

The Rocks historic precinct case study

Preparing your heritage property for the impacts of climate change



The area known as ‘The Rocks’ was the first permanent settlement of Europeans in Australia and is now one of Sydney’s iconic tourism sites, with many streets retaining the form and character of the early colonial settlement of Sydney.

Site history and heritage

The Rocks is located on the western side of Sydney Cove and is bounded by the harbour foreshore, the southern approaches to the Harbour Bridge, Dawes Point Park to the north and Grosvenor Street to the south.

Built on the traditional lands of the Gadigal people of the Eora Nation shortly after colonisation in 1788, The Rocks represents the earliest

sustained contact between Australia’s First Nations people and European colonists. Little evidence remains of the area’s original inhabitants – traditionally known as Tallawoladah – apart from the shell middens and stone artefacts that have been found in archaeological excavations.

The area contains a mix of important buildings by significant architects and more humble shops, cottages and terraces dating from the earliest years of the colony. These heritage buildings were retained following vigorous community and union campaigning in the 1960s and 1970s. The area is now managed by the NSW Government and many of the buildings within the area are listed on the NSW State Heritage Register.



Challenges

The increased frequency and intensity of storm events due to climate change have been identified as a significant challenge for The Rocks. Increased rainfall is likely to result in water inundation of heritage buildings in the area. The capacity of the rainwater disposal systems of most of the heritage buildings is also likely to be insufficient to cope with current and future rainfall intensity.

Sea walls constructed to protect The Rocks are susceptible to the long-term impacts of storm events, including wave damage, erosion – particularly of sandstone seawalls – and water seepage. The potential for rising ground water may lead to rising salt damage to masonry, and mould growth and rot in timber structures.

There is ample evidence that new infrastructure or development can exacerbate issues related to water run-off and the resilience of neighbouring heritage structures, if not managed carefully.

Modelling suggests a sea level rise along the NSW coast of up to 2.3 m by 2100 and more in subsequent years. Such a large rise in sea level would see the inundation of a substantial number of built structures in The Rocks.

Increases in average temperatures and extreme heat events associated with climate change have also been identified as a challenge for The Rocks. Vulnerable building materials, such as leadwork, may not be able to withstand higher temperatures. Increased internal building temperature and humidity may also impact the viability of the residential and commercial use of buildings and increase the demand for intrusive air-conditioning installations.

Current management, future opportunities

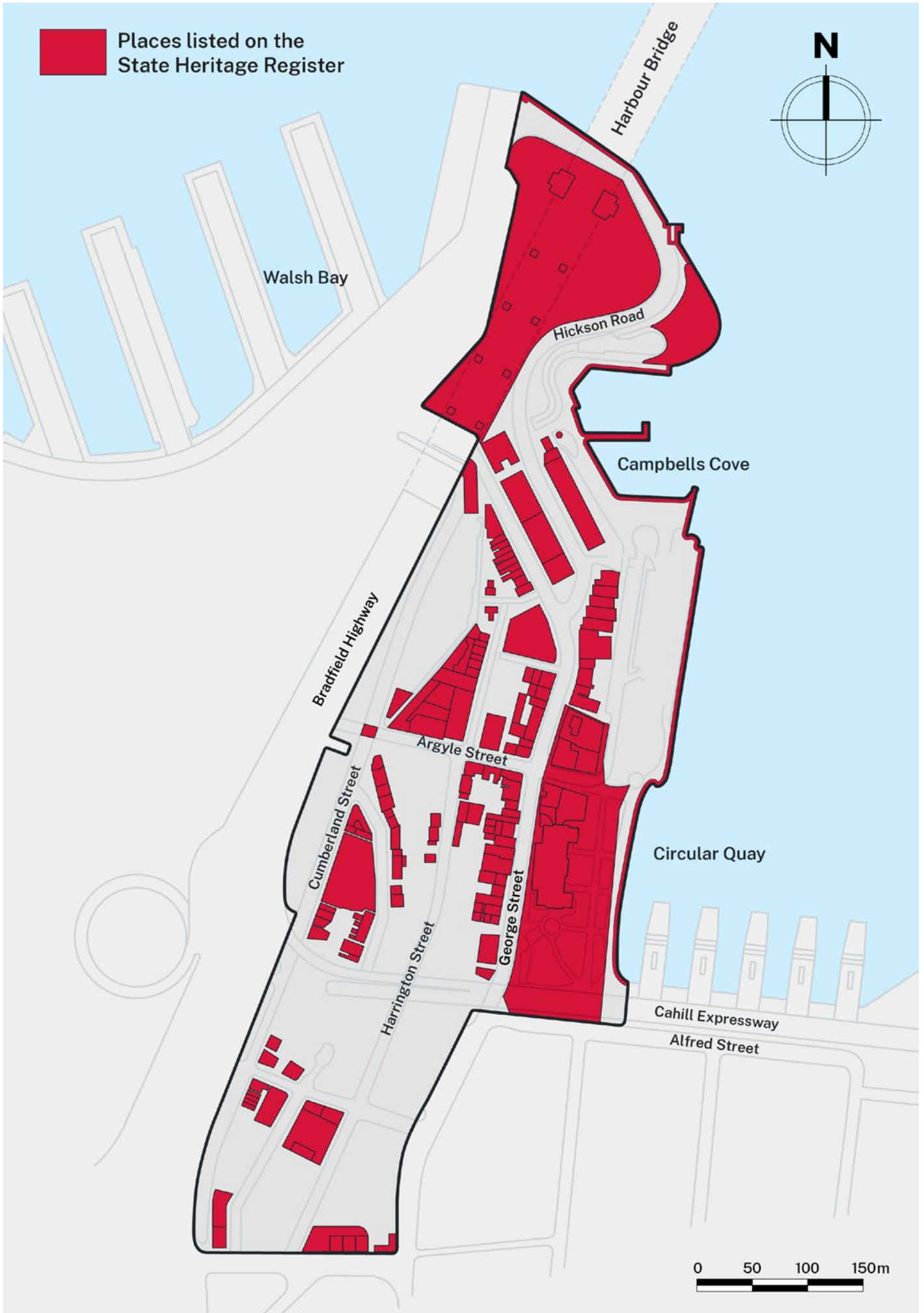
The NSW Government has implemented proactive measures to manage the challenges posed by climate change at The Rocks. Conservation management plans are prepared and reviewed regularly for individual properties as well as for The Rocks as a whole. A number of precinct-wide policies have been adopted, including the Sustainability Policy and Action Plan. A Heritage Disaster Risk Management Strategy, which includes specific reference to climate change risks, is also being developed.

Many properties currently receive specialist advice to address the problems of rising damp, salt and mould. For example, the National Parks and Wildlife Service has made substantial investment in drainage and repairs to Cadman's Cottage to address chronic problems related to rising damp and salt damage. Climate change impacts will exacerbate these chronic problems for Cadman's Cottage, caused in part by its construction at close to sea level and below the sandstone of the peninsula, which rises immediately behind the building.

Any future management opportunities need to be developed in collaboration with the NSW Government and The Rocks leaseholders and operators. Such opportunities could include:

- Consideration of measures to deal with stormwater run-off, such as the installation of additional downpipes and drainage
- Investigating the feasibility of relocating key services and infrastructure to higher ground and less vulnerable locations to avoid inundation in the event of worst-case predictions of sea level rise taking place.

 Places listed on the State Heritage Register





Lessons

- A whole-of-area approach to climate change can produce improved outcomes, compared with an approach that deals only with individual properties.
- Building the resilience of cultural landscapes composed of multiple heritage properties requires a maintenance and adaptation program that addresses the whole landscape.
- Maintenance and repair of sea walls is important to maintain the resilience of heritage structures and archaeological sites close to waterways.
- Planning for the relocation of important services and infrastructure may be required where current sea walls may not be sufficient to protect coastal areas from sea level rise.

References

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Cover photo: Argyle Place (Orwell and Peter Phillips Architects). Page 2 left to right: George Street (Orwell and Peter Phillips Architects), Susannah Place (Orwell and Peter Phillips Architects) and Argyle Place (Orwell and Peter Phillips Architects). Page 4: Susannah Place (Orwell and Peter Phillips Architects).

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