The development of the Rottnest Island Sustainability Action Plan marks a significant step in our efforts to improve our management of the environmental, social, cultural and economic aspects of Rottnest Island.

In 2017, the Rottnest Island Authority (RIA) established the Destination Sustainability Team consisting of representatives from commercial operators and major contractors. Through this forum, RIA remains committed to leading by example, collaborating on initiatives, and seeking community participation in order to achieve our ambitious sustainability goals.

We look forward to moving from strength to strength in our efforts to conserve and sustain the Island for future generations.

Michelle Reynolds
Executive Director
Rottnest Island Authority

Glenn Evans
Chairman
Rottnest Island Destination Sustainability Team and Rottnest Island Chamber of Commerce
The Rottnest Island Authority (RIA) is a State government agency that operates a major holiday and recreational facility within a Class A Reserve on Rottnest Island in accordance with the Rottnest Island Authority Act 1987. This involves balancing the growth of visitor numbers through the provision of best-in-class tourism products, experiences and services, with the need to conserve Rottnest Island’s unique environments, its flora and fauna, and its varied built and cultural heritage.

RIA benchmarks its environmental and social performance through the internationally recognised EarthCheck Certified Program, receiving Silver Certification since 2015. This latest certification (2016/2017) marks RIA’s transition from the EarthCheck Company Standard to the EarthCheck Destination Standard in recognition of the Island’s tourism status, and the contribution of the Rottnest Island business community to the environmental, cultural, social and economic performance of the Island.

Achieving the right balance with EarthCheck
As the Destination Authority, the RIA is tasked with facilitating community-wide participation in meeting the Destination Standard. In order to do so, RIA has developed the Rottnest Island Sustainability Action Plan (SAP) in collaboration with Island stakeholders.

The SAP complements and aligns to the Rottnest Island Management cycle in setting a foundation for the long-term vision of the Island to be an internationally recognised, sustainable, must-visit tourism destination.

It provides a set of goals for the Island community to collectively work towards longer-term sustainability aspirations whilst achieving an established set of sustainability targets over the short term to 2024.

Performance against these objectives and targets will be monitored and refined through an iterative process of evaluation and analysis.

The ten key performance areas defined by the SAP are:

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The Rottnest Island Destination Sustainability Team (DST) was established in 2017 to facilitate the development of public-private partnerships that engage all members of the Destination community with these objectives. The DST includes representatives from commercial operators and major contractors on the Island.

The SAP aims to empower community members to write their own sustainability stories, and in doing so, help us to maintain the balance between development and conservation on the Island for generations to come.
1. Carbon emissions

**Goal**
Rottnest Island will reduce and offset carbon emissions

**Target**
Reduce net carbon emissions (CO₂-e) by 1,500 tonnes.*

* Net carbon emissions refers to amount of carbon released, balanced against the amount of carbon sequestered and offset, and/or amount of carbon credits purchased.

**Why it is important**
The potential impacts of climate change are expected to affect almost every aspect of Island planning and management, including infrastructure maintenance, recreational facilities, services, land use planning, and wildlife management.

Changing weather patterns have already resulted in increased average temperatures and reduced rainfall on Rottnest Island. The impact of these changes results in increased pressures on freshwater sources, increased electricity consumption, and impacts to conservation values. Expected increases in the severity and frequency of extreme weather events is also expected to impact public and private infrastructure, from increased storm damage, accelerated degradation of materials, and damage from bushfires. Higher sea levels, higher sea temperatures, changes in oceanic conditions, and heat and water stresses are also expected to severely impact on terrestrial and marine flora and fauna. Rottnest Island plans to undertake actions to reduce net carbon emissions from 2016/2017 levels and consider adaptive measures to mitigate from potential climate change impacts in our land use planning and maintenance regimes.

**How we will achieve our goal**
To meet our targets, we shall:

- Measure emissions
- Implement efficiency measures, maintain recycled water scheme & reduce waste to landfill
- Integrate more renewable sources of energy production
- Offset any remaining emissions

**Key actions 2018/19***
- Continue to measure carbon emissions as part of EarthCheck annual benchmarking process.
- Investigate Energy Efficiency measures and commence business planning.
- Continue research into carbon sequestration potential of Rottnest revegetation programs.

* Note: Mitigation actions to further address carbon emissions can be found in related key performance areas of the SAP such as energy efficiency and waste management. Energy efficiency measures are dependent on availability of capital funding.

Calculations include scope 1,2 & 3 (excludes employee transport and ferry travel).
2. Renewable efficiency

**Goal**
Reduce our reliance on non-renewable energy sources

**Target**
45% renewable (electrical) energy produced on the Island.

**Why it is important**
With no power received from the mainland, all Rottnest Island utilities are powered by an off-grid power system. This system has traditionally been serviced by diesel-powered generators, which comes with both an economic and environmental cost. Gas supply also currently accounts for 30 percent of the Island’s total energy demand.

Recent upgrades have established an integrated power generation system consisting of a 600kW wind turbine, 600kW solar PV farm and a power generation plant with low-load diesel and standard diesel generators. An automated control system known as ‘demand side management’ manages the consumption of energy generation in response to system demand and renewable energy availability. Upgrades at the Desalination Plant have also linked this infrastructure to the electrical network’s demand side management, enabling the desalinated water to be used as a form of energy storage.

These gains need to be sustained. Increases in visitor numbers will continue to place more demand on energy sources, ultimately affecting energy efficiency and carbon emission targets if the remaining reliance on diesel fuel and gas supply is not further reduced.

**How we will achieve our goal**
To meet our target, we shall:

- Maintain a stable power supply
- Improve existing processes and infrastructure
- Implement a staged integration of additional renewable energy sources*

* Note: In the long term, battery storage may be considered to better manage excess renewable energy production in times of reduced demand.

**Key actions 2018/19**
- Undertake a detailed metering and usage review of all metered sites.
- Maintain operational performance of the Solar Farm.

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46.9%
Renewable energy generation
(1st quarter 2017/18)
3. Pollution controls

**Goal**
Effectively manage pollution risks

**Target**
Achieve EarthCheck baseline rating for cleaning and pesticide products; and best practice rating for air pollutants (particulates $N_2O$, $SO_2$, $SF_6$).

**Why it is important**
Rottnest Island is a Class A Reserve, with holiday and recreation facilities that attract close to 650,000 visitors per year. Standard operations to support Island visitation involves the burning of diesel fuel for energy and transport which produces air pollutants; and use of cleaning products and pesticides and other hazardous substances that can discharge harmful chemicals. The RIA uses an Environmental Management System (EMS) to manage these environmental risks. Without adequate controls, tourism operations could impact the natural environments that support the Island’s abundant flora and fauna. This includes up to 10,000 quokkas which are listed as vulnerable species, as well as over 250 bird species, 19 reptile species, over 60 hectares of native woodland, and nine species of seagrass.

**How we will achieve our goal**
To meet our targets, we shall:

- Increase ratio of biodegradable cleaning products
- Increase ratio of biodegradable pesticide products
- Continue to improve hazardous substances management

**Key actions 2018/19**
- Prepare hazardous substances plans and inspection procedures for operational facilities.
- Review cleaning chemicals and pesticides to determine opportunities to switch to environmentally friendly products.
4. Water usage

**Goal**

Reduce the draw on the Wadjemup Aquifer by using alternative water sources

**Target**

6,000 kL maximum abstracted from Wadjemup Aquifer annually.

**Why it is important**

With climate change and a steady growth in Island visitation already placing pressure on freshwater sources, a sustainable water supply is needed to minimise environmental impacts on the Island’s subsurface catchment area. Since 2014, RIA has steadily reduced the amount of freshwater drawn from the Wadjemup Aquifer through infrastructure improvements at the Desalination Plant and Wastewater Treatment Plant. Upgrades completed in 2017 to the Wastewater Treatment Plant has enabled irrigation requirements of the golf course and sports oval to be met with reuse water, further reducing the requirement to undertake abstraction from groundwater resources and offset desalination production.

With visitation numbers projected to near 800,000 by 2030, these gains must be sustained to offset the demand that recreation and holiday facilities will place on water sources.

**How we will achieve our goal**

To meet our target, we shall:

- Monitor groundwater extraction and water quality
- Maintain the Recycled Water Scheme and desalination capacity
- Undertake community engagement and education on efficient water practices

**Key actions 2018/19**

- Maintain Desalination capacity and operation of the recycled water scheme.
- Continue conservation and compliance monitoring.

### Annual freshwater drawn from Wadjemup Aquifer

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<td>Wadjemup Aquifer draw</td>
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Annually, an average of **630,000kL** of water is consumed, provided from:

- **Groundwater abstraction** 12%
- **Desalination** 88%
5. Ecosystem health

Goal
Conservate biodiversity on Rottnest Island

Target
75% of biodiversity health target indicators meeting desired status.

Why it is important
Rottnest Island’s terrestrial and marine environments are not only integral to the biodiversity they sustain, but also the visitor experience. Active management of the ecosystem that underpins these environments is critical to maintaining the health of the Reserve for future generations to enjoy.

The Island’s terrestrial environment, including the flora, fauna, landforms, geology and hydrology, is managed under RIA’s Terrestrial Conservation Action Plan (TCAP). The overall viability of Conservation Targets is measured annually and is considered to be in good condition. The Marine Reserve is managed through RIA’s Marine Management Strategy (MMS) in conjunction with the Fisheries Resources Management Act 1994, and is known for its diverse and unique blend of tropical and temperate species, including corals, seagrasses, tropical fish, molluscs and invertebrates.

How we will achieve our goal
To meet our target, we shall:

- Monitor and protect biodiversity health across the Reserve
- Intervene on threats to maintain biodiversity
- Educate commercial operators, contractors, developers and visitors about compatible works and behaviours in the Reserve
- Collaborate on and support research in the Reserve

Key actions 2018/19
- Continue to apply the Conservation Action Planning process and implementation of key strategies.
- Prepare and implement a Marine Conservation Action Plan.

Up to 20,000 native plants propagated annually from seed collected on the Island

82% Overall conservation viability (biodiversity health) result 2016/17
6. Cultural heritage conservation

Goal

Conserve cultural heritage on Rottnest Island

Target

60% of cultural heritage places* meeting condition targets.

* Those listed on State Register of Heritage Places

Why it is important

Rottnest Island owes much of its uniqueness to the mix of Aboriginal, colonial, maritime and military heritage, predating the colonial settlement of the Western Australian coast through to the military fortifications undertaken in World War 2. This combination of history, heritage and cultural significance offers a tourism experience found nowhere else in Australia.

Upkeep of these heritage places requires ongoing attention, and is conducted in accordance with State legislation. 17 sites are also protected under the Aboriginal Heritage Act 1972 and include Dreaming sites, archaeological sites, and the Aboriginal Burial Ground. These sites are conserved through RIA's Wadjemup Cultural Landscape Management Plan.

How we will achieve our goal

To meet our targets, we shall:

- Monitor condition of heritage sites
- Undertake remedial and maintenance works
- Educate visitors about heritage sites and cultural significance of Aboriginal heritage
- Streamline processes for maintenance and major projects involving conservation

Key actions 2018/19

- Support implementation of the Aboriginal Burial Ground Project.
- Develop and implement plan for prioritisation of works to maintain and improve condition of heritage places.
7. Transport management

Goal Sustainable transport options on Rottnest Island

Targets

- Island vehicles below 4.5 tonnes are low-emission and fit for purpose vehicles.
- 50% of visitors either ride bicycles or walk the Wadjemup Bidi.

Why it is important

While Rottnest Island is a low-traffic holiday destination, a range of vehicles is required to deliver services to the Island community and support a world-class visitor experience. This includes provision of emergency and environmental services, waste management, maintenance, cleaning, luggage delivery, and commercial transport. The types and use of vehicles on Rottnest Island present a range of social, infrastructure and environmental challenges including unsafe interactions with pedestrians and cyclists on busy and narrow roads, degradation to the road network from large buses and trucks and increasing carbon emissions and air pollutants from an island fleet that is predominantly reliant on fossil fuels.

With visitor numbers set to increase, the Rottnest Destination has a significant challenge to ensure that the island’s fleet and transport network can deliver services with improved social, asset and environmental performance and tourism opportunities into the future.

As the main arterial point of entry to the island, the Main Ferry Jetty is a crucial piece of ageing infrastructure that needs to be upgraded to ensure the current infrastructure can service the projected increase in island visitation numbers and an associated anticipated increase in supplies and services for commercial operations. Furthermore, the fact that this infrastructure is used for commercial purposes, has created safety concerns for the RIA, due to crossover of commercial operations with the public arriving at the same Jetty. Consideration shall be given to relocating the commercial aspect of the Main Jetty to the Army Jetty to remove safety concerns, improve service to the island’s commercial operations and enhance the visitor experience by moving logistical movements and transport away from visitors.

The Wadjemup Bidi, a 45km walk trail network, has been constructed to enhance visitor experience, increase non-vehicular exploration and support environmental conservation. The RIA also operates one of the largest bike hire operations in the southern hemisphere, including a fleet of electric bikes. Increasing the use of the Wadjemup Bidi and bicycling on Rottnest Island is important to maintaining a low traffic holiday destination and connecting visitors to the island’s natural and cultural values.

How we will achieve our goal

To meet our targets, we shall:

- Finalise Transport and Jetty strategies and commence implementation
- Monitor and support use of bicycles and walk trail
- Transition Island fleet to low-emission vehicles
- Ensure new transport options and operators align with transport targets

Key actions 2018/19

- Prepare a Transport Strategy for Rottnest Island.
- Prepare a Jetty Strategy and commence upgrades.
- Maintain the Wadjemup Bidi.

During 2016/17 an estimated average: 19% of visitors explored the Wadjemup Bidi Walk Trail (Taken from visitor survey data Areas Explored)
8. Waste management

**Goal**

Rottnest Island is a low waste to landfill Island

**Targets**

- 50% of waste avoided or recovered.
- Achieve EarthCheck best practice rating for waste sent to landfill.

**Why it is important**

As a major offshore holiday and recreational destination, Rottnest Island has the potential to leave a large imprint in terms of waste sent to landfill. All residents, visitors and commercial operators on the Island have access to a refuse collection service, with waste generated across the Island consolidated at the Forbes Hill Waste Transfer Station. The waste is removed from the Island by barge to be disposed at mainland facilities.

Rottnest Island achieved a 44% recycling rate in 2016/2017. Recyclables such as plastics, glass, aluminium, paper and cardboard are sorted and sent to a recycling facility for incorporation into the manufacture of new products.

Other recycling programs have been set up for scrap metal, green waste, plastic shrunk wrap, cooking oil, old bikes and more.

It is predicted that an anticipated increase in visitor numbers to 800,000 will increase the annual volume of waste generated on the Island to 1,615 Tonnes, which equates to a 36% increase from 2015/16 levels. Adding to the additional costs associated with future State Government landfill levy increases, the cost of sending waste to landfill will increase significantly. Avoiding and recovering waste on Rottnest Island presents economic and environmental opportunity however, this is dependent on good waste management practices (e.g. contamination management) and a reduction in transport and handling costs that are inherent with the Rottnest Island geographical location.

**How we will achieve our goal**

To meet our targets, we shall:

- Monitor waste +
- Improve current waste and recycling practices +
- Implement waste avoidance and recovery programs +
- Repurpose/reuse waste and reduce waste sent to landfill

**Actions 2018/19**

- Develop and implement Waste Reporting Framework to improve waste data capture and reporting.
- Initiate project to engage Rottnest Island businesses in waste management to reduce contamination levels in general and recyclables waste streams.*
- Conduct an organic waste feasibility analysis to determine options for waste recovery.

* Note: Initiative has some reliance on a successful grant application from the Waste Authority for a Waste Education Officer

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22 Recycled plastic bench seats along the Wadjemup Bidi walk trail, saves over 350,000 plastic bags from landfill

44% recycling rate

2016/17
9. Land use and development

**Goal**
Use of land is environmentally, economically and culturally sustainable

**Target**
100% of all developments consistent with approved development planning framework.

**Why it is important**
The value of the Island to the wider community was formally recognised in 1917 through its designation as a Class A Reserve. This is the highest level of protection classification for crown land in Western Australia, and there is consequently no private acquisition of land on the Island. Any proposed development on or within the Rottnest Island Reserve requires formal development approval from RIA and is assessed for compatibility with the Rottnest Island Management Plan 2014-2019.

Providing and operating holiday and recreational facilities within a Class A Reserve places great importance on getting the balance right between development and the conservation of the Island’s unique environment and heritage.

**How we will achieve our goal**
To meet our targets, we shall:

- Ensure developments meet approval criteria and are consistent with the Rottnest Island Management Plan
- Increase efficiencies within the development approval process
- Consult on development proposals as appropriate
- Monitor the capability of operational, holiday and recreational infrastructure to meet visitation growth

**Key actions 2018/19**
- Review Development Planning Policy to support sustainable development.
- Undertake a sustainable visitor capacity assessment to identify risks and opportunities of increasing visitor numbers.
10. Social and economic viability

Goal

Rottnest Island is a sustainable, world-class tourism destination

Targets

- 97% of visitors experience meet or exceed expectations.
- 50% of commercial operators involved in RIA sustainability initiatives.*
  
* Refers to all Island-based commercial businesses, including concessional lease agreements or licensees.

Why it is important

A whole-of-Island approach is required to sustain best-in-class tourism facilities, experiences and services that support projected visitation growth, while not adversely impacting conservation of the Island’s unique heritage and environment. The Rottnest Island Management Plan (RIMP) 2014-2019 supports RIA’s forward planning for the Island.

Island volunteers already devote many hours to operations such as dune rehabilitation, seed collection, fauna monitoring, maintenance and construction, and the provision of education and tours. Commercial operators provide essential visitor services, including ferry and Island transport, recreational facilities and tours, accommodation, and food outlets. The RIA established the Rottnest Island Sustainability Destination Team in 2017 to facilitate better collaboration between RIA and commercial operators on RIA sustainability initiatives. Further work is needed to integrate and consolidate sustainability objectives within all Island operations and services.

How we will achieve our goal

To meet our targets, we shall:

- Monitor visitor feedback to identify opportunities for improvements
- Enhance facilities, experiences and services to continue to meet visitor needs and expectations
- Integrate volunteers and commercial operators within all sustainability planning

Key actions 2018/19

- Continue annual visitor satisfaction surveys.
- In consultation with volunteers, prepare and implement an annual calendar of works.
- Develop a sustainability program engagement strategy for Island businesses.

Visitor number target: 800,000 by 2034

Volunteer groups contribute over 35,000 volunteer hours to preserving the natural, cultural and recreational values of the Island.