



Clarence Bushland & Coastal Strategy

**"Healthy landscapes, Healthy
community"**

**Clarence City Council
August 2011**

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ACKNOWLEDGEMENTS

Clarence City Council would like to particularly thank members of the Bushland and Coastal Management Strategy Stakeholder Reference Group listed on an acknowledgements page towards the end of the strategy.

Summary

Clarence City abounds with natural assets that are cherished by the community. They are the focus of efforts to retain and enhance their presence here. There is a diversity of land management practices in place and a variety of views about what is the best approach to managing natural values. Clarence City Council made the decision to develop a Bushland and Coastal Strategy. The purpose of this Strategy is to:

- Identify and describe the key bushland and coastal management issues;
- Engage stakeholders and the community in defining issues and choosing practical actions;
- Present prioritised, strategic actions to address issues in the short, medium and long term;
- Provide the foundation for new and stronger partnerships that secure resources
- Assist Clarence City Council and stakeholders to prioritise management investment

A community based Stakeholder Reference Group has worked with council to develop this draft strategy. A key part of that work has been the identification of key management topics:

- Biodiversity
- Recreation
- Council land management
- Land steward partners
- Community Education, Awareness and Volunteer Management
- Climate change
- Water
- Coastal
- Social, cultural and community values
- Weed management, natural regeneration and rehabilitation
- Fire Management
- Land use Change
- Soil Health

Objectives and strategies have been created that respond to the management topics and the key issues identified. The strategies were prioritised and the highest priority actions are brought together under the following themes:

- protect natural assets through regulation, planning and Council natural area management
- improved knowledge of our natural assets and their management

- develop effective bushland and coastal management plans
- enjoying natural areas
- work with landcare, bushcare, coastcare and other volunteer groups to enhance resources and capacity to implement plans and initiatives
- inform, promote and partner

The Council has also prepared a Bushland and Coastal Policy which provides greater details about the many responsibilities that council has adopted and continues to undertake.

1 introduction

Key statement

There is strong interest in protecting and managing the natural values of Clarence municipality, an interest that goes beyond purely local to acknowledge the important contribution that Clarence is making to the broader region and beyond. The purpose of this Strategy is to:

- Identify and describe the key management issues related to bushland and coastal management in Clarence
- Engage stakeholders and the community in the development of key management issues and strategic actions
- Present prioritised, strategic actions to address key management issues in the short, medium and long term
- Provide the foundation for new and stronger partnerships that increase the resources available to implement the strategy
- Assist Clarence City Council and stakeholders to prioritise investment in the management of bushland and coastal land within Clarence

1.1 Background

The City of Clarence is a preferred place for many Tasmanians and visitors, treasured for its natural values of bushland and beaches and respected for the proactive response to the key sustainability challenges of the century. Its beauty does not stop at the waters edge, fascinating aquatic life abounds that adds to the diversity of ecosystems. These ecosystems also provide vital goods and services to the community. The Meehan Range, Clarence's backbone, remains a critical forested frame for the city, its intact bushland an important natural area for recreation and protecting biodiversity. Much of the eastern side of the Meehan range drains into the internationally significant Pittwater-Orielton Lagoon, a Ramsar wetland. Water, is the key common denominator, the sea, and inshore estuaries, frame many views, and forms a focal point for the community's diverse lifestyles. Freshwater rivers and streams that flow through Clarence add to its natural appeal.

Strategy development

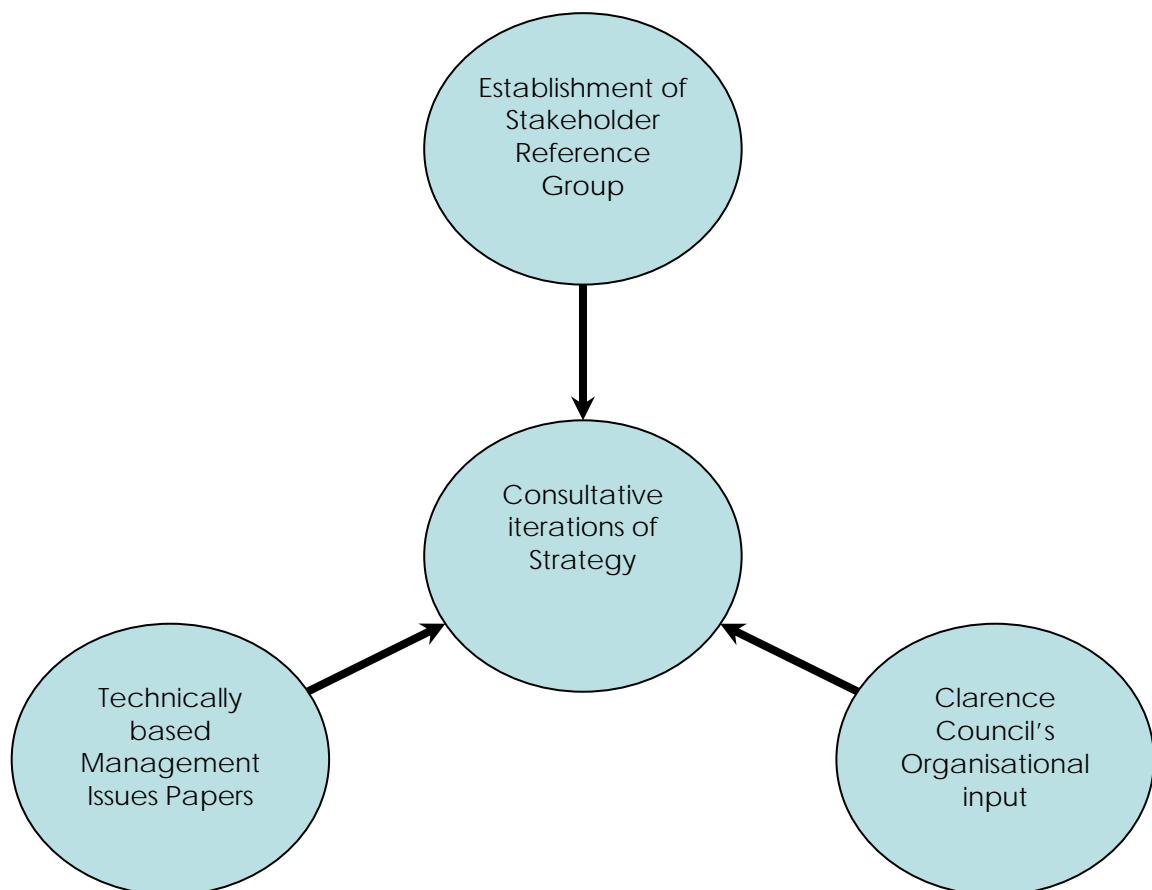


Figure 1. Strategy development process.

There is clear recognition of the many environmental challenges and issues that are, and should be, tackled, particularly now that potential climate change brings risk of additional pressure to our natural systems. A strategic approach is desired that seeks to integrate across the diversity of issues and Clarence's natural values with an emphasis on choosing clever actions that deliver measurable improvement. Emphasis is placed on innovation that seeks out novel, integrated solutions that are affordable, practical and achievable. Clarence City Council is a key manager of natural areas (the natural areas represent 75% of the assets that Clarence is responsible for) but Council also understands

there are other very important land custodians undertaking land management who are critical partners in these shared responsibilities (see Figures Two and Three).

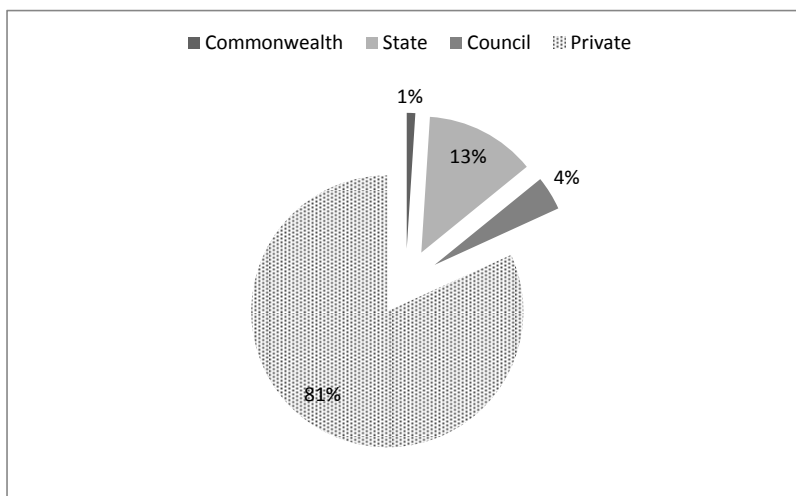


Figure 2. Tenure of lands by area within natural areas across Clarence City (%).

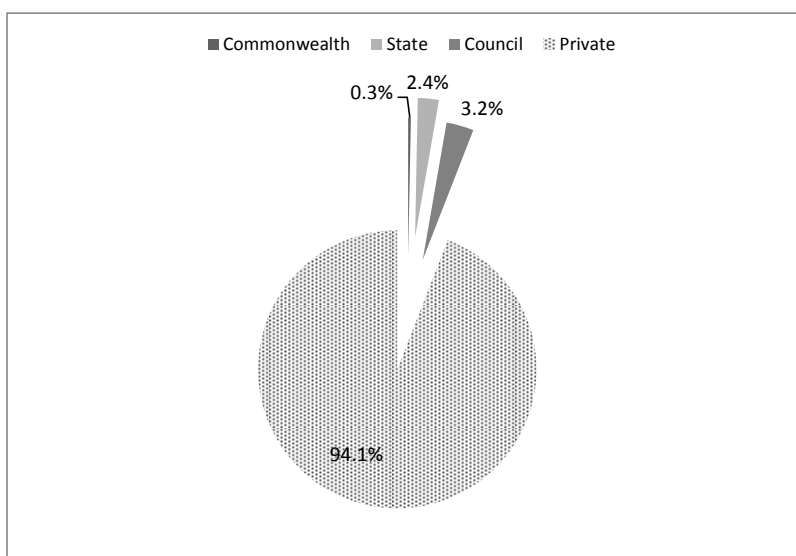


Figure 3. Percentage of properties by owner/manager by type (%)

With strong reliance on the actions of others, Clarence City Council needs to adopt a range of approaches to achieving its Strategy. The key roles for Clarence City Council are:

- **Lead by example** though planning and managing natural assets under its control
- **Encourage others** to adopt best practice approaches to natural area management
- **Partner** with key land custodians in seeking to prevent biodiversity loss
- **Attract new investment**
- **Enforce** regulations

The Clarence Bushland and Coastal Strategy (the strategy) is a long-term, strategic and co-ordinated approach to the management of bushland and coastal values in Clarence. The Strategy applies primarily to bushland and coastal land that is owned by Clarence City Council. However, many of the issues discussed in the Strategy are not constrained by property or reserve boundaries and the principles and actions recommended in the strategy may also be applied to managing equally important bushland or coastal values on Commonwealth, State or privately owned land. The development of the Strategy has been driven by Clarence City Council's Strategic Plan with significant contributions from the many active community care groups.

There is a set of key drivers that have motivated the development of this Strategy:

- Clarence City Council's broader strategic directions
- Proactive responses to the anticipated impacts of potential climate change
- Locally significant natural values at risk from development 'death by thousand cuts'
- Significant impacts of a diverse range of land use activities on natural values bringing the risk of irreversible change through loss of habitat
- Invasive species and changing fire regimes threaten biodiversity
- Opportunity to recover by arresting and reversing degradation
- Increasing community participation in caring for the environment
- Growing expectation for community participation in decision making
- Aboriginal and historic heritage sites in bushland and coastal areas are at risk of damage or destruction from a range of impacts.
- Resourcing levels and their impact on the capacity to achieve program delivery
- Alignment opportunity with several state and regional strategic projects underway
- Managing impacts through properly located and maintained facilities
- Many, local scale, Site and Catchment Management Plans are overdue for review.

A critical driver is Clarence City Council's Strategic Plan 2010-2015 providing strategic direction across all Council programs. The Bushland and Coastal Strategy is nested within a strategic planning framework (Figure 4.).

STRATEGIC PLAN 2010-2015

vision

Clarence... diverse communities
working together for a vibrant
prosperous and sustainable city.
for a vibrant and prosperous city.

Planning Scheme 2009-2014

Protection of the natural environment through effective land use planning and development

Bushland and Coastal Strategy 2011

'To sustainably manage and enhance the natural and built environments of the City'

Management Topics:

1. Biodiversity
2. Recreation
3. Council land management
4. Land steward partners
5. Community Education, Awareness and Participation
6. Climate change
7. Water management
8. Coastal management
9. Social, cultural and community values
10. Invasive species management, natural regeneration and rehabilitation
11. Fire management
12. Land use change
13. Soil health

Key Themes:

- protect natural assets through regulation and planning
- improved knowledge and its management
- develop bushland and coastal management plans
- enjoying natural areas
- work with landcare, bushcare, coastcare groups
- Inform, promote and partner

STRATEGIC ACTIONS

Figure 4. Linkage between Clarence City Council Strategic Plan and the Bushland and Coastal Strategy

Stakeholders and Partners

Clarence City Council has sought to engage widely and recognises that the Strategy needs the input of the community to ensure it accurately reflects the full range of issues and builds strategic actions that have sound support across the community, Figure Three provides examples of key stakeholders. Many individuals have participated in the stakeholder reference group or contributed to the development of technical management issues papers that the strategy is founded on. From these stakeholders will be drawn partners who will work with Council to maximise its achievement.

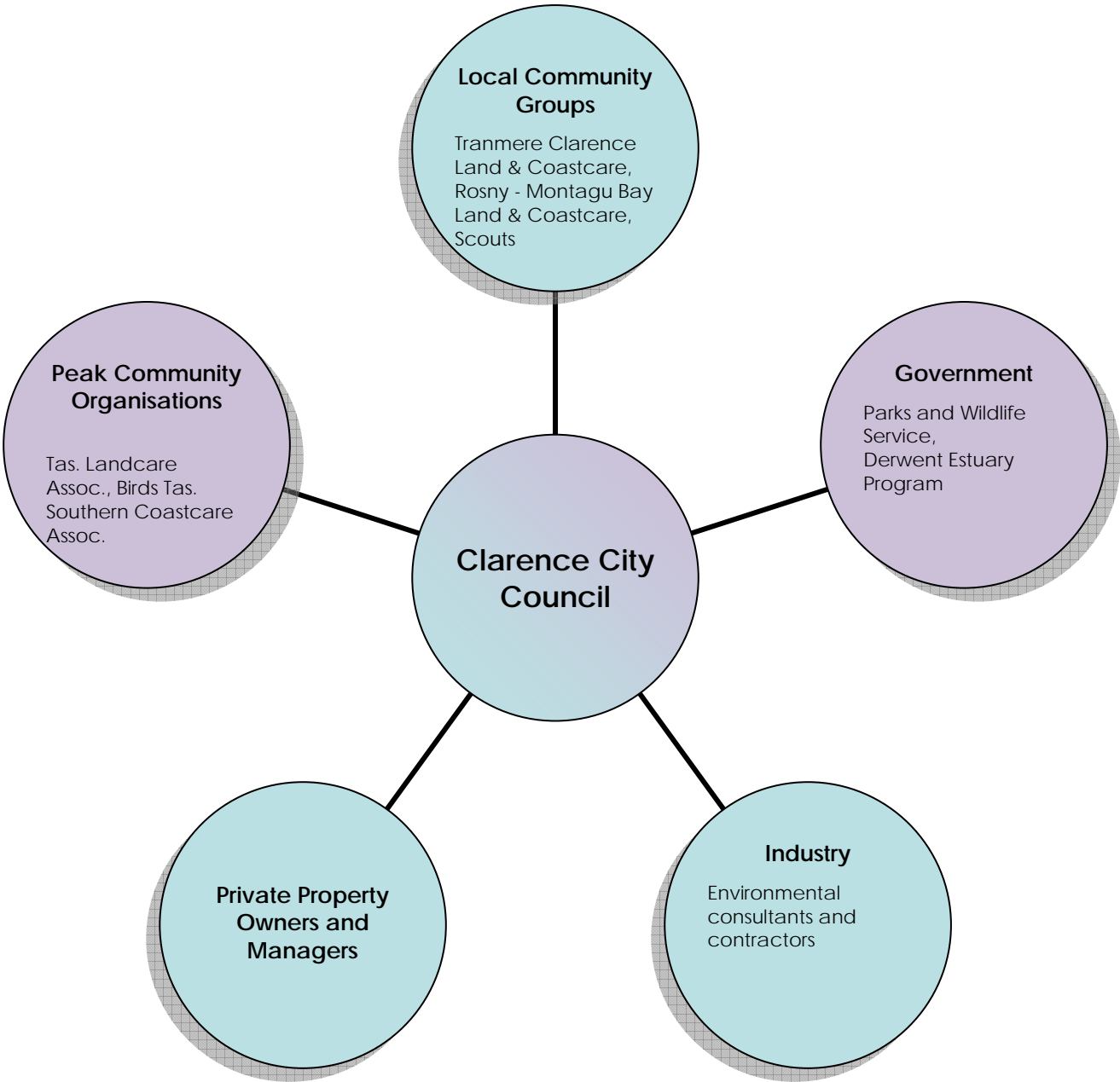


Figure 5. Stakeholders and partners map of the Natural Resource Management arena with examples.

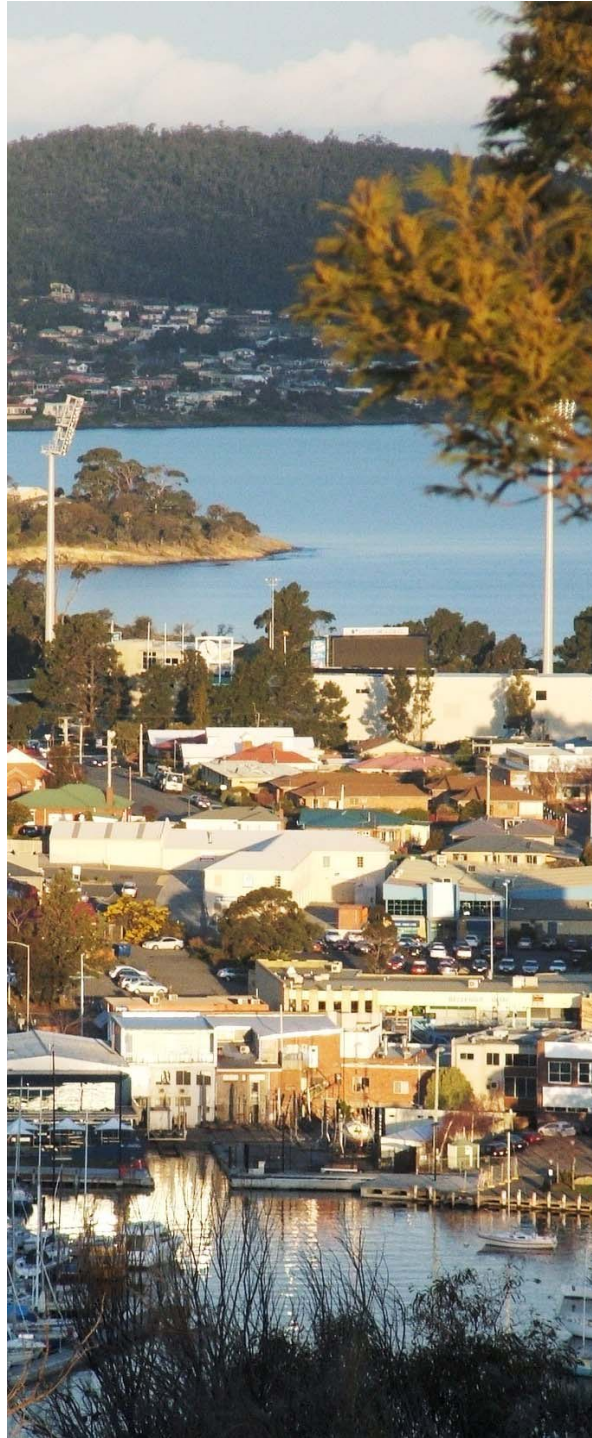


Recreation and tourism opportunities abound in Natural Areas, so do weeds

2. key management topics

2.1 Overview

A range of bushland and coastal management issues have been identified as an important focus in the design and implementation of the Clarence Bushland and Coastal Strategy. These have been developed through guidance from the Clarence City Council and through discussions with the Stakeholder Reference Group. Each issue has been examined in detail and the key points summarised.



Boats, Cafes, Urban Living to Forested Foreshores and Hills, worth caring for

2.2 Biodiversity

Context

The rich biodiversity of Clarence's bushland and coastal areas includes a wide range of marine, freshwater and terrestrial habitat and equal diversity of native species. The community has strong positive views on the City's biodiversity, for both its intrinsic and utilitarian values. The core of local biodiversity is in the extensive habitat of the coastal ranges, linked by narrow riparian habitat corridors to ribbons of coastal plains, dunes, salt marshes and foreshores. Significance or rarity of some species and ecosystems is recognised globally, nationally and state through laws and treaties although this doesn't guarantee protection as many species remain at risk of extinction. Biodiversity contributes significantly to ecosystem processes and services which support our society; nutrient cycling, water cycling, sediment retention and soil formation. Other benefits include climate and water regulation, natural hazard regulation and cultural services such as spiritual enrichment, recreation, education and aesthetics. This does not stop at the waters edge, a great array of marine and estuarine ecosystems add significantly to Clarence's natural wealth. For example, there is the shallow inshore habitats of the Spotted Handfish (*Brachionichthys hirsutus*) or the deeper rocky reefs frequented by many commercially important fish. Conservation Action Planning by the Derwent Estuary Program confirms the importance of our coastal and marine areas. Management of habitat is most cost effective when species and ecosystems are abundant and healthy, with growing threats and rarity, the cost increases dramatically. It is better to act now than wait for species to be in crisis.

Flora

Clarence supports thirty one vegetation communities including grasslands, sedgelands, wetlands, coastal scrub heaths and complexes; to forests and woodlands. The Meehan Range represents a highly valuable bushland area that is critical for its excellent condition and functions as a core habitat. Silver Peppermint (*Eucalyptus tenuiramis*) communities in the Sandford area are a unique feature of Clarence and their heathy understorey provides habitat for a diversity of insects and small, secretive, woodland birds. The threatened state of ten of these communities has brought legal protection. There is a high diversity of plants too, with seventy seven flora species being threatened. They are distributed widely, including the Meehan Range, (e.g. from Risdon Peppermint (*E. risdonii*) to orchid species such as the Milford leek orchid (*Prasophyllum milfordense*), known from a single site. Pittwater-Orielton Lagoon (the southern and western shore of which is located in Clarence) is an internationally designated Ramsar site for its high biodiversity and rarity of wetland flora (saltmarsh) and fauna.

Fauna

A variety of mammals, birds, reptiles and invertebrates flourish in Clarence's habitat. Bandicoots, wallabies and echidnas are still seen regularly throughout bushlands. Despite this, seventeen species are threatened and now protected by law. The endangered swift parrot (*Lathamus discolor*) forages on Tasmanian blue gums (*Eucalyptus globulus*) and black gums (*E. ovata*) flowers in spring and early summer. The Meehan Range is an important breeding area for swift parrots and the threatened wedge-tailed eagle (*Aquila audax fleayi*). Less conspicuous threatened fauna include the eastern barred bandicoot (*Perameles gunnii*); Tasmanian devil (*Sarcophilus harrisii*); green and gold frog (*Litoria raniformis*); and birds of prey such as the white-bellied sea-eagle (*Haliaeetus leucogaster*) and Tasmanian masked owl (*Tyto novaehollandiae castanops*). There are also many threatened invertebrates, such as the chequered blue butterfly (*Theclinesches serpentata*), the chaostola skipper (*Antipodia chaostola*), the chevron looper moth (*Amelora acontistica*) and the saltmarsh looper moth (*Dasybela achroa*). At water's edge migratory shorebirds rely on the Ramsar listed Pittwater-Orielton.

Key issues:

- Impacts of potential climate change
- Human related disturbances to native habitat particularly reducing survivability of rare species
- Invasive species impacting on native species viability
- Building resilience to better respond to stresses including potential climate change

2.3 Recreation

Context

The Clarence municipality offers a diverse range of recreational activities in coastal and bushland areas that are highly valued by the community. Public access to bushland and coastal areas provides many benefits to users such as improved health and well-being and increased recreational opportunities. However, these need to be balanced against the preservation and protection of bushland and coastal values.

The predominant recreation activities enjoyed by residents and visitors include bushwalking, mountain biking, horse riding, dog walking, kayaking and fishing. Other activities include orienteering, rock climbing, hang gliding, abseiling, bird watching, surfing, kite surfing and wind surfing. In many instances these activities are also concentrated on the same tracks, beaches and reserves. Some activities are inappropriate in some locations where the impact on bushland and coastal values is unsustainable, e.g. disturbance in bird breeding areas, threatening endangered flora and native bird feeding.

Key issues

- Managing the needs of various users while protecting biodiversity
- Planning that incorporates design for active communities, health and well being
- Managing impacts of recreational use through properly located and maintained facilities
- Commercial recreational users on Council land (access arrangements, public safety/liability)
- Managing public risk and liability on Council land
- Unauthorised off road vehicle activities damaging natural assets

2.4 Council Land Management

Context

Clarence City Council owns, manages and/or leases a large number of properties supporting high conservation value bushland and coastal natural assets. These include: regional and neighbourhood parks; bushland reserves; coastal reserves; sportsgrounds; and vacant and undeveloped parcels of land. However, the largest number of properties supporting significant bushland and coastal natural assets are outside of Council management responsibilities and are being managed by Commonwealth (0.3%), State (2.4%) or private land owners (94%). Together these areas form the core of Council's natural heritage, contributing strongly to Clarence's sense of place. Council's natural area network has grown but the resources available to manage them have not kept pace creating an imbalance.

Despite the example set by some individuals, much of the privately owned bushland is managed in an ad hoc manner, the Planning Scheme does contain development conditions that can protect and maintain natural assets. The increasing desire for a rural lifestyle has meant a major shift of urban dwellers into rural landscapes often without essential skills in land management. Council is aware of the importance of managing bushland and coastal areas in light of potential climate change. However, potential adaptive management responses have not been well defined for protecting specific high conservation value ecosystems and sites of geodiversity. This is particularly important given the need to retain retreat corridors for threatened plant communities e.g. Salt Marshes. Studies have shown the benefits in managing biodiversity at a landscape scale (from ridgeline to river) across tenures, to better meet increasing demand for recreational activities and infrastructure. This can be achieved by the creation of a city wide network of green corridors and linkages, supported by suitable infrastructure.

Key Issues

- Effects of potential climate change on ecosystems and vegetation communities need to be considered when planning development and natural area operations.
- Integration of natural area and land use planning processes needs improvement to maximise the use of the planning scheme as an important tool for protecting natural assets.
- Ability for wildlife and vegetation communities to remain connected and for native fauna to successfully move between and within natural area remnants is being compromised by such things as pets and feral animals.
- Council should consider the concept of Greenways (urban green space links) with mixed uses that connect people and communities to each other and to bushland and waterways.
- With the rapid increase in the demand for outdoor recreation opportunities there is a corresponding need to expand infrastructure and facilities.
- Increased difficulty in restricting access for inappropriate uses; BMX, trail bikes, 4WD's, and Mountain Bikes.
- Attractive and appealing natural area entrances are important for setting the scene for a safe and enjoyable recreational experience.
- There is a perception that there is an ad hoc approach to waste management in Council Parks and Reserves (no signage and reliance on park users to "leave no trace") that needs resolving.
- There is significant benefit in strong external alliances with key stakeholders.
- There is a lack of both human and financial resources to fully implement reserve management responsibilities and meet conservation and recreation expectations of the community.
- Only limited support is provided to volunteers.
- The Public Open Space Asset Plan 03/04 – 07/08 is overdue for review.
- Most of the natural area operations are driven by Reserve Activity Plans, Bushfire Management Plans or Catchment, Regional or Reserve Management Plans that are overdue for review.
- Consider the benefits of employing specialist staff to tap into substantial government grant opportunities.

2.5 Land Steward Partners

Context

Significant bushland and coastal areas in Clarence are owned or managed by either public agencies or private landholders other than Council.’ Analysis has shown that the impacts of management are not confined to the properties where they occur. For example, the Derwent Estuary Program has identified concerns with the quality of stormwater both from an erosion perspective and impacts on receiving areas. It is vital that these areas, and the biodiversity that they support, are managed appropriately, to maximise conservation outcomes and recreational opportunities across the municipality.

A collaborative approach, characterised by partnerships between Council and all other land managers, is required to achieve the best possible environmental, social and economic outcomes. The role of land managers is now well regarded and they are recognised for their stewardship of our primary natural assets. A range of stakeholders own, administer and/or manage natural areas in Clarence (Table 1). These include the Commonwealth Government (1%), the State Government (13%), utility companies, industry, the Aboriginal community and private landholders (82%). Reserves that are owned and/or managed by the State form a large area of bushland in the municipality and provide a number of key services.

Key Issues

- Encroachment of activities from private property boundaries onto public land
- Cross-tenure weed invasion and the importance of co-ordinated weed management
- Predation of native animals by domestic pets
- Illegal disturbance or clearance of vegetation and habitat
- The complex mosaic of Council and non-Council land along the coastline makes coastal reserves difficult to manage and/or access.
- The maintenance of natural areas or corridors (without barriers) between Council and other bushland areas to enable movement of animals and genetic exchange.
- There is no offset policy for the clearance of vegetation
- Pollutants in stormwater runoff are impacting on bushland and coastal areas, both public and private.

2.6 Community Education, Awareness and Participation

Context

Community support to maintain and enhance Clarence's natural values and reduce threats is essential to the survival of its bushland and coastal areas. Clarence's sense of place is strongly influenced by its natural heritage. Well over one third of the municipality supports bushland and is framed by the rounded tree lined hilltops of the Meehan Range and long ribbons of remnant woodlands along its 191 kilometres of coastline. There is a rich history of community caring for the local environment and their knowledge is a valuable resource for its future protection and management. Analysis has shown that the cost benefit of supporting volunteer activities can be as high as 1:6. The protection, maintenance, enhancement and promotion of these natural areas can be achieved through further empowering the community to participate.

Key Issues

- Some Care groups are losing momentum
- Volunteerism is changing, with key attributes and focus of volunteers being:
 - Short term activity preferred
 - Prefer to support well managed community organisations
 - Bring high standards of skills
 - Diversity of interests
- Community participation in Local Government Natural resource Management and Volunteer Management decision making needs to be strengthened to reflect the ever increasing desire by the community to contribute more fully in the process.
- Dedicated Council staff and policies facilitate volunteer effort in Natural Areas that is enjoyable and mutually beneficial.
- Resources to better support volunteer group planning and action
- Demand growing for Clarence land and coast care grants

2.7 Climate

CONTEXT

Clarence region has a diversity of landforms, supporting a variety of highly dynamic ecosystems and habitats. Clarence has experienced climatic extremes, flash flooding, storm tides, droughts and periods of extremely dangerous fire weather. The natural environment has also changed significantly since settlement and the impacts of potential climate change may bring more substantial adjustment. South East Tasmania's foreseeable climate may change with projections of a shift in rainfall pattern (less in winter and more in summer), increased temperatures, altered wind regimes, the inevitable increase in evapotranspiration, sea level rise and increases in intensity and frequency of extreme events. The capacity for bushlands and coasts to be resilient in the face of climatic events will be crucial for the long term future for Clarence's natural assets.

The annual average temperature has been predicted to increase between 0.4–3.1 °C by 2070 with a reduced annual average rainfall and a general trend of increased rainfall intensity during storm events. The recent CSIRO 'Sustainable water yields project' has predicted that with increased average wind speed, evaporation rates, decrease in relative humidity, lower net rainfall and increased water use (e.g. irrigation of drier rural and peri urban areas) there will be reduction in the sub-catchment flows entering the Coal and Derwent Rivers. The possible implications of potential climate change are all pervasive and overarch all of the management issues considered in this Strategy. In many instances the inter-related effects of potential climate change and sea level rise may worsen the impacts that are already being felt from existing pressures.

Key Issues

- Potential climate change may alter habitats in terms of representativeness and shift species distributions. Some habitats may degrade or diminish in extent. This degradation will provide opportunities for both native and invasive weed species that are more adapted to colonise. Opportunity for some ecosystems to shift location is affected by infrastructure barriers;
- Changes to tidal and estuarine processes may lead to changes in coastal landforms;
- Changes to climatic averages may lead to increased concentration of pollutants in stormwater, increased demand for water supply and increased risk of extreme flooding and inundation events;
- The health and resilience of soil under potential climate change will be a key factor in mitigating the impacts of a changed climate;
- Future fire management planning should incorporate measures to adaptively manage for a potential variation in risk, incidence and severity of bushfires in Clarence once more detailed climate modelling data is available for the Clarence region;
- Protection and enhancement of vegetation communities and their ecosystems using best practise bushland rehabilitation, natural regeneration techniques are vital to enable improvement in the resilience of biodiversity under a changing climate;
- The predicted increase in marine water temperature is expected to encourage an increase in water based recreation in the coastal zone, requiring planning to avoid increased health risks and more involved management of recreational use of a changing resource.

2.8 Water Management

Context

Clarence municipal area has an extensive coastline, and includes a wide variety of valued freshwater, estuarine, and marine environments. The Coal River and the lower Derwent Estuary are 2 major catchments, with numerous sub-catchments that contribute to the quality of the aquatic ecosystems and the fresh and marine areas where residents and visitors to Clarence recreate. The region is a relatively low rainfall area, with many competing needs and uses for the water resource.

Water is a valuable resource; our community relies on access to a safe, consistent supply of fresh water for agricultural, industrial and household uses. The quality of our water and water quantity are key elements impacting on the condition, maintenance, management and sustainable development of aquatic systems and their surrounds. Lakes, waterways and other water bodies have intrinsic environmental values, and contribute important ecosystem services e.g. silt capture, nutrient cycling, habitat etc. Clever management is required to care for sensitive aquatic habitats under coastal pressure. It is important to recognise that some aquatic ecosystems are not always wet. There are temporary and ephemeral waterways, they are seasonally dry in summer but flow/ fill/ inundated in winter or wetter years.

Water management must be tackled using a whole of water cycle approach. The connectivity between matters of water quality and quantity is very strong. Traditional water management has been fragmented leading to duplication or missed opportunities. There is a strong move across Australia to adopt an Integrated (or Total) Water Cycle Management approach. Good catchment management practices and careful design and implementation of construction and works in and around waterways are critical to supporting healthy ecosystems. Connectivity between the catchment and the coast is not always understood. Significant aquatic habitats in Clarence are recognised internationally, e.g. Pittwater-Orielton lagoon is listed as a Ramsar wetland site for its high biodiversity and the rarity of wetland flora and fauna that it supports. The Derwent Estuary Program is undertaking considerable effort to identify the key issues affecting the health and resilience of the estuary. Results of this work will form a key foundation for this Strategy and the actions that arise from it.

Key Issues

- Improving the planning outcomes for the waterways network
- Recognising connectivity between site specific actions and their catchment and estuary
- Protection of water quality and quantity from point source and diffuse source pollution as well as impacts of changes in environmental flows
- Improving the management of water in urban and rural environments
- Effective monitoring and assessment of water quality and quantity

2.9 Coastal Management

Context

The Clarence municipality boasts extensive and diverse coastal areas such as estuaries, salt marshes, tidal flats, ephemeral lagoons, surf beaches flanked by dunes, rocky headlands, and developed coastlines featuring a variety of public and private infrastructure and tenure arrangements. There are a number of important aquatic habitats including the Pittwater estuary, an internationally recognised Ramsar site. Coastal ecosystems are not only functionally diverse and complex but many ecosystems are quite unique and highly localised. In a changing climate these systems may be more challenging to understand and manage. The nature of coastal management in Clarence is also complex with a number of authorities having land management and legislative responsibilities, some of which overlap or are not clearly defined. Clarence City Council established and fostered strong links with volunteer coast care communities in the municipality and should continue to see this as an integral part of this strategy. The Integrated South East Coastal Management Strategy includes a refined matrix of strategic actions.

The Derwent Estuary Program undertakes a comprehensive program of initiatives to raise awareness of coastal management and increase the skills of those with coastal responsibilities. For example, the Derwent Estuary Program, recently drafted a Regional Coastal Action Plan which will have significant influence on management priorities and investment within Clarence's Coastal/estuarine zone. The State Government has released the ***Tasmanian Coastal Manual: A best practice management guide for changing coastlines***. This manual aims to increase knowledge and awareness of best practice to ensure that future work undertaken on fragile coastal areas will have minimal impact on environmental values. It covers the broad spectrum of coastal land management activities and includes heritage, vegetation and wildlife management, maintenance of facilities, coastal roads, access ways and tracks, potential climate change and sea level rise adaptation and response, working with the community, coastal processes and geomorphology.

Key issues

- Coastal geomorphic processes are dynamic and geodiversity is threatened by existing development and potential climate change
- Coastal priorities and investments should be in accord with the draft Derwent Estuary Program Conservation Action Plan and South East Coastal Management Strategy
- The **Tasmanian Coastal Manual: A best practice management guide** for changing coastlines is an excellent resource for coastal land managers covering a broad spectrum of guidance
- Coastal wetlands, estuaries, tidal flats and salt marshes may change with climate or be lost where they are unable to retreat inland with rising sea levels
- Recreation can impact on coastal values and resources
- Weeds are a constant threat to coastal vegetation communities
- Feral pests, both marine and terrestrial, impact on coastal biodiversity and will capitalise on opportunities presented by potential climate change
- Wildlife are at risk from the impacts of pets and inappropriate land use
- Legislation is not robust or clear enough to enable management authorities to enforce appropriate protection of coastal values and resources
- Heritage conservation is complex and under resourced
- Community groups have made substantial contributions to managing the coast, their ability to succeed is limited by the assistance they gain from government
- Coastal based industries and private enterprises are an economic resource to the community, however potential impacts on natural values pose a significant risk
- Incidents and extreme events can occur that have major impacts on the coast, prior planning and associated response capability are critical to ensuring adequate preparedness.

2.10 Social, Cultural and Community Values

Context

The landscapes, plants, wildlife and history of the bush and coastline are embraced by the community as an integral part of the living experience, their sense of place and the cultural identity of Clarence. Invigorating and reconnecting people with nature can improve human health and restore social resilience, whilst tackling environmental challenges and adapting to potential climate change. The community's health depends on healthy ecosystems which produce essential resources and native species can be a valuable indicator of ecosystem health. As a community service provider Clarence's parks and natural areas provide a diversity of places for people to get away and get together, supporting personal wellbeing, building social cohesion and strengthening the community. Programs in parks and natural areas must also recognise the special needs of specific groups, ensuring accessibility for all. The vast majority of the 50,000 residents have a physical or visual link to at least one area of bushland or the coast.

Through the Clarence Community Arts Program, a significant investment occurred in developing and implementing a public art in the landscape program in the 1990's and early 2000's. This involved ephemeral installations with Schools, sculptures and stone structures. This has significantly declined and is awaiting opportunities to reinvigorate the program.

The cultural heritage values of the coastal and bushland areas provide a link between the present-day community and the people and events of the past. These values should be managed to ensure that this connection remains in perpetuity. Aboriginal and non-aboriginal heritage are significant parts of the cultural value of bushland and coastal areas. The stories of the land and the people of Clarence, from the children of the Moomairremener¹ to the engineers who built the first bridge across the Derwent River, are part of the fabric of the community.

Key issues

- Aboriginal and non-aboriginal heritage sites in bushland and coastal areas are at risk of damage or destruction from a range of impacts.
- The role of public art in the landscape is undervalued
- The community's knowledge and sense of importance of the heritage values of Clarence needs enhancement.

2.11 Invasive Species Management; Natural Regeneration and Rehabilitation

2.11.1 Invasive species management

Context

Weeds left to proliferate in bushland and coastal areas, means local biodiversity can be lost. Clarence's bushland and coastal reserves all have some degree, of weed infestation. They are generally more concentrated in reserve edges, beside tracks and creeklines and in specific sites

¹ Spelling of 'Moomairremener' adopted from Ryan 1996. Clarence City Council website refers to the traditional owners as 'Moomaire-mener.'

previously disturbed. They are commonly spread through human activities often associated with poor hygiene practices. Clearing of native vegetation is likely to further encourage the spread of weeds into new areas. Two weeds of critical significance are Serrated Tussock and Chilean Needle Grass both are Weeds of National Significance, with Chilean Needle Grass in the early phase of distribution (from a State-wide perspective), both are the focus of eradication activities. Many other declared weeds are of concern including, boneseed and bridal creeper.

Weed control is time and resource intensive, getting more expensive the longer it is left. Removal of large tracts of weeds should only be undertaken if there are sufficient resources for ongoing maintenance. The Derwent Estuary Program (DEP) undertook a Weed Assessment and Vegetation Prioritisation project for the lands immediately adjacent to the estuary. Clarence City Council currently has a wide range of weed management initiatives that cover the planning, control and encouragement and support to others, primarily focused at a reserve scale. The strategic coordination of these activities needs to be strengthened.

There are also a number of introduced animal species present in Tasmania, including Foxes, Gambusia (Mosquito Fish), Pacific Sea Star that are considered to represent environmental and economic threats. Many species have been deliberately introduced whereas others have arrived here inadvertently. Whilst cats and dogs are common in many households, they do have the potential to become feral. There is a significant increase in the numbers of native birds killed by feral animals. The effective management of the impacts of domestic pets (dogs and cats) should be a priority in conjunction with feral animal control actions.

Key Issues

- loss of biodiversity and amenity
- potential for specific weeds to worsen bushfire hazard and risk
- economic impacts of invasive species on agriculture can be substantial
- Feral animals can cause significant impacts to biodiversity and agriculture.

2.11.2 Natural regeneration and rehabilitation

Context

Bush regeneration is the rehabilitation of degraded bushland and coastal areas through encouraging the natural regeneration of native plant species. Clarence City Council currently undertakes a number of activities that support bushland and coastal regeneration, and a range of Landcare and Coastcare groups operate within the municipality to support this work. Bush regeneration activities encompass a range of techniques aimed at creating an environment in which natural regeneration can occur. With the right techniques, bushland and coastal areas can be restored to very close to their original condition. The technique used to rehabilitate a bushland or coastal area will depend on the level of disturbance that has occurred varying from:

- healthy native bush
- degraded native bush with regeneration potential
- degraded native bush with no regeneration potential

Key Issues

- process of natural regeneration can be time consuming,
- rehabilitation through natural regeneration is preferable to undertaking revegetation activities.
- only undertake rehabilitation activities if there are sufficient resources available for ongoing follow-up.

2.12 Fire Management

Context

The Clarence area is one of the driest areas of the state and all bushlands are prone to bushfires with the exception of some coastal saltmarsh communities. There have been two large and many smaller bushfires in the last 50 years. It is inevitable that bushland areas will remain prone fire. The only choice is between planned or unplanned fires. The higher intensity wildfires have greater potential for destructiveness and difficulty to control. This requires intervention through strategic hazard reduction of bushland areas where it is necessary to keep the bushfire risk to life and property within acceptable levels. In native bushland, the most effective way to manage bushfire hazard is by planned burning. All landowners/occupiers have responsibilities under the Fire Service Act, 1979

Fire plays an important role in maintaining biodiversity. The greatest risk to native fauna is wildfires across large areas of habitat, recolonisation can be very slow or the species may disappear from the area. The woodlands dominated by Drooping She oak (*Allocasuarina verticillata*) is a local example, their presence is presumed to be due to either natural processes or through major changes in land use and fire regime favouring their growth at the expense of other over storey species. Potential risks to flora and fauna habitats from wildfire can be managed by minimising the risk of ignitions, maintaining adequate emergency vehicle access and other control lines, and by burning patches of vegetation at different times to create a mosaic with vegetation at various stages of recovery. Fire and fire management operations can cause disturbance that invasive species can respond to by expanding their distribution or establish. Some species may be controlled by applying a fire regime that stimulates seed germination but kills the regrowth before it can flower.

Key issues

- Risk of loss of life and/or property through failure to reduce bushfire risk
- The majority of bushfire prone properties are in private ownership and many lack property level Fire Management Plans;
- Cost of fire management (planning, staff, vehicles, equipment);
- Adequacy of the planning scheme to influence land use change process to improve fire management
- Use of the planning scheme to ensure developments have adequate bushfire protection and are excluded from areas where this cannot be provided.
- Risk to biodiversity from inappropriate fire regimes including fire exclusion.
- Appropriate use of fire as a land management tool to reduce hazard and maintain biodiversity.
- Use of fire in weed management and regeneration of degraded bushland.
- Climate variability and potential climate change affecting the frequency and intensity of bushfires in the future
- Lack of preparedness in the community.
- Clarity of roles in the event of a bushfire

2.13 Land Use Change

Context

The sequence of land use changes that have occurred across Clarence in the preceding 150 years have all contributed to the challenges and opportunities facing the management of natural assets. The shift from small scale local agricultural development that subsequently expanded in varying degrees across the City set the direction for later periods of land use intensification. Clearing of land for whatever reason has enabled a range of land use activities to develop, urban, industrial and marine but not without consequences for the natural values of the City. With a greater understanding of the implications of each land use there is the opportunity to give greater thought before allowing further land use changes that could increase the challenges faced in managing our natural assets and indeed put them at risk of loss.

Key issues

- Loss of habitat and reduction in biodiversity
- Increasing recreational demand on natural areas
- Increasing expectation for support in managing natural assets on private land
- Periurban/rural fringe property owners have important roles in maintaining ecosystem health

2.14 Soil health

Context

Soils are alive with complex ecosystems of small, often microscopic, flora, fauna, fungi and microbial life. The health of soils is intimately connected to the health of the life that is found there. Soil health is a critical aspect of agricultural productivity and native habitat resilience. There is also growing recognition of the important contribution that soils can have in dealing with carbon. The opportunity exists to work, particularly with the agriculture sector, in finding innovative ways to mitigate carbon emissions, improve soil health and increase primary productivity. Building soil carbon requires an awareness of beneficial practises such as “pulsing”. This is achieved when soil carbon is actively managed to ensure it is increasing through reducing the opportunities for losses to the soil (e.g. excessive burning) and opportunities to increase soil carbon are taken e.g. understorey growth is encouraged and enhanced.

Key issues

- Recognise the critical role of soil health in managing the landscape particularly natural areas
- Soil carbon is leaking from the landscape and needs to be arrested and reversed. Healthy ecosystems can only exist when levels of soil carbon are sufficient to sustain essential soil biodiversity and soil structure.



3. Key Themes and Strategies

3.1 Overview

Objectives and strategies have been created that respond to the management topics and the key issues identified. The strategies are brought together under the following themes:

- **protect natural assets through regulation, planning and Council natural area management**
- **improved knowledge of our natural assets and their management**
- **develop and implement effective bushland and coastal management plans**
- **enjoying natural areas**
- **work with landcare, bushcare, coastcare and other volunteer groups to enhance resources and capacity to implement plans and initiatives**
- **inform, promote and partner**

3.2 protect natural assets through regulation, land use planning and Council natural area management

1. Amend the planning scheme to strengthen protection for natural assets, improve certainty for development and streamlining assessment and compliance process. Ensure this addresses recent new responsibilities in dealing with Non-forestry related Vegetation clearing (as per the Forest Practices Code amendments (2009). Ensure that natural resource management staff are resourced to provide necessary advice to planning decisions.
2. Encourage owners of private bushland and coastal areas through awareness raising to take advantage of established incentive programs such as conservation covenants, Land for Wildlife, DPIPW PAPL program, Private reserves, etc. Focus to be on inspiring land owners to feel empowered to take action.
3. Create enhanced natural resource planning tools (planning overlays, codes and best practice guides) that set an example regionally, can be promoted and create confidence that encourages increased external investment.
4. Launch an initiative of Natural Area enhancement, possibly titled “Bushland Makeovers” that applies a strategic approach to coordinated Natural Area Rehabilitation and infrastructure projects based on recreational and environmental priorities. For example, rolling program of entrances to major natural areas with consistent attractive signage and access/parking that encourages increased usage at preferred locations.
5. Develop and implement a Clarence Invasive Species Strategy and Action Plan under the framework of the Southern Region Weed Management Strategy that reduces the impacts of weeds and feral animals.
6. In partnership with the Tasmanian Fire Service (through Clarence local area committee) enhance the implementation of fire management actions across the City. This should capitalise on Council’s bushfire management strategy, the Meehan Range Fire Management Strategy and broaden to encompass bushfire management on private lands. Best practice approaches exist that can be adapted for Clarence City.
7. Promote and implement relevant coastal management activities in accord with the new Tasmanian Coastal Manual.
8. Establish a Natural Areas Management Team (modelled on the Fire Team), with a strong focus on bush regeneration and weed management.
9. to investigate controls on the number of domestic cats and dogs.

3.3 improved knowledge and its management

1. Ensure planning and asset management personnel are trained to integrate natural resource planning and management policy into Council funded projects and can effectively respond to customer Natural Resource Management related enquiries.
2. Ensure resourcing for staff to provide effective Natural Resource Management input into Council's development assessment and enforcement process.
3. Address the imbalance between growth in NRM area managed and available resources to ensure NRM planning and management functions are carried out in a timely and efficient manner.
4. Collaborate with partners in the design and delivery of a regional scale program of natural asset condition and risk monitoring and reporting.
5. Highlight the role of Natural Asset mapping for improving knowledge.
6. Improve working relationships and develop operational protocols with Aboriginal community organisations.
7. Ensure efficient access to up to date Aboriginal heritage data to facilitate monitoring of heritage sites and management of impacts.
8. Train council staff in Aboriginal and historical cultural heritage awareness to ensure heritage values are considered in all planning and operational activities.
9. Train council staff to improve recognition the value of the natural environment and native species
10. Initiate a rolling program for collecting key natural resource information (that targets priority knowledge gaps and critical measurements of the condition of natural assets. Update the Natural Assets Inventory Manual (NAIM) to recognise the values and importance of unlisted locally significant vegetation communities and biennially review.
11. Endorse and actively work in partnership with Derwent Estuary Program stakeholders to implement the priority actions from the Derwent Estuary Program Coastal Action Plan particularly those that apply to Clarence region.
12. Provide appropriate knowledge relating to the roles and functions of the Council's NRM team and key NRM issues through Council's website, rates newsletters and publications such as brochures and booklets.

3.4 enjoying natural areas

1. Adopt the Healthy Parks Healthy People philosophy connecting the conservation of biodiversity and natural resources with community health and well being programs. This is achieved through recognising and supporting the objectives of Council's draft Health and Wellbeing Strategy through the implementation of the Clarence Bushland and Coastal Strategy
2. Evaluate the adequacy of recreation infrastructure in the natural area network and develop an enhancement program to support the diverse needs of the community and tourists in Clarence. This will require an infrastructure assessment process to drive maintenance programming and an opportunity to integrate themed public art into natural area entrances, tracks, trail hubs and signage.
3. Investigate opportunities to link Tracks and Trails initiatives with wider natural area management through developing integrated landscape management planning for the broader Trail Network. For example, greenways that incorporate tracks, wildlife corridors and refuges.
4. Actively support community education and signage initiatives regarding fishing pressure and responsible boating in partnership with Derwent Estuary Program and NRM South. This should include ongoing support to the *Fishcare initiative* and encouragement of enforcement of catch limits for recreational fisherman

3.5 develop and implement bush land and coastal management plans

1. Create a 5 year activity plan that details the implementation of the Clarence Bushland and Coastal Strategy (see example template in Appendix 2). This is anticipated to involve a staged roll out that includes:
 - a. Develop and implement a rolling program of updates for site scale reserve activity plans.
 - b. Develop and implement a Clarence Invasive Species Strategy and Action Plan.
 - c. Support the development of Conservation Action Plans for Biodiversity (akin to the DEP CAP) particularly in relation to the Coal River Catchment.
 - d. Develop a Clarence Water Sensitive City Strategy including adoption of WSUD principles in new developments and retro-fitting existing infrastructure and altered water courses. That is based on a Water-cycle wide approach.
 - e. Support the development and implementation of a Derwent Estuary Wetland and Salt Marsh Management Strategy which includes seeking mechanisms to improve the reservation and conservation status of significant salt marsh communities.
 - f. Revise the Public Open Space (POS) Asset Management Plan. This is anticipated to include assessing natural area recreation infrastructure condition/function and updating the plan based on best practice asset management.
2. Through the Clarence Area Fire Committee support processes to drive coordination and implementation of the existing multi-tenure fire management plans and strategies in Clarence.

3.6 work with landcare, bushcare, coastcare and other volunteer groups to enhance resources and capacity to implement plans and initiatives

1. Revise the Clarence Volunteer Policy to better reflect Land and Coast care volunteer activities. Enhance this policy through developing Activity plans to achieve best practice volunteer management which targets skill development, recognition, risk management and work procedures.
2. Investigate a business case for employing a Grants Project Officer who focuses on securing external resources and assists in their implementation.
3. Increase funding for the *Clarence Land and Coast Care Grants Program* to match the demand and the investment benefits accrued.
4. Partner with Education Department to facilitate the development and implementation of a *Clarence Schools Landcare Program*, by engaging a consultant to prepare an agreed School Landcare Program.
5. Encourage the community and volunteers through the Tracks and Trails Committee to participate in tracks and trail promotion and maintenance programs.
6. Investigate options to provide a stakeholder and community voice for planning and management of NRM and potential climate change issues in Clarence.

3.7 inform, promote and partner

1. Develop and implement a Clarence Bush and Coastal Communication Strategy which includes an adult and kid's bushland and coastal adventures program.
2. Develop the "Healthy Parks Healthy People" style Recreation Promotion/Education/Awareness Program specifically targeting Natural Areas.
3. Promote the concept of waterwise and locally natural gardening through enhancement of the Schoolhouse Gallery Bushland garden initiative to include further elements of an "Indigenous gardens" concept.
4. Pursue a range of funding and NRM project leverage opportunities through new and strengthened partnerships
5. In consultation with stakeholders explore the feasibility of a Lauderdale wetland and Salt Marsh Education Centre that is of a similar standard to the Tamar Island Wetlands Centre, Launceston.
6. Investigate feasibility of enhancing the Sister Cities relationship with Akkeshi City, through establishing a wetlands affiliation agreement that capitalises on both cities containing a Ramsar listed wetland (Akkeshi Lake and The Pitt Water Orielton Lagoon respectively).
7. Promote awareness of natural area management issues through the planning process by developing a; "Caring for the Land information kit", that highlights the importance of shared responsibilities of land owners and developers. Support this with a bushland and coastal values educational strategy for council aldermen, staff and community.
8. Support a proposed regional Natural Resource Managers Forum. similar to the DEP member councils technical committee to improve collaboration, coordination and issue resolution.
9. Recognise and promote the community's custodial role in the protection and sustainability of parks and the associated benefits to individuals and communities.
10. Promote the regular monitoring of the Climate Change Impacts on Clarence Coastal Areas report by stakeholders.
11. Support the implementation of emergency response protocols to incidents such as whale stranding, tsunamis, severe storms and tidal flooding, bushfires and oil spills.

4 Bushland and Coastal Management Policy

4.1 Purpose

The purpose of this policy is to provide a strategic basis for the management of Clarence's bushland and coastal areas.

This purpose will be achieved by providing:

- Clear objectives and principles as a basis for management decisions;
- A natural resource management framework for decision making, in the form of clear governance arrangements and prioritised strategic actions, to achieve these objectives and principles.

4.2 Context

The bushland and coastal areas are of significant value to the City of Clarence and contribute to its sense of place and its high level of liveability.

This policy allows for the implementation of a comprehensive management strategy based on the identification of short, medium and long-term strategic actions. It builds upon the Strategic Plan 2010-2015 and is consistent with other policies and initiatives within Council.

It recognises that successful management of these areas involves multiple disciplines across a wide range of complex issues and must be approached in a holistic manner. It ensures that the strategy retains currency in a dynamic legislative and policy environment. It is acknowledged that, as Council operates in a sphere of competing and changing imperatives that variations within this strategy may be necessary and at the discretion of Council.

4.4 Commitments, Objectives and Principles

4.4.1 Commitments

Clarence City Council in partnership with key stakeholders and where appropriate land and coast-carers and community will wherever possible:

- Apply best practice techniques to protect, maintain, and enhance natural, cultural, recreational educational, scientific and scenic values
- Reduce threatening processes, and restore and regenerate degraded natural areas
- Plan and manage water quality, quantity and biodiversity of wetlands and waterways
- Continue to assess the potential climate change impacts and plan and implement adaptive management responses for Council natural areas
- Maintain and enhance the resilience of natural areas to improve their adaptive capacity to climate change.
- Protect and conserve cultural and historic heritage within natural areas of Clarence
- Encourage the retention and appropriate management of private bushland and coast
- Promote, and encourage recreational activities and provide appropriate facilities to enhance the health and wellbeing of the community
- Facilitate and encourage community awareness and participation in protection and maintenance of natural area management using best practice volunteer management.

4.4.2 Objectives

The strategy for the management of bushland and coastal areas will achieve the following objectives:

- Protect, maintain and enhance biodiversity; encompassing flora and fauna (including invertebrates, fungi and micro-organisms), geodiversity and landscape values of Clarence's natural areas.
- Recognise and promote community needs, values and sustainable recreational opportunities which are sensitive to the natural and cultural environment, within the natural areas of Clarence
- Respond to the challenges of potential climate change
- Foster and support strong relationships with stakeholders, private landowners and coast carers and the community to support the planning and management of natural areas in Clarence
- Retain, and where appropriate, extend the natural area reserve system within Clarence to protect and conserve significant natural and recreational values
- Secure resources and apply investment priorities to deliver the programs
- The strategy will be consistent with other strategies and objectives set out in Council's Strategic Plan 2010-2015.

4.4.3 Principles

Clarence has adopted a core set of principles that provide the foundation to the Strategic Plan 2010-2015. More specific principles that build on that foundation and reflect the natural environment focus of this strategy are:

- **Natural assets have intrinsic values**: the natural environment is recognised for its intrinsic values and its finite capacity to deal with pressures imposed upon it. This recognition also acknowledges the wealth of goods and services that we benefit from that are derived from natural assets and the natural processes that sustain them.
- **Ecosystem Based Approach**: Landscapes are not all the same and each ecosystem will respond differently to change. Management is best based on an understanding of the relationship between natural resources and the ecosystems they support, and upon careful monitoring of change.
- **Balanced Decisions**: More robust decisions are based on best available information and take proper account of the whole range of environmental, social and economic benefits, values and costs
- **Integrated and Adaptive**: Management issues rarely stop at property boundaries, natural resources should be integrated within regions and catchments, as well as multi disciplinary across industry sectors, government agencies and specific issues. Measuring progress, learning from it and improving management are essential.
- **Prevention Is Better Than Cure**: the most cost efficient approach is to prevent degradation and impacts, and to build resilience to manage uncertainty, rather than incur increased cost for rehabilitation.
- **Partnerships**: the sharing of knowledge and other resources multiplies the efficiency and success of any action, and generates good will and trust.
- **We are all responsible**: Clarence City Council can lead by example, but better outcomes will occur with all land owners and managers following suite.

4.5 Statutory and strategic responsibilities and obligations

Clarence City Council is very aware of its obligations both statutory and through formal agreements with other levels of government. There is an extensive array of regulatory and policy documents that describe the nature and extent of those obligations. Comprehensive details of the suite of statutory and strategic policies that Clarence works within, are provided in Appendix 1.

4.6 Implementation

The Policy will be implemented through the development of the Bushland and Coastal Strategy, revision and/or creation of specific supporting planning documents (see Figure 6) and undertaking strategic actions which will be developed and adopted by Council as a 5 Year Activity Plan. A sample of the type of strategic actions covered is shown in Appendix 2. The actions that Council will take direct responsibility for will be integrated into Council program planning and annual budget development. To confirm the achievement of progress a set of outcomes will be developed based on the conservation action planning approach. There will be deliberate links made into other relevant strategies such as the South Region NRM Strategy, Southern Regional Land Use Strategy, the South East Coastal Management Strategy, local management plans and guidance documents, for example, the Derwent Estuary Conservation Action Plan. Information technology based efficiencies will be pursued that:

- Make use of new and existing tools and information, such as LIST, Natural Values Atlas, LIDAR data and 'Smartline' to plan and manage natural coastal and biodiversity values and build capacity of Council staff and volunteers to access and utilise this information
- Tap into complementary tools and resources to disseminate information, such as TLCA, SCAT NRM South newsletters and websites)

4.7 Monitoring, Evaluation Reporting and Improvement

This policy and the management framework will be reviewed on a regular basis (a minimum of 5 years is recommended) to incorporate new data, policies and information, emerging management issues, user feedback and changing priorities. It is proposed to adopt a monitoring, evaluation, reporting and improvement (MERI) approach that is aligned to the national NRM MERI framework. The fundamental components are:

- Program logic diagram: the rationale behind a program – what are understood to be the cause-and-effect relationships between strategy activities, outputs, intermediate and longer-term desired outcomes. Represented as a diagram or matrix, program logic shows a series of expected consequences, not just a series of events. It thus facilitates planning, execution and evaluation of an intervention.
- Reporting by project outcomes: includes Intermediate Outcomes, which are stepping stones towards the achievement of desired long-term strategy outcomes.
- Evaluation: based on multiple lines of evidence about strategy performance and the state and trend of natural and social assets.
- Improvement - includes making changes to the strategy direction or arrangements based on analysis and judgments concerning the monitoring results and outcome reports.
- Undertake targeted monitoring with the aim of collecting data on changes in natural values to inform management and track progress of management actions (adaptive management approach)
- Importance of water quality analysis in assessing threats, condition, and effectiveness of intervention/protective works, and general coastal management. Including long-term monitoring strategies and resources and support required.

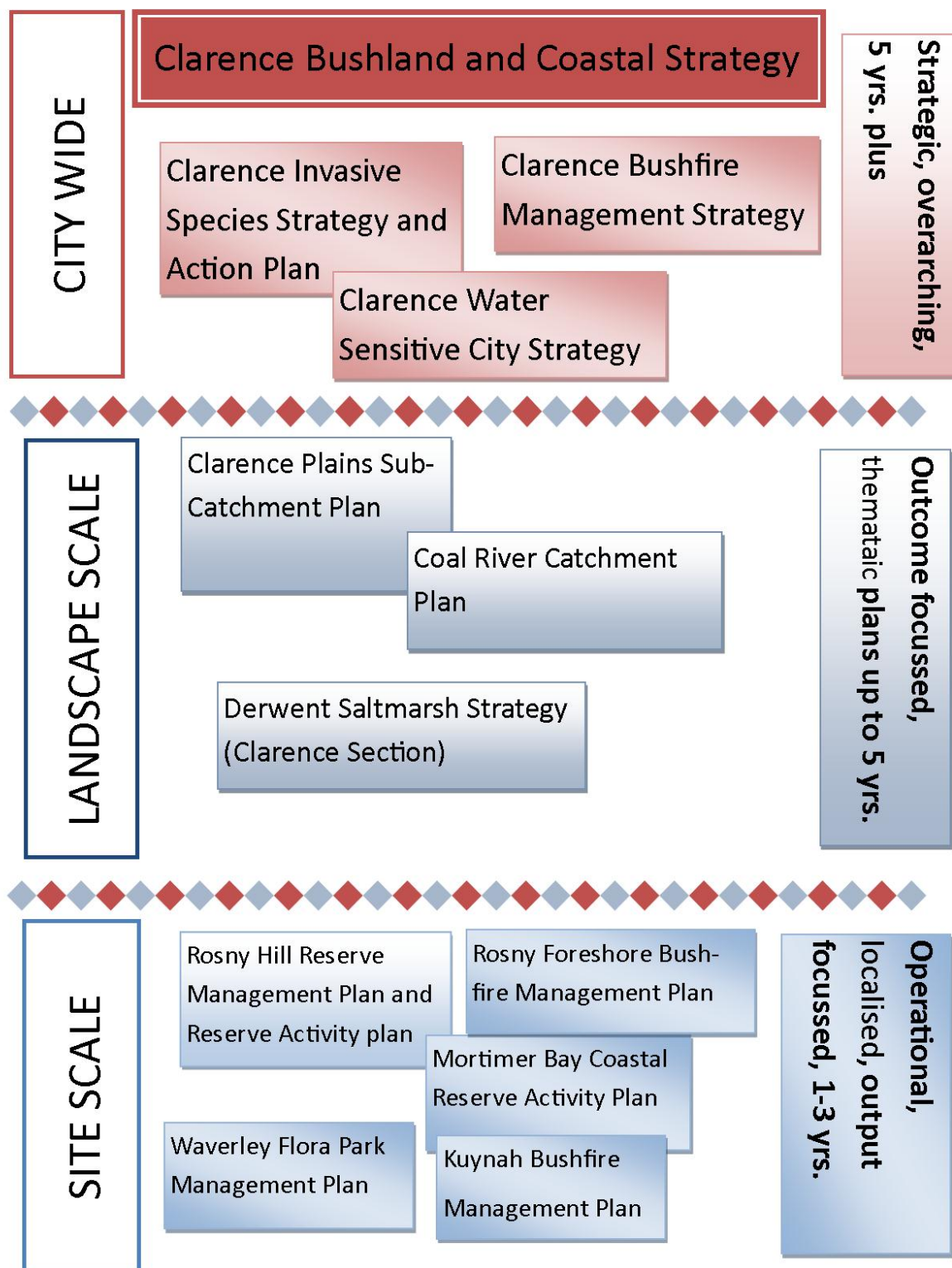


Figure 6. Clarence CBCS Planning Framework.

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Appendix 1. List of the Statutory and Strategic Policies (International, National, State and Local scales) that provide context for the Clarence Bushland and Coasts Strategy (adapted with the kind permission of the Huon Valley Council).

Integrating mechanisms	
International	
Local Agenda 21	A comprehensive plan of action to be taken globally, nationally and locally by organisations on the United Nations System, Governments, and Major Groups in every area in which humans impact on the environment.
National	
Intergovernmental Agreement on the Environment (IGAE)	Examines a co-operative means of implementing environmental protection obligations between States, Territories, Local Government and the Commonwealth.
State	
Tasmania Together	Tasmania <i>Together</i> is a vision for the State based on the wishes of the people. It includes 12 goals and 143 benchmarks, many with relevance for NRM, that reflect the concerns people expressed during two of the biggest community consultation processes ever undertaken in Tasmania (in 2000 and 2005).
Resource Management and Planning System (RMPS)	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. The <i>Land Use Planning and Approvals Act 1993</i> is the principal planning Act.
<i>Land Use Planning and Approvals Act 1993</i>	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>State Policies and Projects Act 1993</i>	Provides for State of the Environment Reporting every 5 years.
<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, Telstra Services, roads, pump stations or other structures on banks. Such developments are also subject to LUPAA.
<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>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>Natural Resource Management Strategy for Southern Tasmania (2010-15)</i>	Provides a wide context for an integrated approach to natural resource management.
Reserve Code of Practice	Specifies appropriate standards and practices for the management of Reserves dedicated under the <i>Nature Conservation Act</i> , Forest Reserves under the <i>Forestry Act 1920</i> , and Public Reserves under the <i>Crown Lands Act 1976</i> .
The Forest Practices System, including the	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

Forest Practices Code, <i>Forest Practices Act 1985 and the Forest Practices Regulations 1997</i>	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>Gene Technology Act 2001</i>	Regulates the use of genetically modified organisms
<i>Mineral Resources Development Act 1995</i>	Provides for the development of mineral resources consistent with sound economic, environmental and land use management
<i>Aboriginal Relics Act 1975</i>	Provides for the protection of Aboriginal cultural heritage.

Soil	
State	
State Policy on the Protection of Agricultural Land 2000; Draft State Policy on the Protection of Agricultural Land 2007	Identifies mechanisms by which prime agricultural land can be protected from conversion to other uses
The Forest Practices Code	Provides mechanisms to address the impacts of clearing of native vegetation on geodiversity and soils.
Water	
National	
National Action Plan for Salinity and Water Quality (NAP)	Identifies high priority, immediate actions to address salinity, particularly dryland salinity, and deteriorating water quality in key catchments and regions across Australia
The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ 2000)	Provides an authoritative guide for setting water quality objectives required to sustain current or likely future environmental values for natural and semi-natural water resources in Australia and New Zealand.
National Water Quality Management Strategy	Established to protect and enhance the quality of the nation's water resources while maintaining economic and social development. It provides a nationally consistent approach to water quality management based on the principles of ecologically sustainable development, and embraces issues across the whole of the water cycle.
National Water Initiative	Australia's blueprint for national water reform and builds on the Council of Australian Government's (COAG) Water Reform Framework. The objectives of the NWI are to achieve a nationally compatible market, regulatory and planning based system of managing surface and groundwater resources for rural and urban use that optimises economic, social and environmental outcomes.
State	
State Policy on Water Quality Management	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 most surface waters.
<i>Environmental Management and Pollution Control Act 1994</i>	Provides for the regulation of environmentally relevant activities and associated waste-water emissions by local and State Government.
<i>Water Management Act 1999</i>	Provides a system for sharing, using, developing and protecting our freshwater resources for future generations and the development of Water

	Management Plans. The <i>Water Management Act 1999</i> also regulates all in-stream dam construction and all off-stream storages larger than 1ML. Under the Act, the creation of water districts and the development of river-works or drainage schemes for purposes such as channel modification, bank protection or removal of flow obstructions requires Ministerial approval.
<i>Water and Sewerage Legislation (Miscellaneous Amendments) Act 2009</i>	Establishes transitional arrangements for the management of water and sewerage by the State Government
Water Development Plan for Tasmania	A blueprint directing the State Government's determination to advance specific water development priorities, improve environmental outcomes and streamline administrative processes for water management. This overarching plan identifies strategic initiatives and actions to manage and develop the State's valuable freshwater resources.
Water Management Plans	Assess environmental flows, the effects of water use on the water available to the environment and the likely detrimental effects of the plan on water quality. Water Management Plans may also include provisions for water allocations, water trading, dam permits and other matters relevant to the particular water resource.
Water for Ecosystems Policy	A policy under Section 8 (1) (b) of the <i>Water Management Act 1999</i> and provides guidelines for the provision of water for ecosystems both within and outside the context of water management plans.
Policy Guidelines to Assess Applications for New Water Allocations from Watercourses During Winter	Apply to all applications to take water from a water resource, including water allocations for dams and transfers of water allocations within a catchment. They do not apply to applications in hydro-electric districts
The Tasmanian Surface Water Quality Monitoring Strategy (2003)	The Strategy identifies the role that the Tasmanian Government can play in coordinating water quality monitoring and reporting programs, developing and maintaining a centralised database, and in forming strategic partnerships to ensure that we achieve our goals of sustainability and provide suitable indicator sets to guide on-ground management action.
Tasmanian River Catchment Water Quality Initiative	Part of the Tasmanian Community Forest Agreement, the objective of this initiative is to contribute to the assessment of chemical use on water quality in Tasmania's river catchments.
Draft State Stormwater Strategy	Aims to provide a consistent statewide approach to the management of stormwater and to assist local governments in meeting their obligations under the State Policy on Water Quality Management.
Tasmanian Wetlands Strategy	Seeks to provide a framework and direction for those who take decisions that have an impact on wetlands and encourage practical co-operation between decision-makers at all levels of the government and the community in wetland conservation and management.
Waterways and Wetlands Works Manual	Provides guidelines on the environmental best practice principles that should be used when planning and undertaking works in waterways and wetlands.
<i>Inland Fisheries Act 1995</i>	Provides for the management of the inland fisheries and focuses on maintaining fish passage and protection of fish habitat.
<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, Telstra Services, roads, pump stations or other structures on banks. Such developments are also subject to LUPAA.

<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> . As the local Parks District have the key role in enforcing regulations and in developing and implementing management plans, they are the appropriate first point of contact when planning to undertake works on wetlands or waterways likely to affect public reserves.
<i>Forest Practices Act 1985 and the Forest Practices Regulations 1997</i>	Include the regulation of the impact of clearing native vegetation upon waterways and wetlands. Under these regulations, streamside reserves, drainage lines and swamps are defined as 'vulnerable land' and generally forest clearing is prohibited. Where the clearing is occurring outside State Forest or a Private Timber Reserve (PTR), a permit from local council is also required.
<i>Threatened Species Protection Act 1995</i>	Provides for the conservation and management of threatened flora and fauna, including aquatic flora and fauna.
<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>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.
A Code of Practice for Ground Spraying	Prescribes responsibilities and minimum standards when spraying on waterways, waterbodies or waterlogged areas.
<i>Public Health Act 1997</i>	Requires that any agency, public authority or person managing or in control of water must manage the water in a manner that does not pose a threat to public health; and on becoming aware that the quality of the waters is, or is likely to become, a threat to public health, notify the Director of Public Health in accordance with any relevant guidelines.
Local	
Local government planning schemes	Planning schemes must seek to further the RMPS objectives and must be prepared in accordance with state policies, with the <i>State Policy on Water Quality Management 1997</i> being the key policy for wetlands and waterways.
<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.
Other local government obligations	Council also has obligations to 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. This is usually undertaken on an operational level.

Marine, Coastal and Estuarine	
National	
Australia's Oceans Policy	The Australian Government's approach to achieving ecologically sustainable development in Australia's marine jurisdiction and has the vision of 'Healthy oceans: cared for, understood and used wisely for the benefit of all, now and in the future'.
South-east Regional Marine Plan	Establishes the broad direction and management arrangements for a large area of Australia's ocean territory. The Plan outlines the way in which the Government and stakeholders are working together to maintain ecosystem health while promoting ecologically sustainable development in the region (which encompasses the waters surrounding Tasmania and Victoria end extends from the far south coast of NSW in the north, to Macquarie Island in the south, to eastern South Australia in the west).
The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ 2000)	Provides an authoritative guide for setting water quality objectives required to sustain current or likely future environmental values for natural and semi-natural water resources in Australia and New Zealand.
State	
<i>Living Marine Resources Management Act 1995</i>	Provides protection for fish and for the development of sustainable fisheries management plans.
<i>Marine Farming Planning Act 1995</i>	Provides for the planning of marine waters for marine farming operations, by way of marine farming development plans, and the allocation of marine farming leases. The objectives of the <i>Marine Farming Planning Act 1995</i> require that a person must perform any function or exercise any power under the Act in a manner which furthers the objectives of resource management. The objectives of Resource Management and Planning System of Tasmania are set out at Schedule 1 of the <i>Marine Farming Planning Act 1995</i> .
State Coastal Policy	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.
Marine Protected Areas Strategy	Provides for the establishment of a representative system of marine protected areas.
Local government planning schemes - LUPAA, EMPCA and the Local Government Act	Local government generally only have jurisdiction to the Low Water Mark, however under LUPAA Section 57, local government may exercise its power where structures such as jetties and wharves occur partly within its municipal district and partly in or over the sea adjacent to its municipal district. LUPAA, EMPCA and the Local Government Act also provide Councils with the power to deal with the land-based causes of pollutants and the pollutants themselves below the Low Water Mark where their planning schemes extend below the Low Water Mark or where the facility connects to the foreshore. Where this is not the case, the State has reserve powers to regulate pollution below the Low Water Mark.

Biodiversity	
International	
Local Agenda 21	A program aimed at implementing sustainable development at the local level. A number of chapters have relevance to vegetation and biodiversity management in general and forest management in particular, including chapters 8, 11, 14, 15, 18, 28 and 32.
Convention on Biological Diversity	Deals at a global level with the full range of biological diversity conservation, its sustainable use and the fair and equitable benefits arising from this use.
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.
National Strategy for the Conservation of Australia's Biological Diversity	Forms the basis for Australia's national obligations under the Convention on Biological Diversity.
National Local Government Biodiversity Strategy (ALGA 1999)	Recognises the need to commit resources to Local Government to carry out their allocated actions, recommends that biodiversity conservation be recognized as an important objective of Local Government, and that training and access to information on biological diversity to Local Government officials be increased.
National Weed Strategy	A strategic approach to weed management problems of national significance, addressing environmental and agricultural weeds equally.
National Strategy for Ecologically Sustainable Development (NSESD)	Recognises land clearing as a threatening process and considers effective measures to retain and manage native vegetation.
National Framework for the Management and Monitoring of Australia's Native Vegetation	Sets out a national approach to the management and monitoring of Australia's native vegetation and provides a process through which Australian, State and Territory native vegetation commitments can be implemented.
National Greenhouse Strategy (1998)	Outlines proposed actions to enhance greenhouse sinks through plantation, farm forestry and revegetation programs and to encourage sustainable forestry and vegetation management. It also recognises that increasing and protecting vegetation cover is an important means of enhancing Australia's greenhouse gas sink capacity.
National Forest Policy Statement (1992)	Provides the framework within which the governments can achieve cooperatively their vision for sustainable management of Australia's forests and ensure the community obtains a balanced return from all forest uses.
2020 Plantations Vision	Established under the National Policy Statement, states that by 2020, plantation forestry in Australia will be a sustainable and profitable long rotation crop with significant private sector investment, and between the effective area of Australia's plantations will be trebled.

State	
<i>National Parks and Reserves Management 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>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>Threatened Species Protection Act 1995</i>	Provides for the conservation and management of threatened flora and fauna.
Threatened Species Strategy	Developed under the <i>Threatened Species Protection Act</i> for the conservation and management of threatened species. Among other things, the Threatened Species Strategy requires that Local governments to refer all applications for development on land that involves threatened species to the Threatened Species Section for assessment.
Nature Conservation Strategy	An action plan which aims to meet the obligations of the National Strategy for the Conservation of Australia's Biological Diversity and to protect Tasmania's natural diversity and maintain ecological processes and systems.
Wetlands Strategy	Provides direction and guidance for decision makers and community groups to ensure that our wetlands are protected adequately.
Vegetation Management Strategy for Tasmania	Provides a guide on the vegetation types, natural environments and threatened species that are known to have high conservation value in each of the IBRA regions for Tasmania.
Forest Practices Code	Protects biodiversity in areas subject to forest practices plans.
Regional Forest Agreement	Provides for sustainable forestry and the establishment of a comprehensive, adequate and representative reserve system and the <i>Regional Forest Agreement (Land Classification) Act 1998</i> , which implements consequential changes in land classifications;
Supplementary RFA (2005) (otherwise known as the Tasmanian Community Forest Agreement)	An agreement between the State and Commonwealth to supplement the provisions of the Tasmanian Regional Forest Agreement and in particular to: <ul style="list-style-type: none"> • augment the CAR Reserve System through the inclusion of additional Old Growth forest and rainforest in Formal and Informal reserves on public land and voluntary additions of forest on private land; and • provide for accelerated improvements to sustainable forest management and use in Tasmania; and • facilitate accelerated growth and development of Tasmanian forest industries; and • provide for sustainable regional employment outcomes; and • respond to the findings and recommendations of the first five year review of progress on implementation of the RFA.
Permanent Forest Estate Policy 2005, 2009	Limits the clearance or conversion of native forest to other land uses or non-native vegetation cover to ensure that we maintain our resource base for all its various conservation, production and amenity values and replaces the 1997 policy referred to in the Tasmanian RFA. At a statewide level, the policy requires 95% of the native forest estate assessed in 1996 under the RFA be retained, and broadscale clearing and conversion of native forest on public land to be phased out by 2010 and phased-out over a period of ten years from 2005 on private land. The policy also stipulates retention levels for threatened and non-threatened forest communities.
<i>Forestry Act 1920</i>	Establishes the public forestry corporation, <i>Forestry Tasmania</i> . Sections 8 and 10 give <i>Forestry Tasmania</i> exclusive management and control of all areas of forest reserves, state forest and products thereof.

<i>Forest Practices Act 1985</i>	Regulates forestry operations and makes provisions for compulsory <i>Forest Practices Plans</i> , a <i>Forest Practices Code</i> , a <i>Forest Practices Board</i> and a <i>Forest Practices Tribunal</i> . The Act aims to ensure that forest operations are conducted in an environmentally acceptable manner on public and private forest lands.
<i>Private Forests Act 1994</i>	Establishes Private Forests Tasmania to promote the development of private forestry in Tasmania.
Forest and Forest Industries Strategy (1990)	Aims to responsibly and sensitively manage Tasmania's forests.
WeedPlan	The State weed management strategy, which establishes the framework to address existing and potential weed problems of major significance to primary industry, trade, human welfare, amenity and biodiversity. WeedPlan aims to coordinate and integrate available weed management components to minimise the deleterious effects of weeds on the sustainability of Tasmania's productive capacity and natural ecosystems.
<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.
Weed Management Plans	Contain information relevant to the legally enforceable management of each weed and may require different management objectives in different areas.
<i>Vermin Control Act 2000</i>	Controls exotic vermin, including foxes
<i>Cat Management Act 2009</i>	Aims to promote the welfare and responsible ownership of cats, including the desexing and microchipping of domestic cats; provide for the effective management of cats, allowing for the humane handling and management of unidentified, stray and feral cats; and reduce the negative effects of cats on the environment.
<i>Plant Protection Act 1994</i>	Relates to diseases affecting plants and the control of noxious weeds and noxious invertebrates.
<i>Plant Quarantine Act 1997</i>	Quarantine of plants and the control of pests and diseases.
<i>Animal Health Act 1995</i>	Provides quarantine measures.
Local	
<i>Local Government Act 1993</i>	Under this Act planning schemes may make provisions relating to the use, development, protection or conservation of any land area including areas which retain their vegetation.
Other local government obligations	<ul style="list-style-type: none"> • Financial administration, such as environmental levies and rate rebates. • 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.

Climate and Atmosphere	
International	
Kyoto Protocol	An international treaty designed to limit global greenhouse gas emissions. Australia signed the Kyoto Protocol in 1997. By signing the Protocol, countries agree to continue with the treaty-making process, but do not consent to be bound by the Protocol. In its draft Climate Change Strategy (2006), the Tasmanian Government has indicated it remains committed to Kyoto and considers that the Australian Government should ratify the Protocol.
Asia-Pacific Partnership on Clean Development and Climate with China, India, Japan, Korea and the USA	Aims to build local capacity, create new investment opportunities and promote development of existing and emerging cleaner, more efficient technologies and practices. Australia signed this Partnership in July 2005.
State	
State Policy on Ambient Air Quality	Sets ambient air quality environmental objectives and provides for the management of point and diffuses source air pollution.
Draft Climate Change Strategy for Tasmania	Outlines a direction for now and the long-term and sets out the Government's commitment to: <ul style="list-style-type: none"> • Leading the response to climate change in partnership with other tiers of government, industry, research institutions and the community; • Planning and adapting now and into the future to minimise possible adverse impacts from climate change and to position Tasmania to take advantage of emerging opportunities; • Developing renewable energy options and maintaining our low greenhouse gas emission levels; • Continuing to improve our knowledge of the impacts of climate change; • Informing and involving our industry sectors and the community to ensure they are better able to adapt and respond to the challenges associated with a changing climate.
Tasmania <i>Together</i>	Identifies the importance of reducing greenhouse gas emissions and the mitigating of climate change impacts under Goal 24 – <i>Ensure our natural resources are managed in a sustainable way now and for future generations.</i>
Tasmanian Air Quality Strategy (2006)	Presents fifteen objectives covering topics relevant to the effective management of air quality in Tasmania, including: <ul style="list-style-type: none"> • Information and data gaps • Residential sources • Industrial sources • Planned burning • Vehicle emissions • Planning
Environment Protection Policy (Air Quality) 2004	Sets ambient air quality environmental objectives and provides for the management of point and diffuses source air pollution.
State Coastal Policy	Provides for the identification and management of areas subject to coastal hazard (including sea level rise), and for development of appropriate land use and development policies at local government level.
Tasmanian Shoreline Monitoring and ARCiving project (TASMARC)	Established to monitor a selected group of Tasmanian beaches on a regular basis to ascertain shoreline movement.
Local	
Local government planning schemes	The Clarence City Council Planning Scheme contains planning overlays for addressing coastal management as well as sea level rise and storm surge.

Landscape	
International	
Convention for the Protection of the World Cultural and Natural Heritage (1972)	Defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List, and sets out the duties of State Parties in identifying potential sites and their role in protecting and preserving them.
National	
The <i>Australian Heritage Commission (AHC) Act 1975</i> , the <i>AHC Amendment Act 1976</i> , and the <i>AHC Amendment Act 1990</i>	Establish the functions and powers of the Australian Heritage Commission.
<i>Aboriginal and Torres Strait Islander Heritage Protection Bill 1998</i>	Provides for a discretionary mechanism for the Commonwealth to act where protection of places and objects of particular significance may be in the national interest.
The Australia ICOMOS Charter for Places of Cultural Significance (the Burra Charter)	Provides the guiding philosophy for the care of important places and defines the basic principles and procedures to be observed in the conservation of important places.
Australian Natural Heritage Charter for the conservation of places of natural heritage significance	A distillation of best practice conservation principles and offers a framework for making sound decisions for managing and restoring natural heritage places based on <i>ecological processes</i> which occur in natural systems.
State	
<i>Historic Cultural Heritage Act 1995</i>	Established the Heritage Council and the Tasmanian Heritage Register.
<i>Aboriginal Relics Act 1975</i>	Provides for the protection of Aboriginal cultural heritage.
Forest Practices Code	Provides mechanisms to address the impacts of clearing of native vegetation on landscape values, including visual amenity, cultural heritage, geodiversity and soils.
Local	
Local government mechanisms	The key mechanisms available to local governments to manage landscape issues are land use planning tools such as planning schemes and strategic plans.

Appendix 2. Proposed layout of the 5 Year Activity Plan.

The Activity Plan will contain a summary of the Clarence Bushland and Coastal Strategy that will form the basis for a comprehensive tabulated schedule for each strategy and the actions required to achieve the overarching objective, see table 1 below.

Strategic Action	Tasks	Timing	Estimated Budget	Milestone
1. Develop and implement a Clarence Invasive Species Strategy and Activity Plan under the framework of the Southern Region Weed Management Strategy.	<ul style="list-style-type: none">• Prepare business case• Establish project team and project plan• Prepare Strategy• Prepare 5 yr Activity Plan	By 2013	\$20,000 (Plan) (Implementation budget determined once plan in place)	<ul style="list-style-type: none">• Plan endorsed• Priority weed actions leading to reduced weed infestation and impacts

Table 1. The proposed template for the schedule of actions in the 5 year Activity Plan, based on the strategies and actions of the Clarence Bushland and Coastal Strategy.