



Huon Valley Council

Natural Resource Management Strategy

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Abbreviations

AHT	Aboriginal Heritage Tasmania
DPIPWE	Department of Primary Industries, Parks, Water and the Environment
HVC	Huon Valley Council
NRM	Natural Resource Management
SETAC	South East Tasmania Aboriginal Corporation

Executive Summary

This strategy has been produced to outline the activities of Council with respect to natural resource management (NRM) in the Huon Valley municipal area. Specifically, it identifies the functions of Council's in fulfilling statutory obligations, regional priorities and community expectations in relation to management of the area's natural resources.

The strategy sits within the broader Tasmanian NRM Framework and recognises the range of organisations involved in the management of the natural resources of the Huon Valley. It is intended that relevant NRM documents will be used as a strategic reference guide for Council's NRM Unit in implementing the strategy and in the provision of advice to the other areas of the Council, community groups and landholders.

This strategy supports the broader delivery of the *Huon Valley Council Strategic Plan 2015-2025*. The strategy includes overarching objectives and lists a number of challenges and opportunities for the management of natural and cultural values in the region. Management targets are set to address these challenges and opportunities. Broad actions address each management target and finally the performance measures to track progress against those actions.

The strategy splits the natural assets of the Huon Valley into 'land' and 'coasts and waterways'. The two areas can be read as discreet sections, however natural resource management is an integrated practice and the condition of the two areas impact on each other. For this reason both the management targets and actions for 'land' and 'coasts and waterways' areas are the same or similar.

Key themes throughout this strategy include the importance of conserving and enhancing natural values (including flora, fauna, soil and water); the effective management of weeds, pests and diseases; and protection of cultural values. Key activities that address these key themes include weed management, improving land management practices, providing advice on development applications, council land management and working closely with care groups, industry, landholders, the general public and NRM agencies partnerships.

1.0 Introduction

1.1 Definition of Natural Resource Management

Natural Resource Management (NRM) refers to the active management of natural assets such as land, water, soil, plants, animals and microorganisms, along with the systems they form. Natural Resource Management specifically focuses on a scientific and technical understanding of resources and ecology and the life-supporting capacity of those resources. NRM is important because natural resources provide environmental, economic and social benefits to communities now and in the future, when managed sustainably.

1.2 Purpose

This strategy has been developed to:

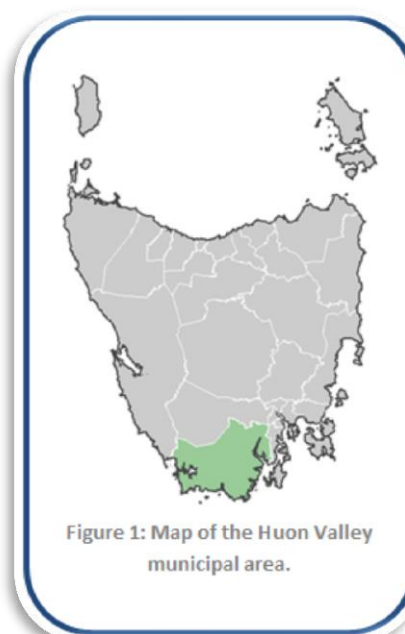
- provide strategic direction through **objectives** in the management of our natural resources;
- identify **challenges and opportunities** for effectively managing our natural resources;
- work towards common **management targets** with stakeholders; and
- define the focus of NRM initiatives (**actions**) in order to work towards the management targets.

1.3 Natural Assets of the Huon Valley Municipal Area

The Huon Valley municipal area covers 5,497 square kilometres, and is the southern most local government area in Australia (see Figure 1).

The Huon Valley is home to more than 16,000 people, who largely live in and around the five main townships of Huonville, Franklin, Cygnet, Geeveston and Dover.

The Huon Valley is home to Australia's oldest living tree, the Huon Pine, and is characterised by iconic natural features including the Huon River and coastline of the D'Entrecasteaux Channel, extensive pastures, orchards and vineyards, with a back-drop of extensive native forests, visually stunning mountain ranges and the Southwest National Park, which is part of the Tasmanian Wilderness World



Heritage Area. The World Heritage listed Macquarie Island also falls within the municipal area. Both nature reserves are managed by the state government.

The Aboriginal people of Tasmania have a long and rich connection with cultural and natural heritage values in the Huon Valley. There are a number of sites in this area that are of great significance to Aboriginal people, mostly located along coasts and waterways as well as inland caves.

The region is the hub of Tasmania's fish farming industry. Rock lobster, scale fish and abalone are caught here; salmon, apples, cherries, grapes and berries are grown here; timber is grown and harvested here; and each year over 130,000 visitors are attracted to the region. Aquaculture, agriculture, tourism and forestry are key economic drivers in the Huon Valley and all industries are reliant on the sustainable management of our natural resources.

1.4 Strategy Context

This strategy aligns to the *Huon Valley Council Strategic Plan 2015-2025* through Strategic Objective 1: A Great Environment. This Strategic Objective is described as 'an environment that is acknowledged, appreciated and generates pride and a strong sense of place,' and 'a natural and developed environment that is managed for sustainability and beneficial use'. The activities resulting from this strategy will also contribute to the other three Strategic Objectives described in the Council's strategic plan – 'A prosperous, resilient economy', 'Capable and productive people and assets', and 'Community wellbeing and liveability'.

This strategy applies to the specific functions of Council in relation to natural resource management in the Huon Valley municipal area. The strategy outlines the key strategic actions required to be undertaken by Council in order to meet community expectations and legislative requirements, including actions that are undertaken in partnership with other stakeholders.

The *Natural Resource Management Strategy for Southern Tasmania* (2015), the regional strategy, produced by NRM South and accredited by the State Government, provides a broader context for an integrated approach to natural resource management. It is intended to provide guidance to natural resource management across Southern Tasmania. The Huon Valley is included in NRM South's program, which has been developed to protect and enhance the natural values of the area.

The strategy has been developed at a scale local communities can utilise in the prioritisation and implementation of on-ground NRM initiatives.

The Huon Valley is included in NRM South's NRM Facilitation program, which has been developed to protect and enhance the natural values of the area, and facilitate regional priorities at a local scale relevant to the Huon Valley through dedicated facilitation staff.

1.5 Council's Role in Natural Resource Management

The Huon Valley Council understands that the sustainable management of our natural resources is vital if we are to ensure our ongoing social, economic and environmental wellbeing. As managers of public land and land use planners, Council has responsibility for the regulation of a wide range of activities that may impact upon natural resource management. In many instances Council's involvement in natural resource management is based on obligations under various pieces of legislation and policies dictating the protection and sustainable use of natural resources (see Appendix A).

Natural resource management has been identified as an important part of the Huon Valley Council's activities. NRM works with the region's natural values to protect the land, coast and waterway systems that are home to all of the plant and animal life that makes this part of Tasmania so unique. The region has a complex Aboriginal cultural heritage, with important ongoing spiritual connections, as well as artefacts of ancient human habitation scattered around the area.

NRM is a diverse discipline leading to diverse initiatives, which includes:

- engagement of private landholders to utilise sustainable land management practices;
- revegetation of degraded areas;
- removal of invasive weeds and provision of information to private landholders on developing and carrying out property-wide weed management actions;
- promotion of NRM topics and information to build knowledge and awareness in our communities;
- coordination of events to encourage and enable people to get involved in NRM; and
- supporting local Care Groups and providing funds, through grants and membership fees, to help them with their own projects.

Maintaining a healthy environment is the key to ensuring the Huon Valley will continue to thrive. With help from neighbouring Councils and other agencies, such as NRM South, Landcare Tasmania, the Southern Coastcare Association of Tasmania, and the Understorey Network, and with an army of dedicated volunteers, the Huon Valley is being cared for.

1.6 Progress

Huon Valley Council has supported a NRM program in the Huon Valley for more than 20 years. Historically, the focus of NRM activities was on water quality monitoring and improvement, establishment of the Landcare Network and strategic planning from an integrated catchment management perspective. This led to the creation of the Healthy Rivers Project, funded through the Federal Government's Natural Heritage Trust program, and the completion of a Catchment Management Plan for the Huon Catchment in 1997.

When this funding was no longer available in 2004, Council decided to fund an NRM program as a core function funded by the general Council rate. Huon Valley Council was the winner of the “Local Government Landcare Partnerships Award” in the 2010 National Landcare Awards, selected for its long term commitment to the local Landcare, Rivercare and Coastcare groups.

The Council’s NRM Advisory Committee has facilitated communication between all groups who have an interest in conserving the natural resources of the Huon Valley. In addition, the creation of the Huon Valley NRM Strategy (2010), and the Huon Valley Weed Management Strategy (2009 and 2013) has assisted in guiding local communities and Council in the management of the Valley’s natural resources. These strategies have also attracted funding for on-ground works and have provided a local focus for NRM initiatives.

With natural resource management aims of encouraging sustainable management of land and industries resources and protecting and enhancing natural and cultural values, including the management of weeds, pests and diseases, the follow activities have been participated in, and facilitated by, the NRM Unit in the past:

- weed removal and management
- revegetation
- rehabilitation
- protection of Aboriginal heritage sites
- coordination of a Council working group, focussed on efficient energy use options
- development of Home Energy Audit Toolkits
- joining the D’Entrecasteaux and Huon Collaboration - an agreement between our waterway’s stakeholders to improve its health
- ground-truthing of TASVEG vegetation communities
- supporting natural resource industries
- seed collection and propagation
- waste management
- access (track) management
- erosion control
- participation in the STCA Regional Climate Change Initiative (RCCI) and Regional Councils Climate Adaptation Project (RCCAP)
- participation in the development of an Innovative Development Project “Facilitating effective community adaptation to bushfire risk as a result of climate change”
- identification of coastal sites requiring remediation works through the Coastal Hotspots project
- providing NRM technical advice internally to other service areas within Council
- supporting Care Groups by providing

such as aquaculture, agriculture and forestry

financial assistance, tools, administration and technical advice

The majority of these activities were completed in conjunction with program partners and community groups, including securing funds through various sources. The partnership with NRM South has been the most significant partnership in delivering a NRM program in the Huon Valley. Joint work plans are developed annually to deliver complimentary and aligned initiatives predominately in supporting and building capacity in Huon Valley landholders through property management programs and land management advice.

1.7 Objectives

- Objective 1** To protect and enhance natural land, coast and waterway systems and the flora and fauna that relies on them and the cultural and natural values within them.
- Objective 2** To establish and strengthen relationships with key strategic partners and Huon Valley industries and communities, including Aboriginal communities, through NRM initiatives.
- Objective 3** To manage and reduce existing invasive weeds, pests and diseases in the Huon Valley and to prevent and act on new incursions.
- Objective 4** For the NRM Unit to support Council operations to meet obligations under relevant natural resource management legislation and policies.

2.0 Land



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2.1 Overview - Land

In this strategy 'land' refers to landscapes and their make-up in the Huon Valley municipal area. This includes soils, landforms, geological features, ecosystems, flora, fauna and cultural values.

Within the Huon Valley there are rich soils, hills, mountains, river valleys, expanses of dry and wet forests, islands, caves, cliffs, flood plains and glacial deposits. Some of these landforms are of immense cultural significance to local Aboriginal people.

The landscapes of the Huon Valley provide the basis for human use, providing services through residential and commercial development, economic activities such as agriculture, horticulture and quarries, as well as tourism, recreation and cultural heritage values. Land is also one of the key environmental building blocks upon which biological systems depend. It is valued for its role in the water cycle, nutrient storage and cycling, pollution breakdown and absorption, climate stability and in the provision of biodiversity and habitat.

Much of the land in the Huon Valley area, not protected as part of the World Heritage Area, is utilised for agricultural output including many small farms supporting livestock, orchards and vineyards. Tourism and recreational uses of the land are also important in the Huon Valley. There are over a dozen threatened vegetation communities mapped in the Huon Valley area outside of the World Heritage Area, these are predominantly made up of four

key eucalyptus species communities dominated by gums or peppermints. Soil health is integral for all of these land uses to continue sustainably into the future.

Key issues for land management in the Huon Valley municipal area are managing weed infestations and maintaining quality and quantity of vegetation.

2.2 Challenges and Opportunities of Land Management

The below tables (Tables 1 and 2) list a number of challenges and opportunities for the management of land assets in the Huon Valley.

Table 1: Challenges for land management.

ID #	Broad Challenge	Challenge Description
LC 1	Land Clearance	<p>Clearance of native vegetation results in the incremental loss of natural values, including ecological, aesthetic and economic values.</p> <p>It creates vegetation fragmentation, creating small unlinked patches of vegetation, resulting in condition decline and reduced ecological function and biodiversity.</p> <p>It plays a role in the further decline of threatened species and vegetation communities.</p>
LC 2	Poor Land and Industry Management Practices	<p>Poor land management practices such as overgrazing, inefficient irrigation, inappropriate fire management and extensive removal of wood debris for firewood impacts negatively on ecological functions.</p> <p>It plays a key role in the decline of soil health and soil carbon storage levels, which in turn reduces productive output.</p> <p>This is a particular challenge on land prone to sodicity and acidic sulphate soils, both present in the Huon Valley.</p>
LC 3	Weeds, Pests and Diseases	<p>Both new and existing invasive weeds, pests and diseases present a threat to economic productivity, threatened species, biodiversity and ecological function. They detrimentally affect recreational activities such as fishing and the enjoyment of parks and reserves.</p>
LC 4	Limited Public	<p>The low level of awareness, knowledge, engagement and skills of natural resource management, climate change and cultural values among the public not only impacts on how natural resources are managed, but also on the amount of</p>

ID #	Broad Challenge	Challenge Description
	Awareness	funding and resources available for the management of natural resources.
LC 5	Climate Change	<p>Climate change impacts on ecosystems and consequently also on economic development in the Huon Valley, particularly the agriculture and aquaculture industries.</p> <p>Climate change adaptation tools are becoming more readily available to assist communities in prioritising activities and initiatives in response to projected impacts upon the environment.</p>
LC 6	Providing Care Group Support	It is a challenge to grow Care Group capacity such as increasing membership, skills and funding opportunities. Pressure is placed on groups through insufficient resourcing of support roles to reduce administrative tasks and provide strategic focus and advice. Without this support many groups dissolve due to burnout of key members, time consuming administration and absence of succession options.
LC 7	Limited Resources	It is a resourcing and capacity challenge for the NRM Unit to provide support and advice to Council in reducing risk through meeting statutory responsibilities. When limited capacity, resources and knowledge affect decisions made through the development, planning and land management processes this can lead to loss and detrimental effects on cultural and natural values.

Table 2: Opportunities for land management.

ID #	Broad Opportunity	Opportunity Description
LO 1	Economic Development	<p>Opportunities exist in more favourable growing conditions for various industries due to temperature rise within and outside of the Huon Valley region.</p> <p>NRM tools such as enterprise suitability maps, provide improved evidence-based decision making.</p>
LO 2	Partnerships	<p>Partnership building with external agencies provides access to more information, resources and funding along with consistency of strategic approach and advice. Partnerships with external agencies and community groups also provide the opportunity for more efficient use of limited resources.</p> <p>Opportunities exist to further incorporate Aboriginal economic, cultural and environmental knowledge and perspectives into NRM planning and implementation to further increase engagement and participation of Aboriginal people in NRM initiatives.</p> <p>There is the opportunity to increase active, enthusiastic and supported Care Groups involvement in NRM activities and initiatives.</p> <p>Opportunities exist to develop networks of interested people in local discreet NRM issues or initiatives.</p>
LO 3	Public Awareness	<p>An increase in the number of people moving into the Huon Valley for lifestyle and climate change reasons bring new ideas, energy and funding opportunities for natural resource management.</p> <p>When community awareness, knowledge, skills and funding opportunities for natural resource management initiatives are increased, capacity and outputs are also increased. Activities that support, advocate and educate about natural resource</p>

ID #	Broad Opportunity	Opportunity Description
		management are integral to successfully increasing public awareness levels.
LO 4	Revegetation	<p>Significant opportunities exist to reduce vegetation fragmentation by securing and connecting patches through revegetation, particularly in riparian zones, to retain and improve soil health and enhance water quality, biodiversity and other natural values.</p> <p>NRM tools model future benefits from activities such as revegetation on historically cleared land.</p>

2.3 Management Targets - Land

In alignment with the regional NRM strategy the below management targets have been developed to address the challenges and opportunities identified for land assets in the Huon Valley area.

L - MT1. Recognition and conservation of natural and cultural values and consideration of projected climate change impacts in planning, development and land and industry management processes.

L – MT2. New and existing invasive weed, pest and disease incursions are actively responded to through monitoring, prevention and control as well as awareness, education and advice.

L – MT3. Huon Valley communities, including landholders and Aboriginal communities, are increasingly aware of best practice natural resource management and are involved in natural resource management initiatives.

2.4 Actions for Managing Land Assets

This strategy will inform the Council's Annual Plan, which in turn, along with these actions below (Table 3), will inform a NRM annual work plan. This annual work plan will be developed to include specific activities and initiatives to be achieved in that 12 month period based on available human and financial resources.

Table 3: Actions for managing land assets linked to each Land management target, key partners and timeframes.

Management Target	Action	Key Partners	Timeframe
L - MT1. Recognition and conservation of natural and cultural values and consideration of projected climate change impacts in planning, development and land and industry management processes.	L – A1. Work with, and provide advice to, landholders to promote the adoption of best practice natural resource management, including cultural values protection and adaptation for projected climate change impacts.	NRM South DPIPWE	Ongoing
	L – A2. NRM Unit to provide technical advice for Council operations on natural resource management matters pertaining to relevant legislative requirements, development applications, on-ground works, plans, policies and strategies, including threatened species, cultural values, projected climate change impacts and weed management.	DPIPWE NRM South AHT	Ongoing
L – MT2. New and existing invasive weed, pest and disease incursions are actively responded to through monitoring, prevention and control as well as awareness, education and advice.	L – A3. Promote relevant strategies, such as <i>Huon Valley Weed Management Strategy (2013)</i> , the <i>Interim Phytophthora cinnamomi Management Guidelines (2005)</i> and <i>A Tasmanian field hygiene manual to prevent the spread of freshwater pests</i>	NRM South DPIPWE	Ongoing

Management Target	Action	Key Partners	Timeframe
	<i>and pathogens (2010), as appropriate.</i>		
	L – A4. Work with, and provide advice to, landholders on identification, impacts and control methods of invasive weeds, pests and diseases.	NRM South DPIPWE	Ongoing
L – MT3. Huon Valley communities, including landholders and Aboriginal communities, are increasingly aware of best practice natural resource management and are involved in natural resource management initiatives.	L – A5. Engage, inform and support local communities by providing natural resource management information and advice and by promoting the role of the NRM Unit.	NRM South DPIPWE	Ongoing
	L – A6. Support local environmental volunteer Care Groups through providing training opportunities, grant opportunities, financial support for administrative costs, access to NRM related equipment and strategic project planning and technical advice.	Volunteer Coordinators Network Landcare Tasmania Volunteering Tasmania SETAC	Ongoing

2.5 Performance Measures - Land

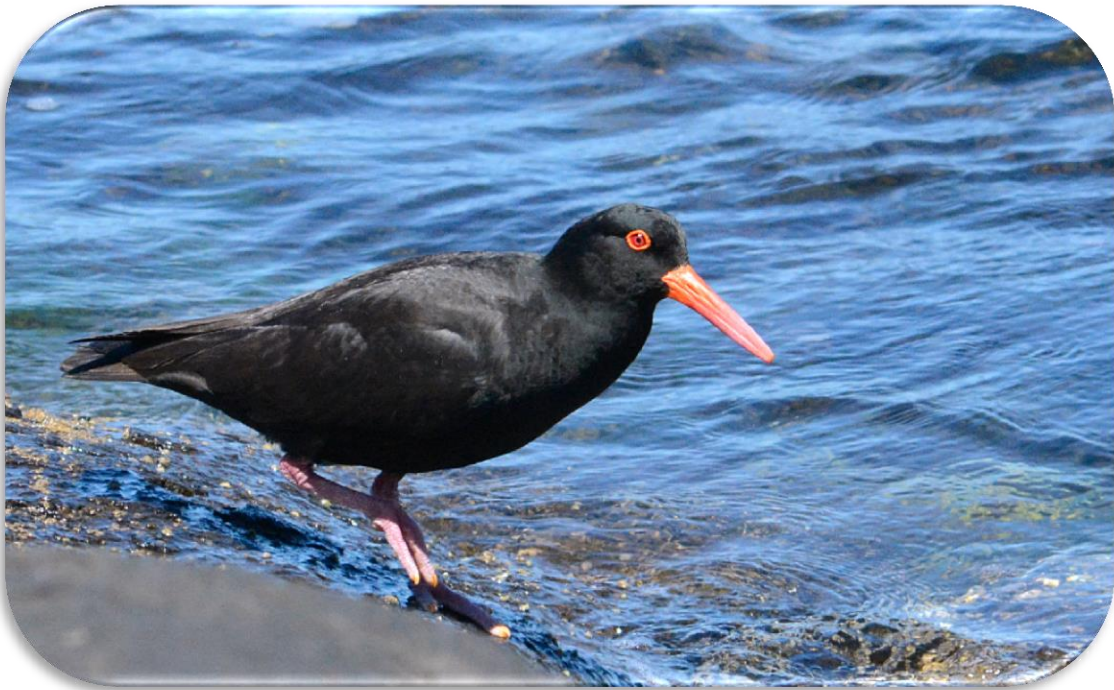
Data will be captured in a report on the below performance measures (Table 4) annually, which will in turn provide an indication of where resources are being utilised and where resources may need to be focussed in future to achieve successful NRM related outcomes.

Table 4: Performance measures linked to the Actions for managing land assets.

Actions	Performance Measure
L – A1. Work with, and provide advice to, landholders to promote the adoption of best practice natural resource management, including cultural values protection and adaptation for projected climate change impacts.	PM1 - Technical advice provided from the NRM Unit on all developments, on-grounds works and land and industry management practices, including invasive species management likely to impact on natural and cultural values when requested.
L – A2. NRM Unit to provide technical advice for Council operations on natural resource management matters pertaining to relevant legislative requirements, development applications, on-ground works, plans, policies and strategies, including threatened species, cultural values, projected climate change impacts and weed management.	PM1 - Technical advice provided from the NRM Unit on all developments, on-grounds works and land and industry management practices, including invasive species management likely to impact on natural and cultural values when requested.
L – A3. Implement and promote relevant strategies, such as <i>Huon Valley Weed Management Strategy</i> (2013), the <i>Interim Phytophthora cinnamomi Management Guidelines</i> (2005) and <i>A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens</i> (2010), as appropriate.	PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit. PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit. PM4 - Number of NRM related information topics accessible to Huon Valley

Actions	Performance Measure
	communities through the NRM Unit.
L – A4. Work with, and provide advice to, landholders on identification, impacts and control methods of invasive weeds, pests and diseases.	<p>PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit.</p> <p>PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit.</p> <p>PM4 - Number of NRM related information topics accessible to Huon Valley communities through the NRM Unit.</p>
L – A5. Engage, inform and support local communities by providing natural resource management information and advice and by promoting the role of the NRM Unit.	<p>PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit.</p> <p>PM4 - Number of NRM related information topics accessible to Huon Valley communities through the NRM Unit.</p>
L – A6. Support local environmental volunteer Care Groups through providing training opportunities, grant opportunities, financial support for administrative costs, access to NRM related equipment and strategic project planning and technical advice.	<p>PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit.</p> <p>PM5 - Number of environmental volunteer Care Groups that have participated in at least one activity within a 12 month period.</p>

3.0 Coasts and Waterways



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3.1 Overview – Coasts and Waterways

In this strategy 'coasts and waterways' refer to the shorelines, estuaries and marine zones within the Huon Valley municipal area. This includes riverine systems, lakes, wetlands and groundwater, along with areas potentially influenced by coastal flooding and sea level rise.

Within the municipal area there are lakes, lagoons, wetlands and even hot springs. An unnamed wetland inland of South Cape Bay is listed as a Wetland of National Importance. A number of rivers are located in this area, including the Weld and Picton rivers, which feed into the major Huon River, which itself originates from Lake Pedder, moving from fresh to brackish and finally salt water before reaching the D'Entrecasteaux Channel. The Huon River is considered tidal all the way up to Huonville. All of the major townships in the Huon Valley municipal area are located along bodies of water. Many of the creeks, rivulets and streams through the region are seasonal, flowing only through winter and spring. The region includes sizable islands, some inhabited, such as Huon Island at the mouth of the Huon River estuary, and some important nature reserves, such as the Egg Islands approximately situated between the townships of Franklin and Cradoc. Groundwater is also an important source of water in the Huon Valley region.

Good water quality is integral for the success of the horticulture, agricultural and aquaculture industries in the Huon Valley region. The coasts and waterways of this region are utilised for recreational activities such as boating, fishing, swimming and picnicking. The coastal and waterway scenery enriches the general tourism experience of the area, particularly for bushwalking and bike riding. There are a number of town water supply stations in the Huon Valley municipal area, plus numerous other properties supplied solely by rainwater tanks.

Many flora and fauna species and communities are also dependent upon coastal and waterway zones. Aboriginal heritage sites are often located along coasts and waterways, such as rock shelters, quarry sites, middens and open camp sites, some of which have been identified in the Huon Valley area. Wetlands and riparian vegetation are important ecosystems including for their function of filtering water, capturing silt, excess nutrients and pollutants. Both water quality and quantity are important in protecting the economic, recreational and ecosystem services that coasts and waterways provide.

A key issue for coastal and waterway management in the Huon Valley municipal area is catchment health.

3.2 Challenges and Opportunities of Coastal and Waterways Management

The below tables (Tables 5 and 6) list a number of challenges and opportunities for the management of coast and waterway assets in the Huon Valley.

Table 5: Challenge for Coasts and Waterways management.

ID #	Broad Challenge	Challenge Description
C&WC 1	Land Clearance	<p>Where areas have been heavily cleared aquatic ecosystem health is compromised due to increased sediments, excess nutrients, and increasing salinity.</p> <p>Loss of riparian vegetation poses a serious threat to coast and waterway systems and subsequently water quality.</p>
C&WC 2	Poor Land and Industry Management Practices	<p>Pollution sources, river bank erosion and livestock accessing waterways also pose serious threats to the health of coast and waterway systems, including water quality. This then contributes to a decrease in economic productivity and development opportunities, particularly for the aquaculture industry.</p> <p>Land use change and intensification are key drivers of increased pollution, nutrient and sediment loads deteriorating water quality levels.</p> <p>Use of inappropriate methods of riparian and wetland restoration may impact on hydrology and lead to damage or loss of Aboriginal heritage sites.</p> <p>As a result of a range of pressures, including industry, recreation and development, some loss and modification of marine habitat has occurred.</p> <p>Contaminants and refuse, such as marine debris harm marine animals through ingestion or entanglement.</p>

ID #	Broad Challenge	Challenge Description
C&WC 3	Weeds, Pests & Diseases	<p>Introduced species, including invasive weeds, pests, diseases and domestic animals threatened coasts and waterways through predation, habitat modification and out-competing native species.</p> <p>Invasive aquatic weeds, pests and diseases also contribute to a decrease in economic productivity and development opportunities, particularly for the aquaculture industry.</p>
C&WC 4	Limited Public Awareness	Recreational activities, such as 4WD, track creation and walking dogs on beaches present risks to shorebirds, coastal vegetation and Aboriginal heritage sites.
C&WC 5	Climate Change	Wetlands and some coastal sections in the Huon Valley area are particularly vulnerable to the impacts of climate change, such as sea level rise, saltwater intrusion into freshwater systems, the effects of storm surges, coastal erosion and inundation, also threatening Aboriginal heritage sites.
C&WC 6	Providing Care Group Support	The majority of volunteer Care Groups focus on coasts and waterways in the Huon Valley. It is a challenge to grow Care Group capacity such as increasing membership, skills and funding opportunities. Pressure is placed on groups through insufficient resourcing of support roles to reduce administrative tasks and provide strategic focus and advice. Without this support many groups dissolve due to burnout of key members, time consuming administration and absence of succession options.
C&WC 7	Limited Resources	It is a resourcing and capacity challenge for the NRM Unit to provide support and advice to Council in reducing risk through meeting statutory responsibilities. When limited capacity, resources and knowledge affect decisions made through the development, planning and land management processes this can lead to loss and detrimental effects on cultural and natural values.

Table 6: Opportunities for Coasts and Waterways management.

ID #	Broad Opportunity	Opportunity Description
C&WO 1	Economic Development	Increases in ocean temperature may provide new opportunities for non-traditional fisheries development.
C&WO 2	Tasmanian Planning Scheme	The Tasmanian Planning Scheme is likely to provide opportunities to improve integration of biodiversity outcomes into planning and management processes resulting in conservation of natural and cultural values.
C&WO 3	Partnerships	Working with partners to conduct further research into the region’s coastal and waterway values will provide a stronger base on which to inform decisions regarding land use and marine-based industry development and expansion, including climate adaptation planning.
C&WO 4	Improved Landholder and Industry Management Practices	<p>There are significant opportunities for ecosystem health and water quality improvement through improved fertiliser management on farms, efficient irrigation, and diverting effluent and pollutants from water courses.</p> <p>Further integration of riparian-related issues, both natural and cultural, into property and landscape management planning, such as fencing stock off from waterways and revegetating riparian areas, will yield positive results for water quality outcomes.</p>
C&WO 5	Revegetation	Restoring and/or protecting coastal wetlands from degradation has the potential to enhance industries such as aquaculture and tourism, and enhance water quality, flood and storm surge mitigation.

3.3 Management Targets – Coasts and Waterways

In alignment with the regional NRM strategy the below management targets have been developed to address the challenges and opportunities identified for coastal and waterway assets in the Huon Valley area.

C&W – MT1. Recognition and conservation of the natural and cultural values of coasts and waterways and consideration of projected climate change impacts in planning, development and land and industry management processes.

C&W – MT2. New and existing invasive aquatic weed, pest and disease incursions are actively responded to through awareness, education and advice.

C&W – MT3. Huon Valley communities, including landholders and Aboriginal communities, are increasingly aware of best practice natural resource management and are involved in natural resource management initiatives.

3.4 Actions for Managing Coasts and Waterways

This strategy will inform the Council’s Annual Plan, which in turn, along with these actions below (Table 7), will inform a NRM annual work plan. This annual work plan will be developed to include specific activities and initiatives to be achieved in that 12 month period based on available human and financial resources.

Table 7: Actions for managing Coasts and Waterways linked to each Coasts and Waterways management target, key partners and timeframes.

Management Target	Action	Key Partners	Timeframe
C&W – MT1. Recognition and conservation of the natural and cultural values of coasts and waterways and consideration of projected climate change impacts in planning, development and land and industry management processes.	C&W – A1. Work with, and provide advice to, landholders and industry to promote the adoption of best practice natural resource management, including cultural values protection, rehabilitation of riparian zones and adaptation for projected climate change impacts.	NRM South D’Entrecasteaux and Huon Collaboration DPIPWE	Ongoing
	C&W – A2. NRM Unit to provide technical advice for Council operations on natural resource management matters pertaining to relevant legislative requirements, development applications, on-ground works, plans, policies and strategies, including cultural values, water quality and threatened species.	DPIPWE NRM South AHT	Ongoing
C&W – MT2. New and existing invasive aquatic weed, pest and disease incursions are actively responded to through awareness, education and	C&W – A3. Promote relevant strategies, such as <i>Huon Valley Weed Management Strategy</i> (2013), the <i>Interim Phytophthora cinnamomi Management Guidelines</i> (2005) and <i>A Tasmanian field hygiene manual to prevent the spread of freshwater pests</i>	NRM South DPIPWE	Ongoing

Management Target	Action	Key Partners	Timeframe
advice.	<i>and pathogens</i> (2010) as appropriate.		
	C&W – A4. Provide advice to, landholders on identification, impacts and control methods of invasive aquatic weeds, pests and diseases.	NRM South DPIPWE	Ongoing
C&W – MT3. Huon Valley communities, including landholders and Aboriginal communities, are increasingly aware of best practice natural resource management and are involved in natural resource management initiatives.	C&W – A5. Engage, inform and support local communities by providing natural resource management information and advice, particularly on wetlands, coasts and waterways.	NRM South DPIPWE D'Entrecasteaux and Huon Collaboration	Ongoing
	C&W – A6. Support local environmental volunteer Care Groups through providing training opportunities, grant opportunities, financial support for administrative costs, access to NRM related equipment and strategic project planning and technical advice.	Volunteer Coordinators Network Landcare Tasmania Volunteering Tasmania SETAC	Ongoing

3.5 Performance Measures – Coasts & Waterways

Data will be captured in a report on the below performance measures (Table 8) annually, which will in turn provide an indication of where resources are being utilised and where resources may need to be focussed in future to achieve successful NRM related outcomes.

Table 8: Performance measures linked to the Actions for managing coasts and waterways.

Actions	Performance Measure
C&W – A1. Work with, and provide advice to, landholders and industry to promote the adoption of best practice natural resource management, including cultural values protection, rehabilitation of riparian zones and adaptation for projected climate change impacts.	PM1 - Technical advice provided from the NRM Unit on all developments, on-grounds works and land and industry management practices, including invasive species management likely to impact on natural and cultural values when requested.
C&W – A2. NRM Unit to provide technical advice for Council operations on natural resource management matters pertaining to relevant legislative requirements, development applications, on-ground works, plans, policies and strategies, including cultural values, water quality and threatened species.	PM1 - Technical advice provided from the NRM Unit on all developments, on-grounds works and land and industry management practices, including invasive species management likely to impact on natural and cultural values when requested.
C&W – A3. Promote relevant strategies, such as <i>Huon Valley Weed Management Strategy</i> (2013), the <i>Interim Phytophthora cinnamomi Management Guidelines</i> (2005) and <i>A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens</i> (2010) as appropriate.	PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit. PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit. PM4 - Number of NRM related information topics accessible to Huon Valley

Actions	Performance Measure
	communities through the NRM Unit.
C&W – A4. Work with, and provide advice to, landholders on identification, impacts and control methods of invasive aquatic weeds, pests and diseases.	<p>PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit.</p> <p>PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit.</p> <p>PM4 - Number of NRM related information topics accessible to Huon Valley communities through the NRM Unit.</p>
C&W – A5. Engage, inform and support local communities by providing natural resource management information and advice, particularly on wetlands, coasts and waterways.	<p>PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit.</p> <p>PM4 - Number of NRM related information topics accessible to Huon Valley communities through the NRM Unit.</p>
C&W – A6. Support local environmental volunteer Care Groups through providing training opportunities, grant opportunities, financial support for administrative costs, access to NRM related equipment and strategic project planning and technical advice.	<p>PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit.</p> <p>PM5 - Number of environmental volunteer Care Groups that have participated in at least one activity within a 12 month period.</p>

4.0 Performance

4.1 Monitoring and Evaluation

The Huon Valley NRM Advisory Committee plays an important role in monitoring and evaluating the strategy, as indicated in the Committee's Terms of Reference. By providing regular analysis and feedback on the strategy, the Committee can ensure that the strategy is being implemented effectively.

The progress of implementing this strategy is reported to Council via quarterly reports. A summary of progress will also be included in the Council's Annual Report, providing accountability and transparency to Huon Valley communities on NRM initiatives.

As new NRM related issues emerge, improved and additional NRM tools and information become available and the context within which this strategy sits evolves, the document may need to be updated.

4.2 Performance Score Card

The below table (Table 9) provides a list of the performance measures for this strategic plan. See sections 2.5 and 3.5 for how these performance measures are linked to the actions. These performance measures also assist the NRM Unit to deliver against the higher level and broader Huon Valley Council Strategic Plan 2015-2025 strategies and will be used for both planning and reporting purposes.

Table 9: Performance measures.

Performance Measure
PM1 - Technical advice provided from the NRM Unit on all developments, on-grounds works and land and industry management practices, including invasive species management likely to impact on natural and cultural values when requested.
PM2 - Number and size of partnered projects and activities participated in annually by the NRM Unit.
PM3 - Number of landholders in the Huon Valley being advised annually by the NRM Unit.
PM4 - Number of NRM related information topics accessible to Huon Valley communities through the NRM Unit.
PM5 - Number of environmental volunteer Care Groups that have participated in at least one activity within a 12 month period.

Appendix

A. Legislative and Policy Instruments Relevant to NRM

Natural Resource Management is undertaken in the context of the following regulatory instruments.

National	
<i>Environment Protection and Biodiversity Conservation Act (1999)</i>	Provides for the protection of the environment, the promotion of ecologically sustainable development, conservation of biodiversity and a co-operative approach to protection and management of the environment, assists in the co-operative implementation of Australia's international environmental responsibilities, recognizes the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity, and promotes the use of indigenous people's knowledge of biodiversity.
State	
<i>Aboriginal Relics Act 1975</i>	Provides for the protection of Aboriginal cultural heritage.
<i>Agricultural and Veterinary Chemicals (Control of Use) Act 1995</i>	Chemical use in streams and along river banks must be in accordance with this Act.
<i>Code of Practice for Ground Spraying (2001)</i>	Prescribes responsibilities and minimum standards when spraying on waterways, waterbodies or waterlogged areas.
<i>Crown Lands Act 1976</i>	Crown Land Services manages crown lands under licence, lease or being held for sale, and facilitates the assessment within the State Government of all applications for crown land use, including the private use of reserved lands under both the <i>Crown Lands Act 1976</i> and the <i>National Parks and Reserves Management Act 2002</i> . This covers new developments such as weirs, channel modification, telephone services, roads, pump stations or other structures on banks. Such developments are also subject to <i>Land Use and Approvals Act 1993</i> .
<i>Environmental Management and Pollution Control Act 1994</i>	Provides for the regulation of environmentally relevant activities and associated waste-water emissions by State and local Government.
<i>Historical Cultural Heritage Act 1995</i>	Restrictions on works may apply where a waterway or a structure on a waterway is deemed to have historic cultural heritage significance to any group or community in relation to the archaeological, architectural, cultural, historical, scientific, social or technical value of the place.
<i>Land Use Planning and Approvals Act 1993</i>	The <i>Land Use Planning and Approvals Act 1993</i> is the principal planning Act. It provides for the making and amending of planning schemes, development control, enforcement and agreements between planning authorities and land owners, and a process of appeals.
<i>Mineral Resources Development Act 1995</i>	Provides for the development of mineral resources consistent with sound economic, environmental and land use management.
<i>National Parks and Reserves Management Act 2002</i>	Provides for the management of national parks and other reserved land and repeals the <i>National Parks and Wildlife Act 1970</i> .
<i>Natural Resource Management Act 2002</i>	Established the Tasmanian Natural Resource Management Council and regional committees for natural resource management and provides for the development of regional strategies for natural resource management.
<i>Nature Conservation Act 2002</i>	Makes provisions with respect to the conservation and protection of the fauna, flora and geological diversity of the State, to provide for the declaration of national parks and other reserved land and for related purposes.

<i>Plant Quarantine Act 1997</i>	Provides for quarantine of plants and control of pests and diseases.
Resource Management and Planning System (RMPS) (1993)	Provides Tasmania with an integrated policy, statutory, and administrative framework for the sustainable development and conservation of resources. The aim of the RMPS is to achieve sustainable outcomes from the use and development of the State's natural and physical resources. Several pieces of legislation embody the aims of the RMPS.
State Coastal Policy (1996)	The statutory planning instrument that provides for the sustainable development of the coastal zone within Tasmania and guides all State agencies and local government in appropriate planning and management of the coastal environment.
<i>State Policies and Projects Act 1993</i>	Provides for State of the Environment Reporting every 5 years.
State Policy on the Protection of Agricultural Land 2009	Identifies mechanisms by which prime agricultural land can be protected from conversion to other uses.
State Policy on Water Quality Management (1997)	The statutory planning instrument that provides for the maintenance or enhancement of the quality of Tasmanian surface waters (including coastal waters and groundwater) by protecting or enhancing their qualities while allowing for sustainable development. Provides for Protected Environmental Values and Water Quality Objectives and the management of point and diffuse source pollution. Under the State Policy, Protected Environmental Values (PEVs) have been set for surface water in the Huon Valley.
Tasmanian Planning Scheme (2016)	Provides the legal mechanism for developments in Tasmania, including impacts on waterways and water quality.
The Forest Practices System, including the Forest Practices Code 2015, <i>Forest Practices Act 1985 and the Forest Practices Regulations 2007</i>	Prescribes the manner in which all forest practices are to be conducted so as to provide reasonable protection to the environment and provides a practical set of guidelines and standards for the protection of environmental values during forest operations, in particular: soils; geomorphology; visual landscape; water quality and flow; flora, fauna and genetic resources; and, cultural heritage.
<i>Threatened Species Protection Act 1995</i>	Provides for the conservation and management of threatened flora and fauna, including aquatic flora and fauna.
<i>Weed Management Act 1999</i>	Provides for the control and eradication of declared weeds and to promote strategic weed management. The <i>Weed Management Act 1999</i> is a significant management tool for addressing weed problems as legally enforceable actions can be undertaken to control plants declared under the Act. The <i>Weed Management Act 1999</i> also provides gazetted weed officers with the powers to enforce the provisions of the Act.
Local	
<i>Local Government Act 1993</i>	Enables local council's to issue abatement notices detailing the actions that need to be taken and the timeframes for implementation where Council is satisfied that a nuisance exists.
<i>Guidelines for the Use of Biodiversity Offsets in the local planning approval process 2013</i>	Produced by the Southern Tasmanian Councils Authority to provide guidance to Councils in applying offsets allowed for under their respective Planning Schemes.
Other local government obligations	<ul style="list-style-type: none"> • Managing roadsides and reserves, including weed control and protecting natural areas. • Providing direct assistance to community groups such as grants or use of equipment or meeting rooms. • Administering NRM programs and activities that aim to manage and conserve native vegetation communities and biodiversity values. • Manage water quality issues through their ongoing roles as providers of waste management and in the building and maintenance of numerous sealed and unsealed roads.