



Salt Torquay Annual Review

One Planet Living® Peer Review
September 2019

Project information

Project Name	Salt Torquay, Torquay, Australia
Project Type	Residential community development
Developer	Barwon Water
Project contact	Kate Milburn, Barwon Water
Brief Description	<p>Salt Torquay is located on a former water reservoir abutting suburban housing in the coastal township of Torquay in the Surf Coast Shire in south west Victoria. The medium density self-build estate developed by the local water authority Barwon Water will accommodate a range of housing options including villas, townhouses and units, providing 81 dwellings.</p> <p>It will set a new standard for innovative, sustainable urban development, and will be the region's first minimum 7.5 star (NATHERS) residential development. Eco-features include mandatory electric car charging points, solar and battery on all houses and household rainwater harvesting and reuse for toilet, laundry and garden irrigation to reduce mains water consumption by 30%.</p> <p>The estate will incorporate a wide range of eco-features, innovative public stormwater controls and a 250kW solar array on Barwon Water's land opposite the estate to generate additional renewable energy.</p> <p>SALT Torquay was recognised by Bioregional as demonstrating leadership in One Planet Living in June 2018.</p>
One Planet Integrator	Kate Milburn, Barwon Water
Peer Reviewer	Suzette Jackson, Bioregional Australia Foundation
Date of review	September 2019
Performance	Recognised as a leader in One Planet Living

Peer-Review Summary

This is the first Annual Review based on the SALT Torquay One Planet Action Plan. The highlights of the progress in the last year include:

- Development of the near zero-carbon housing initiatives to enable low-carbon living by residents including provision of free energy assessment post construction
- Completion of neighbouring solar farm by Barwon Water
- Development of the kinetic sculptural elements, wayfinding and biodiversity signage
- Development of the play space highlighting the local endangered species 'hooded plover'
- Propagation of native species for individual home sites commenced
- Collaboration with regional indigenous group - Wadawurrung Registered Aboriginal Party (RAP) to highlight traditional ownership, including Investigation of SALT Torquay being incorporated into Cultural 'Walk and Talks' on Country
- Waste minimisation strategy developed with waste minimisation builder's forum planned

-
- Procurement of Salt Torquay community facilitator
 - Education site tours held with local schools
 - Commitment to ongoing reporting to capture and share learnings of delivering a One Planet Community through the 'Annual Review' process with Bioregional.

As the first One Planet Living development by Barwon Water, lessons learnt, and partnerships developed will be invaluable for future developments undertaken by Barwon Water. Actions and activities piloted will enable improvements for future communities.

Outcome of Peer-Review

Project Sponsor: Tony Belcher, Property Developer, Barwon Water

I am pleased to present Salt Torquay's first One Planet Living Annual Review detailing how our project has progressed over the last 12 months. It has been a challenging phase of construction, but we are excited about the exceptional benefits we are delivering for our future residents.

Some highlights over the last 12 months have included:

- Completion of and grid connecting the 250kW solar farm
- Commencement of sales of residential lots and meeting some of our future residents
- Seeing the first of our locally manufactured sculptural elements – representing elements of the local environment - come out of the factory floor
- Completing gabion basket retaining walls using rock beaching retained from the former water basin on the site – and thus retaining some of the site's history
- Listening to mainstream developers in our region saying that they are keenly interested in the things we are doing at Salt Torquay, and seeing some of our initiatives being incorporated into other residential developments.

We look forward to the next 12 months as we move into a period of greater interaction with future residents and begin implementing sustainable living initiatives across the Salt Torquay estate. We are committed to the process of continuous improvement and look forward to the next year with the intention of using our leadership recognition for the benefit of our residents and wider community.

One Planet Integrator: Kate Milburn

As a One Planet Living Integrator, I am pleased to be able to present Barwon Water's first One Planet Annual Review for Salt Torquay. In my opinion, Barwon Water has gone beyond conventional urban development paradigms to do everything in its power to ensure that this estate provides the residents with a realistic chance to achieve One Planet Living.

A major project highlight over the last 12 months was the commencement of construction, which marked the completion of the design phase of the project. Construction has been challenging, with project delays affecting sales and One Planet Living initiative timelines. However, these challenges have been a valuable learning experience and we are looking forward to being able to evaluate this data once completed.

Barwon Water understands the need for continuous improvement over the next two years of implementation with a focus on progressing further project collaboration and community consultation once the construction phase is completed. The project is progressing well with majority of civil construction scheduled to be complete by the end of June 2019. In terms of supporting the submission of the annual review, I can confirm that the applicant has undertaken the following One Planet Living steps:

- Analysis and review of the One Planet Living initiatives that were scheduled for the 2018/19 period
- Review and collation of Salt Torquay data
- Collaboration with project partners to secure future OPL initiatives

-
- Completed a review and update of the OPL Action Plan Workbook
 - Completed annual review summary document

I am confident that the Salt One Planet Annual Review and associated documents will provide a valuable insight into the progress of the project and I commend the work to Bioregional for assessment.

Bioregional Australia Foundation: Suzette Jackson, One Planet Lead Australia

The SALT Torquay One Planet Living Annual Review identifies progress and performance made over the past 12 months against the civil works, stage 1 lot sales, the development of mechanisms and early engagement. The Annual Review also includes the development of further initiatives and documents. Civil works completion has been delayed, causing access to site for potential buyers and lot sales to also be delayed.

Progress has been made in key areas including:

- Rain gardens and swales completed with civil works
- Gabion walls completed with upcycled rock from the site
- Solar farm on adjacent land has been completed and is operational
- Cultural engagement on signage, wayfinding and street names is complete
- Play space design is underway and incorporates a focus on biodiversity and species at risk
- Sculptural artworks underway
- Native vegetation propagation for homes underway
- Waste minimisation strategy underway with a waste forum led by regional experts scheduled
- Design guidelines finalised and published
- Community engagement facilitator appointed to assist future residents with housing design, mandatory and suggested design elements.

Scheduled activities in the coming year includes home designs due for submission to the design review committee, completion of the civil works, open space planting and transition to individual and villa lot house construction onsite.

We commend the further development of initiatives such as:

- The waste minimisation strategy incorporating additional common waste diversion skips onsite for soft plastics and polystyrene managed by the developer, and the planned builder's forum with national experts.
- The cultural engagement incorporating the street naming, biodiversity, site knowledge and potential for inclusion in cultural walks and talks.

As the housing construction phase progresses the metrics, collation and reporting of data will become more critical to demonstrate outcomes.

Further opportunities are identified in the peer review particularly across Local and Sustainable Food, Travel and Transport and Materials and Products, and on developments for low embodied carbon in construction to support the near zero carbon operations. Improvements in these areas could support a shift from leader recognition to recognition as a Global Leader at the next peer review period.

We confirm the SALT Torquay OPAP Annual Review has been recognised as a leader in One Planet Living by Bioregional.

Bioregional: Ben Gill, International Technical Manager

Barwon Water has used the One Planet Living framework to push the SALT Torquay estate from an impressive low carbon development to a near zero carbon development that enables and encourages sustainable living. We encourage Barwon Water to investigate how they can minimise the embodied carbon of construction, and ways to further encourage sustainable living particularly around the issues of food and transport.

We agree with the peer review and are pleased to confirm that SALT Torquay's One Planet Action Plan has been recognised as a Leader in One Planet Living and look forward to following its progress in the coming years.

Peer Review

Scope and impact

Review	Overall outcome in transition to One Planet Living			
	Comment	Highlights	Opportunities	Rating 1-5
Impact	The development has the potential to drive local best practice and impact upon residential construction within the local government area. Targeted recycled content in road base, footpaths and crossovers has not been achieved, due to local challenges.	Civil works completed include the repurposing and reuse of onsite materials in land and urban infrastructure such as gabion walls. Ongoing engagement with schools, future residents and builders to increase educational opportunities. Pedestrian and cycling connectivity through and outside the housing precinct will enable active transport.	Demonstrate the leadership potential of water authorities. Drive change and best practice through key pilot programs and partnerships.	4
Ambition	SALT Torquay is an ambitious first development project by the regional water authority, Barwon Water which combines leadership in sustainable water solutions, with innovative housing solutions for a regional township	A range of leadership initiatives underway to enable leadership in sustainable water and suburban living	Continued development of activities and initiatives across all principles to provide resident uptake, with a particular focus across local and sustainable food, materials and products	4
Transformation	Continued striving for leadership through application and engagement is critical to achieving the change in processes required by all stakeholders. We encourage the team to continue to navigate challenges and pathways to creating the behaviour change needed.	Barwon Water has demonstrated a commitment to transforming community wellbeing across not only its core business area of sustainable water, and land and nature, but across all principles around living within our earth's resources.	Further engagement with community groups, schools and local business will increase education and shared learning in the community. Onsite tours to discuss learning for water authorities, builders' developers and community will enable broader uptake.	4

Action Plan – Implementation

Implementation	Overall review			Rating 1-5
	Comment	Highlights	Opportunities	
Health and Happiness	Actions and activities piloted will enable continued improvements for future communities	Construction underway for pedestrian and cycling connectivity through and around the site, to make it easier and attractive to be physically active	Review Welcome Pack and add on links information that supports adoption by residents of OPL goals and initiatives (healthy food, mental health, social clubs, cycling and walking groups). Engage future residents in a pre-occupancy survey to benchmark One Planet Living lifestyle for before and after.	4
		Development of onsite play space design and educational information, with passive surveillance designed into open spaces		
		Community facilitator appointed, with survey questionnaires in development		
Equity and Local Economy	The design guidelines outline key considerations for future residents and builders; the community facilitator and engagement strategy will be critical to the continued promotion and uptake of accessibility and local services / procurement.	Local sourcing of civil and landscape contractors, with 100% of consultants employed from regional areas.	Promote inclusiveness, equity and affordability in purchase and operational costs and record sales demographics for evaluation. Record number of homes achieving accessibility of homes & local materials sourcing. Further information required on housing affordability component.	3
		Design Guidelines for housing published promoting local sourcing & accessibility		
Culture and Community	Strong alignment with Barwon Water Recognition Action Plan and the cultural engagement at SALT Torquay. Report actions as	Indigenous engagement on the Cultural & Educational Wayfinding onsite; potential incorporation in 'Walk and Talks on	Provide a community platform to support events and onsite community group establishment	4

	an exemplar for indigenous inclusion in the design and engagement, coupled with potential affordability under ELE.	Country', hosted by the regional Indigenous group.		
		Residents Welcome Pack and Community Engagement Strategy developed; community facilitator appointed		
		Building relationships to existing community facilities and local schools; sculptural artworks commenced		
Land and Nature	Where possible engage future residents in tree planting onsite with opportunity to work together to plant out open space and private home gardens.	Biodiversity information with cultural heritage for signage	Add information on Landcare and tree planting organisations to welcome pack	5
		Native vegetation and planting commenced with staged implementation in rain garden, open spaces and homes as development progresses. Propagation of native plants for homeowners commenced		
		Remnant trees protected onsite and new tree plantings underway, alongside site inductions for environmental management requirements		
Sustainable Water	A good strategy to reduce potable water use and manage stormwater flows across the estate. Onsite monitoring and reporting will be critical to demonstrating success.	Sustainable water measures published in Design Guidelines, incl. mandatory permeable driveways, water tanks etc	Opportunity to review the CRC for Water Sensitive Cities trial on the use of heat pumps and rainwater for shower usage, with potential future application.	5
		Smart water meter pilot study commenced		
		Stormwater and drainage strategy approved		
Local and Sustainable Food	There are opportunities to increase the ambition and	Community facilitator developing information and	Provide a demonstration food garden using a wicking bed in an	2

	engagement and uptake. We recommend working with local community groups and partners to demonstrate a food garden onsite and enable an onsite community food group to share locally grown food harvests.	education on local and sustainable food	early garden to promote ease of uptake	
			Connect residents with local community garden, with potential for some onsite classes for residents in a demonstration garden	
			Engage and promote local and sustainable food in construction; add information on sourcing and education to resident welcome pack	
Travel and Transport	We recommend supporting local community share clubs and EV scooter, bicycle and car trials	Completion of internal pedestrian and cycling paths; additional path external to site to connect to local school	Promote online platform for car club onsite and publicise EV vehicle/ scooter/bike uptake in estate. Partner with EV manufacturer to use estate as a regional demonstration site	3
		Transport distances reduced by sourcing raw materials locally for civil works		
		Resident Welcome Pack includes information on public transport; promotes local active transport initiatives; mandate electric vehicle charge points in all garages		
Materials and Products	The design review process will be critical to capturing the housing efficiency and star rating achieved in homes across the state. This will enable benchmarking with other leadership estates in the country.	Design guidelines recommend use of materials with low embodied carbon, reduced impact in life cycle analysis, recycled and recyclable	Further promote sustainable material and product selection in individual homes and developer led builds via the design review process, community facilitator and expert knowledge, including share	3
		Builder forum on material reduction and waste minimisation in construction with national experts.		

		Civil works reuse materials from site - 100% rock for gabion walls, overall 55% of raw materials were reused from site; remainder of site raw materials removed - used in other Barwon Water projects.	platforms and reuse.	
Zero Waste	Commend the approach taken to educate and facilitate waste stream management onsite and reuse of material in civil works program.	<p>Design Guidelines published including waste diversion, waste streams and composting on site</p> <p>Construction waste streams coordinated by developer with builders; polystyrene and soft plastic streams captured by developer</p> <p>Waste minimisation Strategy developed across all stages; Builders Workshop on materials and waste developed</p>	Provide further detail on building waste diversion in construction. Provide waste minimisation requirements and separation by builders.	4
Zero Carbon Energy	The development has the capacity to achieve zero carbon energy homes in operations from day one. Monitoring and reporting will be critical to demonstrating success across housing design.	<p>Mandated min energy rating 7.5 NATHERS in Design Guidelines</p> <p>Electricity only energy source provided to all homes in civil works</p> <p>Mandate 2.5kw solar system on all homes; incentivise battery backup; mandate EV 3 phase infrastructure (to solar) to all carports / garages in Design Guidelines</p>	Publicise homes that exceed NATHERS target of 7.5 to create competition between builders / architects; Model zero carbon home and publicise the process to achieve this for interested buyers.	5