



Smiths Beach Project Sustainability Strategy

Prepared for: Smiths 2014 Pty Ltd

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Disclaimer

This report provides high level guidance about feasibility of sustainability initiatives to be included in the project at design stage. The term Green Star equivalency or informal rating has been used to demonstrate the project's feasibility of achieving the rating. No claim has been made about the achievement of a Green Star rating certification.

If a project is not registered with Green Building Council of Australia (GBCA) or has not achieved a formal certification for a Green Star rating it cannot make any statements referring to Green Star or use the Green Star trademark.

No guarantee or warrantee of building performance and operational savings in practice can be based on this preliminary advice.

We recommend that the Quantity Surveyor review the recommendations made throughout this report to confirm that they remain consistent with the budget limitations of the project.

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1. Summary

The Smiths Beach Project (“Project”) represents a dramatic improvement on previously proposed development on this Site, not least through an ambitious approach to ecological and sustainability outcomes. Key inclusions are:

- A landscape led design approach which has been informed by extensive survey work and ensures an ecologically sensitive approach to the Site. This includes over 40% of the Site being handed over as National Park and the development integrating lightly within the landscape.
- Cultural engagement has been an important theme, with local Aboriginal knowledge informing the conservation zones, design of landscape and specific elements such as a yarning circle.
- The Project as a whole will be accredited as an EnviroDevelopment, complying with the requirements of this robust, nationally recognised framework for sustainability performance.
- The Hotel will be operated in alignment with the Sustainability Strategy, ensuring that operations are low impact environmentally and in harmony with local Aboriginal culture.

The Smiths Beach Project will be a flagship project, showing leadership as a sensitively placed coastal development and demonstrating the developer’s commitment to deliver a genuinely sustainable project.



2. Introduction

This document outlines the initial Sustainability Strategy as part of the Smiths Beach Project Development Application submission. Stantec consultants were engaged to provide a sustainability assessment and advisory role throughout the planning stages of the Project. Stantec's Australian Discipline Lead, Prasanna Suraweera, has prepared this strategy in conjunction with the wider Project consultant team and Smiths 2014 Pty Ltd.

3. Project Vision

The Smiths Beach Project vision is to create a coastal village deeply rooted in place and culture that provides tourism, community, and economic benefits.

The Project incorporates an ecologically sensitive and landscape led design approach that prioritises the site's unique natural elements. Behind the Project is a leading team of experts who share design leadership in delivering a best-practice development outcome. The result is a proposal that integrates lightly into the landscape and is sympathetic to surrounding vegetation.

The proposal is focused on a sustainable development that will be a showpiece in Australia for its ability to effectively combine and deliver a range of accommodation options, experiences and important new community facilities for the region while working with the natural environment of the site.

The design is open and inclusive and seeks to make tangible contributions to the community through the Smiths Beach Surf Life Saving Club and Cape to Cape Welcome Centre. It will make the location and the connection to the Cape to Cape Track available to as many people as possible, while being carefully designed to manage those visitors in a sustainable way.

Resources like energy and water will be managed in harmony with natural systems, such as solar energy being used passively in the architecture, and actively through renewable energy systems that will meet a large part of the electrical load.

The Project will respond to climate change by reducing embodied emissions in materials and in operation through clean energy, waste management and transport choices. Any remaining emissions will be offset, including through schemes that are based on revegetation and rehabilitation in Australia.

The following sections outline the Sustainability Strategy in more detail under five key planning and design principles.



4. Public Good

This principle focuses on providing benefits for the wider community and the State, and includes identifying local amenity needs, conserving cultural and built heritage, integrating with, and expanding State infrastructure, and supporting broader outcomes such as responding to climate change.

4.1 Onsite amenity

The Smiths Beach Project has the opportunity to bring much needed amenity to this location. Through understanding of the Project's local and regional significance, and through engagement with community and other key stakeholders, the following tourism infrastructure and community features are proposed:

- Cape-to-Cape Welcome Centre – a welcome centre providing a curated selection of experiences for all visitors on the Cape to Cape track and to the region, including immersive Aboriginal cultural experiences.
- A new Smiths Beach Surf Life Saving Club – providing capacity that currently does not exist.
- General Store, café and bakery, and equipment hire shop for locals and visitors to Smiths Beach.
- A variety of tourism accommodation options for a range of budgets including hotel and wellness offering, campground and holiday homes.
- Improved disability access to facilities and the beach.

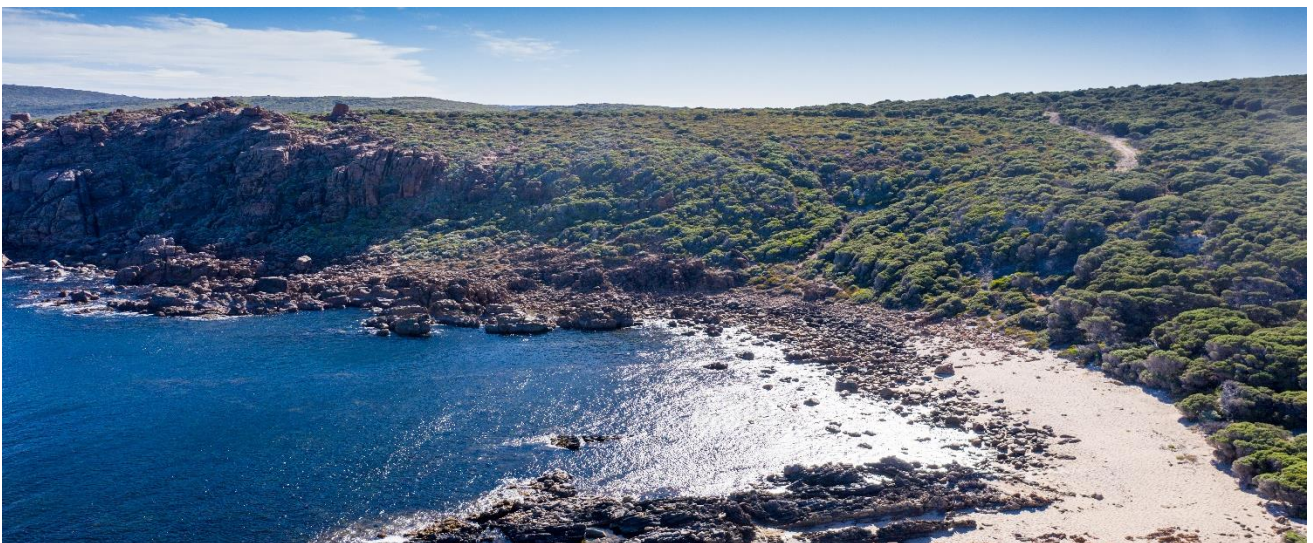
4.2 Wider impacts

There will be significant works benefitting the location beyond the immediate Project site, including:

- Foreshore rehabilitation enhancing public greenspace and access to nature.
- Handing over approximately 40% of the site to become part of the Leeuwin Naturaliste National Park.

The Project will feature a renewable energy system designed to contribute positively to the local power grid by including a controllable energy storage device, as well as servicing the Project with green energy generated on site.

An electric vehicle charging point will be included, adding an important node to the growing charging spine between Perth and the south-west.



5. Ecology and Landscape Led Design

This principle guides the planning and design process to respect existing site ecology and use good ecological outcomes to structure the development. The Project's vision is for a light ecological footprint, that respects the site and its flora and fauna, and takes a leading sustainable approach to all design and materials.

5.1 Landscape Design

Extensive flora and fauna surveys have identified areas of vegetation classified as "Excellent" and the Priority Ecological Community (PEC) vegetation complex. The development footprint has then been formed following this environmental assessment. Moreover, 40% of the site is being handed over as National Park to ensure the ongoing protection of the majority of the PEC.

Degraded areas of the site along the foreshore and existing firebreaks will be rehabilitated and revegetated to protect and enhance the existing ecosystem. Existing materials already present on site such as gneiss are proposed to be reused on site through various landscaping treatments.

The philosophy will also extend to civil works, with road networks strategically placed to align with contours of the site and existing firebreaks to minimise the resultant clearing impact. The drainage design is strongly integrated with the landscape design and natural hydrology of the site to avoid unnecessary clearing for roadside swales and drainage basins.

The design of the holiday homes and the size and location of their building footprints has strategically been assessed to retain existing vegetation while ensuring bushfire management requirements are satisfied.

5.2 Fauna Protection

The design principles acknowledge the existing habitat of the Western Ringtail Possum and the Black Cockatoo. Through careful design planning including limited fencing throughout the development, raised campsite platforms, and retention of significant tree top canopies of peppermint trees throughout the campground and holiday homes, the proposal allows for protection of flora and free passage of fauna throughout key sections of the development.



6. Identity and Sense of Place

This principle requires that we research and incorporate the cultural and natural history of the site into the design, including in this case the Aboriginal understanding of the land, the connection to the Cape to Cape track and the surfing history of this part of the coast. The Smiths Beach Project provides an unprecedented opportunity to develop a project that at its core embraces the local and regional culture spanning from the Traditional Owners to the local community today.

6.1 Cultural Engagement

The Aboriginal and local culture has been woven into the Project beginning with its vision and will culminate with the creation of sustainable employment opportunities within the Project and more broadly with a supply chain in the region that supports the operation of the completed Project. Extensive engagement with the local traditional owners, the Wardandi people, as outlined in the Smiths Beach Cultural Strategy, has informed the land use and vegetation management approach, tourism offering and employment and supply chain opportunities that the Project presents.

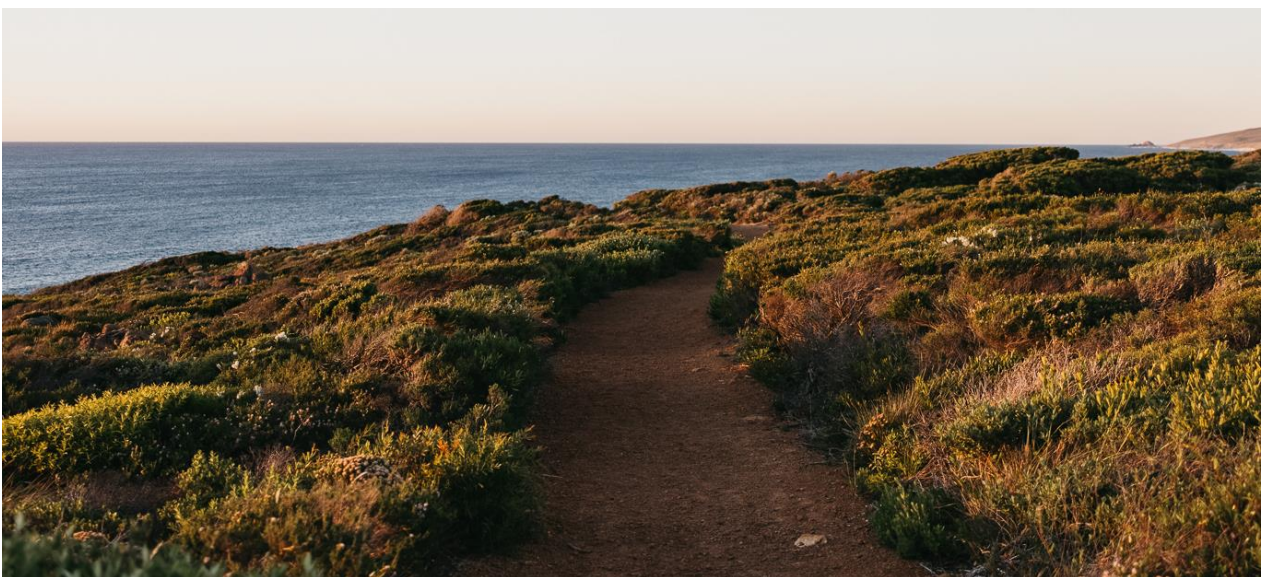
A key to establishing a sense of place will be to ensure strong storytelling is at the foundation of the offering. Storytelling will ensure the cultural sustainability of the Project for generations to come. Aboriginal language and knowledge will be expressed around the site in signage and wayfinding. The application of this knowledge will also be evident in the land management and traditional bushfire mitigation practices that are proposed.

A better understanding of the local vegetation and appropriate species selection emerged through this consultation with the Traditional Owners. An important stand of *Nuytsia Floribunda* (Moodjar in local language) on the Site was identified and carefully mapped, informing the most sensitive location for built form in order to retain these culturally significant trees.

Indigenous elements such as a Yarning Circle and nature play equipment (inspired by Djiljit Mia Community Gathering Place in Dunsborough) have been included in the proposed foreshore design. These elements are showcased at the forefront of the development to identify the importance of Aboriginal culture in shaping the site's identity.

6.2 Cape to Cape Track

The Cape to Cape track which spans between Cape Naturaliste and Cape Leeuwin, runs adjacent to the site and is an integral element of the Project's regional and local tourism vision. The Cape to Cape Welcome Centre will feature prominently within the Project and will provide a highly-curated and innovative 'welcome centre' providing tourist information, facilities and amenity for all visitors to the region.



7. Health, Safety and Inclusivity

Ensuring that everyone is valued and cared for by addressing physical accessibility, catering for a variety of budgets, and designing spaces that are naturally safe and feel safe.

7.1 Health and Wellness

The Smiths Beach location is rich in natural assets that promote a healthy lifestyle. The Project team have aimed to maximise the community's use of these existing assets and also provide additional facilities and features to prioritise health and well-being. This is demonstrated by the following:

- Cape to Cape Welcome Centre – supporting the Cape to Cape track and promoting further use of the track as a brilliant example of a healthy, sustainable holiday activity that brings people in touch with the natural environment.
- Surf Life Saving Club – promoting a healthy lifestyle for nippers and lifeguards.
- Access to nature – a considered effort to retain as much vegetation throughout the development as possible, giving people close access to the wild, local environment.
- Hire Shop – providing easier access to sports and activities by enabling the community to hire various equipment such as surfboards, hiking equipment and eBikes in order to actively explore the local and surrounding area.

7.2 Community Safety

The sense of safety is crucial in fostering a strong sense of community. This sense is achieved both through design and through the inclusion of elements that support physical safety. The design elements are guided by applying CPTED (Crime Prevention Through Environmental Design) principles, considering sightlines and pedestrian movement. The new amenities that contribute to safety include:

- Relocation of Smiths Beach Surf Life Saving Club – a purpose-built surf life saving facility will dramatically improve safety around Smiths Beach as well as providing a home for the Club so that the tradition of surf life saving can continue to thrive in the area.
- Bushfire Refuge – a central location for people to be sheltered during a bushfire event when onsite evacuation is not possible. Combined with a Bushfire Emergency Management Plan and regular drills, the refuge will be part of the operational response to the risk of fire, which has also been carefully considered in the Project design.
- Hotel Management – the 24/7 onsite presence of hotel staff will bring the kind of supervision that provides support when required and discourages anti-social behaviour without interfering with people making the most of the location.



7.3 Inclusivity and Accessibility

Providing improved access for everyone is a key principle of this Project, as is involving a broad range of people as possible.

Those on a variety of budgets have been considered. Ensuring that there are ways for local businesses and the regional economy to benefit has also been addressed.

- Range of Accommodation Options – a range of options at the hotel, holiday homes and camp grounds will ensure that anyone who wants to stay will find a suitable place.
- Local businesses and operators – new opportunities for local tourism businesses and hospitality operators have been anticipated in planning this Project, keeping economic benefits local.
- Aboriginal Supply Chain Opportunities – the hotel operations will consider Aboriginal supplier options as a matter of course.

People with limited mobility, or who face other challenges that may have made the beach and the walk inaccessible previously will have greater opportunity to enjoy this place. As part of this there will also be a more general improvement in safe access for vehicles.

- Universal Access Ramp – beach access will be dramatically improved for all, including those with limited mobility.
- Permeable Access – access to the location will be improved for everyone, with no gated estate elements or other kinds of exclusivity.
- Improved Car Parking - development will provide additional carparking to address a pre-existing parking shortfall within the area.



8. Optimal Use of Resources

This principle requires that we are efficient, consider the full life cycle of materials and consider the impact of our supply chains. We must also ensure that we measure and are transparent about results.

Through this principle the following key outcomes are targeted.

Energy and emissions:

- Efficient building design, equipment and appliances resulting in a minimum 20% reduction in energy demand compared to a typical, building code compliant build.
- 100% renewable sourced electricity supply, through onsite generation and green energy from the grid
- Hotel and other buildings will achieve above compliance energy efficiency, feature renewable energy systems and make use of low carbon materials to reduce the overall carbon footprint of the Project.

Water:

- Best practice management of stormwater through the landscape design (guided by the principles of water sensitive urban design).
- Efficient fittings and fixtures specified in all buildings.
- Rainwater tanks incentivised.
- Grey water used in appropriate irrigation applications.
- Combined water initiatives will lead to a minimum 50% reduction in consumption of precious mains water compared to a typical approach.

Materials:

- Low carbon concrete and green steel are now well tested materials and will be used in all appropriate applications. A 20% reduction in carbon footprint is targeted.
- Timber used wherever suitable, always from sustainable forestry sources.
- All materials for internal use will be zero VOC and zero formaldehyde.

Verification and transparency:

- The Project as a whole will be accredited as an EnviroDevelopment, a sustainability assessment tool administered by the Urban Development Institute of Australia. This is a robust, nationally recognised framework that assesses how projects have delivered required sustainability outcomes in six categories:
 - Ecosystems
 - Energy
 - Waste
 - Materials
 - Water
 - Community
- The hotel management will be required to carefully consider environmental and resource impacts.



8.1 Reducing the Carbon Footprint

The approach to reducing emissions is a holistic lifecycle one, addressing both embodied and operational carbon emissions.

Total embodied emissions in all works and materials, having been reduced as much as possible through low carbon choices, will be calculated and offset using schemes that include offsets arising from Australian biodiversity projects, achieving significant co-benefits along with the carbon reduction. Use of recycled materials and local sourcing will reduce transport emissions during construction.

Operational emissions would arise largely from energy use, transport and waste disposal. The strategies addressing operational emissions include:

- Energy consumption to be reduced through efficient building design and equipment, and will be supplied from renewable energy sources that are considered zero carbon.
- Waste production through a plastic-free policy, efficient kitchen operations and an innovative system to turn organic waste into a feedstock for small scale food production on site.
- Onsite productive gardens will reduce fresh food delivery requirements.
- Other transport emissions once in operation are largely beyond the control of the Project, but provision of fast electric vehicle charging will encourage low carbon options and will be an important node in the charging infrastructure that will support the uptake of electric vehicles in WA.

8.2 Embedded Network

The Project will incorporate a renewable energy microgrid system that combines high reliance on renewable energy produced on site, combined with energy storage, to reduce emissions and reliance on the grid. Modelling indicates that a 500-kilowatt photovoltaic system, supported by 260-kilowatt-hours of energy storage will be optimal.

Through the Community Title framework, the opportunity exists for the hotel and holiday homes to trade stored energy between schemes. This innovation will further reduce emissions by reducing the need for imported electricity.

8.3 Water

Mains water is a precious resource that is increasingly energy and emissions intensive to produce. Finding ways to reduce mains water consumption is an important sustainability outcome that is also beneficial to State and local infrastructure.

Strategies to minimise mains water consumption include:

- Buildings will be specified with the highest suitable WELS rating fittings and fixtures. Holiday homes will also attract an incentive to include a rainwater tank, reducing water consumption and potentially adding to the amount of stored water available on site.
- Irrigation will be through the most efficient method suited to each application, including moisture sensing, sub-surface application and zoning of landscape areas by irrigation requirement.
- Managing waste water onsite creates an opportunity to meet some irrigation requirements with suitable treated greywater.

Guided by the principles of WSUD (water sensitive urban design), the landscape and civil designs will be coordinated to achieve best practice management of stormwater. This approach ensures that the natural flow of stormwater is interrupted as little as possible, and that environmental benefits of stormwater are captured.

8.4 Built Form Design & Construction

Design guidelines will ensure that all buildings are located and oriented to take maximum advantage of the location, guided by passive design principles, while also keeping to the design intent of a light touch, fitting in with site topography and existing vegetation, and with minimal visual presence.



Energy and water efficiency will also be mandated, along with sustainable materials requirements.

Timber is a beautiful material that is naturally environmentally friendly if sourced from responsible producers. Timber is not suitable for all applications in this environment but will be encouraged where appropriate. All timber is to be accredited under the FSC or PEFC sustainable forestry schemes, which are now widely used and available.

Concrete and steel used in buildings and landscape works will be from low-carbon sources wherever available. The developer has been working with concrete suppliers to expand the range of applications of low carbon concrete, which uses recycled aggregates and recycled furnace slag in place of Portland cement.

8.5 Waste Management

The Project will seek to achieve high levels of material reuse and divert at least 80% of construction waste from landfill.

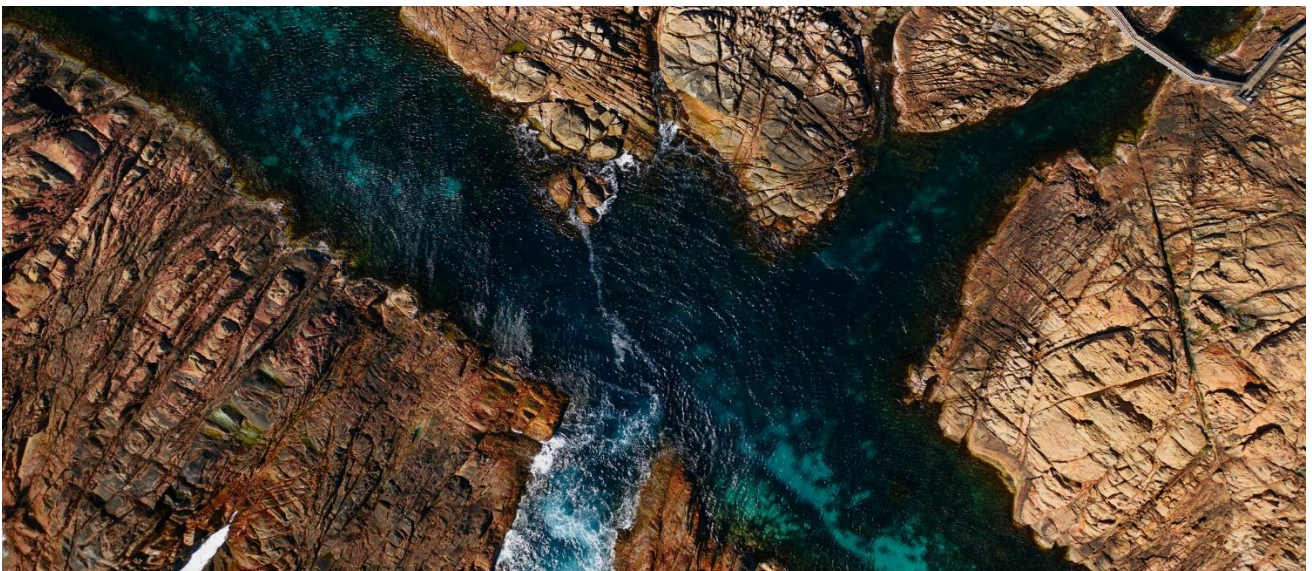
Local availability and engineering policies will determine how recycled materials are incorporated but the developer has had success on other Projects with recycled road base and drainage aggregate and gabion walls using onsite ballast materials.

Organic and food waste streams will be managed onsite. Research is being done into emerging systems to create a circular process to turn food waste into feedstock for gardens that in turn produce ingredients for the kitchens.

8.6 Education, Monitoring & Reporting

One of the key components to creating sustainable places is continued support into the ongoing operational phase. A number of programmatic elements are planned for the Smiths Beach Project:

- Regular seminars and training on sustainability topics and village practices.
- Energy monitoring systems installed in all residences and commercial buildings.
- Regular reporting on energy consumption for individual components and the overall village.
- Operational Plans that include reporting by staff on sustainability items, and ongoing monitoring of key metrics such as energy and water consumption.



9. Conclusion

The Smiths Beach Project takes the preservation and enhancement of the natural environment and the needs of local people as the key driving principles of the development. Respecting these principles, while creating a first class, international standard tourism asset for the south-west is the intent of the Project team. The sustainability strategy shows that this can be achieved with resource efficiency, addressing climate change, supporting better outcomes in waste, transport and materials use.



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