NRM STRATEGY 2030
SOUTHERN TASMANIA

Attachments

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The 2030 NRM Strategy for southern Tasmania provides NRM South with a strategic direction for the management of natural resources in the region. The following attachments provide additional detail and information to supplement the 2030 NRM Strategy for southern Tasmania and to meet the requirements of the Australian Government's Regional Land Partnerships program.

The three Tasmanian NRM organisations worked collaboratively in the development of the 2030 NRM Strategies:

Funding partners:

NRM SOUTH
NATURAL RESOURCE MANAGEMENT

2030 NRM Strategy

Attachments

SOUTHERN TASMANIA

Version 3.0

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» View towards the Huon Valley and Southern Ranges from Trestle Mountain

ATTACHMENT ONE

Tasmanian NRM policy context and drivers

1 Land, Water, Agriculture

In 2018-19, Tasmania produced 4.5 times more food than it consumed from 2,477 farm businesses, with processed food from agriculture valued at $3,535 million (Tasmanian Agri-Food Scorecard). In 2019-20, the total gross value of all agriculture was $1,878 million (ABS1) representing 5.8 percent of Gross State Product (Average) (ABS2). As set out in the *Tasmanian Government's Competitiveness of Tasmanian Agriculture for 2050* (White Paper 2020), the Tasmanian Government has a target of $10,000 million farm gate production by 2050. This target aims to enhance the broader economic, environmental, and social contributions of farming while also maintaining productive and sustainable terrestrial and marine farming systems, wise and fair use of water, and adaptation in the face of a changing climate.

Tasmania's *Draft Rural Water Use Strategy – October 2020* (DPIPWE, 2020) sets out a framework to guide Tasmania's water management arrangements to ensure integrated, fair and efficient regulation of water resources to deliver sustainable outcomes for rural water users, rural communities and the environment, while maintaining Tasmania's competitive advantages in a changing climate. This Strategy aligns with the NRM Strategies in ensuring wise and sustainable use of water resources.

Tasmanian Irrigation is a Government Business Entity with the aim to provide high surety irrigation water through 20 irrigation projects across the state. Tasmanian Irrigation's strategy expects that irrigation water is supplied and delivered with minimal impact on the environment. Farm Water Access Plans are a requirement for all farmers accessing water from an irrigation district. These plans provide a valuable link to the NRM Strategies.

Significant direct investment by the Tasmanian Government supports strategic partnerships with industry peak bodies and the three NRM organisations for prosperity and growth in sustainable food production, including fisheries and aquaculture. *Tasmania's Sustainable Agri- Food Plan 2019-23* recognises the role and importance of Landcare, and regional NRM organisations, in supporting the sustainability dimensions of the agri-food sector.

The *Strategic Growth Plan for the Tasmanian Forests, Fine Timber and Wood Fibre Industry* (Ministerial Advisory Council on Forestry, 2017) sets a clear agenda for increased sustainable timber production, both from native forests and plantations.

The Tasmanian Planning System provides for direct linkage to NRM Strategies by way of Regional Land Use Planning Strategies which set out the long-term planning goals for each Tasmanian region (aligned to NRM boundaries). The current Land Use Strategies specifically refer to the NRM Strategies as a source of guidance for land use planning. A review of the Tasmanian Planning System is underway including a review of regional land use strategies (Tasmanian Government, 2021).

At the national level, the Regional Land Partnerships Program (RLP) 5-year Outcomes 5 and 6 directly focus on sustainability of agriculture and soil, biodiversity and vegetation, and climate adaptation of agricultural systems. This is a fundamental aspect of the NRM planning process and aligns with the NRM organisations' existing roles as RLP service providers under the National Landcare Program.

The National Soil Strategy provides direction to state and national investors prioritising soil health, empowering soil innovation and strengthening knowledge and capability. The Soil Strategy has strong alignment with the NRM strategies' outcomes; a key to success is the forming of regional partnerships through a National Action Plan.

The Clean Energy Regulator is established by the Clean Energy Regulator Act 2011 and is a non-corporate Commonwealth entity for the purposes of the Public Governance, Performance and Accountability Act 2013. The Clean Energy Regulator administers schemes legislated by the Australian Government for measuring, managing, reducing or offsetting Australia's carbon emissions.

The Clean Energy Regulator's role is determined by climate change law. It has administrative responsibilities for the:

- National Greenhouse and Energy Reporting Scheme, under the *National Greenhouse and Energy Reporting Act 2007*
- Emissions Reduction Fund, under the *Carbon Credits (Carbon Farming Initiative) Act 2011*
- Renewable Energy Target, under the *Renewable Energy (Electricity) Act 2000*, and
- Australian National Registry of Emissions Units, under the *Australian National Registry of Emissions Units Act 2011*.

The NRM Strategies support the implementation of the Australian Government's Agricultural Stewardship Program's carbon farming initiative through the Emissions Reduction Fund.

The *Australian Dairy Plan* (Dairy Australia, 2020) is an industry-driven strategy providing a comprehensive and compelling framework for development of the dairy industry, underpinned by a robust Sustainability Framework with regular progress reporting. Partnerships with industries such as dairy are fundamental to successful natural resource management outcomes and are key to delivery of the NRM Strategies.

2 Coastal and marine

Tasmania's valuable coastal and marine resources are experiencing increasing development and competing pressures. The *State Coastal Policy Validation Act* (2003) sets out the principles and outcomes for sustainable use of Tasmania's coastal zone, and provides guidance on protection of natural and cultural values, sustainable urban and residential development, marine farming, tourism, public land and recreation.

Urban and residential development is considered within the Tasmanian Planning Scheme under the Coastal Hazards State Planning Provisions (2021). Marine reserves, commercial and recreational fishing, and marine farming are managed through the *Living Marine Resources Act* (1995).

The *Tasmanian Recreational Sea Fishing Strategy 2021-2030* sets out a vision to promote shared stewardship and sustainable and healthy fish stocks and habitats (DPIPWE, 2021). With potential for significant growth of Tasmania's salmon industry, a salmon industry plan is in development and due to be released in 2023.

Marine reserves are managed by the Tasmanian Parks and Wildlife Service, with seven marine reserves declared in state waters. Parks Australia manages the seven marine parks within Tasmanian waters through the *South-east Commonwealth Marine Reserves Network Management Plan 2013-23* (2013).

3 Renewables and circular economy

Electricity generation is a major use of Tasmania's water and wind resources. The *Draft Tasmanian Renewable Energy Action Plan* (Department of State Growth, 2020) is focussed on restoring energy as a competitive advantage for Tasmania by, among other things, maximising Tasmania' s renewable energy opportunities.

The Tasmanian Government has allocated funding specifically for projects to improve efficiency, reduce waste and drive productivity gains through circular economies (Department of Premier and Cabinet, 2020).

This initiative provides significant opportunity to build stronger understanding of the benefits of recycling, waste reduction and innovation for the natural resource management sector and as such provides valuable potential for strategic and project alignment.

4 Climate change

A focus on risk management is central to the Tasmanian Government's policy documents about climate change, agricultural competitiveness, biosecurity, rural water use and disaster management. The *Draft Rural Water Use Strategy* in particular, frames the prospective strategy squarely on a risk-based and adaptive approach to water management planning.

The observed and projected effects of climate change are comprehensively addressed in *Climate Action 21: Tasmania's Climate Change Action Plan* (DPAC, 2017). While Tasmania's *Climate Change Action Plan 2017–2021* has expired, Tasmania's next climate change action plan is under development. One of the six Priorities in the *Climate Change Action Plan* is "Building climate resilience", which "recognises the role of NRM organisations in working with all levels of government, business and the community to manage the associated risks and impacts from a changing climate." The Tasmanian Government has created a new advisory body, *Renewables, Climate and Future Industries Tasmania* (ReCFIT), who are working on a new Climate Action Plan (ReCFIT, 2021).

The *Tasmanian Disaster Resilience Strategy 2020-2025* (Tasmanian Government, 2020) explicitly notes that "The Tasmanian Government will work with others to... Include risk considerations in land use and natural resource management plans, policies, strategies, and use and development controls when developed or reviewed."

The Tasmania Fire Service has established a Fuel Reduction Program in response to the risk of catastrophic bushfires. This program deals with strategic and coordinated fuel reduction in high-risk areas. NRM organisations have the opportunity to link with this program through Fire Management Area Committees.

The Australian Government has identified its approach to improving climate resilience and adaptation in the natural, built, social and economic domains, including the agricultural sector, in its *National Climate Resilience and Adaptation Strategy 2021-2025*. In the natural domain, and agricultural sector specifically, this is realised through the Future Drought Fund, the Agricultural Biodiversity Stewardship Package, and National Agricultural Innovation Agenda. The *Drought Resilience Funding Plan 2020 – 2024* (DAWE, 2020) has a strong focus on natural resource management and has, as one of its three objectives, funding programs that will improve the natural capital of agricultural landscapes for better environmental outcomes. NRM partnerships with the Tasmanian Future Drought Fund Innovation Hub are already established and strategic alignment is ongoing.

5 Biodiversity

The *Tasmanian Threatened Species Protection Act* (1995) and the *Nature Conservation Act* (2002) are the primary state based regulatory framework for protecting and maintaining Tasmania's natural values and declaring reserved land.

The Tasmanian Wilderness World Heritage Area Management Plan (DPIPWE, 2016) and Tasmanian Wilderness World Heritage Area Biosecurity Strategy 2021-2031 (DPIPWE, 2021) provide strategic and operational linkage to natural resource management outcomes at the state and national levels, forming a fundamental part of landscape-scale conservation activities.

Australia's Strategy for Nature 2019-2030 (Australia's Nature Hub, 2019) is the overarching framework for all national, state and territory, and local legislation, policies and actions that target nature. It recognises that "Adaptive management includes assessing risk, measuring outcomes, reviewing and using approaches that maintain and restore the resilience of our terrestrial, aquatic and marine ecosystems."

This Strategy sets priorities, goals and objectives for the Australian Government, state/territory and local governments, non-government organisations, the private sector, research institutions, natural resource management organisations and the community. It prioritises action in the areas of climate change adaptation and resilience, including in the management of species and ecosystems that are vulnerable to climate change and understanding of the likely impacts of climate change on, and effective methods to promote adaptation and resilience of, terrestrial, aquatic and marine systems and species.

The Strategy for Nature 2019-2030 (Australia's Nature Hub, 2019) links to the Regional Land Partnership's 5-year Outcomes for threatened species, threatened ecological communities, World Heritage Areas, and Ramsar Wetlands of International Significance. This Strategy provides overall guidance for NRM organisations in development and delivery of natural resource management outcomes.

The Regional Land Partnerships Program's five-year Outcomes 1 to 4 directly focus on biodiversity conservation. This is a fundamental aspect of the NRM planning process and aligns with the existing roles of NRM organisations as RLP service provider under the National Landcare Program.

The *Environment Protection and Biodiversity Conservation Act* (1999) is the primary federal legislation for protecting and maintaining Australia's natural values, and the new *Threatened Species Strategy 2021-2031* (DAWE, 2021) prioritises action and investment for EPBC protected matters. It broadens the number of priority threatened species from the previous strategy, which included birds, mammals and plants, to include reptiles, frogs, insects and fish. It also includes a focus on 'priority places', where threat mitigation and habitat protection efforts will benefit multiple species and ecological communities through landscape-scale actions, planning and coordination, and stronger partnerships. The *Threatened Species Strategy 2021-2031* will be underpinned by consecutive 5-year Action Plans, which will identify priority species and places, and detail actions and practical, measurable targets to assess progress. These documents are an important guide to future Australian Government investment in regional natural resource management.

6 Closing the gap

The Closing The Gap – Tasmanian Implementation Plan 2021-2023 (Department of Communities Tasmania, 2021) provides a pathway to providing better outcomes for Tasmanian Aboriginal people and the framework for Aboriginal people to determine, drive and own the desired outcomes alongside all governments. The implementation plan provides local context to the National Agreement on Closing the Gap and seeks culturally-respectful engagement with Aboriginal people and community organisations and service providers. Outcome 15 and the associated 2030 targets refer specifically to natural resource management – Aboriginal people maintaining a distinctive physical, cultural and economic relationship to their land and waters – and it could be an area where the NRM Strategies align with the Closing The Gap plan.

7 Biosecurity

The *Tasmanian Biosecurity Strategy 2013-2017* (DPIPWE, 2013) remains current as the primary state policy reference for biosecurity in Tasmania. It notes "The role of the broader community, including landholders and Natural Resource Management organisations in surveillance activities through active and passive surveillance programs, citizen science initiatives, and general awareness campaigns is yet to be fully realised but will be built on in this Strategy."

The *Tasmanian Biosecurity Strategy 2013-2017* identifies the need for "Alignment of biosecurity communication activities amongst stakeholders such as government, industry, and Natural Resource Management groups." The *Biosecurity Act 2019* introduced the General Biosecurity Duty to Tasmania. The General Biosecurity Duty reinforces that everyone has a role to play in protecting Tasmania's unique environment and primary industries against biosecurity risks.

The Australian Government *Commonwealth Biosecurity 2030* (DAWE, 2021) highlights the importance of biosecurity at a national level, to lift our national preparedness, response and resilience to exotic pest and disease incursions. The stated intent is to develop a national biosecurity strategy that supports the emergence of effective control tools, and national and regional coordination, for on-ground management of exotic pests and diseases established in Australia.

8 Economic and Social Recovery

The COVID-19 pandemic has had a significant impact in Tasmania and on communities and economies across the world. In 2020, the Tasmanian Government developed a range of strategies to minimise the social and economic impacts. The Premier's Economic and Social Recovery Advisory Council (PESRAC) was established to provide advice to the Premier on strategies and initiatives to support the short to medium, and the longer-term recovery from COVID-19.

The PESRAC Final Report (PESRAC, 2021) outlines 52 recommendations to support jobs and income; health and housing; community connectivity and engagement; environment and sustainability; and public sector capability.

» Moulting Lagoon (Nature Glenelg Trust)

ATTACHMENT TWO

Tasmanian NRM linkages with UN SDGs

Make cities and human settlements inclusive, safe, resilient and sustainable

ID	Goal	Strategic linkage	Measure(s)
11.4	Strengthen efforts to protect and safeguard the world's cultural and natural heritage	NRM organisations will secure investment to preserve, protect and conserve priority cultural and natural heritage assets, as outlined in the Regional Strategies	$ Direct investment secured (total, and by source)

Ensure sustainable consumption and production patterns

ID	Goal	Strategic linkage	Measure(s)
12.2	By 2030, achieve the sustainable management and efficient use of natural resources	NRM organisations will work directly with production sectors (including agriculture, forestry, fisheries and renewable energy) to encourage the adoption of sustainability practices	$ Direct investment secured by NRM organisations to support sustainable production, by sector

Take urgent action to combat climate change and its impacts

ID	Goal	Strategic linkage	Measure(s)
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	NRM organisations will seek investment to support local stakeholders to adopt and implement disaster risk reduction, resilience and adaptation strategies	$ Direct investment secured by NRM organisations to support risk management, resilience, and adaptation measures
13.2	Integrate climate change measures into national policies, strategies and planning	NRM organisations have prioritised climate change actions in regional strategies, and will seek to encourage national, state, regional and local organisations and governments	$ Direct investment secured by NRM organisations to support carbon sequestration # Direct submissions by NRM organisations in response to requests for comment on policy, strategy or planning to encourage or support measures to address climate change
13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	NRM organisations will work with stakeholders to build awareness of climate change impacts and response options	$ Direct investment secured by NRM organisations to improve awareness of climate change impacts and response options

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

ID	Goal	Strategic linkage	Measure(s)
14.1	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	NRM organisations will seek investment to prevent and reduce marine pollution (e.g. marine debris and nutrient pollution)	$ Direct investment secured by NRM organisations to prevent and reduce marine pollution
14.2	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	NRM organisations will seek investment to manage, protect and restore marine and coastal ecosystems	$ Direct investment secured by NRM organisations to manage, protect and restore marine and coastal ecosystems

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss

ID	Goal	Strategic linkage	Measure(s)
15.1	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	NRM organisations will seek investment to conserve and restore terrestrial ecosystems and inland freshwater resources	$ Direct investment secured by NRM organisations to conserve and restore terrestrial and freshwater ecosystems
15.2	By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	NRM organisations will seek investment to restore degraded forests and increase tree planting in agricultural areas	$ Direct investment secured by NRM organisations to improve condition of native vegetation and revegetation works
15.5	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	NRM organisations will seek investment to improve outcomes for threatened species.	$ Direct investment secured by NRM organisations to manage threatened species
15.8	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	NRM organisations will seek investment to manage (including prevention) key environmental and agricultural biosecurity issues (weeds, pests, diseases).	$ Direct investment secured by NRM organisations to manage environmental and agricultural biosecurity issues (weeds, pests, diseases)
15.a	Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	NRM organisations will work with key natural resource industry sectors to encourage improved practices and facilitate outcomes for biodiversity and ecosystems.	# Sectors directly engaged by NRM organisations

» Chauncy Vale sandstone caves

ATTACHMENT THREE

Tasmanian NRM prioritisation process

1 Overview

In this strategy NRM South has created a framework to focus future investment on Outcomes and Actions that is strategically important, feasible to implement, creates value for money, and can be influenced by the efforts of NRM South.

Priorities and associated Actions have been identified by evaluating known natural resource assets and threats in the southern region. Assets were identified and an assessment was undertaken to determine the relative importance of each asset in the region, and the potential to mitigate threats and improve or stabilise the health and trajectory of that asset.

This process recognises that some regional assets of high value or significance have not been prioritised in this plan as they may not be readily influenced by NRM investment, and that other strategies, policies, agencies, or interest groups may be active in the management or protection of these assets.

The prioritisation process is described in brief in Section 4.4 of the Strategy. This attachment provides a more detailed description of the processes used by NRM South in establishing regional Priorities and Actions within each Theme. The prioritisation process has been iterative and has included detailed literature reviews, targeted expert elicitation, input from theme-based expert workshops and extensive stakeholder engagement.

A suite of methodologies have been used to identify the Priorities and Actions in the 2030 Strategies, largely framed around a Multi-Criteria Analysis (MCA), which utilised exiting literature and planning. This included a previous Project Prioritisation Protocol (PPP) report (*Prioritisation of Threatened Flora and Fauna Recovery Actions for the Tasmanian NRM Regions*, DPIPWE, 2010), national and state listing advice and recovery plans, water quality improvements plans and other documentation. This was followed by an expert elicitation process:

1. **Multi-Criteria Analysis (MCA):** Known natural resource assets and threats have been evaluated for the region, assessing available data and expert knowledge, and considering six key criteria within a fit-for-purpose "multi-criteria analysis" (MCA).
2. **Expert elicitation:** The Priorities, associated Outcome statements and Actions have been workshopped and further refined with state-wide experts and in consultation with existing and identified potential delivery partners and stakeholders, drawing on current research and published information.

2 Multi-Criteria Analysis (MCA) criteria

Each of the potential Priorities were scored and ranked according to how well they met six criteria (Table 1). This framework identified the types of enquiries that were considered through the MCA process – tailored to the type of asset being considered and the relevance of each consideration. Each criteria included a consideration of environmental, social, and economic implications, as relevant.

TABLE 1: Criteria and considerations for prioritisation in the 2030 NRM Strategy

Criterion	Potential considerations
1 Strategic importance	**Key line of enquiry:** Is the asset strategically significant at a regional, state, and/or national scale (considering environmental, social, and economic implications)? **Additional considerations:** • Investment will maintain, restore, or enhance the health and function of the asset and natural ecosystems more broadly. • The asset has a recognised economic value to the region and its communities. • Investment will provide positive flow-on benefits to the local and regional community (e.g. employment, improved amenity, resilience, health).
2 Influence	**Key line of enquiry:** Are the NRM organisations the right organisation to do this work? **Additional considerations:** • Action by NRM organisations will contribute to the health, condition and sustainable management of the asset. • NRM organisations can mitigate threats. • Action by NRM organisations will facilitate and contribute to sustainable economic growth in regional industries and enterprises (e.g. agriculture, tourism). • NRM organisations can attract investment for effective action. • Action by NRM organisations will positively influence community awareness and capacity to manage the asset. • NRM organisations can engage with stakeholders and community to deliver effective action.
3 Practicality	**Key line of enquiry:** Can the NRM organisations do something valuable? **Additional considerations:** • Sufficient information is available or could be developed (e.g. best practice delivery approaches, scientific evidence and community knowledge). • The financial cost of action is likely to be reasonable and acceptable. • Key stakeholders and community are interested in the Priority and are likely to be committed to the proposed Actions.
4 Value	**Key line of enquiry:** Is action worth it when considering the likely benefit? **Additional considerations:** • There are opportunities to undertake activities that contribute to multiple outcomes for the benefit of the environment. • There is a cost associated with inaction (in the immediate future or the longer term). • There are opportunities to add value through in-kind support, co-investment, and/or previous work. • Action will result in a public benefit.

Criterion	Potential considerations
5 Risk	**Key line of enquiry:** Can the NRM organisations reduce known or likely threats by acting locally (i.e. acknowledging factors outside the sphere of control e.g. climate)? **Additional considerations:** • The community and stakeholders support the approaches that will have the greatest impact.
6 Priorities and linkages	**Key line of enquiry:** Is this a priority of likely funders? Does it link with Government or stakeholder policy, priorities, or other drivers? **Additional considerations:** • The Priorities and Actions link with the environmental, social or economic priorities of likely funders (e.g. the 5-year RLP Outcomes, and/or other national, state or local government projects, programs, policies, guidelines and strategies). • Action will strengthen NRM partnerships.

3 Expert elicitation process

For each of the Priorities, information on location, condition, threats and potential Actions have been considered. The identification of Priorities and Actions was informed by published information (e.g. spatial analysis, listing statements, Recovery Plans or conservation advice) and expert elicitation.

Expert elicitation was sought at Theme based technical workshops and via written input. Face-to-face meetings were conducted with relevant stakeholders seeking management, industry, and conservation perspectives across each of the Priorities. Further detail on the stakeholder engagement process is provided in Attachment A4.

Technical experts provided specific advice regarding aspects such as species ecology, distribution, condition, threats and management requirements, geospatial specificity, and significance of the asset in Tasmania.

4 Specific considerations – Land Theme

Land Assets were identified (a) through spatial analysis using datasets available on TheLIST (including land use and vulnerable soils), (b) through the MCA process, and (c) in consultation with and guidance from a state-wide panel of experts and community leaders. Priorities were further informed by years of engagement with peak bodies, key stakeholders, land managers, and outcomes from previous projects.

4.1 Healthy Country

The MCA process was not applied to this Asset class. Priorities are self-determined by Tasmanian Aboriginal communities and groups and may develop further as partnerships strengthen and new projects emerge. The Priorities in this Asset Class focus on access, healing and protection of Country.

Priorities in the Healthy Country Asset class were identified through:

- Feedback received over the past five years
- Feedback received during Strategy development and
- On-going partnerships and projects (including through implementation of Regional Aboriginal Participation Plans or Healthy Country Plans).

4.2 Resilient Landscapes

Resilient Landscape Priorities were identified by considering:

- Regional land management practices (existing practices and best practice opportunities) and
- The capacity of land managers to adopt practices that enhance resilience to biosecurity threats, climate variability in the near and long term, and market opportunities.

4.3 Soils and Vegetation

Intensification of land use has been a key driver in identifying Priorities and Actions associated with soil and vegetation. Unlike the Water and Biodiversity Themes, the assessment process considered the relative impact from a threatening process on the productivity of agricultural soils. Significant productive landscapes were assessed based on their geography, scale, importance to local community, and their relative productive value. The potential for further degradation of soils (through current or future land use practices) was also assessed. The analysis recognised the off-farm values of surrounding ecosystems.

Intensification of land use was considered a key driver in identifying Actions associated with each soil Priority, where changes to the condition of productive soils may occur. Considerations included:

- The relative impact from a threatening process on the productivity of agricultural soils
- Financial productivity and value of target soils
- Potential for degradation through current or future land use practices and
- Off-farm values of surrounding ecosystems.

Market and climate drivers have been considered in terms of future potential intensification and the six MCA criteria (outlined in (Table 1)).

The prioritisation process was informed by spatial data available on the State Government's Land Information System Tasmania (theLIST – https://www.thelist.tas.gov.au) (including land use and soil vulnerability). The spatial analysis was undertaken to determine the coverage, location and significance of land use types and native vegetation values. For the purposes of soil management, land use types such as production forestry (plantation and native) land were excluded, as these are managed through regulation and by other entities.

The following key land use types were identified:

1. Native vegetation on private land (excluding native vegetation associated with aquatic ecosystems such as riparian land, wetlands and saltmarsh as these are covered under the Water Theme)
2. Dryland grazing
3. Irrigated grazing
4. Cropping and seasonal horticulture
5. Irrigated cropping and irrigated seasonal horticulture and
6. Irrigated perennial horticulture and irrigated viticulture.

The following threatening processes were considered (informed by relevant datasets). Soil carbon loss was not included as meaningful data on soil carbon loss is unavailable for Tasmania. The most appropriate proxy for significant soil carbon loss is through wind and hillslope erosion, which are noted below:

- Soil acidity (AG Acidification Risk – CSIRO 2009)
- Soil salinity (NAPSWQ Municipal Salinity Hazard Mapping 2007)
- Soil structure decline (DPIPWE – Waterlogging Hazard)
- Soil nutrient excess or deficit (various)
- Soil erosion by water and wind (AG wind erosion 2017)

5 Specific considerations – Water Theme

5.1 Rivers, floodplains and estuaries

The 'Rivers, floodplains and estuaries' assets have been identified and prioritised across the recognised catchments in the region. Spatial analysis and data sources used to identify strategic importance include:

- Conservation of Freshwater Ecosystem Values (CFEV)
- Key Biodiversity Areas (KBAs)
- An assessment of size and proportion of estuary, estuarine conservation values, conservation areas, catchment area (size) and condition assessment (where available)
- The socio-economic importance of waterways has also been considered.

A ranking system has been applied across the six MCA assessment criteria (Table 1) to identify Priorities for investment.

5.2 Wetlands and other waterbodies including Ramsar sites

Wetland and other water body assets have been considered based on the named water bodies in the region. Data sources used to identify strategic importance included:

- Conservation of Freshwater Ecosystem Values (CFEV)
- Key Biodiversity Area (size and proportion of estuary)
- Ramsar sites, nationally important wetlands and conservation areas.

A ranking system has been applied across the six MCA assessment criteria (Table 1) to identify Priorities for investment.

5.3 Coastal and marine

Coastal and marine assets have been identified, taking into account factors such as Key Biodiversity Areas and conservation areas. Habitat types have also been considered to identify the strategic importance and biodiversity values, socio-economic importance, and threatening processes. Feasibility and access have also been identified to inform the MCA.

Marine and coastal habitat types have been identified and scored against the six MCA criteria (Table 1). Specific considerations included:

- Identification of marine and coastal habitat types, and assessment against criteria including number and significance of threats, such as sea level rise, and social and economic values
- Assessment of habitat types, including estuaries, inlets, wetlands, soft sediments, rocky reefs, seagrass beds, offshore islands, open ocean, beaches and dune systems, rocky coasts, and cliffs
- Economic values, including wild catch fisheries, finfish and shellfish aquaculture, tourism, infrastructure, and marine traffic and
- Social values, including recreational activities, attractions, and infrastructure.

6 Specific considerations – Biodiversity Theme

6.1 Important Biodiversity Areas

The Important Biodiversity Areas have been identified with consideration of:

- Publicly available information describing World Heritage Properties, Key Biodiversity Areas, important reserves or other recognised hotspots
- Experience and knowledge of the region and
- Stakeholder input.

The MCA (Table 1) was used to generate a shortlist of Priorities for investment.

6.2 Threatened and Important Ecological Communities

All Threatened Ecological Communities as identified by the Australian Government and State Government under relevant legislation and associated schedules have been considered. These include:

- Tasmanian *Nature Conservation Act 2002* and/or
- Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

In addition, the category "important ecological communities" has been included to allow for the consideration of locally important vegetation communities that are not formally listed under legislation.

The MCA (Table 1) has been used to generate a shortlist of Priorities for investment. Additional lines of enquiry and considerations (specific to this Asset) included:

- Level of threat (with those more threatened given a higher score*)
- Whether the trajectory of the ecological community can be improved
- General Vegetation Reserve Report 2020 and
- Extent in reserved estate (including covenants), extent unreserved (on private land).

*While communities that are more threatened have been given a higher score, communities have also been prioritised where they are likely to:

- Support known (evidenced) habitat
- Are intact (over areas with very low area/condition)
- Are feasible to manage (over areas that are less feasible)
- Have potential for long term viability (over areas with less long-term viability)
- Have secure tenure and commitment to post-treatment maintenance (over areas with less security)
- Are buffered against stochastic threats (e.g. natural disasters, climate change impacts)
- Have the opportunity for intervention based on previously demonstrated chance of success, impact and effectiveness (backed by strong supporting evidence), cost-benefit and value for money and
- Benefit multiple species in a critical area (over management actions that complement single species/communities).

Threatening processes and potential actions have been identified from the relevant listing information.

6.3 Threatened and Important Species

The threatened species in each region have been identified using the Tasmanian Natural Values Atlas and the Commonwealth Protected Matters Search Tool. Species that are extinct, hybrids or parent species have been excluded. The 'long list' comprises species that are listed as:

- Endangered, Vulnerable or rare under Tasmanian *Threatened Species Protection Act 1995* and/or
- Critically endangered, endangered, vulnerable or conservation dependent under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (noting that listed marine species have not been included, but some are addressed under other Water, Land and Biodiversity priorities).

The levels of threat were used to score each species (the more threatened, the higher the score) to contribute to a ranking.

Other information that has been considered includes the *General Vegetation Reserve Report* (2020); *Prioritisation of Threatened Flora and Fauna Recovery Actions for the Tasmanian NRM Regions* (2010); and the Commonwealth *Threatened Species Strategy 2021-2031*.

In addition to this, the category "important species" has been included to allow the assessment of locally important species that are not formally listed under legislation.

The MCA (Table 1) has been used to generate a shortlist of Priorities. Specific to this Asset Class, the distribution of each species was also considered. Information from the Tasmanian Government's Threatened Species Link was used to determine whether our region was important (i.e. involved local endemism, a high percentage of habitat or distribution within the region, dependency on the region for breeding/life cycle, level of protection/amount in formal reserves). While species that are more threatened have been considered as 'strategically important', consideration has been given to species where they:

- Have viable populations (over species with very low numbers);
- Are feasible to manage (over species that are less feasible);
- Have potential for long term viability (over species with less long term viability);
- Have habitat with secure tenure and commitment to post treatment maintenance (over species with less security);
- Are buffered against stochastic threats (e.g. natural disasters, climate change impacts);
- Have the opportunity for intervention based on previously demonstrated likelihood of success, impact and effectiveness (backed by strong supporting evidence), cost-benefit and value for money; and
- Benefit multiple species or habitats in a critical area (over management actions that complement single species/habitats).

Within the MCA's 'Strategic Importance' criterion, the six prioritisation principles outlined in the Threatened Species Strategy 2021-2031 have been considered:

- Prioritising species and places under severe and imminent threat;
- Prioritising species and places where recovery action will benefit other species;
- Prioritising species and places where action can make a difference and is cost-effective;
- Prioritising species and places of cultural significance; and
- Prioritising species and places that are unlike any other.

7 Actions in the 2030 Strategies

Actions to address Priorities across all three Themes have been developed:

- By referring to current research and published information; and
- In consultation with the expert panels, existing and identified potential delivery partners and stakeholders.

These Actions have been identified to strategically direct Australian Government, Tasmanian Government, and stakeholder investment into management Actions that support cost-effective delivery (including of the RLP Outcomes).

Actions have been prioritised through a structured process, including consideration of:

- the six MCA criteria (see Table 1);
- Input from experts and stakeholders (expert elicitation);
- Assessment of published information (e.g. context, condition, decision support tools);
- Values, benefits, costs and likelihood of successful, long-lasting and feasible outcomes (e.g. informed by the 2010 Project Prioritisation Protocol (PPP) report); and
- The potential to identify future projects (including targets, goals, and objectives).

» View towards Herringback and Snug Tiers at sunset

ATTACHMENT FOUR

Stakeholder engagement

1 NRM South's partnership approach

NRM South seeks to achieve the objectives under the 2030 NRM Strategy for southern Tasmania and delivery of programs through working with a range of our partners and the community. Whilst the organisation is responsible for the development and monitoring of the Strategy, we cannot deliver programs and activities to support the Strategy alone. By forming partnerships, we add value to the existing investments already being made by the Australian, Tasmanian and local governments, as well as industries, other organisations, and the wider communities in our region.

Government entities (local, state, and federal) are critical partners in supporting the delivery of natural resource management activities in the region. These entities provide much of the resourcing (funding, in-kind services, and/or project delivery technical expertise) to support best practice outcomes. In addition, NRM South engages with other delivery partners such as universities, research institutions, community groups (e.g. landcare, wildcare, and 'friends of' groups), other NGOs, industry, the Aboriginal community, and landholders to blend the right mix of skills, funds, experience, and networks for effective and efficient delivery.

Leveraging this partnership delivery model, our preferred method for project development is to engage in co-design where possible, and to we aspire to enable opportunities for relevant participatory and iterative project development and delivery. These methods maximise stakeholder engagement, and ensure delivery remains relevant, and impactful.

1.1 Partners

Across a suite of projects and initiatives, each NRM organisation maintains a strong portfolio of relationships with key organisations to deliver services ranging from communications and knowledge sharing through to on-the-ground actions.

Partners are organisations who have a formal relationship with NRM South through an existing mechanism such as a grant deed, contract or other agreement (e.g. Memorandum of Understanding). Partner aspirations vary from project to project, but these agreements formally recognise a commitment between parties to work together towards natural resource management outcomes in the region.

1.2 Collaborators

Delivering significant projects within regions is a complex activity and requires contributions from a number of organisations. While some contributions are formally partnered as above, NRM organisations also rely on project collaborators, groups or organisations that help facilitate project outcomes through mechanisms such as: in-kind commitment, associated services and endorsement. This may include project participation through activities such as citizen science, or participating in project governance (e.g. reference groups or steering committees).

1.3 Networks

As not-for-profits, and with a focus on raising awareness and engaging communities, NRM organisations rely heavily on regional networks. These regional networks are made up of organisations with aligned aspirations for the region and a shared interest in promoting natural resource management outcomes. These groups are often integral for communicating information and opportunities into relevant sectors, interest groups, or the general public; they also play an important role in facilitating knowledge sharing from project outcomes. The regional networks include working groups, and community and landcare groups.

2 Stakeholder Groups

Many varying stakeholder groups contribute to, access, develop and benefit from natural resources in the southern NRM region of Tasmania. Each has a role to play in effective natural resource management for the sustained benefit of the southern region and Tasmania more broadly. NRM South develops the Strategy for the region, with input sought from stakeholder groups, to help attract and focus investment and to coordinate efforts across relevant stakeholders.

Table 2 below identifies several stakeholder groups within the southern region. Each stakeholder group has an important role in collaboration and delivery of actions identified in the Strategy. These groups, and specific organisations identified in the "*Key Organisations*" column, shared their expertise and aspirations for natural resource management through numerous consultations, which have been integral to the robust development of the Priorities and Actions identified in 2030 NRM Strategy for southern Tasmania. The list of organisations is illustrative; the table does not include an exhaustive list of collaborators, partners, and stakeholders.

TABLE 2: **NRM South's Stakeholder Groups**

Category	Key Organisations	Aspirations & links to NRM organisations
Aboriginal Groups	Tasmanian Aboriginal Centre (TAC), Tasmanian Regional Aboriginal Communities Alliance (TRACA), Aboriginal Land Council of Tasmania (ALCT), South East Tasmanian Aboriginal Corporation (SETAC), weetapoona Aboriginal Corporation, Parrdarrama Pungenna Aboriginal Community, Riawunna Centre	Tasmanian Aboriginal community, organisations, businesses and groups aspire to heal, care for and manage their Country and people. Aspirations of the Aboriginal community can be outlined in Healthy Country Plans, MoUs and through ongoing engagement. This Strategy identifies Actions centred around self-determined participation and leadership in cultural and natural resource planning.
Australian Government	Department of Agriculture, Water and the Environment, National Recovery and Resilience Agency, and other relevant/emerging agencies	Through the National Landcare Program, and other associated environmental and agricultural grant schemes, the Australian Government is a key funding partner for project delivery. Tasmania is home to numerous threatened species, World Heritage sites and threatened ecological communities identified as national priorities and addressed through the Regional Land Partnerships Outcomes.
Tasmanian Government	Natural Resource and Environment Tasmania (NRET) (e.g. Biosecurity Tasmania, Marine Resources, AgriGrowth, Parks and Wildlife Service, Natural and Cultural Heritage, Aboriginal Heritage Tasmania, Inland Fisheries Service) State Growth, Department of Premier and Cabinet (including Climate Change Office and Policy Office). Department of Justice (including State of Environment, Land use planning, and Local Government) Department of Health and Human Services (e.g. Tasmanian Fire Service)	The State Government is a key funding and delivery partner. As well as developing and implementing State policy relevant to natural resource management, departments cover regulation, biodiversity conservation, climate change adaptation, threatened species management, parks and wildlife management, and agricultural production. NRET's new Strategic Plan (2022-2026) outlines aspirations for a sustainable Tasmania, and places significance on sustainable growth, protecting natural values, and addressing climate change. This new vision is well aligned with the three NRM organisations own new strategies.

Category	Key Organisations	Aspirations & links to NRM organisations
Local Government	Brighton Council, Central Highlands Council, Clarence City Council, Derwent Valley Council, Glamorgan Spring Bay Council, Glenorchy City Council, Hobart City Council, Huon Valley Council, Kingborough City Council, Sorell Council, Southern Midlands Council and Tasman Council, Local Government Association of Tasmania (LGAT)	Local Government councils provide a host of relevant natural resource management services, including weed, stormwater, and waste management, property management planning, managing public land, native vegetation planting and land use planning. They also administer the overarching planning schemes for development. Many councils include dedicated NRM units, which provide valuable collaboration opportunities as they seek to maximise natural values within their municipalities.
Non-Government Organisations	Industry peak bodies (e.g. Tasmanian Farmers and Graziers Association, Dairy Tasmania, Fruit Growers Tasmania, Tasmanian Seafood Industry Council, Wine Tasmania, Tasmanian Salmon Growers Association, Tasmanian Agricultural Productivity Group, Tasmanian Women in Agriculture, Oysters Tasmania, TARFish), Rural Business Tasmania, Birdlife Tasmania, Tasmanian Land Conservancy, Birdlife Australia, Tasmanian Conservation Trust, Greening Australia, Soil First, OzFish, Oceanwatch Australia, Sprout Tasmania, Derwent Estuary Program, Ten Lives Cat Centre, Conservation Volunteers Australia, Nature Glenelg Trust, The Nature Conservancy, Environmental Defenders Office	Industry and conservation peak bodies provide the collective insights, aspirations, and priorities of their membership. Industry peak bodies are particularly important for the dispersed agricultural and seafood sectors. Non-government organisations are also valuable partners for effective extension, endorsement of sustainable practices, and knowledge and capacity building.
Govt. Business Enterprises, State-owned companies, corporations, and statutory authorities	Hydro Tasmania, Tasmanian Irrigation, TasWater, Private Forests Tasmania, Sustainable Timber Tasmania, Tasmanian Networks, Tasmanian Ports Corporation, Forest Practices Authority, Environment Protection Authority, Royal Tasmanian Botanical Gardens	Statutory authorities, industry organisations and GBE's have close relationships with natural resources throughout Tasmania, and aspire to maintain a balance between sustainable use and production, and remaining commercially viable.
Industry, consultants, and businesses	Forico, Tassal, Huon Aquaculture, Petuna, Enviro-dynamics, RM Consulting Group, North Barker, pakana Services, Nutrien Ag Solutions, Bonorong Wildlife Sanctuary, ZooDoo, Southern Farming Systems, Goldwind, Fonterra, Hobart Airport	These groups are taking some action towards sustainable practices and have close relationships with natural resources throughout Tasmania. They aspire to maintain a balance between sustainable use and production, and remaining commercially viable. Consultants need to move and adapt their knowledge with the evolving needs of their clients and sectors.

Category	Key Organisations	Aspirations & links to NRM organisations
Community-based Organisations	Includes landcare groups and networks (e.g. Landcare Tasmania, Wildcare Tasmania, Derwent Catchment Project, Tasman Landcare Group and other local landcare and 'friends of' groups), Conservation management networks (e.g. Conservation Landholders Tasmania, Threatened Plants Tasmania, Tasmanian Seed Conservation Centre), recreation groups (e.g. Anglers Alliance Tasmania), local community groups (e.g. Dunalley Tasman Neighbourhood House), and farming systems groups (e.g. Coal Valley Products Association, East Coast Primary Producers Association).	These groups play a critical role in connecting communities to natural resource management and provide a conduit both into these communities for information and capacity building, as well as representing the aspirations of their members and communities. These valuable insights assist in effective project planning and delivery to ensure regional relevance when delivering priority actions. Participants from many of these organisations sit as members of reference groups or advisory groups.
Education and research organisations	University of Tasmania (including Tasmanian Institute of Agriculture and Institute of Marine and Antarctic Studies), Australian National University, CSIRO, Sustainable Learning Centre (Department of Education), Bookend Trust	Deliver research, training, extension and education services to Tasmanian industry sectors, business, and the general public. They provide the foundational science underpinning extension and capacity building strategies across the regions stakeholders.

3 Strategy engagement

The NRM organisations have undertaken significant stakeholder engagement as part of the Strategy development. This process included a number of structured engagement points, but is built on long-term partnerships and engagement and has been steadily complemented over the last twelve months by formal and informal feedback and learning. The structured strategy consultation process is recognised below (Figure 1).

Infographic design available from Slidesgo and Freepik

FIGURE 1: **Structured engagement points for the development of the 2030 NRM Strategies for NRM North, NRM South and the Cradle Coast Authority**

3.1 Consultation Stage 1: Developing Draft Priorities and Actions

The first phase of consultation was at a high-level over a period of 3-4 months, with a focus on listening and learning, as well as seeking to ground truth our decisions regarding Priorities, Actions, and Outcomes. This included initial discussion with Australian and State Governments to review policy and priorities.

During this phase, the three NRM organisations hosted a series of thematic workshops (land, water, and biodiversity), bringing together state-wide experts from various stakeholder groups to workshop the draft Priorities and Actions.

The independently facilitated workshops invited over 40 experts (including representation from State Government, industry, GBEs, private consultants, research institutes, NGOs, peak associations, and community groups), and elicited a wealth of valuable insight and contributions (both in person and in additional submissions). The workshop format, collaborative approach (across disparate stakeholders), and preliminary content all received strong positive endorsement.

Other key interactions during this consultation phase included:

1. Meetings (face-to-face and/or teleconference) with senior Australian and State Government officials to review the structure and discuss high-level alignment with government policy.
2. Each NRM organisation engaged with their respective local government bodies through presentations and feedback sessions. Feedback helped shape a holistic approach to Actions, and highlighted opportunities to partner with existing and planned efforts.

3 The NRM Regional Boards and Management Committees (comprising external membership) have been consulted throughout the regional Strategy development process, providing advice and input to ensure regional values are well considered.

4 Initial engagement with the Tasmanian Aboriginal Centre and regional Tasmanian Aboriginal community groups. This was undertaken with a listening-first approach, broadening our understanding of community priorities as well as opportunities for greater collaboration and participation in project design and delivery.

5 Various interactions with industry, community, and interest groups such as (not exhaustive) Landcare Tasmania, University of Tasmania, Tasmanian Land Conservancy, Birdlife Tasmania, Hydro Tasmania, Private Forests Tasmania, Sustainable Timber Tasmania, Derwent Estuary Program, and the Derwent Catchment Project. These interactions provided valuable perspective and improved understanding of specialist areas or community interests.

3.2 Draft Submission

The three draft regional NRM Strategies refined through the initial consultation period were submitted to Australian and State Government for review and feedback on 30 June 2021. Comprehensive feedback was received providing additional expert input as well as specific policy advice and considerations.

The process for Government review included:

- An internal (state) Departmental review of the draft strategies, led by DPIPWE, with the intent to provide consolidated written feedback and verbal feedback and advice; and
- An internal (federal) Departmental review of the draft strategies, led by DAWE, with the intent to provide written (consolidated) feedback and advice.

3.3 Consultation Stage 2: Government and Regional consultation

Following draft submission, the NRM organisations conducted follow-up meetings with state-wide key stakeholders as well as increasing engagement with region-specific stakeholders. Additional meetings were held with stakeholders, noting their priorities and aspirations to further inform the Strategy development. Stakeholders involved included those named in the table above, as well as broader partners, collaborators, and networks.

The regions also hosted a State Government specific workshop attended by 13 senior officials representing numerous departments. The focus of this workshop was to build from the previous draft submission, and shift the focus to awareness, aspirations, partnerships and opportunities to strategically collaborate into the future. The workshop received extremely positive feedback and identified several partnership opportunities pursuing mutual goals.

During this consultation phase, NRM South also hosted an online workshop for all local government councils in the southern region This was very well attended, and provided a valuable opportunity to socialise progress on the strategy to date, understand local government priorities and aspirations, and to walk them through the proposed actions to date for further expert and contextual feedback.

3.4 Public Comment

The three draft regional NRM Strategies were issued for public comment inviting feedback submissions until 14 November 2021. Invitations for comment were sent directly to key stakeholders, across all stakeholder groups. The opportunity was also promoted through social media and region mailing lists – with a combined recipient list of over 1,100+ subscribers.

Forty-three feedback submissions covering both state-wide and regional considerations were received. These highlighted a broad, but well aligned range of aspirations for natural resource management in Tasmania, additional feedback on the draft Priorities and Actions, and identifying areas of potential collaboration to best deliver the strategy in line with our preferred partnership delivery model.

3.5 Final Submission

Incorporating extensive and robust consultation feedback over the preceding twelve months, including review by Australian and State Government, the final versions of the three regional NRM Strategies were endorsed by regional Boards and Management Committees for submission to Australian and State Government by 31 December 2021. Following acceptance of the strategies by the Australian and State Government, regional Boards and Management Committees formally adopt and publish the NRM Strategies.

3.6 Stakeholder feedback

With such extensive consultation, the NRM organisations received comprehensive and valuable feedback at each step through the process. All feedback received was collated internally, split into individual comments, categorised by theme or section, and reviewed in workshops across regions to determine how best to manage comments received. Responses ranged from triggering a review of our existing content, engaging in discussion to confirm the integrity of our prioritisation processes, modifying existing content, or even adding entirely new content.

The final regional NRM Strategies would not have been possible to deliver without the generous and comprehensive contributions of so many Tasmanian stakeholders. One clear aspiration that emerged through the process was a strong desire amongst so many to take action and contribute to plans and priorities to improve natural resource management outcomes in Tasmania.

» Southport heath at Southport Bluff

ATTACHMENT FIVE

NRM planning linkages with Regional Land Partnerships Outcomes

1 Introduction

The 2030 NRM Strategy for southern Tasmania serves as a planning document to meet the requirements of the Tasmanian Government under the Tasmanian *Natural Resource Management Act 2002* and the Australian Government's Regional Land Partnerships (RLP) Program. To achieve the requirements for both the Tasmanian and Australian Governments, the Strategy outlines the key Assets of the Region, which were identified through a prioritisation process (see Attachment A3). The Priorities, Outcomes and Actions relevant to the Management Unit (the southern region) are outlined within a shared state-wide Strategy framework. The Strategy does not attempt to describe prioritisation processes and decision making in detail. However, the Australian Government requires (as stated in the Services Agreement) that additional detail is provided to substantiate planning decisions and processes in relation to the six RLP 5-Year Outcomes.

Additional information is provided in Attachment A5 to demonstrate the alignment between the Strategy and the Regional Land Partnerships Outcomes.

1.1 Regional Land Partnerships – Services Agreement

NRM South was accredited as a Service Provider for the Australian Government Regional Land Partnerships Program on 30 August 2019. Service Providers are contracted to deliver Projects that contribute to achieving the six 5-year Outcomes for Regional Land Partnerships, as well as supporting services (Core Services) that aid the effective and efficient delivery of the Projects, such as Community engagement and natural resource management planning.

The requirements of the Services Agreement related to natural resource management planning are outlined in Schedule 2, Section 4.2 and states the following requirements:

4.2 Maintain the currency of natural resource management planning and the prioritisation of management actions

(a) (a) The Service Provider must ensure appropriate and accurate information to underpin prioritisation of long term action on natural resource management for the Management Unit is available to the Australian Government and the Community.

(b) As part of its obligations under clause 4.2(a) of the Statement of Work, the Service Provider must:

  (i) maintain the currency of natural resource management planning and the prioritisation of management actions at the Management Unit scale to ensure:

    (A) Projects can be identified and appropriately scaled and scoped, are based on best available scientific, economic and social information, take into account the Investment Priorities relevant to the Management Unit and consider emerging science and innovations, climate change impacts, and the views of the Community;

    (B) Projects will effectively contribute to the 5-year Outcomes, including through identification and on-going prioritisation of management actions that support the delivery of the 5-year Outcomes;

  (ii) within 12 months of the Commencement Date (unless the Department agrees in writing to an alternative timeframe):

    (A) review any existing Natural Resource Management Plan(s) for the relevant Management Unit for their consistency with the requirements in clause 4.2(c) of the Statement of Work; and

    (B) provide a report on the review to the Department.

(iii) within 36 months of the Commencement Date (unless the Department agrees in writing to an alternative timeframe), to ensure that the Natural Resource Management Plan(s) meets the requirements of clause 4.2(c) of the Statement of Work, either:

(A) revise the relevant existing Natural Resource Management Plans or material; or

(B) develop a new Natural Resource Management Plan for the Management Unit; and

(C) submit the revised or new Natural Resource Management Plan to the Department.

(iv) where the Service Provider has determined that it is necessary to develop a new Natural Resource Management Plan for the Management Unit:

(A) ensure that the new Natural Resource Management Plan complements, rather than duplicates, any existing Natural Resource Management Plans for the Management Unit; and

(B) address, in the new Natural Resource Management Plan, only those requirements under clause 4.2(c) of the Statement of Work that are not adequately addressed in an existing Natural Resource Management Plan for the Management Unit.

(c) The Natural Resource Management Plan(s) must:

(i) identify and describe the 5-year Outcomes and Investment Priorities that are relevant to the Management Unit;

(ii) describe stakeholder aspirations for natural resource management in the Management Unit, and where possible, how these align with the 5-year Outcomes and other relevant Australian Government priorities;

(iii) identify and prioritise natural resource management actions based on knowledge of:

(A) location and condition of natural resources, including the Investment Priorities;

(B) threats to, or impacts on, natural resources;

(C) prioritisation methods for determining the most cost-effective management actions, including decision support and spatial mapping tools; and

(D) methodologies for assessing the effectiveness of management actions;

(iv) identify how the delivery of Projects will contribute to 5-year Outcomes and Investment Priorities for the Management Unit;

(v) identify how the Natural Resource Management Plan(s) will be implemented with comprehensive Community participation;

(vi) identify Indigenous peoples' land and sea management aspirations for the relevant Management Unit, including how they relate to 5-year Outcomes, and strategies to prioritise and implement them;

(vii) incorporate traditional ecological knowledge, where appropriate, in accordance with agreed protocols and with prior approval of the Indigenous custodians of the knowledge;

(viii) describe key collaborations, for example between the Service Provider, industry and/or Community groups, for delivery of 5-year Outcomes;

(ix) identify the monitoring and reporting processes in place and how they are utilised to measure the achievements and the effectiveness of the Natural Resource Management Plan(s); and

(x) include any other content relevant to the Service Provider's obligations under clause 4.2(a) of the Statement of Work.

(d) The Service Provider must involve the Community, including the Indigenous community, in the development of a new Natural Resource Management Plan or revision of an existing Natural Resource Management Plan.

(e) The Service Provider must make the new Natural Resource Management Plan, or revised Natural Resource Management Plan, publicly available at no cost to the Community, within 3 months of it being formally approved by the organisation's Board of Directors or equivalent.

2 Australian Government 5 year RLP Outcomes and Investment Priorities

2.1 RLP Outcome 1: The restoration of, and reduction in threats to, the ecological character of Ramsar sites, through the implementation of priority actions

The Convention on Wetlands of International Importance (the Ramsar Convention) was signed in Ramsar, Iran on 2 February 1971. The Ramsar Convention aims to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. There are 4 Ramsar listed wetlands in southern Tasmania (Table 3).

TABLE 3: **Ramsar sites in southern Tasmania**

Ramsar sites	Further information
Moulting Lagoon	Ecological Character Description (undated)
Apsley Marshes	Ecological Character Description 2011
Interlaken Lakeside Reserve	Ecological Character Description 2012
Pitt Water – Orielton Lagoon	Ecological Character Description 2012

Four Ramsar wetlands have been prioritised through the MCA used for strategy development. These are shown in Table 4, and described in Section 2.1 of the 2030 NRM Strategy document.

TABLE 4: **Results of the Multi-Criteria Analysis for Ramsar sites in southern Tasmania**

Ramsar sites	MCA priority level
Moulting Lagoon (see Figure 2)	High priority for investment
Apsley Marshes (see Figure 2)	High priority for investment
Interlaken Lakeside Reserve (see Figure 2)	Medium priority for investment
Pitt Water – Orielton Lagoon (see Figure 2)	Medium priority for investment

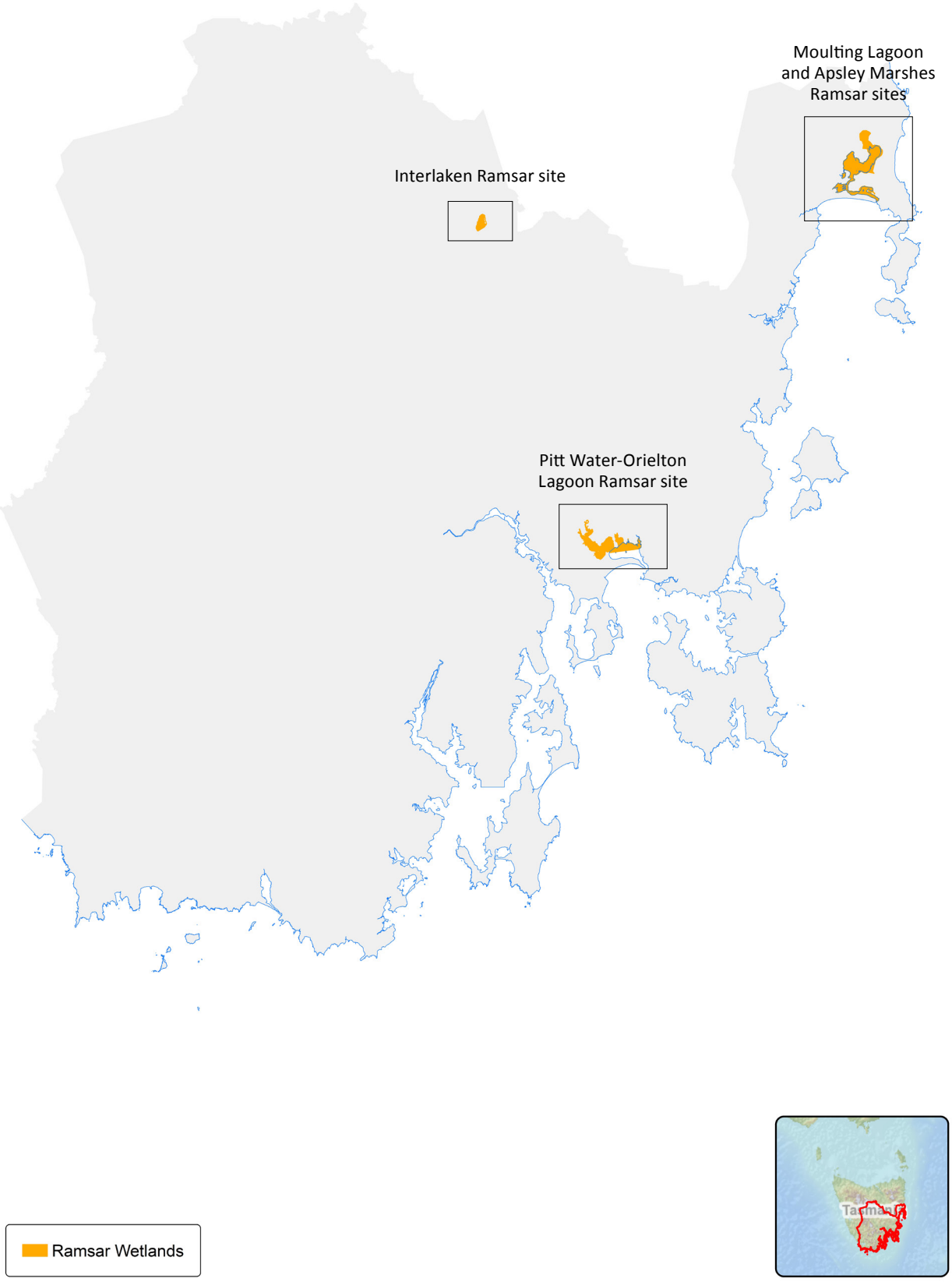

FIGURE 2: **Map showing locations of Ramsar wetlands in the southern region**

CASE STUDY: **RLP OUTCOME 1 – The ecological character of Ramsar sites is maintained or improved**

SUPPORTING SALTMARSH RECOVERY ON TASMANIA'S EAST COAST

Coastal saltmarshes and wetlands are incredibly important for maintaining healthy coastal and marine systems, but despite the benefits they bring they are often undervalued. NRM South is supporting research to find out more about how saltmarshes that have become degraded can recover.

NRM South's restoration project at Moulting Lagoon and Apsley Marshes, an internationally significant Ramsar-listed wetland complex on Tasmania's east coast, is addressing threats to the wetland that are the result of land use practices over the last few decades. By supporting landholders to improve wetland health, we are working to bring benefits to the species and industries that rely on this ecosystem. Our efforts are also helping to improve the natural values of an important tourism region that welcomes over half a million tourists annually.

Pressure from coastal development, sea level rise, pollution, and agricultural practices such as grazing has contributed to the loss and degradation of about 70% of saltmarsh across Tasmania since the 1950s. Saltmarshes are fragile environments and regeneration can be extremely slow – it may take up to 20 years for a disturbed system to recover. Understanding the time frames and processes involved with saltmarsh recovery in Tasmania is critical for planning future recovery projects.

Working with the University of Tasmania, we are supporting research into how saltmarsh regenerates, and ways in which regeneration can be improved. This involves trialling methods to increase sediment capture and seed deposition during floods. It's hoped that encouraging sediment deposition will speed up the establishment of pioneer species and put the recovery process on fast forward.

The more long-term data sets we have, the better we'll understand how these ecosystems recover and how we can help them do so. While the study is still in its early stages, stock exclusion combined with good local rainfall over 2020-21 has kickstarted saltmarsh regeneration, with new seedlings already visible in some areas.

2.2 RLP Outcome 2: The trajectory of species targeted under the Threatened Species Strategy, and other EPBC Act priority species, is stabilised or improved.

The Australian Government identify priority species through a number of mechanisms, including:

- The 100 Priority Species
- Threatened Species Strategies and associated Action Plans

Information on location, threats and actions can be found using:

- the Tasmanian Natural Values Atlas
- the Commonwealth Protected Matters Search Tool
- EPBC Recovery Plans and Listing Statements
- other published material such as Conservation Advice and scientific papers
- websites such as Tasmanian Threatened Species link

Of the 100 Priority Species list (DAWE Threatened Species Strategy), there are 12 species of fauna and 0 species of flora that are priority threatened species in the southern region (Table 5). Table 5 lists these species and includes the previous RLP priorities, which NRM South is currently working on.

TABLE 5: Priority EPBC-listed Threatened Species in southern Tasmania

Priority Species	Further information
Australasian bittern	Draft Recovery Plan 2020
Eastern curlew	Conservation Advice 2015 and Scorecard 2018
Hooded plover (eastern)	Conservation Advice 2014 and Scorecard 2018
Orange-bellied parrot	Recovery Plan 2016
Swift parrot	Draft Recovery Plan 2019
Eastern quoll	Recovery Plan 2016
New Holland mouse	Conservation Advice 2010
Maugean skate	Conservation Advice 2008
Red handfish	Recovery Plan 2015
Swan galaxias	Recovery Plan 2006
Growling grass frog (also known as the southern bell frog, and more widely known as the green and gold frog in Tasmania)	Recovery Plan 2009
Ammonite snail	Conservation Advice 2014
Forty-spotted pardalotes	Recovery Plan 2006
Southport heath	Conservation Advice 2016 and Recovery Plan 1999
Morrisby's gum	Recovery Plan 2006
Giant freshwater crayfish	Recovery Plan 2017

As described in Section 8.3 of the Strategy, it is noted that new or different priorities for threatened species may emerge (or changing issues or threats) which will require some agility in prioritisation. For example, there may be new species, ecological communities or priority areas (habitats) that are under severe or imminent threat and require action. It is also noted that the Australian Government may seek to contract projects for Investment Priorities that are additional to those prioritised by the planning process.

Ten RLP priority threatened species have been prioritised (as high and medium priority) through the Multi-Criteria Analysis used for strategy development. These are shown in Table 6, and described in Section 7.4 of the 2030 NRM Strategy document.

TABLE 6: **Results of the Multi-Criteria Analysis for threatened species in southern Tasmania**

Ramsar sites	MCA priority level
Australasian bittern (see Figure 3)	Not prioritised at this time
Eastern curlew (see Figure 4)	Not prioritised at this time
Hooded plover (eastern) (Figure 5)	High priority for investment
Orange-bellied parrot (see Figure 6)	High priority for investment
Swift parrot (see Figure 7)	High priority for investment
Eastern quoll (see Figure 8)	High priority for investment
New Holland mouse (see Figure 9)	Not prioritised at this time
Maugean skate (see Figure 10)	Not prioritised at this time
Red handfish (see Figure 11)	High priority for investment
Swan galaxias (see Figure 12)	High priority for investment
Growling grass frog (also known as the southern bell frog, and more widely known as the green and gold frog in Tasmania) (see Figure 13)	Medium priority for investment
Ammonite snail (see Figure 14)	Not prioritised at this time
Forty-spotted pardalotes (see Figure 15)	High priority for investment
Southport heath (see Figure 16)	High priority for investment
Morrisby's gum (see Figure 17)	High priority for investment
Giant freshwater crayfish (see Figure 18)	Not prioritised at this time

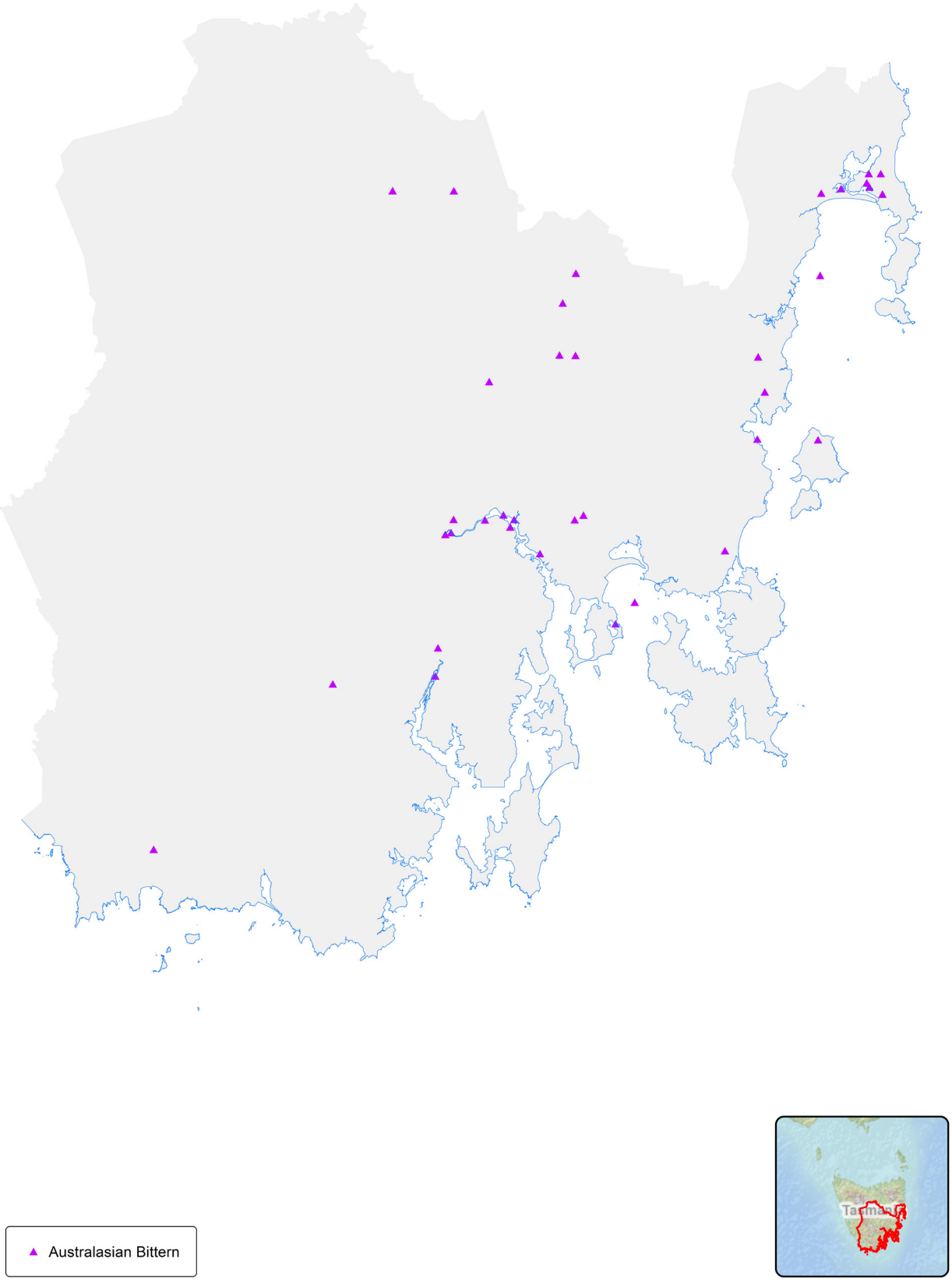

FIGURE 3: **Map showing locations of Australasian bittern records in the southern region**

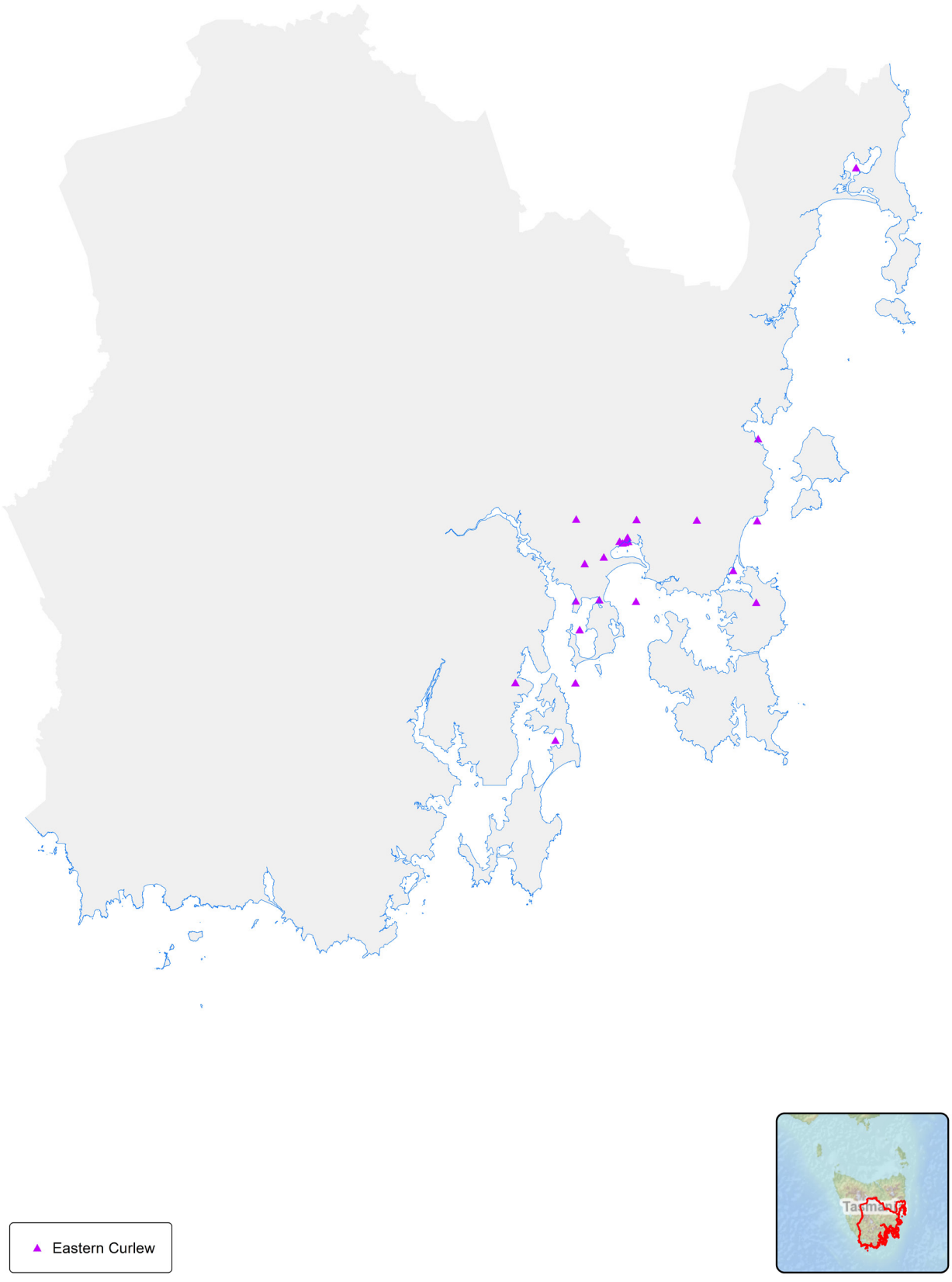

FIGURE 4: **Map showing locations of eastern curlew records in the southern region**

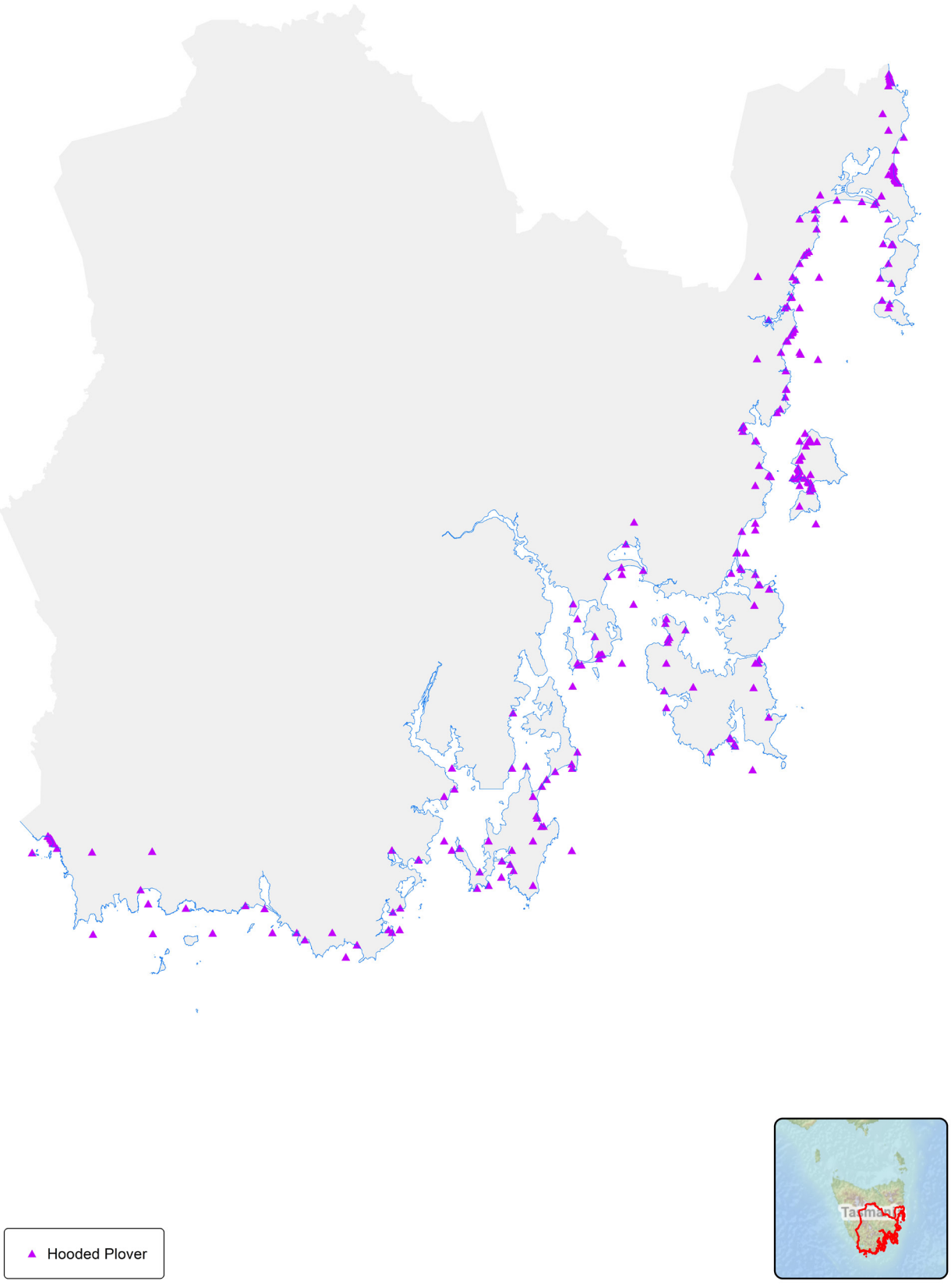

FIGURE 5: **Map showing locations of hooded plover (eastern) records in the southern region**

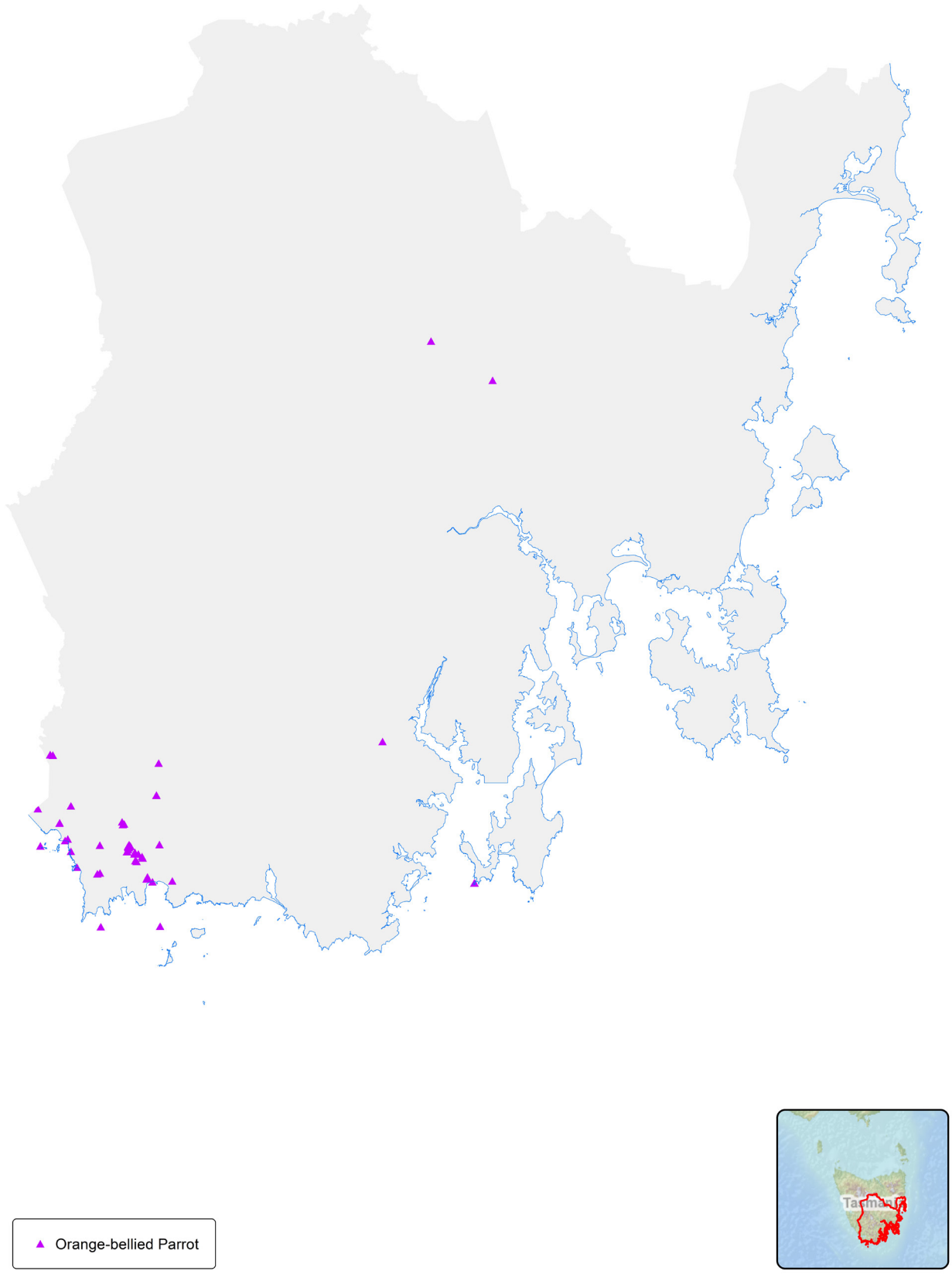

FIGURE 6: **Map showing locations of orange-bellied parrot records in the southern region**

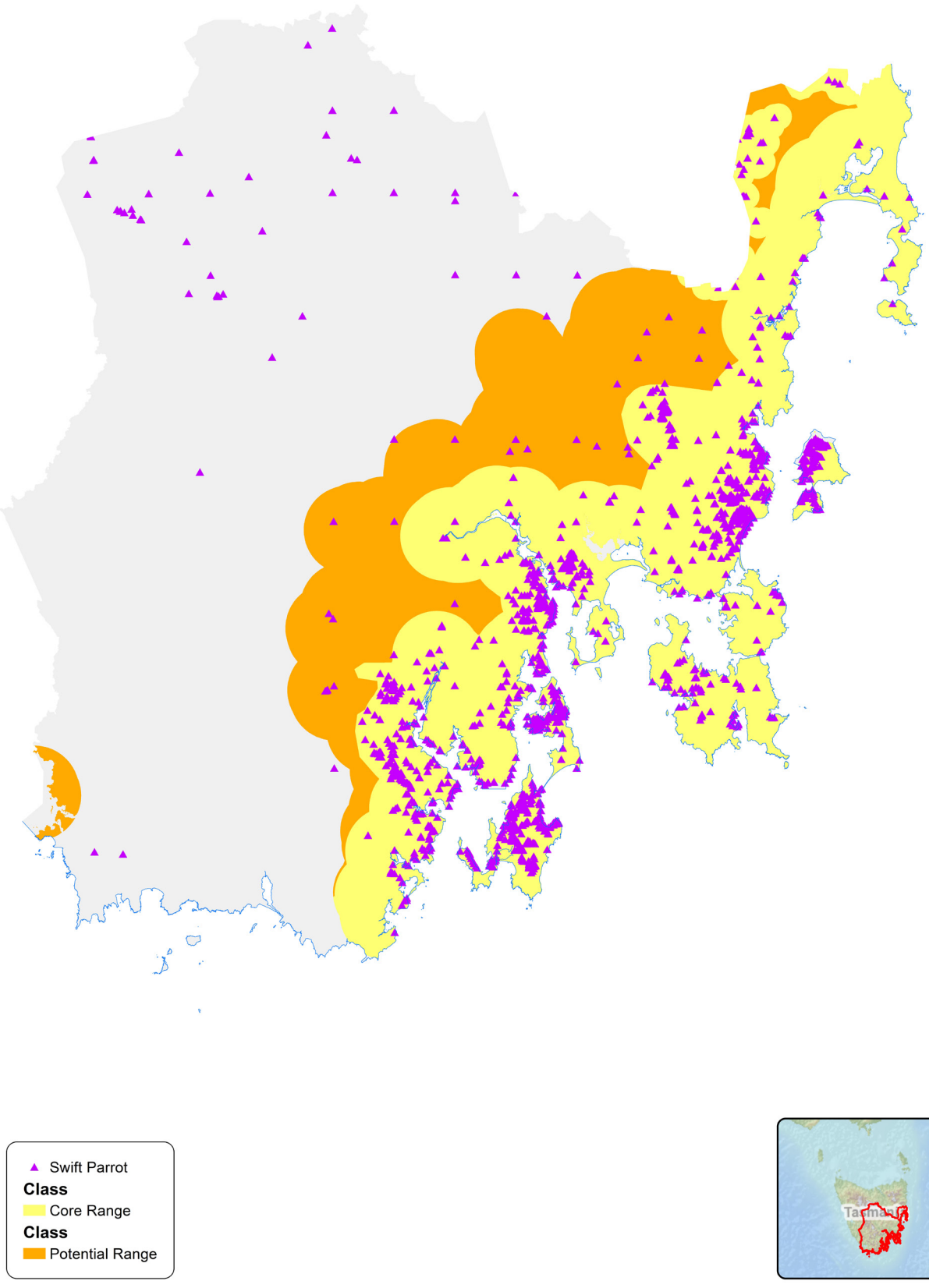

FIGURE 7: **Map showing locations of swift parrot records and habitat in the southern region**

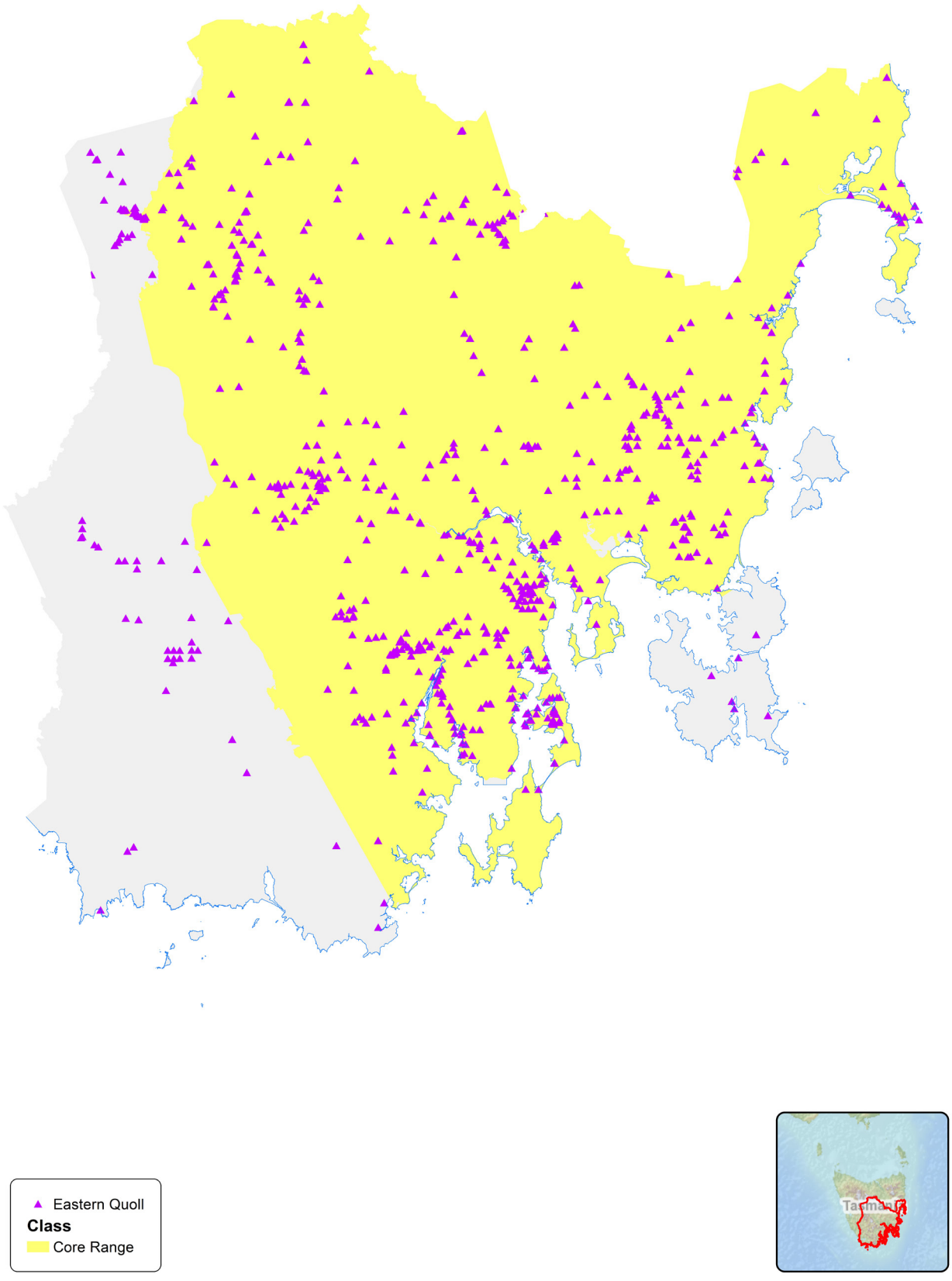

FIGURE 8: Map showing locations of eastern quoll records and habitat in the southern region

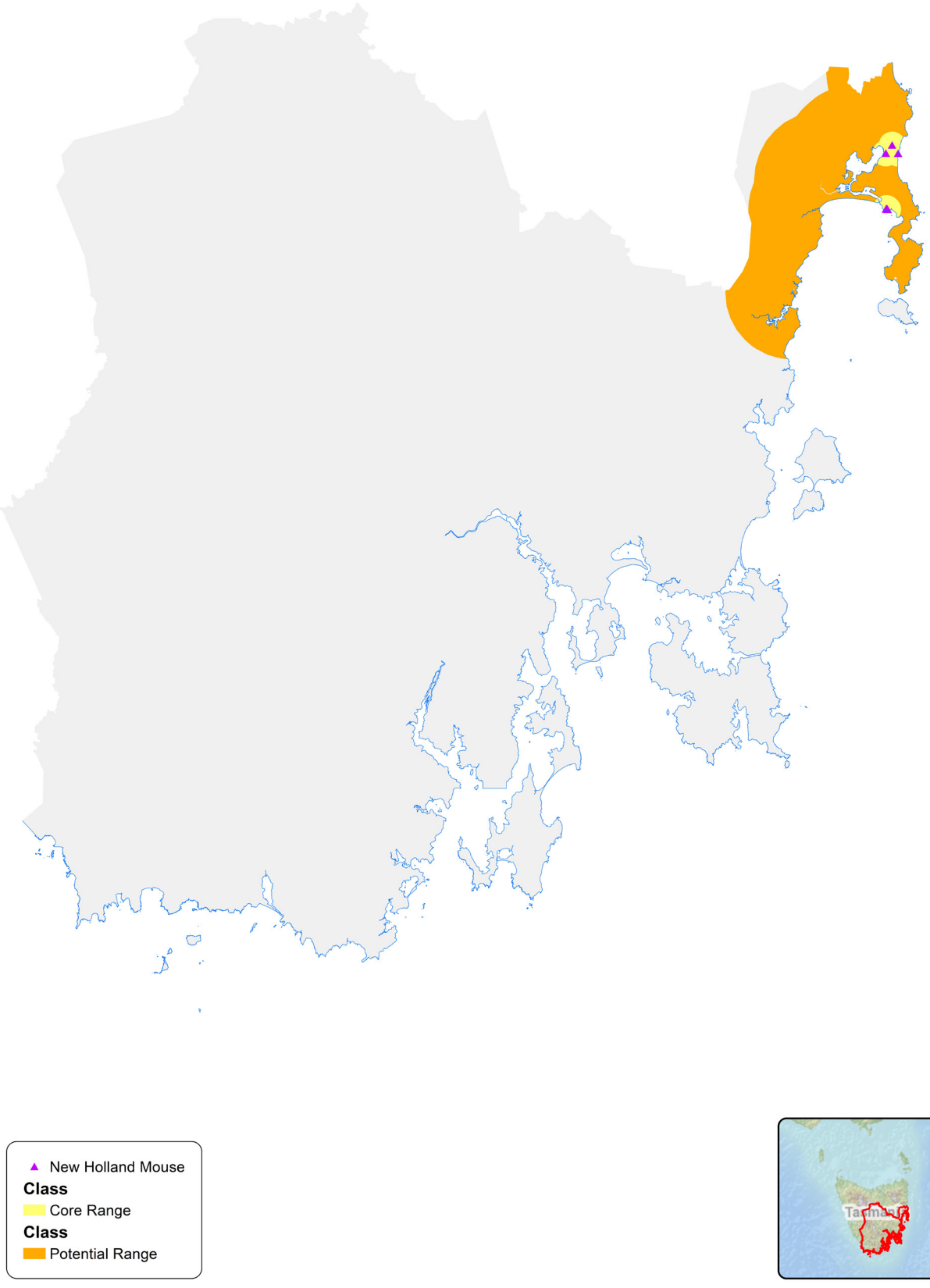

FIGURE 9: **Map showing locations of New Holland mouse records and habitat in the southern region**

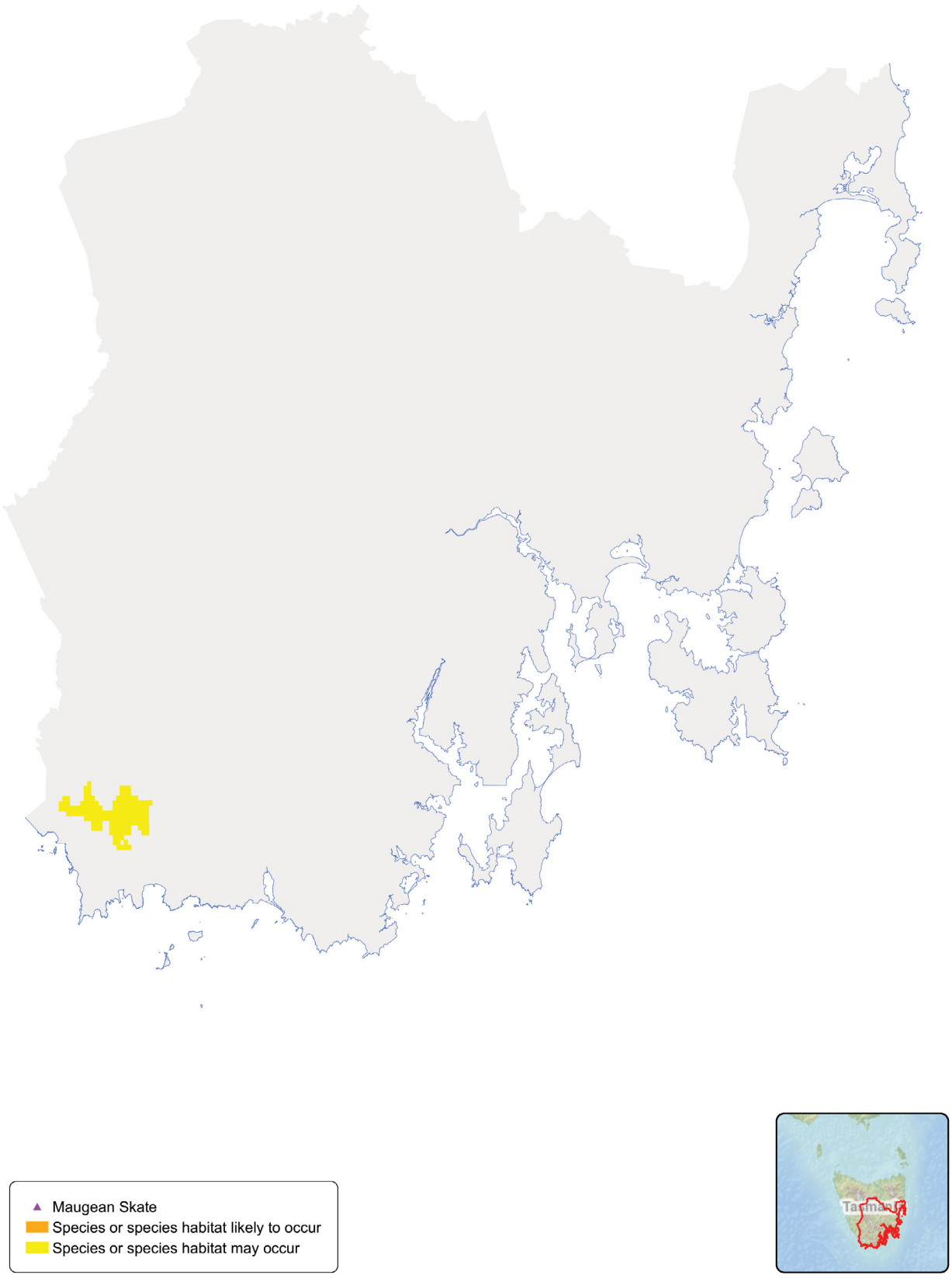

FIGURE 10: **Map showing locations of Maugean skate potential habitat in the southern region**

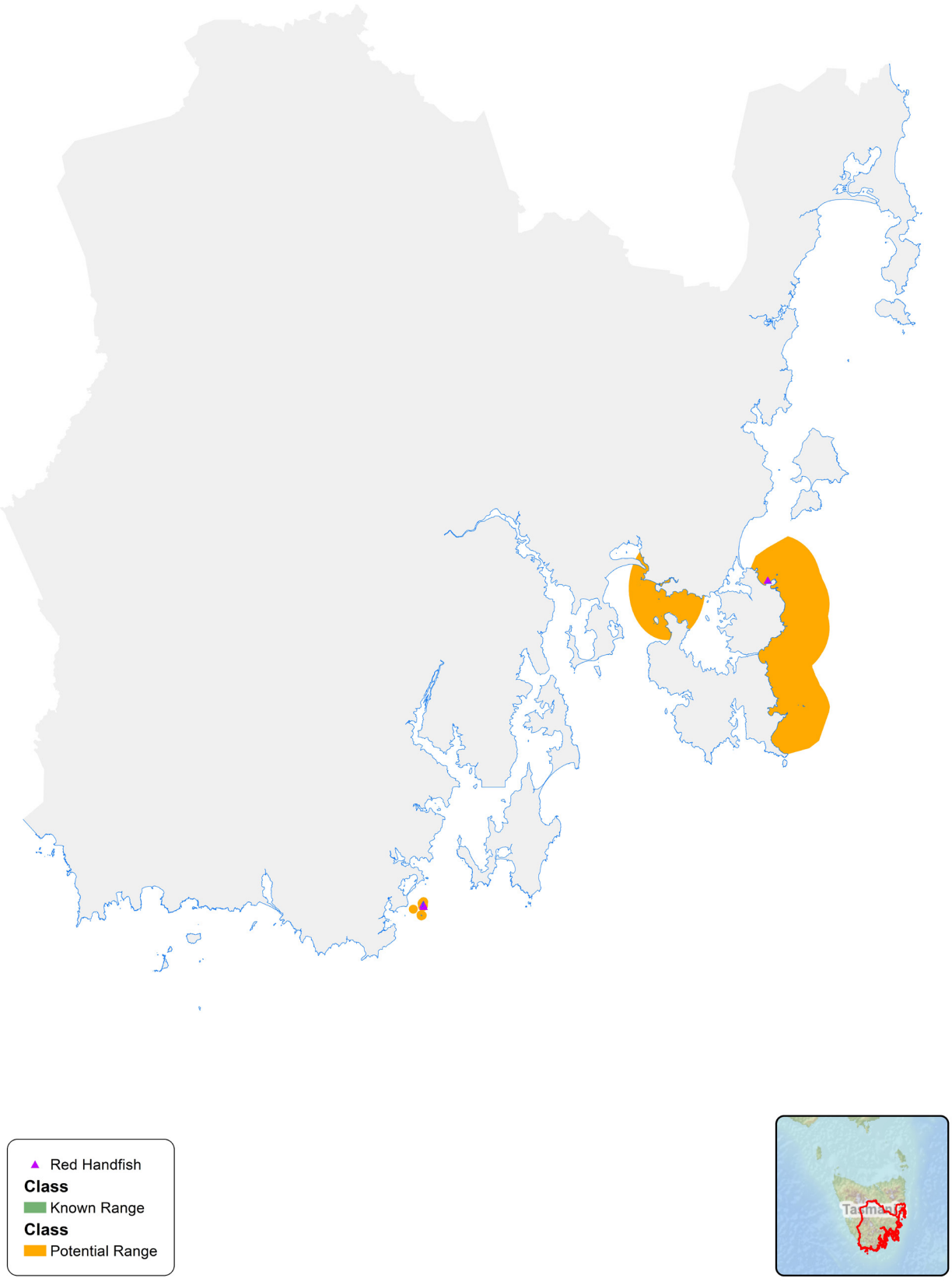

FIGURE 11: **Map showing locations of red handfish records and habitat in the southern region**

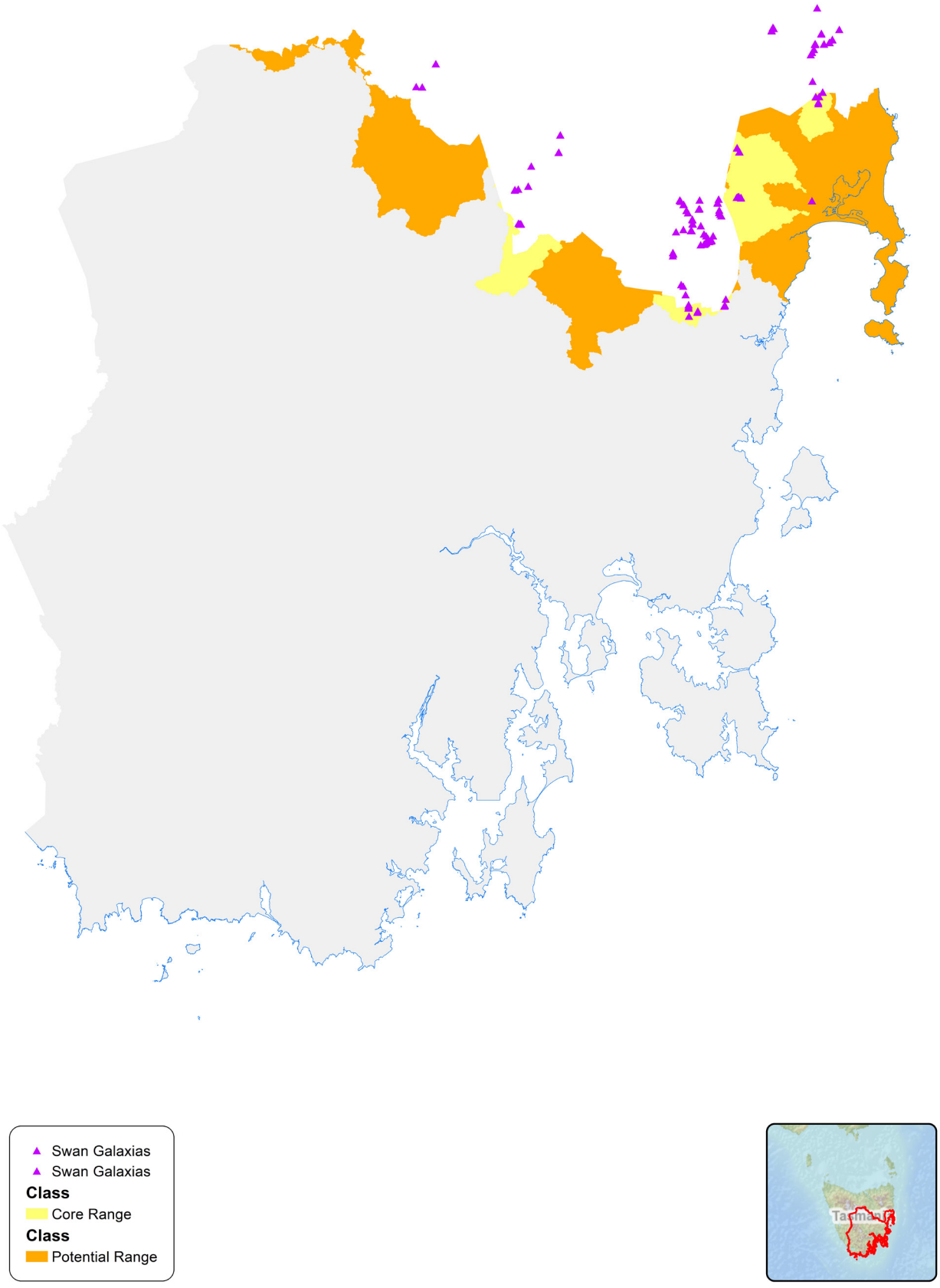

FIGURE 12: **Map showing locations of Swan galaxias records and habitat in the southern region**

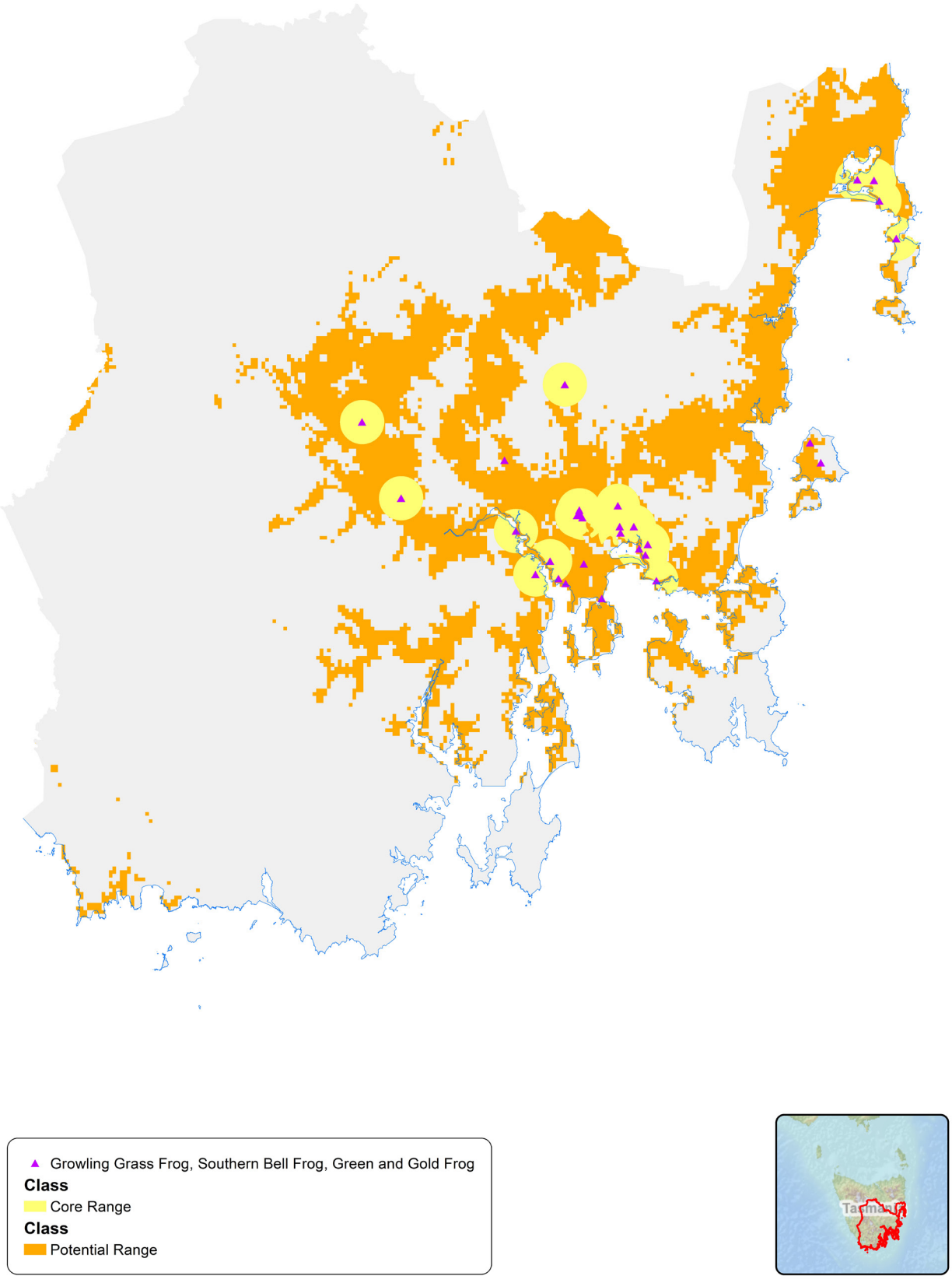

FIGURE 13: **Map showing locations of growling grass frog records and habitat in the southern region**

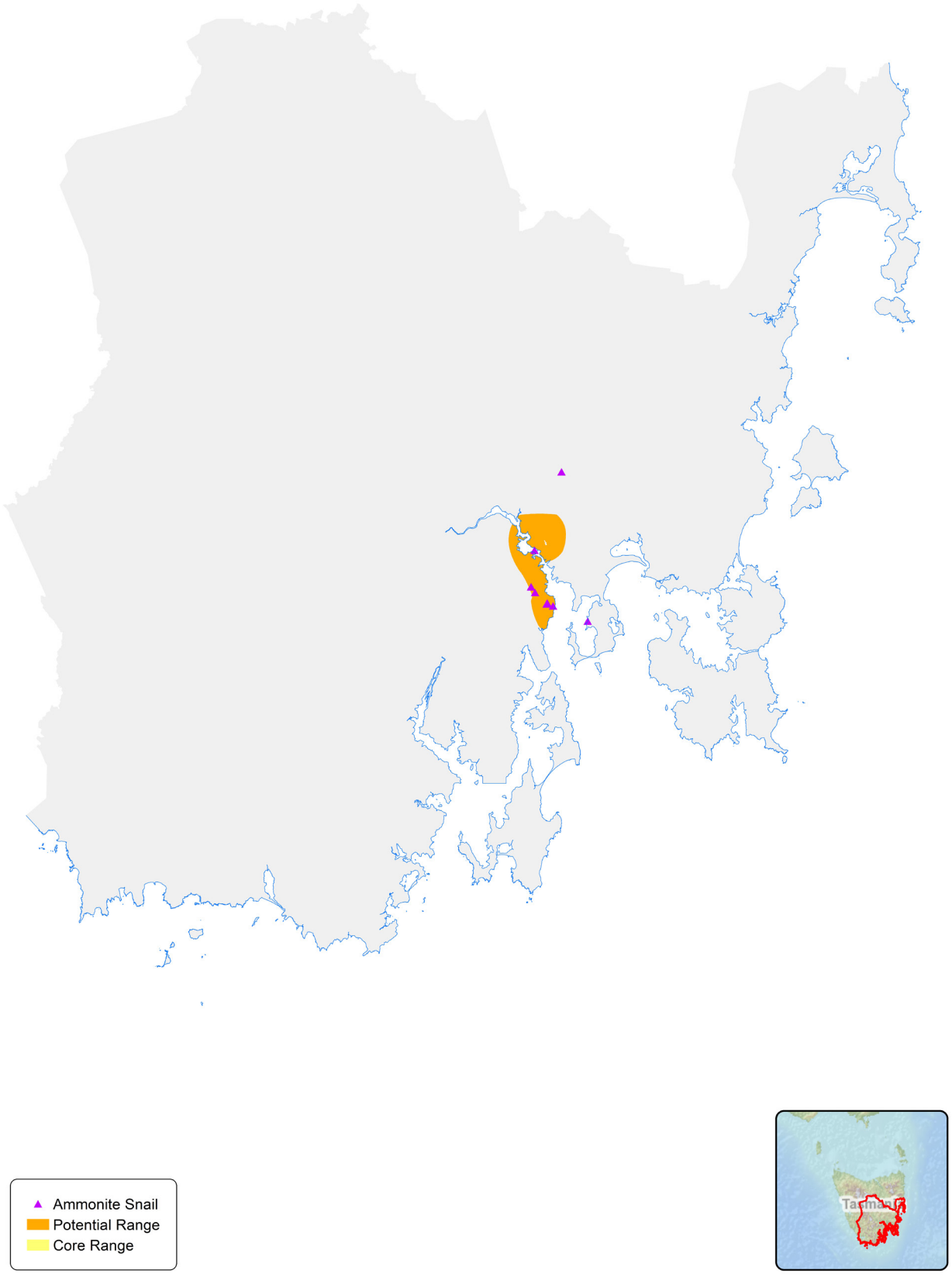

FIGURE 14: **Map showing locations of ammonite snail records and habitat in the southern region**

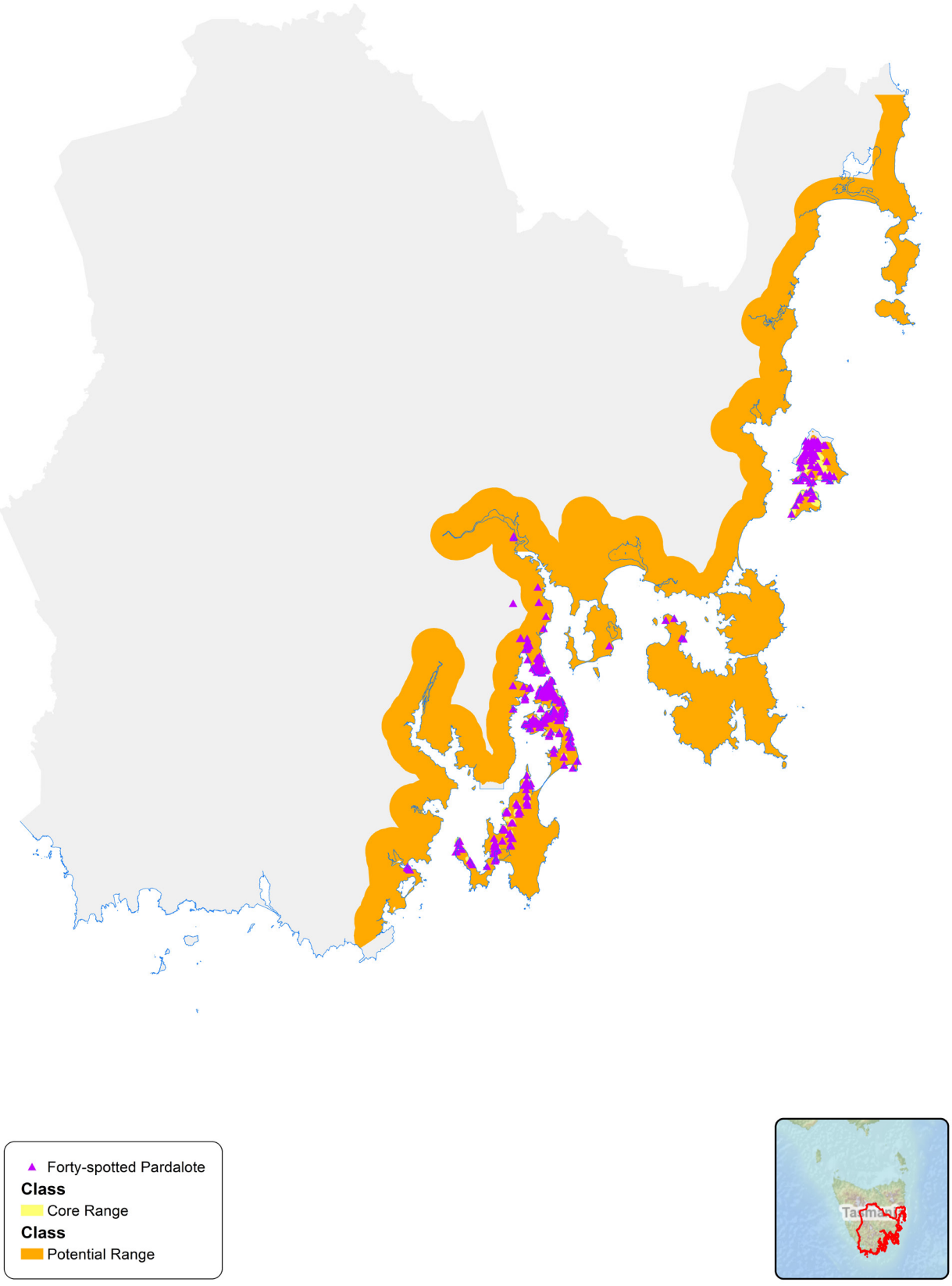

FIGURE 15: **Map showing locations of forty-spotted pardalotes records and habitat in the southern region**

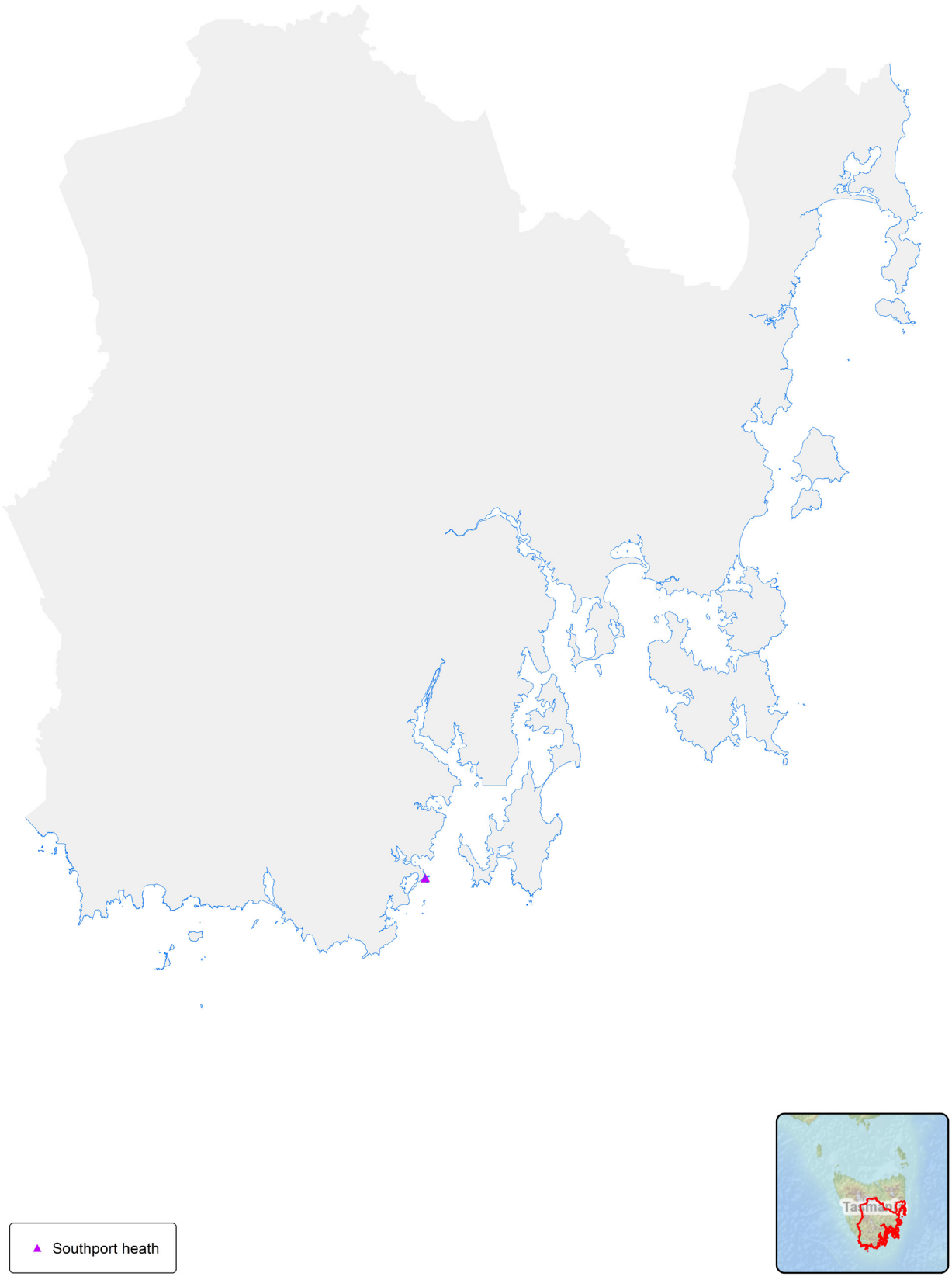

FIGURE 16: **Map showing locations of Southport heath records in the southern region**

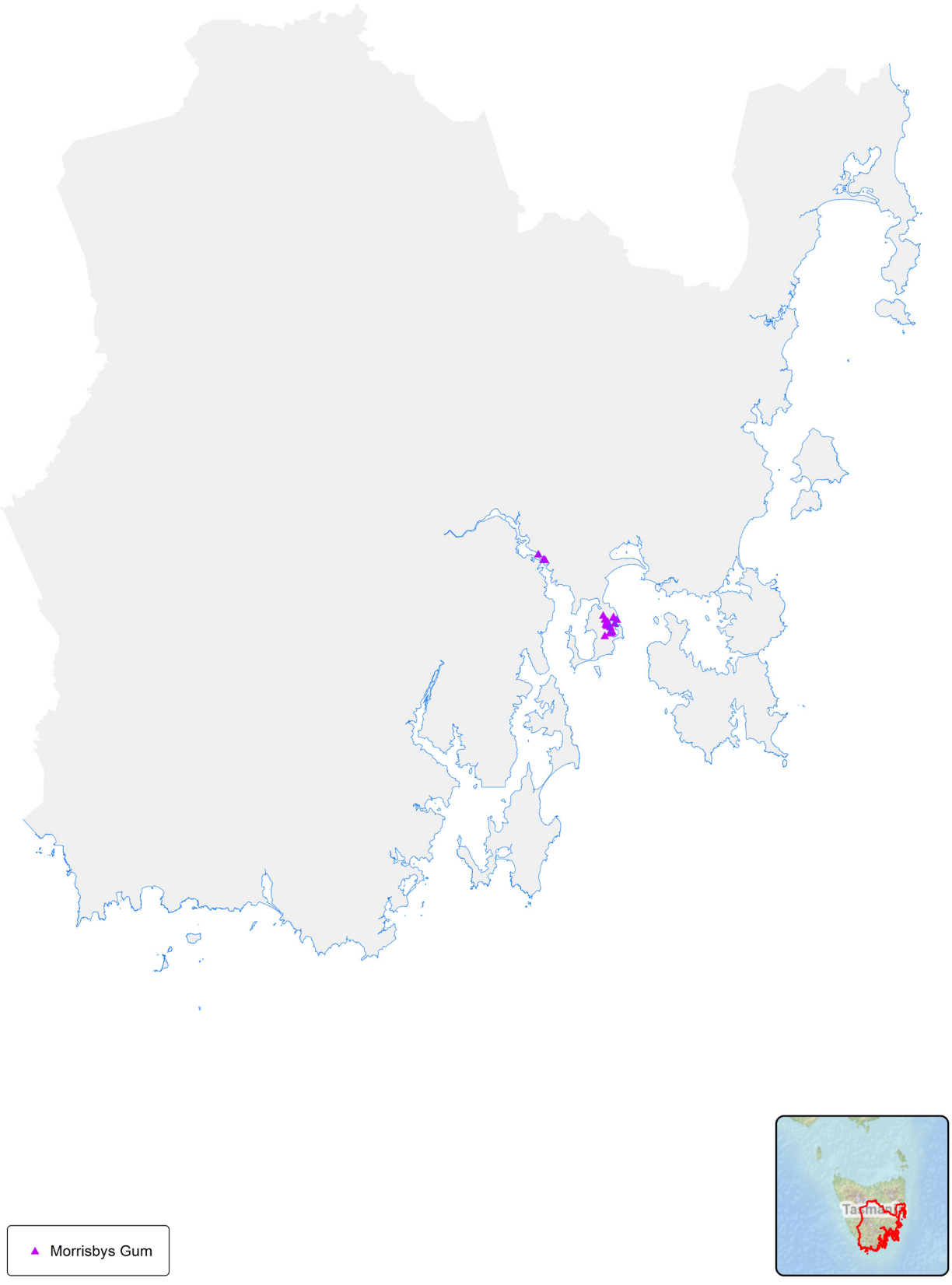

FIGURE 17: **Map showing locations of Morrisby's gum records in the southern region**

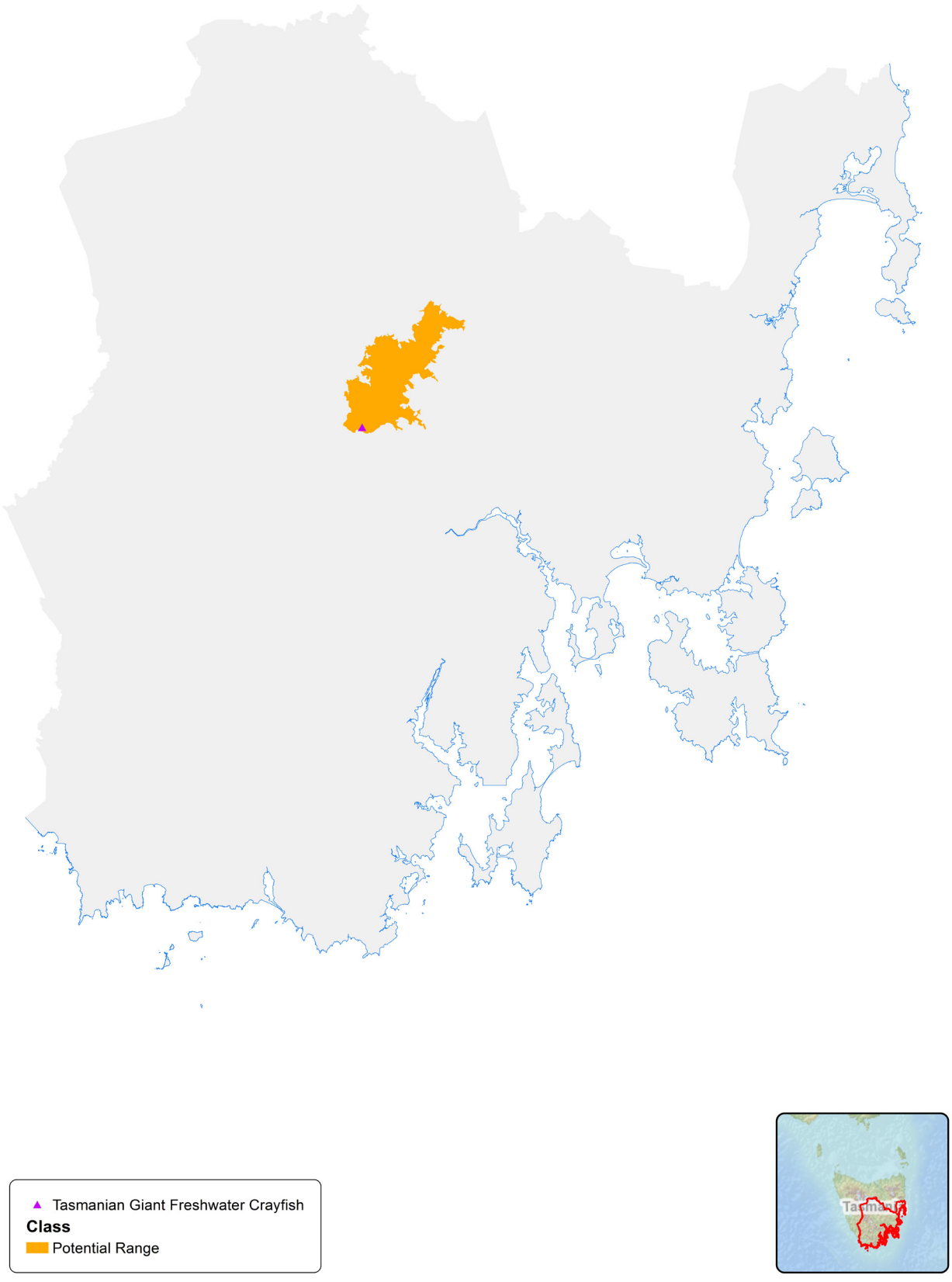

FIGURE 18: **Map showing locations of giant freshwater crayfish records and potential range in the southern region**

CASE STUDY: **RLP OUTCOME 2 – The trajectory of species targeted under the Threatened Species Strategy, and other EPBC Act priority species, is improved.**

BRINGING MORRISBY'S GUM BACK FROM THE BRINK

Morrisby's gum (Eucalyptus morrisbyi) is unique to Tasmania and one of 30 priority plant species listed in Australia's Threatened Species Strategy. It has seen a sharp decline over the last two decades, from around 2,000 mature trees to only around 50 today. Its decline is driven by factors including climate change, drying conditions, and insect and browser attack.

Working in partnership with Enviro-dynamics, NRM South is leading a project that aims to bring Morrisby's gum back from the brink of extinction. On-ground actions have already seen positive results. Community initiatives such as encouraging plantings to boost Morrisby's gum numbers and improve connectivity between populations has seen great engagement with the local community.

As well as getting new seedlings planted across its natural range, this engagement has also led to the discovery of previously unknown, established plantings. The data collected from these historical plantings has proved invaluable in the design of future revegetation efforts.

Other initiatives include protecting remaining plants from native mammal browsers, wildfire and extreme hot and dry conditions; establishing new plantings in the modelled future climate region of the species; and building up genetically diverse seed bank reserves. Together, these actions are working towards the ultimate goal of downlisting Morrisby's gum from critically endangered to endangered (as defined by the IUCN Red List criteria) by 2038.

2.2.1 EPBC listed threatened species in southern Tasmania

There are 114 species listed as threatened (Vulnerable, Endangered or Critically Endangered) under the EPBC Act in southern Tasmania (excluding species from Macquarie Island) (Table 7). Note that some species have been identified as a 'medium priority for investment', but were ultimately not included in the 2030 NRM Strategy – because they scored lower in the MCA criteria (e.g. data and knowledge is deficient, other organisations are working on that species, and/or NRM South is unable to make a meaningful impact on the trajectory of the species with investment).

TABLE 7: Threatened species listed under the EPBC Act in southern Tasmania The colour coding refers to the priority determined from the MCA

Scientific name	Common name	Status	MCA priority
FLORA			
Acacia axillaris	Midlands wattle	Vulnerable	Not prioritised at this time
Asplenium hookerianum	maidenhair spleenwort	Vulnerable	Not prioritised at this time
Ballantinia antipoda	southern shepherds purse	Endangered	Not prioritised at this time
Barbarea australis	riverbed wintercress	Endangered	Not prioritised at this time
Bertya tasmanica subsp. Tasmanica	Tasmanian bertya	Endangered	Not prioritised at this time
Caladenia anthracina	blacktip spider-orchid	Critically Endangered	Not prioritised at this time
Caladenia caudata	tailed spider-orchid	Vulnerable	Not prioritised at this time
Caladenia pallida	rosy spider-orchid	Critically Endangered	Not prioritised at this time
Caladenia saggicola	sagg spider-orchid	Critically Endangered	Medium priority for investment
Callitris oblonga subsp. oblonga	South Esk pine	Endangered	High priority for investment
Centrolepis pedderensis	Pedder bristlewort	Endangered	Not prioritised at this time
Colobanthus curtisiae	grassland cupflower	Vulnerable	Not prioritised at this time
Conospermum hookeri	Tasmanian smokebush	Vulnerable	Not prioritised at this time

Corunastylis firthii	firth's midge-orchid	Critically Endangered	Not prioritised at this time
Dianella amoena	grassland flaxlily	Endangered	Not prioritised at this time
Epacris barbata	bearded heath	Endangered	Not prioritised at this time
Epacris stuartii	southport heath	Critically Endangered	Medium priority for investment
Eucalyptus gunnii subsp. divaricata	miena cider gum	Endangered	Medium priority for investment
Eucalyptus morrisbyi	Morrisbys gum	Endangered	Medium priority for investment
Euphrasia amphisysepala	shiny cliff-eyebright	Vulnerable	Not prioritised at this time
Euphrasia fragosa	shy eyebright	Critically Endangered	Not prioritised at this time
Euphrasia gibbsiae subsp. psilantherea	swamp eyebright	Critically Endangered	Not prioritised at this time
Euphrasia semipicta	peninsula eyebright	Endangered	Not prioritised at this time
Euphrasia sp.	Bivouac Bay masked cliff-eyebright	Endangered	Not prioritised at this time
Hibbertia basaltica	basalt guineaflower	Endangered	Not prioritised at this time
Hibbertia sp.	Richmond dolerite	Endangered	Not prioritised at this time
Lepidium hyssopifolium	soft peppercress	Endangered	Not prioritised at this time
Leucochrysum albicans subsp. tricolor	grassland paperdaisy	Endangered	Not prioritised at this time
Limonium australe var. baudinii	Tasmanian sea-lavender	Vulnerable	Medium priority for investment
Ozothamnus reflexifolius	reflexed everlastingbush	Vulnerable	Not prioritised at this time
Prasophyllum milfordense	Milford leek-orchid	Critically Endangered	Medium priority for investment
Sagina diemensis	tasmanian pearlwort	Endangered	Not prioritised at this time
Thesium australe	southern toadflax	Vulnerable	Not prioritised at this time
Thynninorchis nothofagicola	myrtle elbow orchid	Critically Endangered	Not prioritised at this time
Epacris apsleyensis	Apsley heath	Endangered	Not prioritised at this time

Euphrasia phragmostoma	hairy cliff-eyebright	Vulnerable	Not prioritised at this time
Glycine latrobeana	clover glycine	Vulnerable	Not prioritised at this time
Philotheca freyciana	Freycinet waxflower	Endangered	Not prioritised at this time
Pomaderris pilifera subsp. talpicutica	moleskin dogwood	Vulnerable	Not prioritised at this time
Poranthera petalifera	mountain poranthera	Vulnerable	Not prioritised at this time
Prasophyllum amoenum	dainty leek-orchid	Endangered	Not prioritised at this time
Prasophyllum apoxychilum	tapered leek-orchid	Endangered	Not prioritised at this time
Prasophyllum castaneum	chestnut leek-orchid	Critically Endangered	Not prioritised at this time
Prasophyllum crebriflorum	crowded leek-orchid	Endangered	Not prioritised at this time
Prasophyllum perangustum	Knocklofty leek-orchid	Critically Endangered	Not prioritised at this time
Prasophyllum pulchellum	pretty leek-orchid	Critically Endangered	Not prioritised at this time
Pterostylis pratensis	liawenee greenhood	Vulnerable	Not prioritised at this time
Pterostylis wapstrarum	fleshy greenhood	Critically Endangered	Medium priority for investment
Pterostylis ziegeleri	grassland greenhood	Vulnerable	Not prioritised at this time
Spyridium lawrencei	small-leaf dustymiller	Endangered	Not prioritised at this time
Stenanthemum pimeleoides	propeller plant	Vulnerable	Not prioritised at this time
Thelymitra jonesii	skyblue sun-orchid	Endangered	Not prioritised at this time
Xanthorrhoea aff. arenaria	sand grasstree	Vulnerable	Not prioritised at this time

FAUNA			
Antipodia chaostola subsp. leucophaea	chaostola skipper	Endangered	Medium priority for investment
Aquila audax subsp. fleayi	Tasmanian wedge-tailed eagle	Endangered	High priority for investment
Arctocephalus tropicalis	sub-Antarctic fur seal	Vulnerable	Not prioritised at this time
Astacopsis gouldi	giant freshwater crayfish	Vulnerable	Not prioritised at this time
Balaenoptera borealis	sei whale	Vulnerable	Not prioritised at this time
Balaenoptera musculus	blue whale	Endangered	Not prioritised at this time
Balaenoptera physalus	fin whale	Vulnerable	Not prioritised at this time
Botaurus poiciloptilus	Australasian bittern	AG priority	Not prioritised at this time
Brachionichthys hirsutus	spotted handfish	Critically Endangered	High priority for investment
Brachiopsilus ziebelli	Ziebell's Handfish	Vulnerable	Medium priority for investment
Calidris ferruginea	curlew sandpiper	Critically Endangered	Medium priority for investment
Calidris tenuirostris	great knot	Critically Endangered	Medium priority for investment
Caretta caretta	loggerhead turtle	Endangered	Not prioritised at this time
Ceyx azureus subsp. diemenensis	Tasmanian azure kingfisher	Endangered	Not prioritised at this time
Charadrius leschenaultii	greater sand plover	Vulnerable	Not prioritised at this time
Charadrius mongolus subsp. mongolus	Mongolian plover	Endangered	Not prioritised at this time
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	Vulnerable	Medium priority for investment
Dasyurus viverrinus	eastern quoll	AG priority	High priority for investment
Dermochelys coriacea	leatherback turtle	Vulnerable	Not prioritised at this time
Diomedea cauta subsp. cauta	shy albatross	Vulnerable	Not prioritised at this time
Diomedea epomophora subsp. Epomophora	Royal albatross	Vulnerable	Not prioritised at this time

Diomedea exulans subsp. chionoptera	wandering albatross	Vulnerable	Not prioritised at this time
Diomedea melanophrys subsp. melanophrys	black-browed albatross	Vulnerable	Not prioritised at this time
Discocharopa vigens	ammonite snail	Critically Endangered	Medium priority for investment
Eretmochelys imbricata	hawksbill turtle	Vulnerable	Not prioritised at this time
Eubalaena australis	southern right whale	Endangered	Not prioritised at this time
Galaxias auratus	golden galaxias	Endangered	Not prioritised at this time
Galaxias fontanus	swan galaxias	AG priority	High priority for investment
Galaxias johnstoni	Clarence galaxias	Endangered	High priority for investment
Galaxias parvus	swamp galaxias	Vulnerable	Not prioritised at this time
Halobaena caerulea	blue petrel	Vulnerable	Not prioritised at this time
Lathamus discolor	swift parrot	AG priority	Not prioritised at this time
Recorded Limosa lapponica subsp. baueri	western Alaskan bar-tailed godwit	Vulnerable	Not prioritised at this time
Lissotes latidens	broad-toothed stag beetle	Endangered	Not prioritised at this time
Litoria raniformis	green and gold frog	AG priority	Medium priority for investment
Macronectes giganteus	southern giant-petrel	Endangered	Not prioritised at this time
Macronectes halli	northern giant-petrel	Vulnerable	Not prioritised at this time
Marginaster littoralis	Derwent River seastar	Critically Endangered	Not prioritised at this time
Megaptera novaeangliae	humpback whale	Vulnerable	Not prioritised at this time
Mirounga leonina subsp. macquariensis	southern elephant seal	Vulnerable	Not prioritised at this time
Neophema chrysogaster	orange-bellied parrot	AG priority	High priority for investment
Numenius madagascariensis	eastern curlew	AG priority	Medium priority for investment
Oreixenica ptunarra	ptunarra brown butterfly	Endangered	Medium priority for investment
Pachyptila turtur subantarctica	southern fairy prion	Vulnerable	Not prioritised at this time

Paragalaxias dissimilis	shannon galaxias	Vulnerable	Not prioritised at this time
Pardalotus quadragintus	forty-spotted pardalote	Endangered	High priority for investment
Parvulastra vivipara	live-bearing seastar	Vulnerable	High priority for investment
Perameles gunnii	eastern barred bandicoot	Endangered	High priority for investment
Prototroctes maraena	Australian grayling	Vulnerable	High priority for investment
Pseudomys novaehollandiae	New Holland mouse	AG priority	Medium priority for investment
Pterodroma mollis	soft-plumaged petrel	Vulnerable	Not prioritised at this time
Pteropus poliocephalus	grey-headed flying-fox	Vulnerable	Not prioritised at this time
Sarcophilus harrisii	Tasmanian devil	Endangered	Not prioritised at this time
Sternula nereis subsp. nereis	fairy tern	Vulnerable	Not prioritised at this time
Thalassarche bulleri	Bullers albatross	Vulnerable	Not prioritised at this time
Thalassarche cauta	shy albatross	Vulnerable	Not prioritised at this time
Thalassarche melanophris	black-browed albatross	Vulnerable	Not prioritised at this time
Thinornis rubricollis	hooded plover	AG priority	High priority for investment
Thymichthys politus	red handfish	AG priority	High priority for investment
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	Vulnerable	High priority for investment
Zearaja maugeana	Maugean skate	AG priority	Medium priority for investment

2.3 RLP Outcome 3. Invasive species management has reduced threats to the natural heritage Outstanding Universal Value of the World Heritage properties through the implementation of priority actions

The southern region has six World Heritage sites recognised on the UNESCO World Heritage List (Table 8).

TABLE 8: **UNESCO World Heritage sites in southern Tasmania**

UNESCO World Heritage Sites	Further information
Tasmanian Wilderness World Heritage Area (Figure 19)	Detailed descriptions of the TWWHA can be found in the TWWHA Management Plan 2016, the TWWHA Biosecurity Strategy 2021 and the UNESCO listing
Macquarie Island	World Heritage Places – Macquarie Island – DAWE
Darlington Probation Station (Maria Island)	DAWE listing information
Cascades Female Factory (South Hobart)	DAWE listing information
Coal Mines Historic Site (Tasman Peninsula)	DAWE listing information
Port Arthur Historic Site (Tasman Peninsula)	DAWE listing information

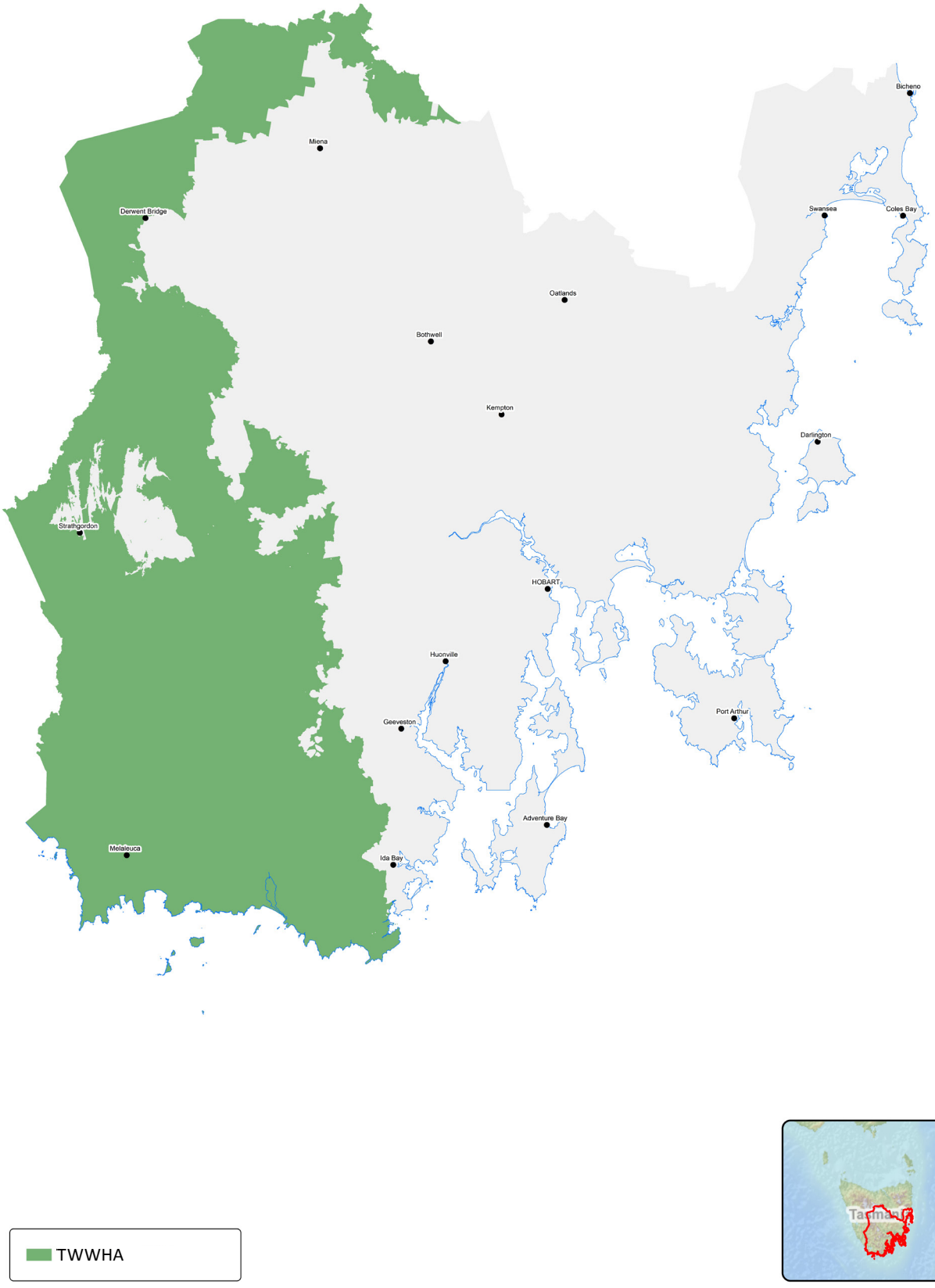

FIGURE 19: **Map showing location of the Tasmanian Wilderness World Heritage Area in Tasmania**

The Tasmanian Wilderness World Heritage Area (TWWHA) is the only site of relevance to the Regional Land Partnerships 5 Year Outcomes (Macquarie Island is not accessible to NRM South). The results of the MCA prioritisation process are shown in Table 9, and described in Section 7.2.3 of the 2030 NRM Strategy document.

TABLE 9: Results of the Multi-Criteria Analysis for UNESCO World Heritage sites in southern Tasmania

UNESCO World Heritage Sites	MCA priority level
Tasmanian Wilderness World Heritage Area (TWWHA)	High priority for investment
Macquarie Island	Not prioritised at this time
Darlington Probation Station (Maria Island)	Not prioritised at this time
Cascades Female Factory (South Hobart)	Not prioritised at this time
Coal Mines Historic Site (Tasman Peninsula)	Not prioritised at this time
Port Arthur Historic Site (Tasman Peninsula)	Not prioritised at this time

CASE STUDY: RLP OUTCOME 3 – The natural heritage Outstanding Universal Value of World Heritage properties is maintained or improved.

BIOSECURITY COORDINATION TO PROTECT THE TWWHA

Over many years, NRM South has supported, developed and promoted key biosecurity resources and initiatives that contribute to protecting Tasmania's environment and reputation as a tourism and food destination.

Our past partnership projects include efforts to protect our native frogs in the Tasmanian Wilderness World Heritage Area from chytrid fungus, working with tourism operators raise awareness about biosecurity protocols for safely visiting remote areas such as Melaleuca and the Gordon River, developing a series of online video resources targeting specific activities such as research, field work and bushwalking, and spearheading the Check, Clean, (Disinfect) Dry awareness campaign across southern Tasmania.

NRM South's biosecurity work in our World Heritage areas has been undertaken in partnership with other organisations, researchers and land managers – including though Tasmania's Biosecurity Network (which was coordinated by NRM South).

Supported by extensive data and mapping services, pro-active community education programs and best practice and well distributed skill sets, we have been able to deliver expertise and resources, develop communication strategies and support our community in best practice protocols, drawing on knowledge from the local to national level.

2.4 RLP Outcome 4. The implementation of priority actions is leading to an improvement in the condition of EPBC listed Threatened Ecological Communities

There are seven Threatened ecological communities listed under the EPBC Act in southern Tasmania (excluding ecological communities from Macquarie Island) (Table 10).

TABLE 10: EPBC listed Threatened Ecological Communities in southern Tasmania

Priority Species	Further information
Alpine sphagnum bogs and associated fens	Recovery Plan 2015
Eucalyptus ovata – Callitris oblonga forest	Recovery Plan 2011
Giant Kelp Marine forests of South East Australia	Conservation Advice 2012 and Fact Sheet 2012
Lowland Native Grasslands of Tasmania	Conservation Advice 2009 and Fact Sheet 2010
Subtropical and Temperate Coastal saltmarsh	Conservation Advice 2018
Tasmanian Forest and Woodlands dominated by black gum or Brookers gum (*E. ovata/E. brookeriana*)	Conservation Advice 2019 and Fact Sheet 2020
Tasmanian white gum (*E. viminalis*) wet forest	Conservation Advice 2021

As described in Section 8.3 of the Strategy, it is recognised that new or different priorities for threatened ecological communities may emerge (or changing issues or threats) requiring some agility. For example, there may be communities or priority areas that are under severe or imminent threat and require action. It is also noted that the Australian Government may seek to contract projects for Investment Priorities that are additional to those prioritised by the planning process.

All RLP priority Threatened Ecological Communities have been prioritised (high or medium) through the MCA used for strategy development. These are shown in Table 11, and described in Section 7.3.3 of the 2030 NRM Strategy document.

TABLE 11: Results of the Multi-Criteria Analysis for EPBC-listed Threatened Ecological Communities in southern Tasmania

UNESCO World Heritage Sites	MCA priority level
Alpine sphagnum bogs and associated fens (see Figure 20)	High priority for investment
Eucalyptus ovata – Callitris oblonga forest (see Figure 21)	Medium priority for investment
Giant Kelp Marine forests of South East Australia (see Figure 22)	Medium priority for investment
Lowland Native Grasslands of Tasmania (see Figure 23)	Medium priority for investment
Subtropical and Temperate Coastal saltmarsh (see Figure 24)	High priority for investment
Tasmanian Forest and Woodlands dominated by black gum or Brookers gum (*E. ovata/E. brookeriana*) (see Figure 25)	High priority for investment
Tasmanian white gum (*E. viminalis*) wet forest (see Figure 26)	Medium priority for investment

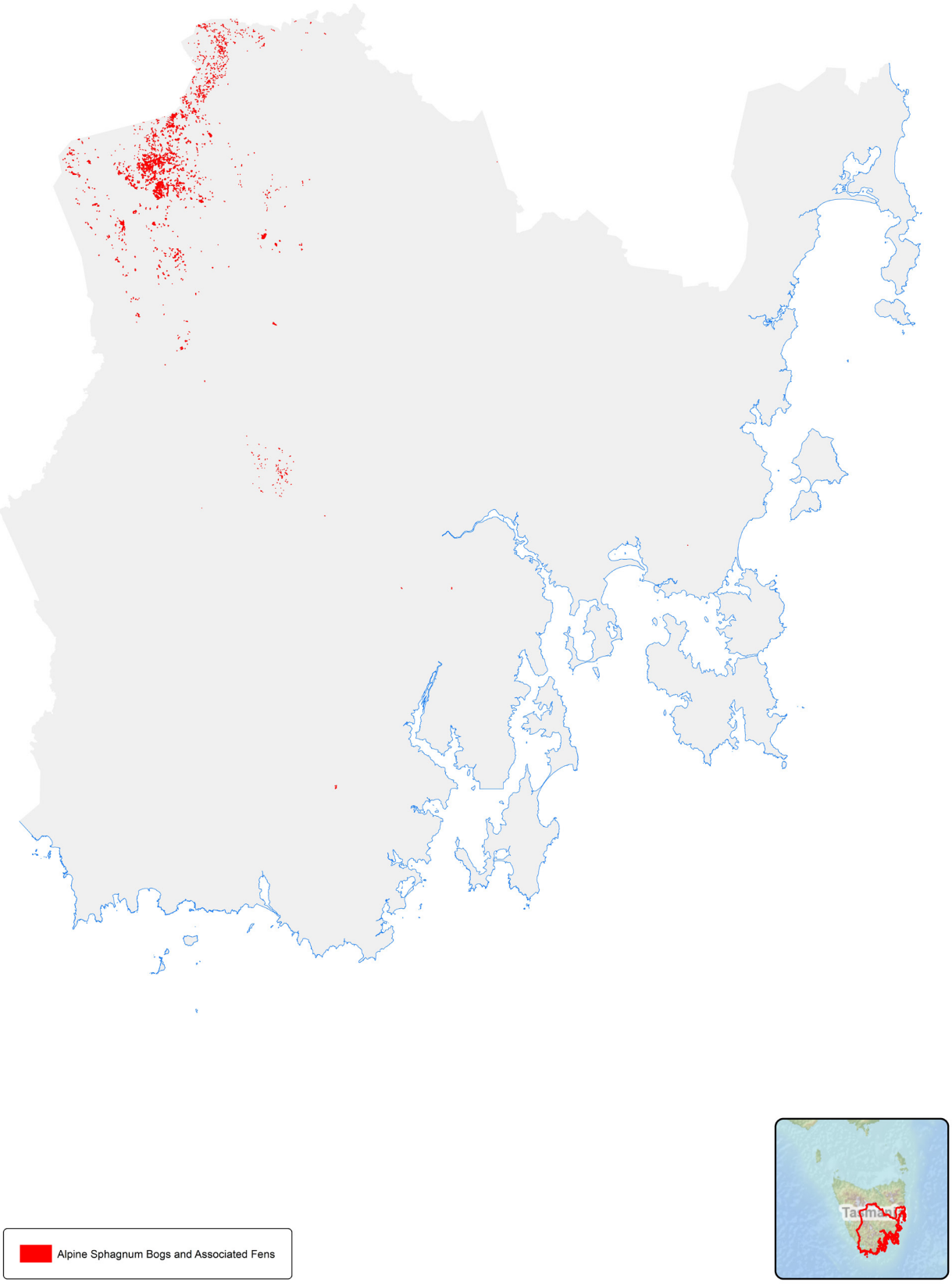

FIGURE 20: **Map showing location of Alpine sphagnum bogs and associated fens in southern Tasmania**

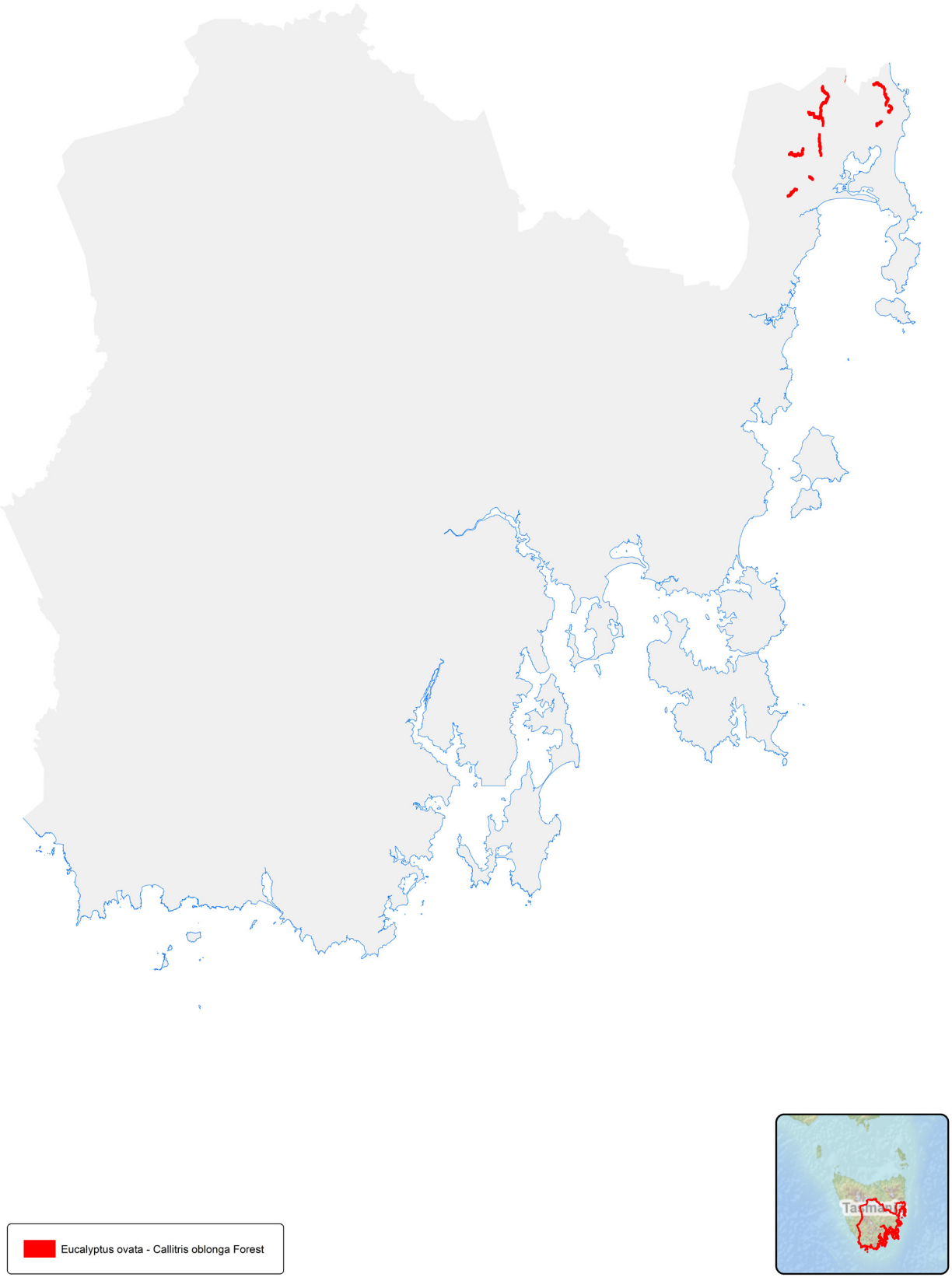

FIGURE 21: **Map showing location of Eucalyptus ovata – Callitris oblonga forest in southern Tasmania**

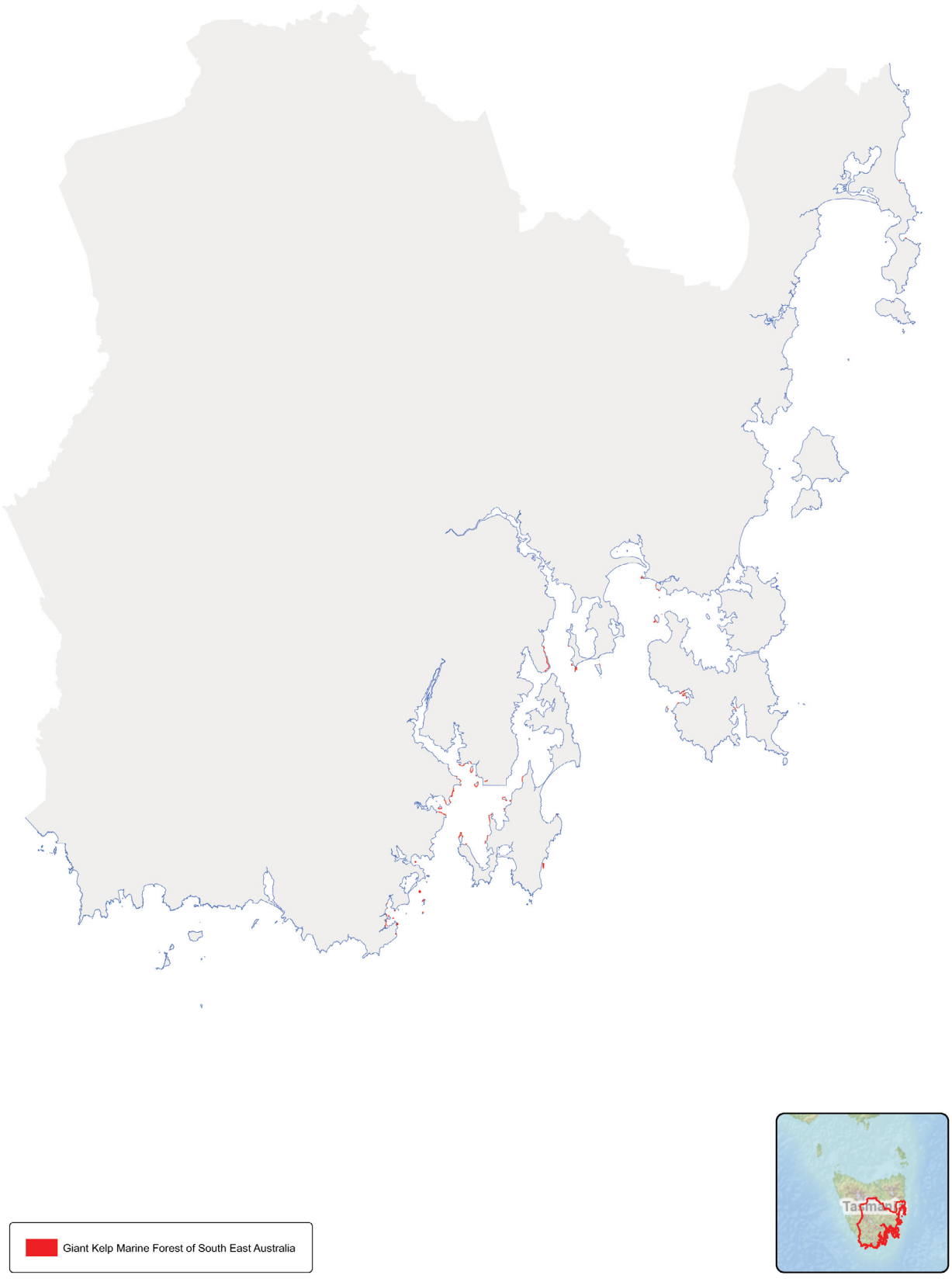

FIGURE 22: **Map showing location of Giant Kelp Marine forests of South East Australia in southern Tasmania (aerial mapping, 2019)**

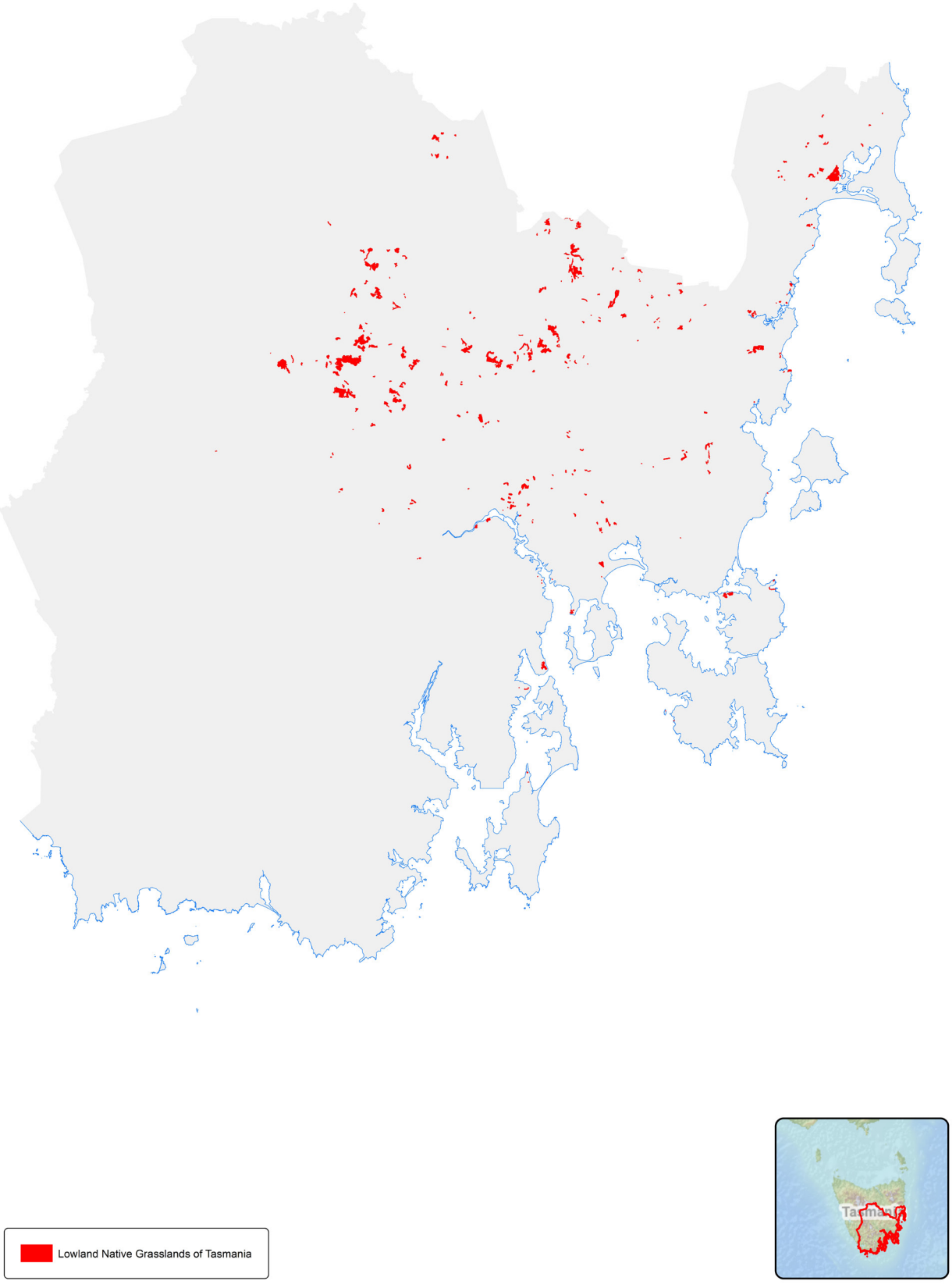

FIGURE 23: **Map showing location of Lowland Native Grasslands of Tasmania (in southern Tasmania)**

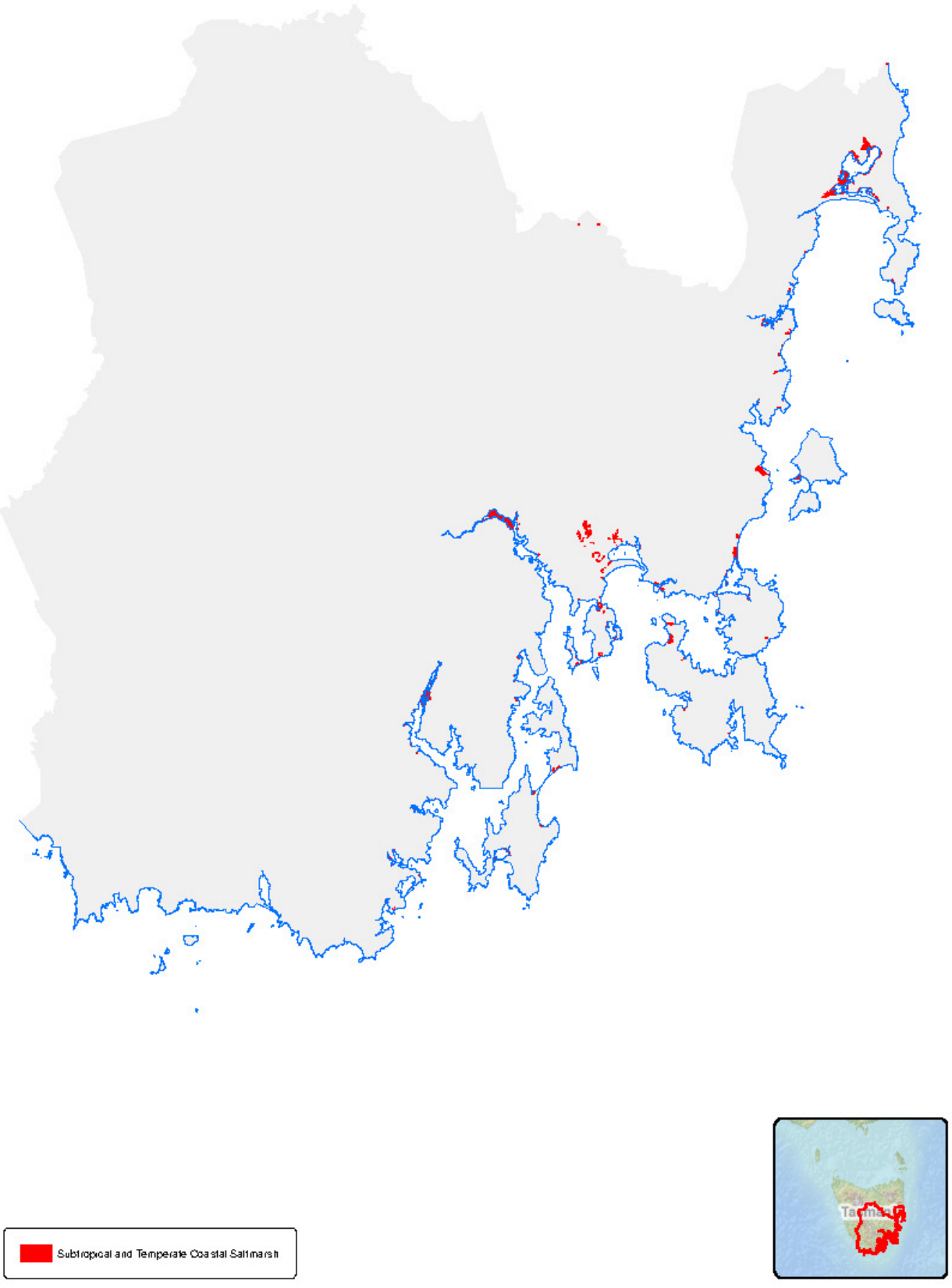

FIGURE 24: **Map showing location of Subtropical and Temperate Coastal saltmarsh in southern Tasmania**

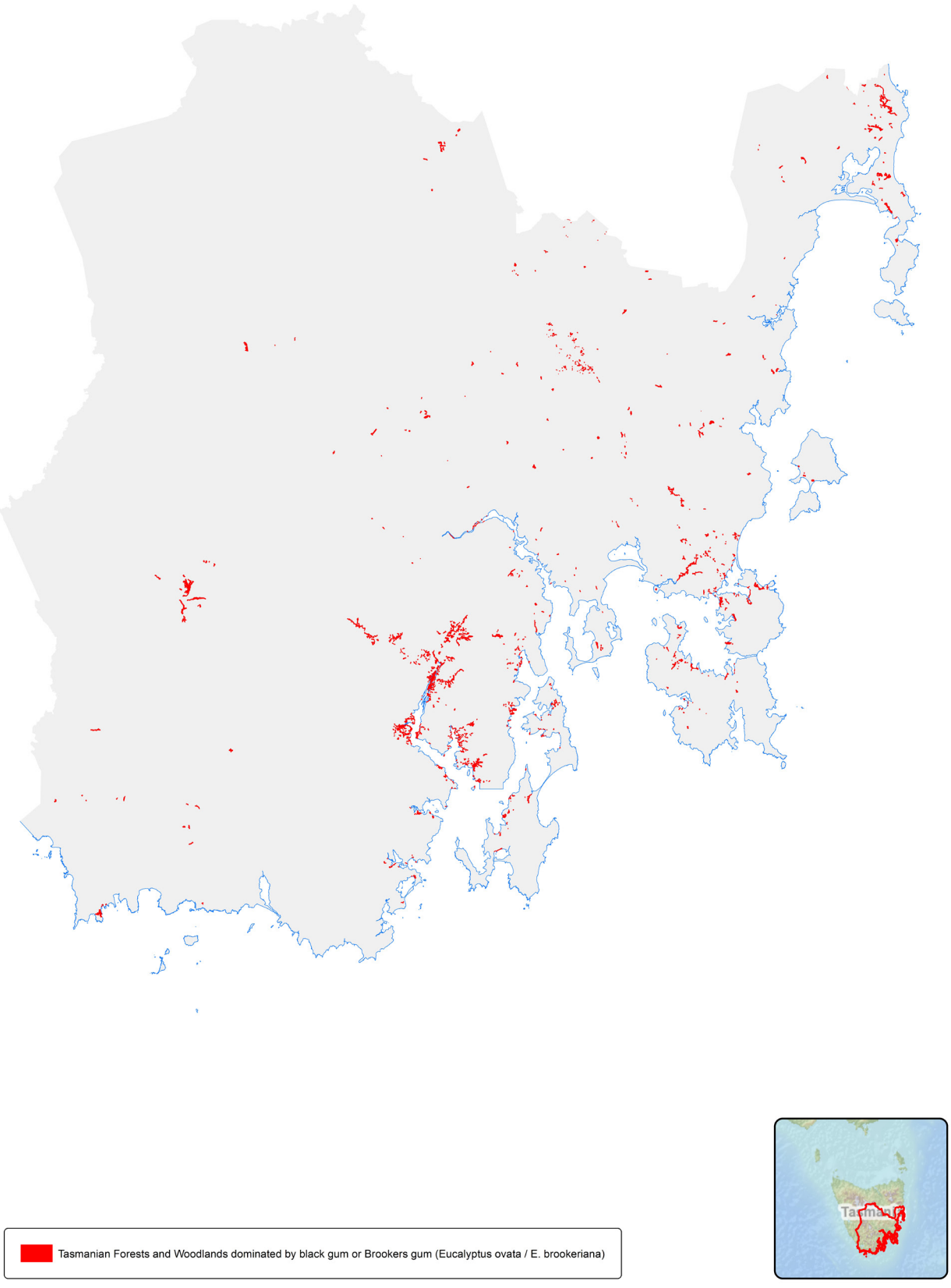

FIGURE 25: **Map showing location of Tasmanian Forest and Woodlands dominated by black gum or Brookers gum (*E. ovata/E. brookeriana*) in southern Tasmania**

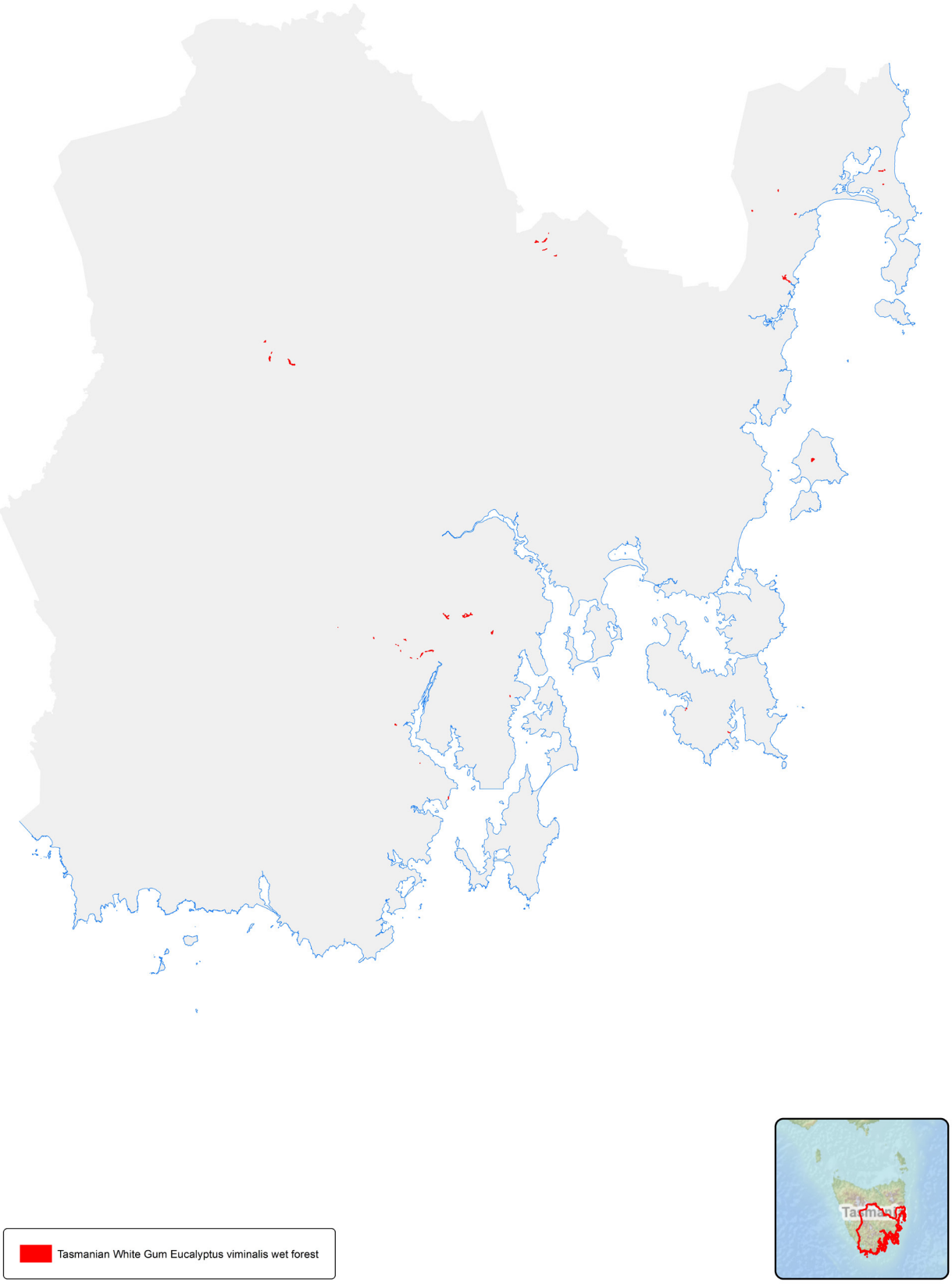

FIGURE 26: **Map showing location of Tasmanian white gum (*E. viminalis*) wet forest in southern Tasmania**

CASE STUDY: **RLP OUTCOME 4 – The condition of EPBC Act listed Threatened Ecological Communities is improved.**

RESTORING TASMANIA'S GIANT KELP FORESTS

Immense forests of giant kelp once formed dense floating canopies around Tasmania's coastline, but today around 95% of this community has vanished. Its decline is linked to climate change and the increasing influence of warm and nutrient poor waters from the East Australian Current. This poses a challenge for conservation as recovery efforts need to consider the continuing influence of warming ocean waters.

Through support from NRM South's 'Tasmanian Smart Seafood Partnership' project with the Tasmanian Seafood Industry Council, researchers have begun investigating the potential for breeding warm-tolerant giant kelp as a solution for future restoration efforts. Early trials are showing positive results and there has already been good recruitment of juvenile warm-tolerant kelp at selected trial sites.

The success of this project could have significant flow-on benefits as healthy giant kelp communities bring immense benefits to society. Not only do they play important roles in cycling of blue carbon and coastal nutrients, but they also provide critical habitat for commercially and recreationally important marine species.

Although questions remain – including how well offspring of these warm-tolerant kelp will perform, and how trial patches will be scaled up to create new forests – the results to date are encouraging and show potential as one of many solutions for adapting to our future climate challenges.

2.5 RLP Outcome 5. There is an increase in the awareness and adoption of land management practices that improve and protect the condition of soil, biodiversity and vegetation.

The Australian Government has identified its approach to the management of soils on agricultural land in the National Soil Strategy 2021. Management of biodiversity and vegetation on agricultural land is informed by assessment of land use change and agricultural development evident in the Australian Bureau of Statistics land use data.

National Soil Strategy goals and objectives are:

- Prioritise soil health
- Empower soil innovation and stewards and
- Strengthen soil knowledge and capability.

The major focus of the Australian Government in respect of vegetation is to:

- Increase stakeholder knowledge and understanding of the scope for NRM improvements through improved management of vegetation on farms and
- Identify (and where possible address) impediments to improved vegetation management on farms.

On farm vegetation management practices are monitored through the Australian Bureau of Statistics' Agricultural Resource Management Survey.

TABLE 12: Australian Government guidance for management of soils, biodiversity and vegetation in southern Tasmania

Priority	Further information
Soils	National Soil Strategy 2021
Soil threats	Priorities for improving soil condition
Land use data	Agricultural sector reporting data (ABS 2017)

A key approach to improving protection of NRM values in the southern region is to support and assist agricultural industries to develop sustainable practices to both protect the environment and to improve production.

Soil erosion including hillslope and wind erosion has and continues to be a key threat to many areas of prime agricultural land. Maintenance of vegetative groundcover is a key issue to minimise the likelihood of soil erosion, particularly in the Derwent Valley, Southern Midlands, east coast and Coal River Valley areas. Land managers need to adapt their practices now and into the future, as the projected impacts of climate change are predicted to potentially exacerbate the risks of soil erosion.

Predicting the impact of the changing climate on soil health, soil carbon storage, and vegetation cover is complex, as human management of these elements will vary greatly and also have considerable impact. Both drought and extreme rainfall events are projected to increase, resulting in extended periods of exposed soils in dryland grazing systems. Reduced vegetation cover leads to increased risk of soil erosion and nutrient loss. Key areas of focus for drought are the Derwent Valley, the Southern Midlands and east coast.

Soil carbon storage is at risk of decline through land-use change and inappropriate land management practices, though the region is relatively high in soil carbon in comparison to the soils of mainland Australia. Land management practices that maintain and support soil carbon are of chief importance to preserve these levels. Soil drainage and soil structure are also closely linked to soil carbon storage and are also heavily influenced by land use change and intensification.

Tasmanian soil carbon stocks are significantly greater than those on mainland Australia, reflecting the lower mean annual temperature and higher precipitation in Tasmania, which result in less oxidation of soil organic matter (Cotching 2012). Within the Southern region of Tasmania potential for increasing storage of soil carbon in agricultural landscapes remains greatest in the Central Highlands, Derwent Valley and Southern Midlands.

In Tasmania, farm biodiversity is declining due to habitat loss from land clearing for conversion to agriculture, increased intensification of agriculture and increased use of pivot irrigation. Land fragmentation particularly subdivision of agricultural land is seen as a risk to economic development of agricultural produce and to increased risk from weeds, pests, diseases and fire management issues.

In southern Tasmania, land clearance and development is concentrated in valley bottom floors, waterway corridors and surrounding estuaries, while the headwaters of many catchments remain largely intact. Areas that have been largely modified include the Derwent Valley, Southern Midlands, Coal River Valley, Huon Valley and scattered areas on the region's eastern and southern parts (NRM South 2016). Areas experiencing land use change through irrigation expansion are likely to experience further loss of biodiversity and on-farm vegetation. Rural tree decline is an issue across large areas of the region including the Southern Midlands and Central Highlands and is a symptom of poor ecological function and is likely to result in further biodiversity losses.

The 2030 NRM Strategy for southern Tasmania addresses the following RLP Outcome 5 priorities:

- Reduce the risk of soil carbon and nutrient loss from wind erosion in priority areas
- Reduce the risk of soil carbon and nutrient loss from hillslope (water) erosion in priority areas
- Increase potential for soil organic carbon storage in priority areas
- Protect and enhance on-farm biodiversity and native vegetation.

Using these RLP Outcome 5 priorities, specific priorities were identified and assessed using the MCA criteria (Table 13).

TABLE 13: **Results of the Multi-Criteria Analysis for soil and on-farm vegetation priorities in southern Tasmania**

Soil and on-farm vegetation priorities	MCA priority level
On farm native vegetation (see Figure 27)	High priority for investment
Soils at risk of carbon decline (see Figure 28)	High priority for investment
Soils at risk of structural decline (no mapping available)	High priority for investment
Soils at risk from prolonged saturation (see Figure 29)	Medium priority for investment
Soils at risk of erosion (see Figure 30 and Figure 31)	High priority for investment
Soils at risk from salinisation (see Figure 32)	High priority for investment
Soils at risk from acidification (see Figure 33)	Not prioritised at this time

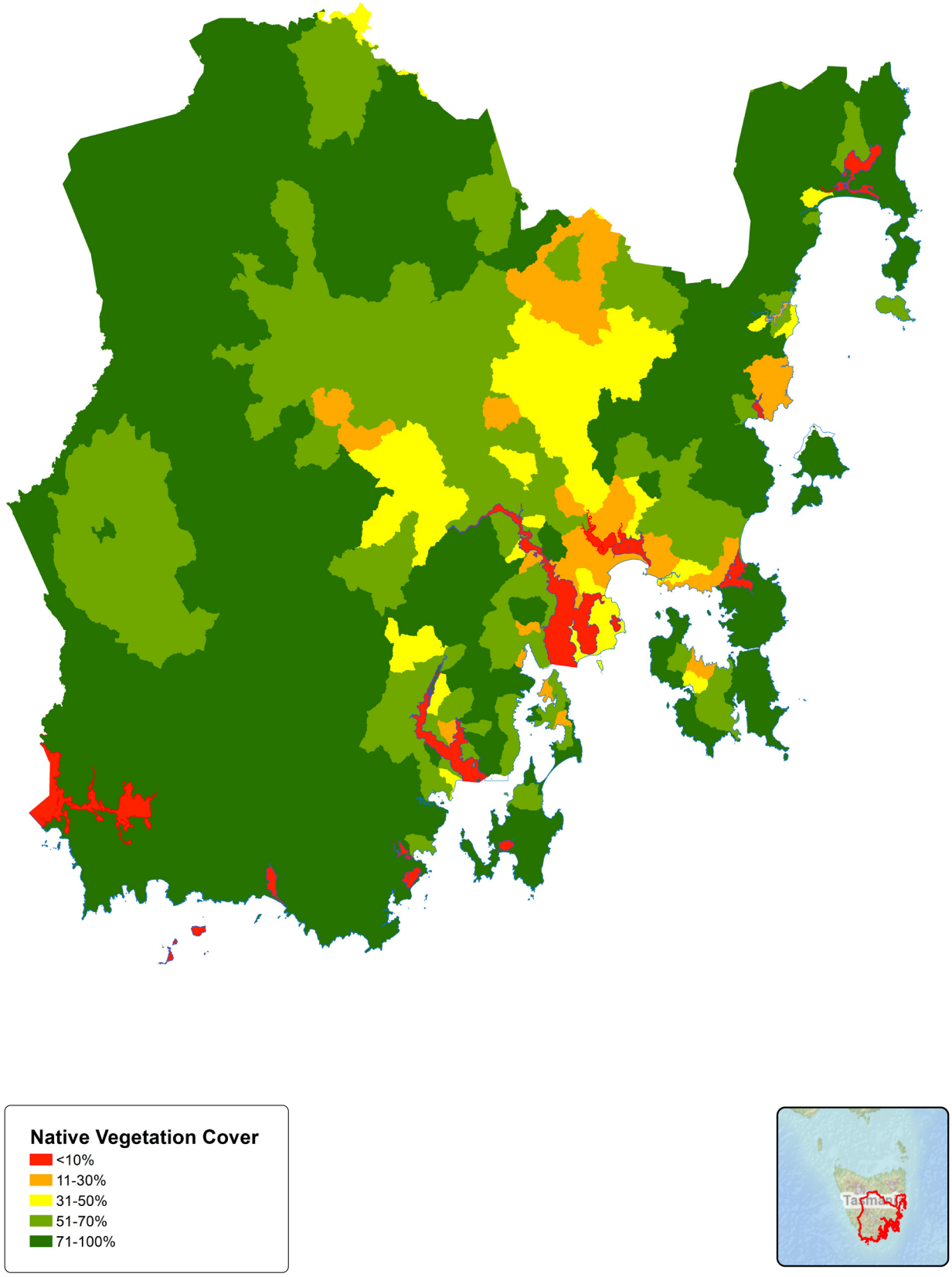

FIGURE 27: **Native vegetation cover in the southern region of Tasmania**

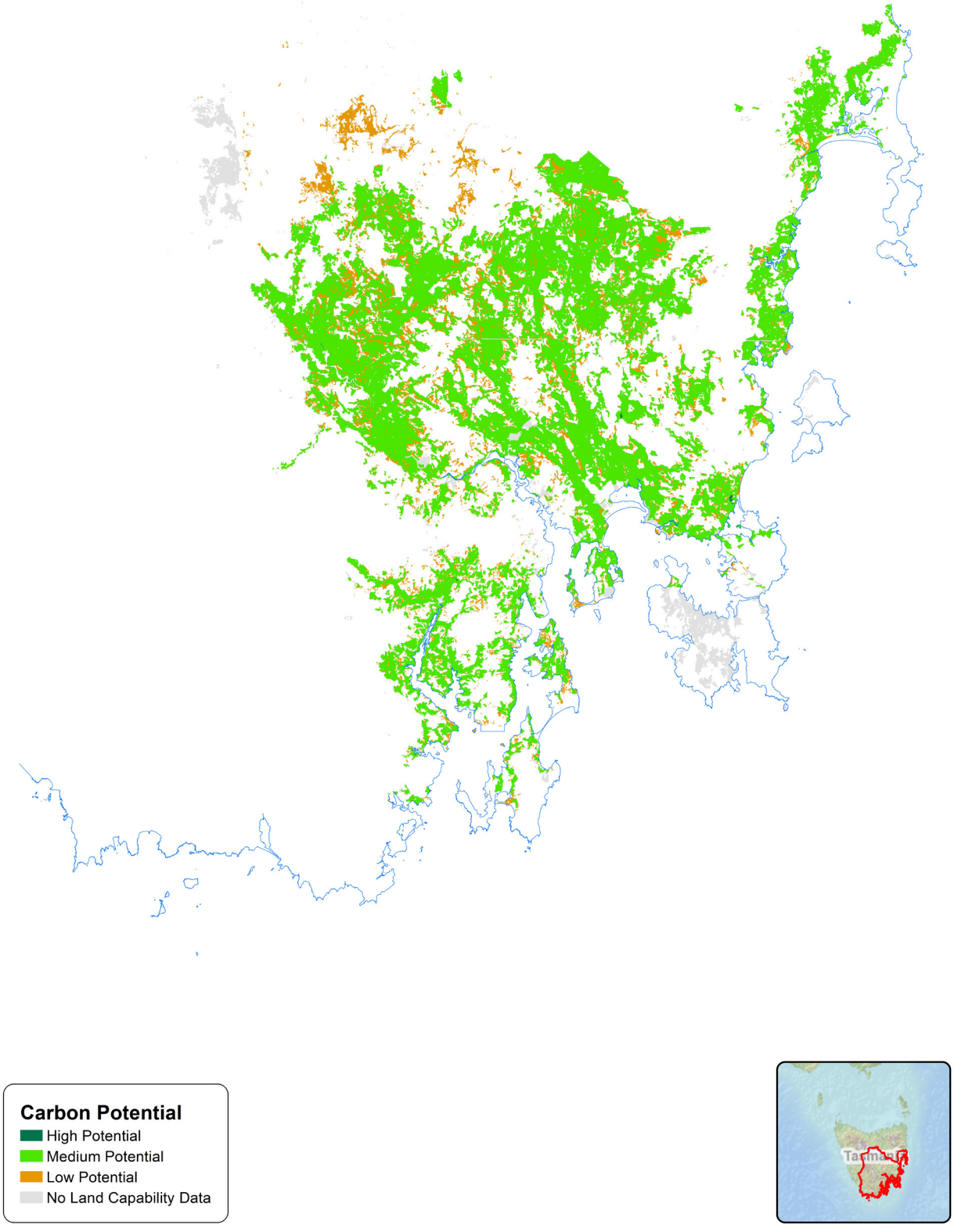

FIGURE 28: **Carbon potential in the southern region of Tasmania**

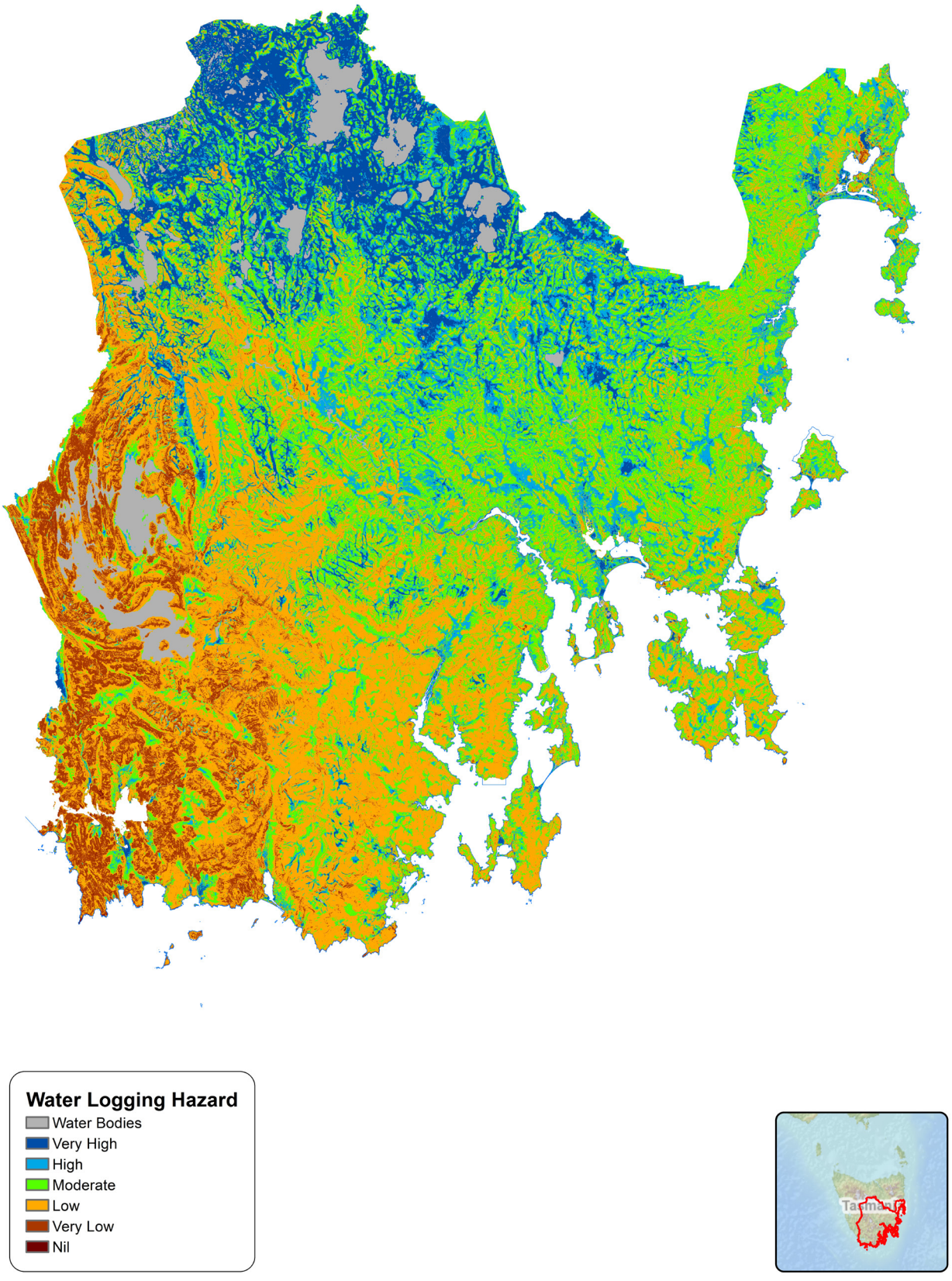

FIGURE 29: **Water logging in the southern region of Tasmania**

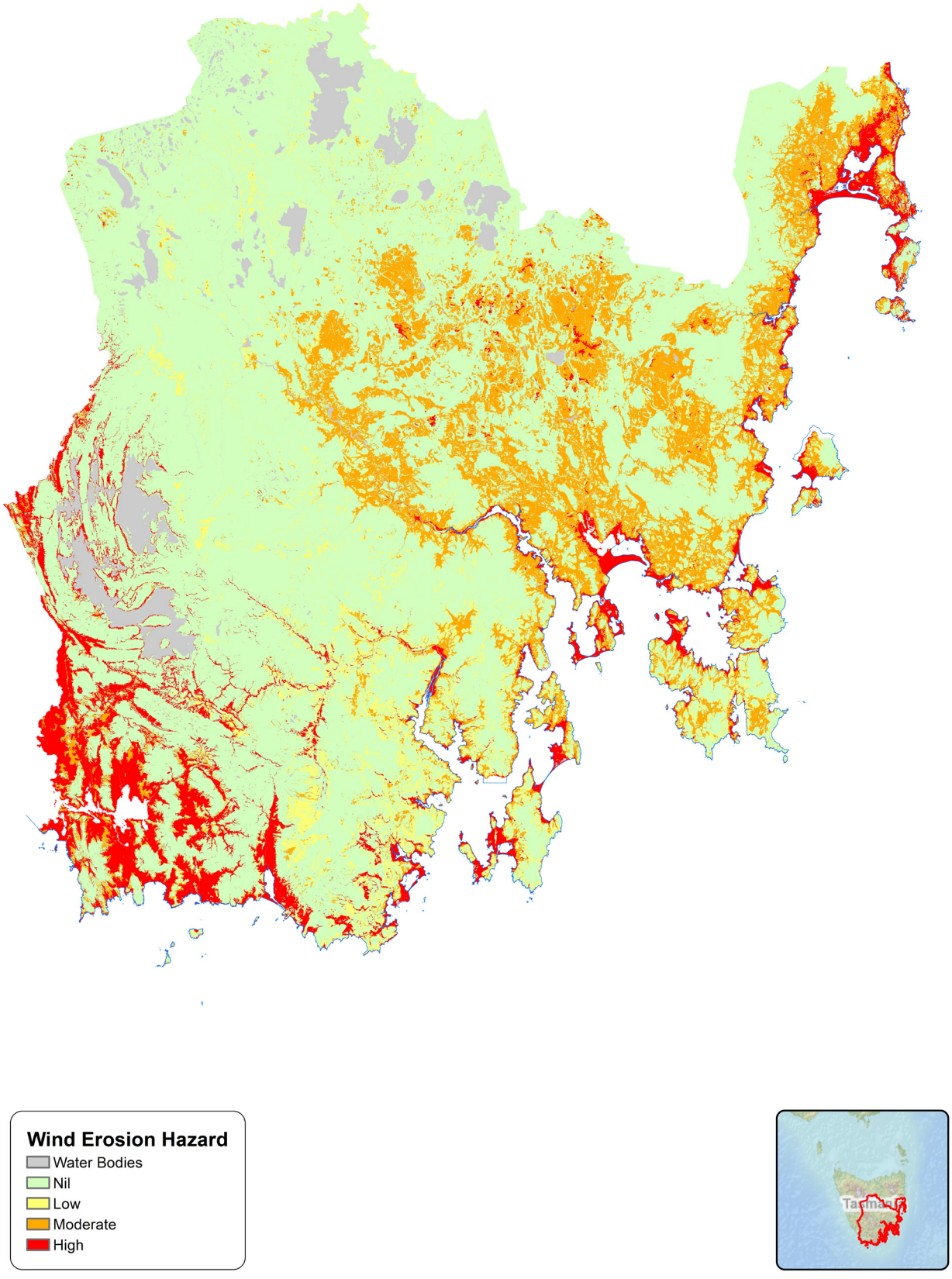

FIGURE 30: **Wind erosion risk in the southern region of Tasmania**

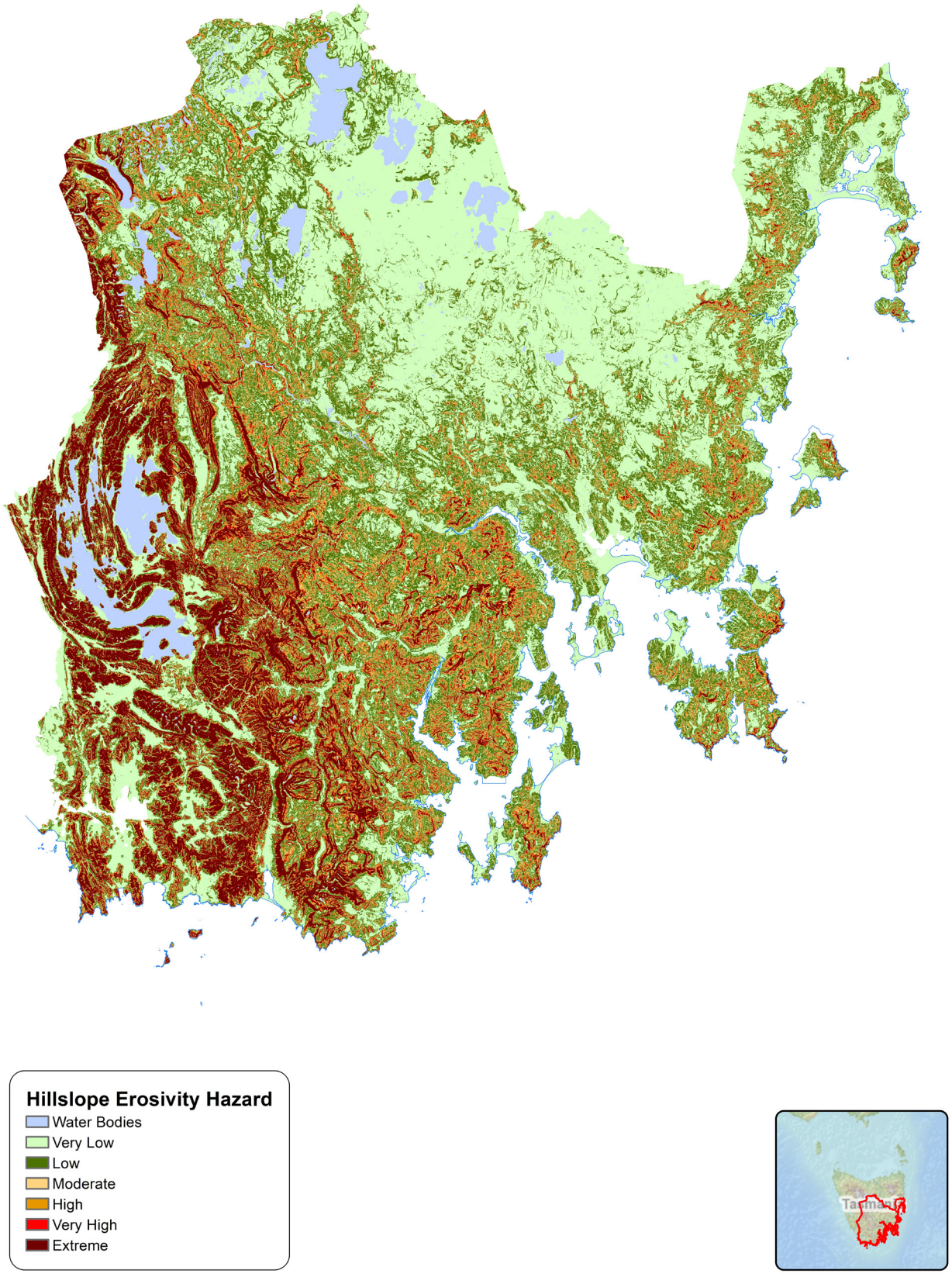

FIGURE 31: **Hillslope erosivity risk in the southern region of Tasmania**

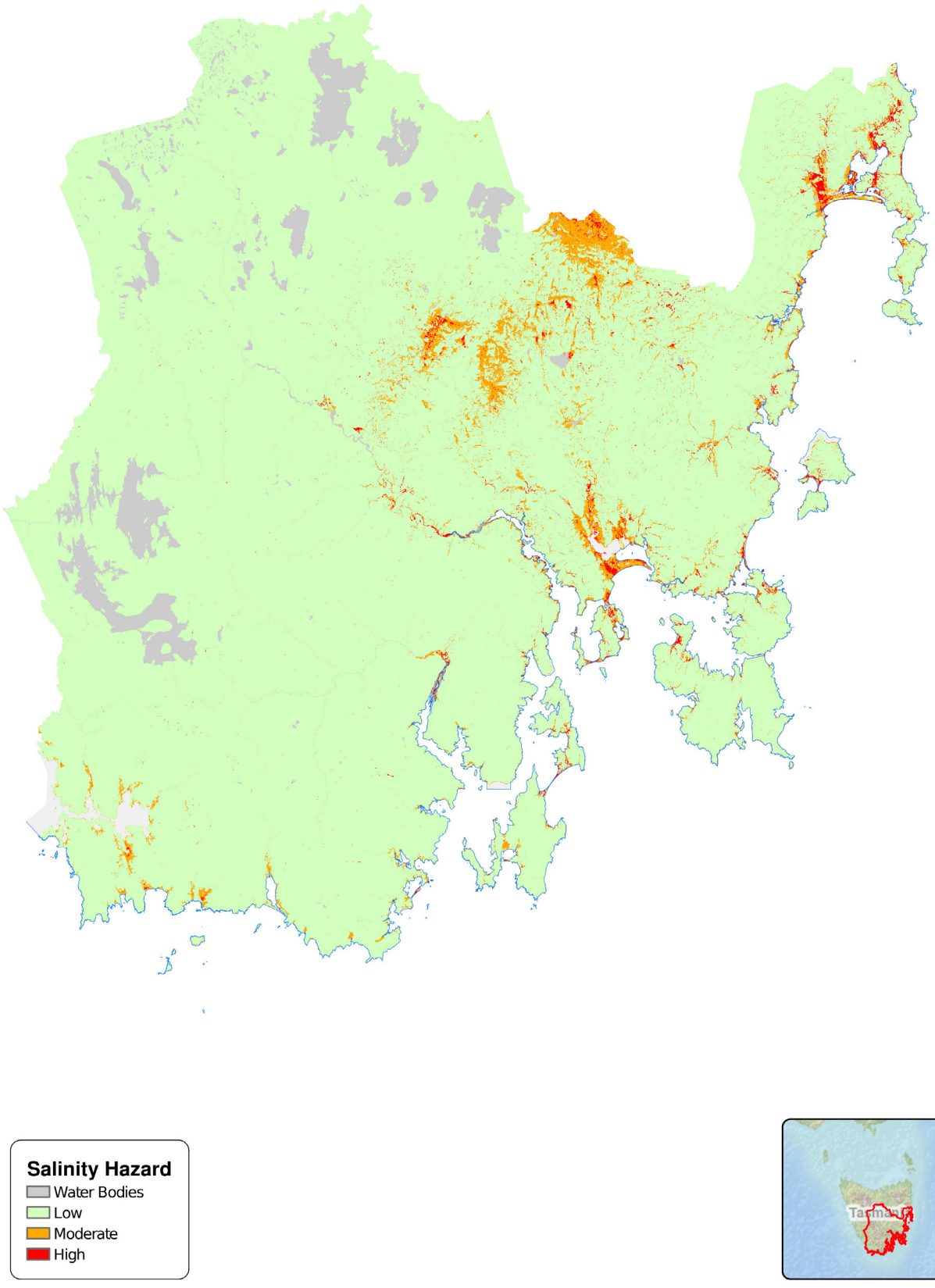

FIGURE 32: **Salinity risk in southern Tasmania**

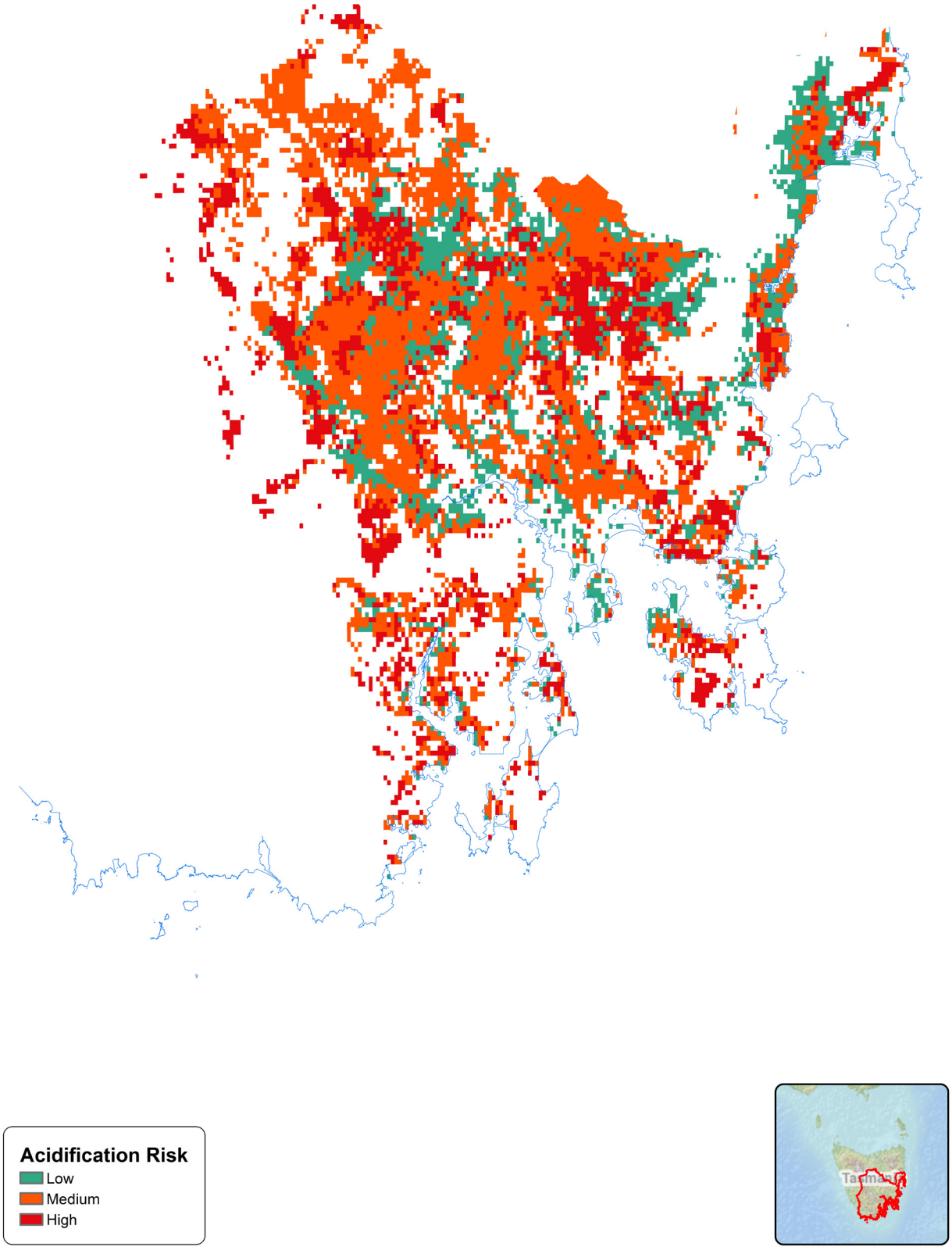

FIGURE 33: **Acidification risk in southern Tasmania**

CASE STUDY: **RLP OUTCOME 5 – The conditions of soil, biodiversity and vegetation are improved.**

DERWENT PASTURE INFORMATION NETWORK

Through our support for the innovative Pasture Information Network, based in the Derwent Valley, NRM South is helping to promote productive grazing systems and healthy landscapes in a region that is becoming increasingly prone to the effects of drought. With an annual average rainfall of less than 500 mm, the Derwent Valley faces some unique production challenges, including a short growing season, and variable rainfall patterns and temperature.

Working in partnership with the Derwent Catchment Project, land managers in the Derwent Valley are being supported to establish and maintain trees and shelter belts, manage grazing systems to reduce erosion, keep nutrients on farm to protect water quality, and manage weeds. This is achieved through the establishment of demonstration sites to investigate options for improving ground cover and reducing erosion, a dryland pasture course (the first of its kind in Tasmania), hosting themed field days, running peer-learning discussion group events and a farmer mentor program, and the development of a dedicated website with information for Tasmanian dryland graziers.

These actions are directly contributing to improved production, economic and environmental outcomes. They are building resilience through the protection of the region's soil, biodiversity and vegetation within farming systems and ensuring a greater capacity to deal with the challenges of season and climate variability.

2.6 RLP Outcome 6. There is an increase in the capacity of agriculture systems to adapt to significant changes in climate and market demands for information on provenance and sustainable production.

The Australian Government has identified its approach to improving climate resilience and adaptation in the natural, built, social and economic domains, including the agricultural sector, in its *National Climate Resilience and Adaptation Strategy 2021-2025*.

Relevant objectives include:

- Drive investment and action through collaboration
- Improve climate information and services
- Assess progress and improve over time.

In the natural domain, and agricultural sector specifically, this is realized through the Future Drought Fund, the Agricultural Biodiversity Stewardship Package, National Agricultural Innovation Agenda, which are focused on improving the capacity of farmers to adopt sustainable production methods and build resilience to changing climates and climate shocks.

The Australian Government's *Commonwealth Biosecurity 2030* is a roadmap to protecting Australia's environment, economy and way of life. Globalisation has brought more exotic pests and diseases, and response, management and recovery costs are much greater than prevention. Biosecurity systems offer defence against these threats, on a national, state and local scale.

TABLE 14: Climate resilience and biosecurity

Priority	Further information
Resilient industries and communities	National Climate Resilience and Adaptation Strategy 2021-2025 National Agricultural Innovation Agenda Landcare's role in building adaptive capacity and resilience, 2016
Biosecurity	Commonwealth Biosecurity 2030

Using these RLP Outcome 5 priorities, specific priorities were identified and assessed using the MCA criteria (Table 15).

TABLE 15: Results of the Multi-Criteria Analysis for climate and market resilience priorities in southern Tasmania

Soil and on-farm vegetation priorities	MCA priority level
Resilient industries and communities	High priority for investment
Biosecurity	High priority for investment

CASE STUDY: RLP OUTCOME 6 – Agriculture systems have adapted to significant changes in climate and market demands.

SUPPORTING FARMERS TO ADAPT TO A CHANGING CLIMATE

Tasmania's agricultural environment is changing rapidly, requiring primary producers to adapt to a changing climate, evolving markets and new opportunities. NRM South works with farmers, industry, and the community to help improve best-practice agriculture by sharing relevant and practical information that is helping our farming community to improve soil and land condition, increase productive capacity and reduce the impacts of land degradation.

Much of NRM South's work in supporting Tasmania's agricultural community is centred around helping land managers adapt to the challenges of drought – through support for trials, workshops, and new innovations. By supporting innovations such as developing strategies for introducing more persistent and locally suited perennial pasture and forage shrub species into areas of marginal farming land, we are helping farmers to improve landscape condition and biodiversity values and ultimately be more competitive in changing markets that value environmentally positive land management practices.

Tasmania's primary producers play a key role in driving our state's economy, with agricultural production contributing an annual gross value of around $1.6 billion. By supporting land managers to improve landscape health and manage our natural resources sustainably, we can ensure our production areas continue to return long-term dividends to farmers, the community, the environment, and the economy.

3 Identification of future management actions (Projects)

The processes and methods for developing Projects (including management actions) are summarised in Section 8 of the Strategy (Implementation).

Within the Strategy, strategic actions are identified as 'Actions' that fall beneath the identified Priorities and Outcome statements. These are different to 'management actions', which are to be developed as a part of the project implementation process, within specific projects, as project-related activities. Projects, consisting of management actions that are both foundational activities that support project planning and immediate activities in project delivery, will contribute to the immediate and long-term RLP Outcomes (Figure 34).

3.1 Program and Project Logics

Project services must be relevant to 'priority actions' identified in formal plans, strategies, reports and advice. The Regional Land Partnerships Program Logic notes specific assumptions that will influence the selection of appropriate management actions in the project development phase.

The RLP Program Logic assumes that management actions meet the following requirements to form part of an RLP project:

- Projects will be
  - Fit for purpose (tailored to the design, purpose and objectives of the National Landcare Program)
  - Credible (guided by best available science)
  - Transparent (clearly demonstrate how public money has been spent and the resulting outputs and outcomes) and
  - Cost-effective (provides value for money and where possible, builds on achievements of previous natural resource management programs).
- Projects will deliver services that will contribute to delivering Regional Land Partnerships 5-Year Outcomes and Long-term Outcomes
- The community, including Indigenous people and farmers, are able to participate in the planning and delivery of projects
- Regional Land Partnerships will deliver on the Australian Government's commitment to Closing the Gap on Indigenous Disadvantage (Closing the Gap) by providing opportunities for stronger Indigenous participation in the planning and delivery of investment and outcomes
- There is an increase in the amount of investment leveraged from other funding sources as a part of the delivery of projects
- Projects will be delivered using collaborative partnerships where this makes sense to do so
- Investments that are on private owned/managed land are expected to generate public benefits.

RLP project design will start with the establishment of a Project Logic as part of the MERI planning process (see Strategy section 8.5). Project Logics will link to the RLP Program Logic (Figure 34) by demonstrating the rationale of the selection of appropriate management actions (that constitute project planning and delivery), that will be expected to contribute to the RLP 5-year outcomes as described in Table 16. They will describe the expected consequences of management actions, in the immediate to long-term, underpinned by associated assumptions.

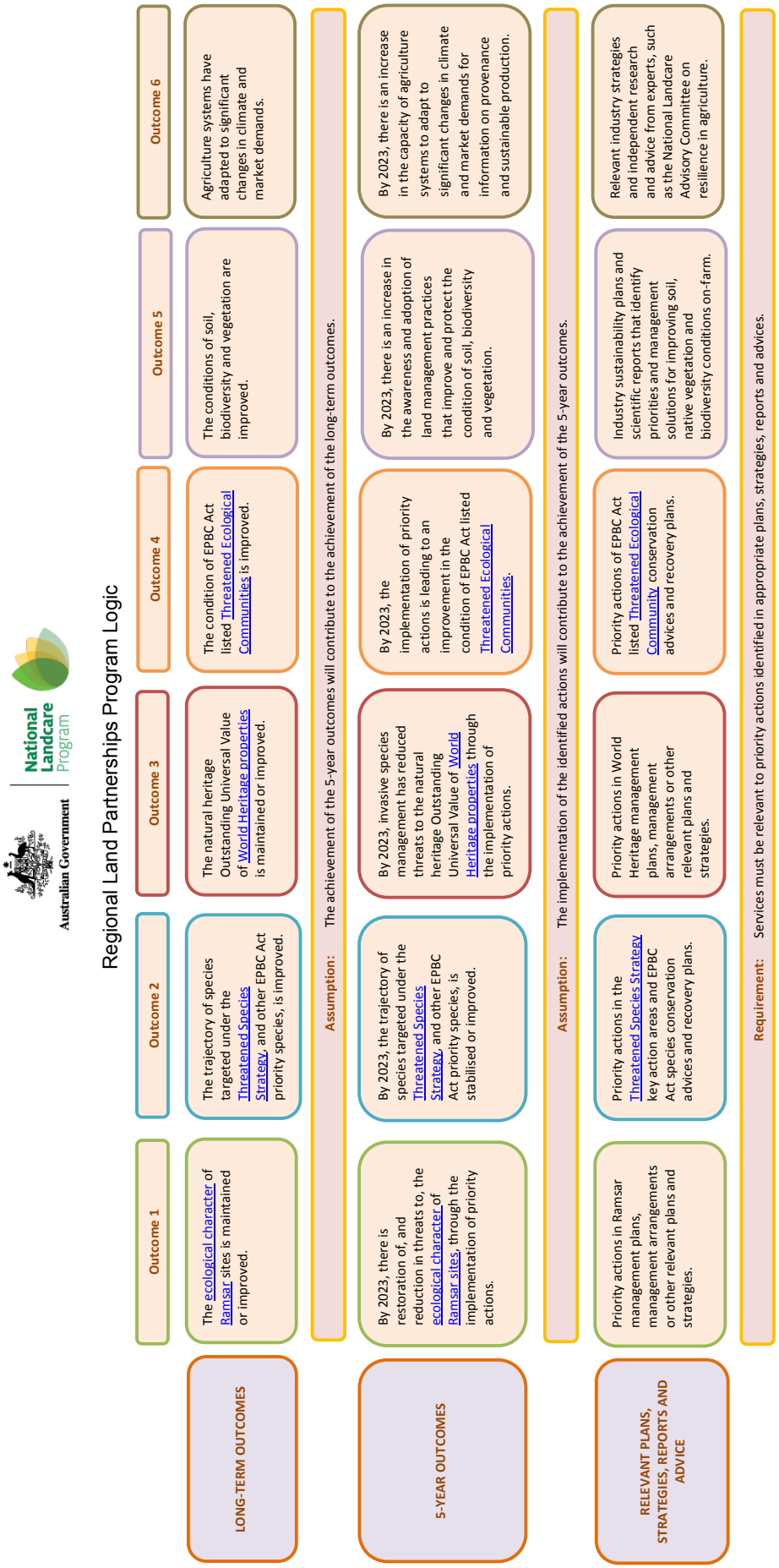

FIGURE 34: **Regional Land Partnerships Program Logic and 5-year Outcomes**

TABLE 16: **RLP Outcome hierarchy (adapted from NRM MERI Framework (Commonwealth of Australia 2009)**

Outcome hierarchy		Outcome description	Associated target (and indicators)
Aspirational program goal	Vision for the asset	Statement of the overall vision for the state of the asset in 50 years. This statement helps guide program planning and provides a context for setting other targets	No targets at this level
Longer term outcome	Improvements in the state of the asset	Expected outcomes relating to the condition of the biophysical, institutional and social assets as a result of intervention	Longer term outcome
Immediate outcome	Aggregate changes in how the asset is managed and affected	Changes in management practices resulting in impact on asset condition across a region	Immediate targets (e.g. percentage of land protected or managed in a certain way over five years)
		A reduction in pressures on and threats to the asset	
		Adoption of best practice or sustainable management practices	
	Practice and attitude change	Enhanced knowledge, aspirations, skills, attitudes and/or confidence	Immediate and intermediate targets (e.g. percentage of land/resource managers or communities that adopt sustainable management practices)
		Institutional and organizational change, as reflected in corporate policy, business practices, laws and infrastructure	
Management actions (Immediate activities)	Biophysical outputs	Deliverables that are related immediate on-ground results as set out in investment plans and funding agreements	Output targets (e.g. number of hectares and land re-vegetated or enhanced)
	Non-biophysical outputs	Deliverables that are related to immediate social, institutional, cultural or economic results as set out in investment plans and funding agreements	Output targets (e.g. number of community plans number of participants in training workshops, or number of incentives projects funded)
Management actions (Foundational activities)	Project activities	Activities that largely concern the development of NRM strategies and investment plans. These include: • Conducting baseline assessment and analysing program evaluation results • Building skills and developing knowledge base • Developing institutional frameworks, plans and strategies • Undertaking community consultation • Consulting and /or commissioning scientific research	Output targets (e.g. number of community workshops conducted or number of educational resources developed)

Project Logics will also provide the basis for assessment and evaluation of project impact, effectiveness and efficiency, both by assessing the extent of achievement of stated target outputs towards outcomes and by testing stated assumptions. This will be achieved through analysis of monitoring indicator data, established in the project design phase and where gaps in data exists or cannot be obtained, through independent expert review.

3.2 Prioritisation approaches

To select the most effective and efficient actions at the highest priority sites across the region, appropriate prioritisation processes will be utilised based upon the nature and extent of Priorities (assets), the threatening processes affecting those Priorities, types of management actions that can be taken to improve their trajectories, availability of relevant data and/or expert stakeholder and community knowledge and scale of funds available.

3.2.1 Prioritisation of areas for conservation intervention

Conservation of native habitat is critical to the ongoing provision of many ecosystem services and the future survival of Tasmania's native plant and animal species. Habitat conservation will be a central pillar to achieving the proposed outcomes for many prioritised environmental assets identified in the Strategy. Habitat can be conserved by:

(a) protecting and managing the most ecologically intact areas;

(b) assisting natural regeneration in degraded areas; and by

(c) attempting restoration where habitat has been lost or replaced, including by the establishment of corridor linkages.

Protecting intact habitat, and ensuring that it is well-managed, safeguards more biodiversity and generates greater ecosystem services per unit area than regenerating or restoring habitat. For this reason, projects that protect and manage ecologically intact areas will generally be prioritised over restoration activities based on cost, the expected benefits, and a shorter time-frame to achieve them. While habitat restoration can improve a site's ecological condition, it can take decades for vegetation to mature and establish genuine biodiversity and ecosystem benefits.

However, well-planned habitat restoration is important in areas where widespread habitat loss and fragmentation threatens the survival of fragmented or isolated populations of native species, and where habitat linkages between ecologically intact remnant areas need to be created to support species movement. It will also be important where translocation or establishment of habitat will be required to support species impacted by climate change. In practice, a combination of habitat protection, assisted regeneration, and restoration interventions may be required simultaneously in a focal landscape to achieve the Strategy's outcomes for priority ecological assets. Focusing intervention to specific areas within a priority landscape and balancing this combination will require prioritisation at the project scale. It will also be influenced by the available level of resourcing and investment.

Identifying and prioritising areas for conservation intervention in the landscape

Prioritising focal areas within the landscape relevant to priority ecological assets in the Strategy will be evidence-based. It will consider an area's level of potential contribution to species or ecological community persistence, and the outcome or level of estimated return from the interventions proposed.

At a project scale, as needed, expert elicitation processes will engage technical specialists to identify and rank focal areas for intervention e.g. localised areas, river reaches, wetland sites. Each project will consider the entire landscape supporting a priority species or ecological community, drawing on spatial data e.g., TasVeg, satellite imagery, remote sensing, ground truthing and research datasets. Overlaying species and landscape spatial data will allow project planners to identify and prioritise significant land areas for NRM intervention.

Ranking and prioritisation will be based on an area's:

(a) Significance to known/identified populations of a species and/or multiple species (i.e. areas known to be critical to existing populations over areas with very low population numbers, or areas with no known recent sightings);

(b) Landscape context, including:
- relative proximity to existing protected areas/ reserves
- ability to enhance structural connectivity by extending from existing protected areas/reserves or intact habitat or remnant patches
- location relative to other areas or sites (e.g. clusters or aggregations of remnant habitat);

(c) Existing habitat condition (e.g. more ecologically intact areas where damage is relatively low and pre-existing biota should be able to recover with managed cessation of degrading practices over

less ecologically intact areas where damage is high or the biota no longer exists and the causes of degradation still need to be removed);

(d) Size of area (i.e. larger and/or wider areas will generally be prioritised over smaller or narrower areas); and

(e) Ongoing (long-term) viability (e.g. areas with better security of tenure, degree of buffering against threats such as inappropriate fire frequency, hydrological change etc, would be ranked higher).

This structured ranking of areas will provide a relative priority value of each portion of the landscape, identify preliminary areas of focus, and help inform investment options.

Once priority areas are identified, the required actions and interventions for land parcels and sites will be determined (e.g. fencing, weed and pest eradication, incentives for grazing reduction, ecological burning, considering aspects including their demonstrated chance of success, impact and effectiveness (backed by supporting scientific evidence), cost-benefit and value for money). Where required, further expert elicitation processes may be used to inform this.

Protecting or restoring on-farm/property-scale vegetation

Based on experience of on-farm vegetation management and incorporating the works of Lindenmayer et al (Restoring Farm Woodlands for Wildlife), the following principles will be used to prioritise on-farm vegetation management projects:

- Protection of remnant vegetation is preferred
- If plantings are required:
  - Supplement existing stands of healthy remnant vegetation to enhance biodiversity and ecosystem function
  - Species mix and local provenance must be considered
  - Larger plantings are preferred to smaller, narrower plantings
  - Block plantings are preferred to strip plantings
  - Plantings in proximity to existing remnants or near other rehabilitated or new plantings is preferred to isolated patches of plantings
  - Plantings that create corridors or connections to remnant stands or rehabilitated or new plantings is preferred to isolated patches of plantings.

Planting projects must consider site selection, preparation including weed management, timing of planting, and protection from browsing or other threats including fencing stock or plant cages/guards to address native and feral species damage. Adequate preplanning is required to ensure appropriate and adequate plant species, guards, and stakes are available through local nursery suppliers.

Standards for landscape restoration

Where habitat restoration is determined as a priority within a landscape, the National Restoration Standards will be applied. The Standards offer a tool (five-levels or 'stars') for progressively assessing and ranking the degree of recovery over time, which are summarised in Table 17 and Figure 35.

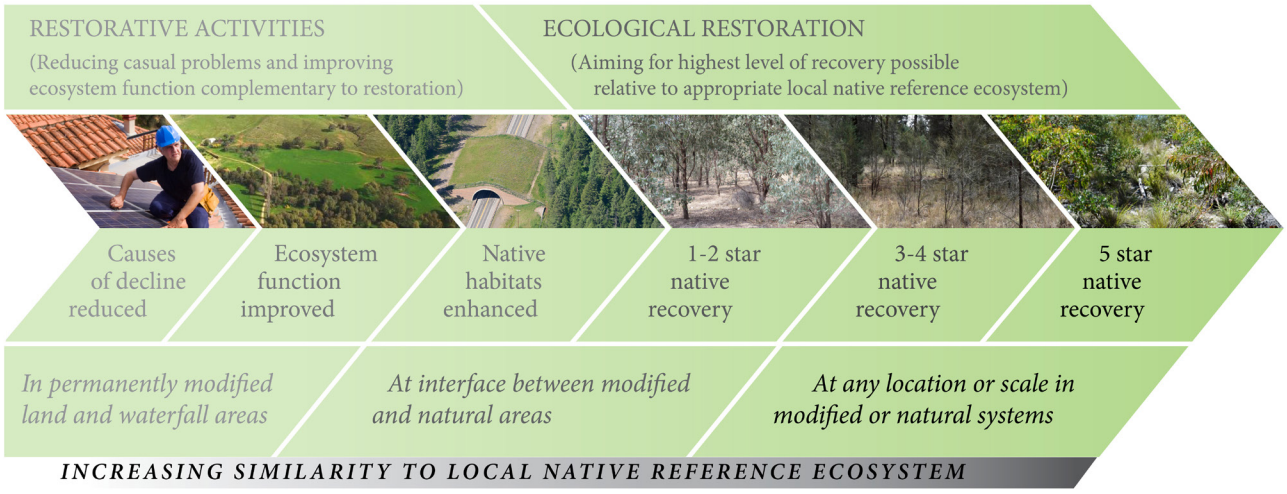

Photo credits: (from left): 1. Used under license from Shutterstock.com; 2: ©S. Triggs: Inglis Rural; 3: ©Marcel Huijser; 4 and 6: ©T. McDonald; 5: ©J. Jonson

FIGURE 35: **Restorative continuum (McDonald et al. 2016)**

TABLE 17: **Summary of generic standards for one to five star recovery levels (2018, Society for Ecological Restoration)**

Stars	Recovery outcome
1 star	Ongoing deterioration prevented. Substrates remediated (physically and chemically). Some level of indigenous biota present; future recruitment niches not negated by biotic or abiotic characteristics. Future improvements for all attributes planned and future site management secured.
2 stars	Threats from adjacent areas starting to be managed or mitigated. Site has a small subset of characteristic indigenous species and there is low threat from undesirable species on site. Improved connectivity arranged with adjacent property holders.
3 stars	Adjacent threats being managed or mitigated and very low threat from undesirable species on site. A moderate subset of characteristic indigenous species are established and evidence of ecosystem functionality commencing. Improved connectivity in evidence.
4 stars	A substantial subset of characteristic biota present (representing all species groupings), providing evidence of a developing community structure and commencement of ecosystem processes. Improved connectivity established and surrounding threats being managed or mitigated.
5 stars	Establishment of a characteristic assemblage of biota to a point where structural and trophic complexity is likely to develop without further intervention other than maintenance. Appropriate ecosystem exchanges are enabled and commencing and high levels of resilience is likely with return of appropriate disturbance regimes. Long term management arrangements in place.

3.2.2 Prioritising the management of invasive species to Priorities (assets) in the landscape

For projects addressing invasive species, the invasion curve and management principles can be used to prioritise investment. Prevention is the most effective and low-cost solution for managing invasive species. Waiting until an invasive species is established to start management is costly and can harm valuable infrastructure and the natural biodiversity needed for healthy ecosystems.

The invasion curve shows the stages of invasive species management from pre-arrival (prevention) to long-term control. After a species is introduced, management costs increase, and likelihood of eradication decreases as time passes.

- **Prevention:** The most cost-effective solution for managing invasive species. Public awareness is essential for this stage.
- **Eradication:** Removing a species population in its entirety. If populations are localised, eradication is possible.
- **Containment:** Reducing further spread of an introduced species. As populations increase, eradication becomes increasingly unlikely and priorities shift to preventing further spread.
- **Long-term control:** The most costly stage of invasive species management. Eradication is unlikely to impossible and we instead focus on limiting populations and protecting remaining resources.

Investing in prevention provides **economic returns up to 100x higher** than trying to manage a species after it arrives.

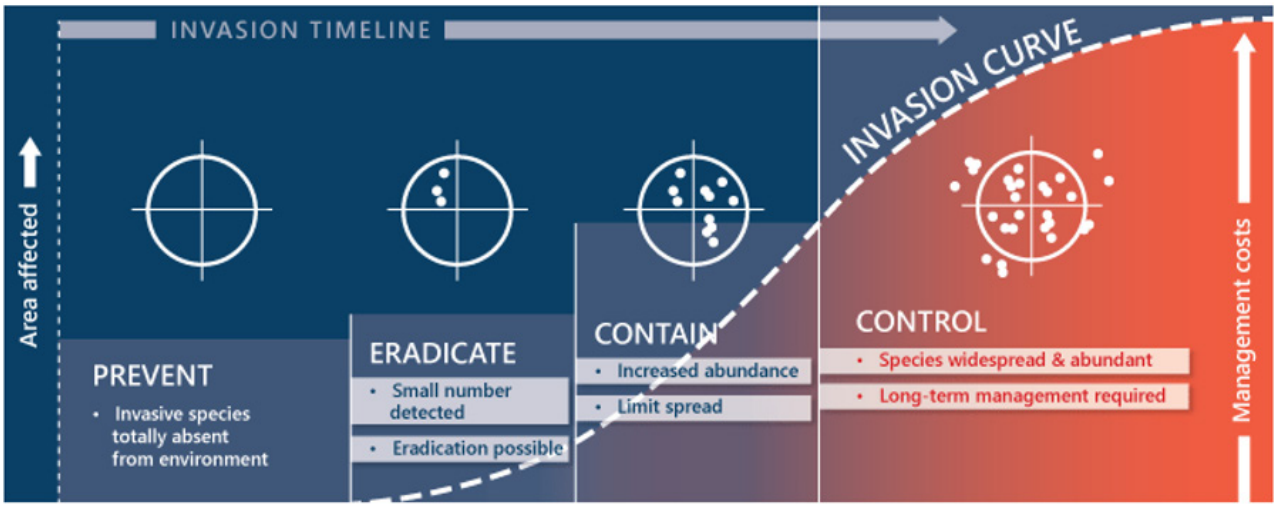

FIGURE 36: **Invasive species curve**

3.2.3 Tools to support prioritisation during project design

A range of decision support tools are available to help guide the various steps of project development and management intervention, which sometimes includes a prioritisation step. The use of such tools, including the following, will be considered for projects as required.

Investment Framework for Environmental Resources (INFFER)

A structured, participatory process to guide and prioritise projects, and actions within projects, to maximise the value from investment. It helps identify potential projects, calculate their benefit:cost ratio and, using a Public: Private Benefits Framework, provide guidance on the most appropriate type of policy mechanism to use within a project (e.g. incentives, extension/information etc.).

Conservation Action Planning (CAP)

An open standard project development and management tool. It is used to guide the development of projects, work plans and measures of success, structured within an adaptive framework. It relies on the participation of experts and informed community practitioners. CAP recognises that the identification and ranking of key values, priority locations, and candidate actions is required (although it doesn't provide specific guidance on how to do this).

AdaptNRM – Biodiversity Adaptation Toolkit

A toolkit designed by CSIRO to help guide and incorporate climate adaptation planning into biodiversity management, to support practical choices about which management options to employ now and which to consider for the future. The toolkit links optional actions to the strategic goals they are designed to achieve. The actions reflect a gradient from low risk or preventative approaches to options involving more risk and investment (which may be necessary under greater degrees of change).

» Eastern curlew (Els Wakefield)

ATTACHMENT SIX

References and relevant resources

1 Strategy references and relevant resources

Section	Relevant resources
Introductory sections of the 2030 NRM Strategy	
Climate change	Grose, M et al. (2015) Southern Slopes Cluster Report, Climate Change in Australia's Natural Resource Management Regions: Cluster Reports, eds. Ekström, M et al., CSIRO and Bureau of Meteorology, Australia. Meyer A, Holbrook N, Strutton P and Eccleston R (2021) The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report: What does it mean for Tasmania? A special briefing by the Australian Research Council Centre of Excellence for Climate Extremes and the University of Tasmania, University of Tasmania, Hobart, Tasmania Poloczanska ES, Hobday AJ and Richardson AJ eds. (2012) Marine Climate Change in Australia, Impacts and Adaptation Responses, 2012 Report Card. *[Please note footnote 4 relates to the information provided for ocean temperature and ocean acidification.]* Bureau Of Meteorology and CSIRO (2020). State of the Climate 2020. IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.
UN SDGs	United Nations Sustainable Development Goals
Land theme	
Resilient communities and industries	National Climate Resilience and Adaptation Strategy 2021-2025 (2021) Department of Agriculture, Water and the Environment, Canberra, February. CC BY 4.0
Biosecurity	Commonwealth Biosecurity 2030 (2021) Department of Agriculture, Water and the Environment, Canberra, May. CC BY 4.0. General Biosecurity Duty (GBD) | Department of Primary Industries, Parks, Water and Environment, Tasmania
Soils	Cotching, W.E (2012) Carbon stocks in Tasmanian soils, Soil Research, 50 (2) pp. 83-90. Cotching, 2009, Soil Health for Farming in Tasmania Enterprise Suitability Toolkit
Water theme	
Derwent River catchment and estuary	Kruger, T (2020) Soft Sediment and Seagrass Ecology in the Derwent Estuary. https://www.derwentestuary.org.au/sandy-soft-sediments-and-seagrass/ Eriksen R, Koehnken L, Brooks A and Daniel Ray D (2011) Derwent Catchment Review PART 1 Introduction and Background.
Small freshwater systems with declining water quality	Department of Primary Industries, Parks, Water & Environment (2018) Tasmanian Threatened Native Vegetation Communities, Riparian Scrub. Department of Primary Industries, Parks, Water & Environment (2020) Temporal and spatial patterns in river health across Tasmania, and the influence of environmental factors. Annual Waterways Monitoring Reports, DPIPWE

Section	Relevant resources
Port Davey	Tasmania Parks and Wildlife Service (2020) Marine reserves. Department of Primary Industries, Parks, Water & Environment.
Enviro-socio-economic important systems	D'Entrecasteaux Channel Project (2014) Snapshot of the state of the D'Entrecasteaux Channel and lower Huon Estuary. Department of Primary Industries, Parks, Water & Environment. Waterways Monitoring Report Little Swanport Catchment. Little Swanport Catchment Plan Implementation Committee (2010) Little Swanport Catchment Plan 2010-2015. Little Swanport, Tasmania, Australia.
Ramsar sites	Department of Agriculture, Water and the Environment (2021) Australia's Ramsar Sites. Tasmanian Department of Primary Industries, Parks, Water and Environment (2019) Ramsar Wetlands. Department of Sustainability, Environment, Water, Population and Communities (2011) Moulting Lagoon Ramsar site Ecological Character Description. NRM South (2014) Moulting Lagoon Report to the Community 2014. Ramsar Sites Information Service (2013) Moulting Lagoon. Department of Sustainability, Environment, Water, Population and Communities (2011) Apsley Marshes Ramsar site Ecological Character Description. Ramsar Sites Information Service (2013) Apsley Marshes. Department of Sustainability, Environment, Water, Population and Communities (2012) Pitt Water - Orielton Lagoon Ramsar Site Ecological Character Description. NRM South (2012) Pittwater-Orielton Lagoon Report to the Community. Department of Primary Industries and Water (2008) Pipe Clay Lagoon Marine Farming Development Plan October 1998. Ramsar Sites Information Service (2014) Pittwater-Orielton Lagoon. Department of Sustainability, Environment, Water, Population and Communities (2012) Interlaken Lakeside Reserve Ramsar Site Ecological Character Description. NRM South (2016) Interlaken Lakeside Reserve Report to the Community. . Ramsar Sites Information Service (2014) Interlaken Lakeside Reserve. Tasmanian Saltmarsh Wetland Plants Checklist (2014)
Rocky reefs of the east coast	Our Tasmania – Hobart & Southern Tasmania (n.d.) Natural Tasmania: Cliffs, Capes and Bluffs.
Offshore islands	Our Tasmania – Hobart & Southern Tasmania (n.d.) Bruny Island, Tasmania. Managing Threatening Processes.
Vulnerable coastlines, including beach and dune systems	Page, L and Thorp, V (2010) Tasmanian Coastal Works Manual: A best practice management guide for changing coastlines. Department of Primary Industries, Parks, Water and Environment – Tasmania. Macreadie, P.I., Anton, A., Raven, J.A. et al. The future of Blue Carbon science. Nat Commun 10, 3998 (2019). Sharples, C and Walford, H (2013) Geomorphic background to coastal hazard zoning for Tasmania.

Section	Relevant resources
Soft sediment habitats	Kruger, T (2020). Soft Sediment and Seagrass Ecology in the Derwent Estuary. Soft sediments and seagrass in the Derwent (Derwent Estuary Program) Rees, CG (1993) Tasmanian seagrass communities. Gillies, CL., Castine, SA., Alleway, HK., Crawford, C., Fitzsimons, JA., Hancock, B., Koch, P., McAfee, D., McLeod, IM., zu Ermgassen, PSE. (2020) Conservation status of the Oyster Reef Ecosystem of Southern and Eastern Australia. Global Ecology and Conservation. 22 Orth, EJ. Carruthers, TJB. Dennision, WC. Duarte, CM. Fourqurean, JW. Heck, KL. Hughes, AR. Kendrick, GA. Olyarnik, KJ. Short, SFT. Waycott, M. Wiliams, AL. (2006) A Global Crisis for Seagrass Ecosystems, *BioSciencel*, Volume 56, Issue 12, Pages 987-996 Jänes, H. Carnell, P. Young, M. Ierodiaconou, D. Jenkins, GP. Hamer, Zu Ermgassen, P. Gair, JR. Macreadie, PI. 2021. Seagrass valuation from fish abundance, biomass and recreational catch. Ecological Indicators. Volume 130

Biodiversity theme

Midlands Biodiversity Hotspot	Bush Heritage Australia (2017) A Biodiversity Hotspot Conservation.org: Biodiversity Hotspots Commonwealth of Australia (2012) Case Studies on Biodiversity Conservation: Volume 1. Iftekhar S, Tisdell J, and Sprod, D (2013) A review of conservation project selection criteria in the Midlands Biodiversity Hotspot tender, Tasmania. Sensitivity to project duration and auction budget.
Tasmanian Wilderness World Heritage Area	DPIPWE (2016) Tasmanian Wilderness World Heritage Area Management Plan 2016, Department of Primary Industries, Parks, Water and Environment, Hobart UNESCO, WRI, IUCN (2021) World Heritage forests: Carbon sinks under pressure, Paris, UNESCO. DPIPWE (2021) Tasmanian Wilderness World Heritage Area Biosecurity Strategy 2021-2031. Department of Primary Industries, Parks, Water and Environment.
Alpine Sphagnum bogs and associated fens	Department of the Environment (2015) National recovery plan for the Alpine Sphagnum Bogs and Associated Fens ecological community. Department of the Environment, Canberra.
Black or Brookers Gum	Approved conservation advice (incorporating listing advice) – Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana) Department of the Environment (2021) Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*) in Community and Species Profile and Threats Database, Department of the Environment, Canberra. Available at: http://www.environment.gov.au/sprat. Department of the Environment (2020) Tasmanian Black Gum and Brookers Gum Forests and Woodlands: A Nationally Significant Ecological Community – A guide for farmers and other land managers. Department of the Environment, Canberra. Threatened Species Scientific Committee (2019) Conservation Advice – Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*)

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Highland and Lowland Grasslands	Department of the Environment, Water, Heritage and the Arts (2009) Approved Conservation Advice for Lowland Native Grasslands of Tasmania ecological community. Canberra: Department of the Environment, Water, Heritage and the Arts. In effect under the EPBC Act from 25-Jun-2009. Department of the Environment, Water, Heritage and the Arts (2010) Lowland Native Grasslands of Tasmania – a nationally threatened ecological community. Environment Protection and Biodiversity Conservation Act 1999 Policy Statement 3.18. Australian Government, Canberra. Department of the Environment (2021) Lowland Native Grasslands of Tasmania in Community and Species Profile and Threats Database, Department of the Environment, Canberra. Available at: http://www.environment.gov.au/sprat. Department of Primary Industries, Parks, Water and Environment (Tasmania) (2016). Highland Grassland. Tasmanian Government.
Saltmarsh	Creighton C, Gillies CL and McLeod IM (eds) (2015) Australia's saltmarshes: a synopsis to underpin the repair and conservation of Australia's environmental, social and economically important bays and estuaries. Centre for Tropical Water and Aquatic Ecosystem Research (TropWATER) Publication, James Cook University, Townsville,63pp. Prahalad, V and Pearson, J (2013) Southern Tasmanian Coastal Saltmarsh Futures - A Preliminary Strategic Assessment. NRM South. Conservation advice for Subtropical and Temperate Coastal Saltmarsh Threatened Species Scientific Committee (n.d.) Conservation Advice for subtropical and temperate coastal saltmarsh.
Riparian and remnant vegetation	Department of Primary Industries, Water and Environment (n.d.) Kit 6 Riparian Bush Department of Primary Industries, Water and Environment (2018) Tasmanian Threatened Native Vegetation Communities, Riparian Scrub.
E. viminalis	Department of Primary Industries, Water and Environment (2018) Tasmanian Threatened Native Vegetation Communities, Eucalyptus globulus coastal forest and woodland.
Threatened species	Atlas of Living Australia Tasmanian Natural Values Atlas Tasmanian Threatened Species Link Garnett ST, Baker GB (2021) The Action Plan for Australian Birds 2020. CSIRO, Melbourne.
Threatened mammals	Threatened Species Section (2021) Perameles gunnii *(Eastern Barred Bandicoot): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Threatened Species Scientific Committee (2015) Conservation Advice *Dasyurus viverrinus* Threatened Species Strategy – Year 3 Priority Species Scorecard (2018) Eastern Quoll *Dasyurus viverrinus*
Forty-spotted Pardalote	Threatened Species Section (2006) Fauna Recovery Plan: Forty-Spotted Pardalote 2006-2010. Department of Primary Industries and Water, Hobart. Threatened Species Section (2021) Pardalotus quadragintus *(Forty-spotted Pardalote): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.

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Threatened parrots	Department of Environment, Land, Water and Planning (2016) National Recovery Plan for the Orange-bellied Parrot *Neophema chrysogaster*. Australian Government, Canberra. Threatened Species Section (2021) Neophema chrysogaster *(Orange-bellied Parrot): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Stojanovic D, Webb M, Alderman R, Porfirio L and Heinsohn R (2014) Discovery of a novel predator reveals extreme but highly variable mortality for an endangered bird. Diversity and Distributions, 20, 1200-1207. National Recovery Plan for the Swift Parrot (Lathamus discolor), Commonwealth of Australia 2019 Threatened Species Section (2021) Lathamus discolor *(Swift Parrot): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.
Tasmanian masked owl	Approved Conservation Advice for Tyto *novaehollandiae castannnops* (Tasmanian Masked Owl) (2010) Threatened Species Section (2021) Tyto novaehollandiae subsp. castanops *(Masked Owl (Tasmanian)): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.
Coastal shorebirds	Threatened Species Strategy 2015-2020: 20 birds by 2020 - Hooded plover (eastern). Department of Agriculture, Water and the Environment, Australian Government. BirdLife International. Important Bird Areas (IBAs)/Key Biodiversity Areas (KBAs) BirdLife International. IBA/KBA criteria BirdLife Tasmania (2018) Beach-nesting Birds Management Strategy. Department of Primary Industries, Parks, Water and Environment, Tasmania (n.d.) Conservation Assessment of Tasmania's Beach Nesting and Migratory Shorebirds. Weller, DR and Lee, CV (2017) Migratory Shorebird Conservation Action Plan, BirdLife Australia unpublished report, September 2017. Conservation Advice *Thinornis rubricollis rubricollis* – Hooded Plover (Eastern) (2014) Threatened Species Strategy – Year 3 Priority Species Scorecard (2018)
Tasmanian wedge-tailed eagle	Threatened Species Section (2021) Aquila audax subsp. fleayi *(Tasmanian Wedge-tailed Eagle): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.
Green and Gold Frogs	Clemann N, and Gillespie GR (2012) National Recovery Plan for the Southern Bell Frog Litoria raniformis. Department of Sustainability and Environment, Melbourne. Threatened Species Section (2021) Litoria raniformis *(Green and Gold Frog): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.

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Threatened fish	Threatened Species Section (2021) Galaxias fontanus *(Swan Galaxias): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Threatened Species Section (2021) Prototroctes maraena *(Australian Grayling): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Backhouse, G, Jackson, J and O'Connor, J (2008a) National Recovery Plan for the Australian Grayling *Prototroctes maraena*. Department of Sustainability and Environment, Melbourne. Davies, PE and Jackson, JE (2009) Swan River Catchment: Status of the Swan Galaxias (*Galaxias fontanus*). Report to the Tasmanian Irrigation Development Board. Inland Fisheries Commission (1999) Recovery Plan for the Pedder, Swan, Clarence, Swamp and Saddled Galaxias.
Handfish group	Recovery Plan for Three Handfish Species, Commonwealth of Australia (2015) Handfish Conservation Project (n.d.) Meet the Handfishes. . NRM South (2021) Help our local handfish. .
Threatened eucalypts	Threatened Species Scientific Committee (2006) Conservation Advice – *Eucalyptus gunii* (Miena Cider Gum). Threatened Species Scientific Committee (2001) Conservation Advice – *Eucalyptus morrisbyi* (Morrisby's gum).
Endemic plant species with a restricted range	Threatened Species Scientific Committee (2001) Conservation Advice – *Epacris stuartii* (Southport heath) Threatened Species Section (2021) Limonium australe var. baudinii *(Tasmanian sea-lavender): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Threatened Species Section (2021). Callitris oblonga subsp. oblonga *(south esk pine): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Threatened Species Section (2021) Epacris stuartii (*Southport heath): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania. Threatened Species Section (2017) Threatened Tasmanian Orchids Flora Recovery Plan. Department of Primary Industries, Parks, Water & Environment, Hobart.
Chaostola skipper	Threatened Species Section (2021) Antipodia chaostola subsp. leucophaea *(Chaostola Skipper): Species Management Profile for Tasmania's Threatened Species Link*. Department of Primary Industries, Parks, Water and Environment, Tasmania.

Section	Relevant resources
Attachment 1	
Land, Water and Agriculture	Tasmanian Agri-Food Scorecard 2019 Australian Bureau of Statistics Value of Agricultural Commodities Produced, Australia Australian National Accounts: State Accounts Competitiveness of Tasmanian Agriculture for 2050, White Paper 2020. Tasmanian Government. Draft Rural Water Use Strategy, 2020, Department of Primary Industries, Parks, Water and Environment. Tasmania's Sustainable Agri-Food Plan 2019-23. Department of Primary Industries, Parks, Water and Environment. Australian Dairy Plan 2020 – 2025. Australian Dairy Plan and Dairy Reform Ministerial Advisory Council on Forestry (2017) A Strategic Growth Plan for the Tasmanian Forests, Fine Timber and Wood Fibre Industry. Clean Energy Regulator – Statement of Intent 2012.
Coastal and Marine	State Coastal Policy Validation Act (2003) Department of Justice (2021) State Planning Provisions – Coastal Hazards Fact Sheet Living Marine Resources Act (1995) Department of Primary Industries, Parks, Water and Environment (2021) Tasmanian Recreational Sea Fishing Strategy 2021-2030. Director of National Parks 2013, South-east Commonwealth Marine Reserves Network management plan 2013-23, Director of National Parks, Canberra
Renewable Energy	Draft Renewable Energy Action Plan 2020. Department of State Growth.
Climate Change	Climate Action 21, Tasmania's Climate Change Action Plan 2017 – 2021. Department of Premier and Cabinet. Tasmanian Disaster Resilience Strategy 2020 – 2025. Department of Premier and Cabinet.
'Closing the Gap'	Tasmanian Closing the Gap Implementation Plan 2021-2023. Department of Communities Tasmania.
Biodiversity	Australia's Strategy for Nature 2019 – 2030. Australia's Nature Hub. DPIPWE (2016) Tasmanian Wilderness World Heritage Area Management Plan 2016. Department of Primary Industries, Parks, Water and Environment. Hobart. DAWE (2021) The Australian Government's Threatened Species Strategy 2021–2031, Department of Agriculture, Water and the Environment, Canberra, April. Environment Protection and Biodiversity Conservation Act (1999) Threatened Protection Species Act (1995) Nature Conservation Act (2002)
Biosecurity	Tasmanian Biosecurity Committee (2012) Tasmanian Biosecurity Strategy 2013-2017. Published by Department of Primary Industries, Parks, Water and Environment. Commonwealth Biosecurity 2030, Department of Agriculture, Water and the Environment, Canberra, May.
Economic and Social Recovery	Premiers' Economic and Social Recovery Council, Final Report (2021). Department of Treasury and Finance.

Section	Relevant resources
Attachment 3	
Prioritisation process	Standards Reference Group SERA (2017) National Standards for the Practice of Ecological Restoration in Australia. Second Edition. Society for Ecological Restoration Australasia
Attachment 5	
Ramsar	Specific links to Ramsar Ecological Character Descriptions are provided in Attachment 5. Further information can be found Australian Government documentation International information on the Ramsar convention
Threatened species and ecological communities:	Specific links to Recovery Plans and Listing Statements for priority species and communities are provided in Attachment 5. Further information can be found: • Recovery Plans and Listing Statements • The 100 Priority Species • The Threatened Species Strategies and associated Action Plans • the Tasmanian Natural Values Atlas • the Commonwealth Protected Matters Search Tool • Tasmanian Threatened Species link
Soils	McKenzie NJ, Hairsine PB, Gregory LJ, Austin J, Baldock JA, Webb MJ, Mewett J, Cresswell HP, Welti N and Thomas M (2017) Priorities for improving soil condition across Australia's agricultural landscapes. Report prepared for the Australian Government Department of Agriculture and Water Resources. CSIRO, Australia National Soil Strategy 2021 Priorities for improving soil condition- Agricultural sector reporting data (ABS 2017)
On farm native vegetation	General Vegetation Reserve Report (DPIPWE, June 2020)
Resilient communities and industries	National Climate Resilience and Adaptation Strategy 2021-2025 (2021). Department of Agriculture, Water and the Environment, Canberra, February. CC BY 4.0 National Agricultural Innovation Agenda Landcare's role in building adaptive capacity and resilience, 2016

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Prioritisation principles – management actions	Commonwealth Biosecurity 2030 (2021) Department of Agriculture, Water and the Environment, Canberra, May. CC BY 4.0. Commonwealth of Australia (2009) NRM MERI Framework. Australian Government Natural Resource Management Monitoring, Evaluation, Reporting and Improvement Framework. Standards Reference Group SERA (2021) National Standards for the Practice of Ecological Restoration in Australia. Edition 2.2. Society for Ecological Restoration Australasia. Harvey, RG. And Mazzotti, FJ. (2018) The Invasion Curve: A Tool for Understanding Invasive Species Management in South Florida. University of Florida Lindenmayer, D. Michael, D. Crane, M. Florance, D. and Burns, E. (2018) Restoring Farm Woodlands for Wildlife. CSIRO Publishing. AdaptNRM Biodiversity adaptation toolkit Williams KJ, Prober SM, Harwood TD, Doerr VAJ, Jeanneret T, Manion G, and Ferrier S (2014) Implications of climate change for biodiversity: a community-level modelling approach, CSIRO Land and Water Flagship, Canberra. Society for Ecological Restoration (2018) National standards for the practice of ecological restoration in Australia. Gann GD, McDonald T, Walder B, Aronson J, Nelson CR, Jonson J, Hallett JG, Eisenberg C, Guariguata MR, Liu J, Hua F, Echeverria C, Gonzales, EK, Shaw N, Decleer K, Dixon KW (2019) International principles and standards for the practice of ecological restoration. Second edition. Restoration Ecology S1-S46 McDonald T, Gann GD, Jonson J and Dixon KW. 2016. International principles and standards for the practice of ecological restoration – including principles and key concepts. First Edition. Society for Ecological Restoration.

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