



Enhanced Resilient Asset Delivery (ERAD) Project

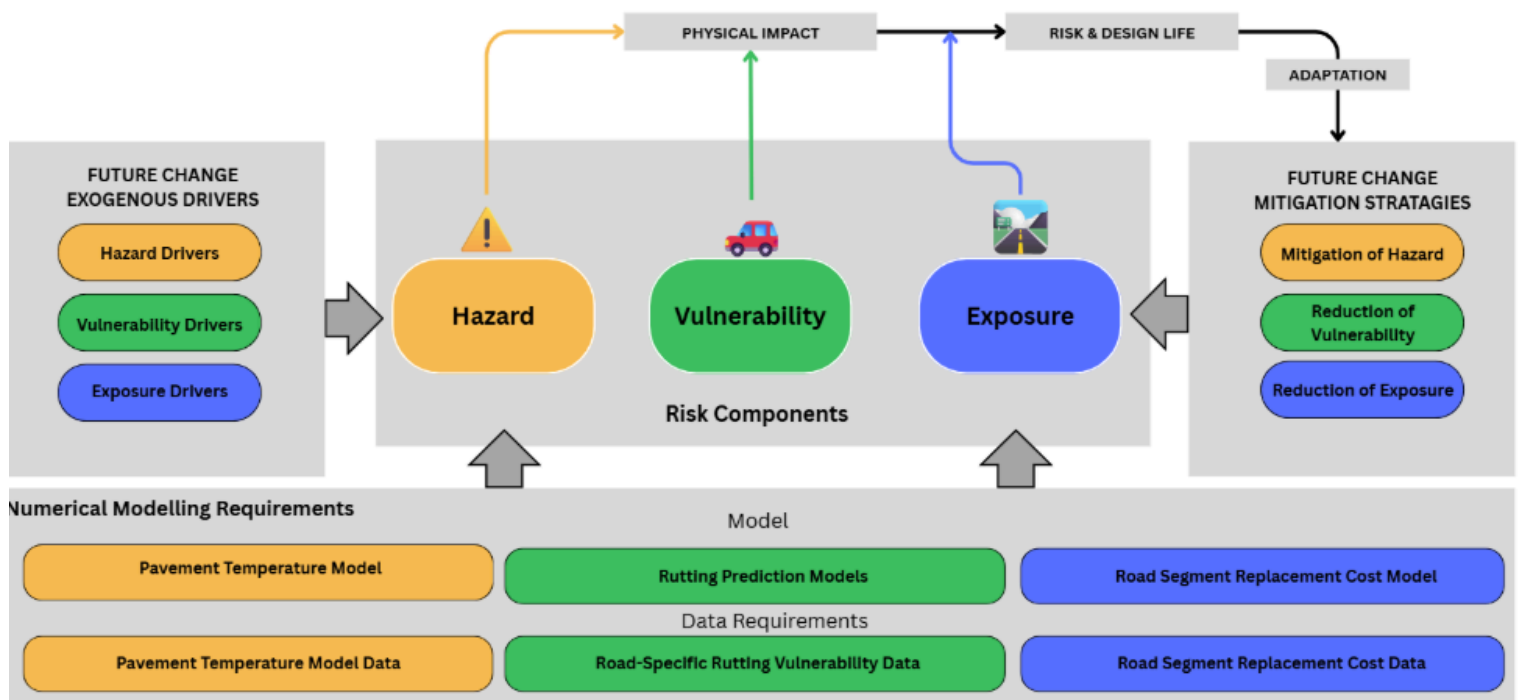
Overview of the ERAD project

The Enhanced Resilient Asset Delivery (ERAD) Project supports the Resilient South councils- Holdfast Bay, Marion, Mitcham, and Onkaparinga- to strengthen risk mitigation, governance, and investment for climate resilience.

Led by CSIRO, with Value Advisory Partners and Adelaide University, the Enabling Resilience Investment approach is being applied in the City of Holdfast Bay. The project is part of their Resilient Asset Management Program (RAMP) and learnings will be shared across the wider Resilient South partnership.

ERAD aims to:

- Build shared understanding of adaptation pathways
- Improve asset planning and hazard assessment under a changing climate
- Develop a case for investment in resilient road corridor assets
- Share tools, data and methods with the Resilient South Councils and State Government



Adapted from [A framework for the mitigation and adaptation from heat-related risks to infrastructure.](#)

The ERI approach

The [Enabling Resilience Investment \(ERI\) approach](#) incorporates systemic risk mitigation and value creation into asset management and investment. It guides the analysis of Holdfast Bay's road corridor assets and the climate hazards they face to enhance both resilience and investment opportunities. The approach promotes system-based planning, looking not only at individual assets but also considering how they are connected and interdependent within the broader infrastructure network.

The ERAD project

The ERAD project builds on the ongoing work in RAMP to help the councils strategically shift risk and finance capabilities to better address climate hazards.

Key outcomes:

- Enable anticipatory and adaptive governance and finance approaches.
- Enhance the resilience of road networks and interconnected assets.
- Support for councils to make informed, future-focused investment decisions.

Co-Designing Methodology

The ERAD methodology follows a four-phase co-design process.

Contextual Mapping to understand the assets, risks and institutional arrangements that shape current management practices.

Governance and Capability Assessment identifies key enablers and barriers that influence the council's ability to embed resilience into its operations.

Pathways and Investment Logic explores future options and the potential resilience dividends that can be achieved through targeted investment and planning.

Capacity Building and Implementation Tools provides councils with practical resources and guidance to support the integration of resilience into everyday decision-making and asset management.



Kingston Beach

Project Outputs

Resilience Investment Case (RIC)

A set of resilience-building interventions that can be delivered alone or bundled, aimed at addressing climate risks for place-based assets and services. It is underpinned by an investment logic aligned with council funding sources.

It demonstrates:

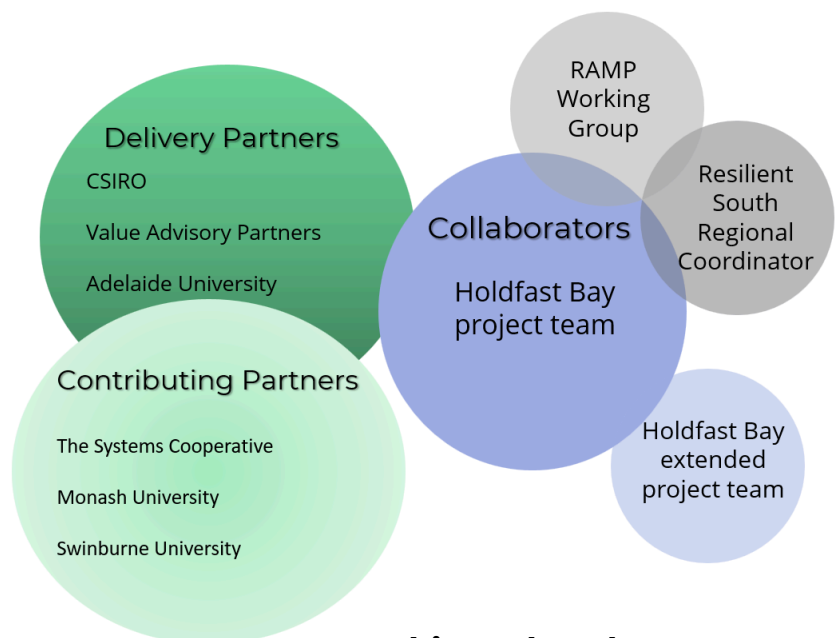
- Consistency with state and federal climate-resilience frameworks, strategies and objectives.
- Evidence-based reasoning for building the case for investment in adaptation and disaster risk reduction actions.
- A transparent basis for comparing the resilience value, benefits and costs of different asset interventions.

Adaptive Change Plan – Transitioning to Resilient Road Corridors

This plan will outline how the RIC and other project outputs can be effectively integrated into CoHB decision-making processes. It will recommend changes to CoHB practices to enhance the resilience of road corridor assets. The plan is being co-developed with CoHB staff, building on an initial assessment conducted with the Monash University using their Transition Dynamics Framework, which identified the key enabling conditions for CoHB to transition to more resilient road corridors.

There will be learnings for the broader Resilient South partnership, highlighting selected actions that other councils could apply. These include short- and long-term practice changes to support resilience across the Resilient South region.

ERAD collaboration structure



Looking Ahead

Insights from the Holdfast Bay pilot will be shared with other South Australian Councils and State Government to support resilient road networks across the region. By working closely with local councils, the ERAD project will help lay the groundwork for practical, locally-led solutions that create a climate-resilient future for communities in southern Adelaide.



River red gum tree, North Brighton

This project is led by CSIRO's Enabling Resilience Investment team with Value Advisory Partners and Adelaide University in close collaboration with the City of Holdfast Bay, Monash University, Swinburne University of Technology and the Systems Cooperative, and funded through the Disaster Ready Fund (DRF) and administered by the South Australian Fire and Emergency Services Commission (SAFECOM).



As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology.

CSIRO. Creating a better future for everyone.

Contact us | 1300 363 400 | csiro.au/contact | csiro.au

For further information

CSIRO Environment
Dr Stefanos Xenarios
Stefanos.Xenarios@csiro.au
research.csiro.au/enabling-resilience-investment