lower operating costs due to a reduction in diesel and petrol usage, and has also allowed for an increase in revenue generating surf club functions, leading to a more sustainable financial position for the surf club.

Community ownership and education:

The project was a true community effort, with people who volunteered their time and skills to help build the new surf club now able to enjoy the result of their labour in the finished product. Volunteers also gained valuable knowledge of other building skills and technologies, such as the solar and composting toilets, that could be implemented at their cabins.

Other stakeholders and interested parties consulted included the RNP Coastal Cabins Protection League, who officially represent the community in dealings with the NPWS, and the neighbouring surf clubs at Garie and Burning Palms to discuss technologies and bespoke solutions to the unique challenges of the isolated nature of these surf clubs.

The project was, in every sense, a true community effort.



Completed Clubhouse at Opening Easter 2013

Details of any awards/valedictories relating to the project:

There have been no awards to date.

The project received the support of Lee Evans, Member for Heathcote, who stated “*The scope and ingenuity of this project is a testament to the passion and dedication of our Surf Life Saving volunteers*” (refer attached article and NSW Parliament Private Members Statement). Lee Evans assisted Era SLSC in receiving a \$15,000 grant under the State Governments' 2011 Community Building Partnership Program.

As the clubhouse is located in the Royal National Park, the National Parks and Wildlife Service were consulted to seek their in-principal support of the project. A Review of Environmental Factors was prepared under the *Environmental Planning and Assessment Act 1997* to seek approval from the NSW Office of Environment and Heritage.

Surf Life Saving Australia (SLSA) endorsed the project (see attached correspondence),

Letter from Targett Engineering and Building re innovative solution to reinforcing of proposed concrete slabs.

Photo Scrap Book

Extract from Hansard – Legislative Assembly 27 February 2013

Speakers [Evans Mr Lee](#); [Toole Mr Paul](#)
Business Private Members Statements

ERA SURF LIFE SAVING CLUB

Page: 18147

Mr LEE EVANS (Heathcote) [7.00 p.m.]: I am proud to congratulate the members of the Era Surf Life Saving Club on the completion of their major club upgrade. Era is a small bay within the Royal National Park and home to a thriving heritage shack community. Many of the shacks were built during the Depression by people who struggled to find work or to make do with what little income they could muster. The surf lifesaving club was established in 1938 and the clubhouse has been built and rebuilt four times by members of the community after severe storms levelled the previous structures. This is remarkable given that every brick, every beam and every bag of cement needed to be carried down a 2.5-kilometre steep and challenging bush trail by hand. There is no road access and the sea is usually far too rough to allow for safe landing or unloading. Members even struggled to carry down kerosene generators and a fridge using a makeshift stretcher. The club has no running water or electricity and it receives no funding from the local council or the National Parks and Wildlife Service. Many of the 65 active members travel from as far away as Liverpool to hike the trail and perform their patrol duties.

The old clubhouse was a simple structure that served its purpose, but it had deteriorated below the minimum requirements for a surf lifesaving facility. Volunteers patched the roof and repaired everything possible, but a new building was needed desperately. I visited Era with club president Mark Wood in 2011 and agreed to lobby the Government for funding to assist with the planned redevelopment. The project was especially important because the building is considered to be the heart and social hub of the heritage shack community. It is the home of Era's only television—they really do rough it—so naturally the entire community gathers there for major sporting events. I have never seen anything like it. Many wayward backpackers have stumbled on this scene at night after embarking on a bushwalk far too late in the day. I can imagine their surprise to find a warm welcome and cold beer after hours of trekking through the dark, dense bush.

I am very proud to say that the New South Wales Government has provided \$146,000 for the project through the Surf Club Facility Grant program and \$15,000 through the Community Building Partnership program. That was 75 per cent of the \$200,000 needed for construction. A helicopter was required to airlift all building materials and I was fortunate enough to watch as it made more than 60 trips along the coast and down into the valley each day, carrying almost one tonne of cement and other materials on each trip. Despite its relative isolation, Era beach attracts a large number of visitors and beachgoers during the summer months and the volunteers at Era provide vital lifesaving services. The difficulty of this project and the ingenuity it required is a testament to the passion and dedication of the surf lifesaving volunteers at Era.

We are lucky to have men and women willing to sacrifice their time and to put so much effort into volunteer lifesaving, but these individuals have gone truly above and beyond the call of duty.

The new club, which has just been completed, includes a first-aid room, training area, gear shed, radio room, solar power, eco-friendly toilets and water tanks. It has been designed in a way that is sustainable and sensitive to the surrounding landscape. I am certain that it will help the club to continue to attract new members. I look forward to attending the official opening over the Easter weekend. As I said, the volunteers at Era provide vital lifesaving services to a large number of visitors and beachgoers who are attracted to Era beach during the summer months, despite its relative isolation. I am proud that this Government has supported the extraordinary hard work and dedication of these volunteers with the standard of facilities they deserve. I congratulate Era Surf Life Saving Club on its seventy-fifth year and I wish it all the very best for the next 75 years.

Mr PAUL TOOLE (Bathurst—Parliamentary Secretary) [7.05 p.m.]: I congratulate the Era Surf Life Saving Club on completing this major upgrade. This story epitomises the hard work that volunteers do in the community of the member for Heathcote. I also congratulate him on providing \$15,000 to the club through the Community Building Partnership program. That money has benefited an organisation of volunteers and it will assist them to provide a better facility for the community. The refurbished facility will attract new members to the club. I am sure that the member's community is very proud of what he has achieved and that the opening of the new clubhouse will be a memorable event.

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A.B.N 58 072 902 893 CONSULTING CIVIL AND STRUCTURAL ENGINEERS		

1 June 2012
 Mr M Wood
 President Era SLSC
 8 Slessor Place
 Heathcote NSW 2233
 markw@waverley.nsw.gov.au

Dear Mark

**STRUCTURAL REPORT – PROPOSED CONCRETE SLABS
 ERA SLSC – ROYAL NATIONAL PARK**

Further to your request I confirm the proposed stiffened raft concrete floor slabs for the amenities and boatshed at the club can be constructed to the following alternative detail.

In accordance with the Acor Consultants Pty Ltd plan SY11 0330 Dwg Nos.S1.01 & S2.01, Issue A, dated Sept 11 as modified below.

Concrete compressive strength F'_c 40MPa , slump 80mm. (review mix design with

Concrete for anticipated time frame to placement of mix)

Add Elasto Plastic Concrete Synthetic Fibres 'MACRO 42' in lieu of SL82 reinforcing mesh as detailed in the above plan. Dosage rate is to be a **minimum** of 3kg of MACRO 42 fibres per cubic metre of concrete. A 3.2 cu.metre concrete order will require 4 x 3kg bags of fibres.

Subject to the concrete mix and placement being in accordance with the above and plan detail I consider the completed slabs will be structurally sound.

Please contact me if you wish to discuss this report or require further assistance.

Yours faithfully,

P F Targett
 B.Sc.Eng, MIE Aust, CPEng, NPER-3
Director Targett Engineering & Building Pty Ltd



15th August 2014

Mr Mark Wood
President
Era Surf Life Saving Club
5/4 Womerah Avenue
DARLINGHURST NSW 2010

Dear Mark

I am writing in support of your Club's entry to the Australian Property Institute awards in recognition of your achievement in rebuilding Era Surf Life Saving Club with a focus on environmental sustainability.

Through the Surf Life Saving Club Facility Program Grant it brought to light that Era Surf Life Saving Club had a clubhouse which was substandard and unsuitable to meet the general Occupational, Health and Safety requirements of NSW. There was no defined first aid room, the radio room was too small, there wasn't adequate storage area for patrol equipment and there were no male or female toilets or change rooms. The old clubhouse had served its purpose, but it had deteriorated below the minimum requirements of a Surf Life Saving Club, with volunteers continually patching up the roof and repairing the building as best as they could.

Due to your Club's isolated location in the Royal National Park, it is often used as a facility for walkers in the area and was a major factor in necessitating the upgrade of the basic club facilities for not only the club members, but the general public.

The new premises now provide a contemporary club house with a designated first aid room and bed, upgraded radio room, a purpose built storage area for all patrol equipment including an IRB, improved space for training purposes, toilets and a large entertaining area for club functions.

The clubhouse now meets the WH&S standard you would expect from a Surf Life Saving Club Facility. In addition, the clubhouse building is environmentally sustainable and is solar powered and rainwater tanks are used for water supplies.

You have certainly been innovative in considering long term environmental solutions and I commend your club members for their efforts in rebuilding the clubhouse; and for providing such a great example to other Surf Life Saving Clubs in similar environmentally sensitive and isolated areas.

Yours sincerely

A handwritten signature in black ink, appearing to read "Tony Haven".

Tony Haven
President
Surf Life Saving New South Wales