

Climate Change Strategy - Mitigation, Adaptation, Resilience

Tasman Council 2020

A. Purpose

Tasman Council will pursue a robust approach to mitigating for and adapting to climate change in order to reduce its risk exposure, costs and environmental footprint. It will also work to create resilient and sustainable communities by empowering individuals and businesses to plan for and address climate change issues, minimise harm and reduce environmental impacts.

The benefits of having an adopted Climate Change Strategy include identification of energy efficiencies and cost savings; improved risk management; improving council's practices; identifying links to funding opportunities; and development of community and environmental resilience to climate change.

This Strategy draws from and builds upon current Council initiatives to create a coherent approach to climate change and to broader sustainability and resilience objectives.

The Strategy has four key strategic directions:

1. **Leadership and Community** - Provide leadership for effective local climate change actions.
2. **Mitigation and Transition** - Reduce greenhouse gas emissions, minimise environmental impacts and become more resource efficient in the transition to a low carbon economy.
3. **Risk and Adaptation** - Plan for and adapt to climate change.
4. **Opportunity** - Identify opportunities through research, technology, institutions and markets to build a sustainable and resilient community.

Implementation of this Strategy has been considered by Council's Senior Management Team (SMT) who will review and report on performance through various mechanisms.

This is an aspirational document and it will take a number of years to fully implement all the proposed actions. Nonetheless, it is important as a guide to prioritise action and to position Council to enable full participation in opportunities as they arise to address all aspects of climate change.

Interaction of this Strategy with Council Planning and Projects

This Strategy will interact with many of Council's legislated plans, programs and responsibilities. It is important that integration of climate change considerations across Council functions occurs. Certain

documents relate to more than one of the four strategic directions so, for working purposes, the following Table allocates documents to their most relevant area.

Table A1
Documents Plans and Programs integral to Climate Change Strategy

Strategic Direction	Council Related Documents, Plans and Programs (not limited to the following)
1. Leadership and Community	<ul style="list-style-type: none"> • Strategic Plan*¹ • Annual Plans • Long-Term Financial Plan • Structure plans/local area plans (Nubeena, Port Arthur)/Master Plans (Tasman tomorrow) • Tourism Development Strategy • Tasman Recreation Plan • Southern Tasmania's Changing Energy Use, Information Paper: regional Greenhouse Gas and Energy Use Trends - April 2019 • Tasman Council Community Energy Use and Greenhouse Gas Footprint Summary Report - May 2019 • Regional Climate Strategy & Council Action Plan Template*² • Communications (website/newspaper/social media)
2. Mitigation and Transition	<ul style="list-style-type: none"> • Asset Management Plans/Policy • Greening Strategy*³ • Energy and resource efficiency plans*³ • Procurement and purchasing policies/procedures • Draft Waste Action Plan – DPIPWE
3. Risk and Adaptation	<ul style="list-style-type: none"> • Tasman Council Corporate Climate Change Adaptation Plan 2012 • Climate Change Adaptation and Mitigation Policy • Emergency Management Plan • Bushfire Management Plan • Regional Coastal Hazards Strategy*² • Local Climate Profile: Tasman Municipality • Biodiversity assessments/strategies - planning • Agricultural land policies/strategies - planning

4. Opportunity	<ul style="list-style-type: none"> • Representation at Regional Climate Change Initiative (RCCI) • Representation at Southern Tasmanian Waste Management Group (STWMG) • Structure plans/local area plans/master plans • Local environmental plans • Business incentives policy for climate responsible actions • Investment policies
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*1 – currently no mention of climate change

*2 – under development

*3 – does not exist – consider developing

B. Council Position

Tasman Council recognises the scientific community's broad consensus on climate change:

Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.

Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems. IPCC Fifth Assessment Report, Summary for Policymakers (2014)

Climate Change, Sustainability and Resilience

Tasman Council recognises that climate action integrates and overlaps closely with broader goals relating to social, economic and environmental sustainability and resilience. Many of these broader sustainability goals are integrated into existing legislative responsibilities of councils, for example under the *Local Government Act 1993* (Tas), the *Resource Management and Planning System* (Tas) and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), as well as a host of other acts, regulations and policies.

The key directions of this Strategy facilitate broader sustainability and resilience objectives:

- Provide and demonstrate leadership to the community by implementing sustainability initiatives.
- Reduce the environmental impact of Council's activities.
- Integrate sustainability principles into all Council functions to achieve a healthy and sustainable environment.
- Reduce costs associated with resource consumption across Council's assets and activities.
- Promote innovation and generate new opportunities.

Tasman Council Strategic Plan

The Tasman Council Ten Year Strategic Plan outlines Council's vision for the period from 2015 to 2025. Whilst climate change is not currently directly addressed, this Strategy, upon review, will influence many of the visions and key focus areas and will directly expand on the following:

Visions:

- Provide the opportunity for sustainable growth.
- Ensure growth and development is achieved in balance with the natural and built environment, community and lifestyle expectations.

Key Focus Area:

- Strive for a balance between development, environment and lifestyle and retain natural, heritage and social values.

C. The Case for Action

Insurance companies accept the need for action on climate change and accordingly have funded climate change risk assessments for several councils around the country.

The Insurance Council of Australia has established a Climate Change Action Committee to help ensure insurance remains affordable and accessible through adaptation and increased community resilience. Their mandate includes the following intentions:

- Work with stakeholders to raise awareness of climate change and the impacts of climate change, manage risk and develop solutions including awareness of disaster preparedness in communities, and improve disaster response and recovery.
- Work with governments, regulators and other key stakeholders to promote action on climate change and other environmental issues.

This is a compelling reason for councils to proactively prepare for and minimise potential future risks.

Modelling shows that there are likely to be more extreme weather-related events such as bushfire, flooding, drought and extreme temperatures. As well as directly affecting communities these effects also impact upon the health of our environment and its ability to recover, including the parts that support our food production and essential services. To ensure a sustainable, prosperous and resilient community the case for being proactive in both mitigating and adapting to climate change is clear.

D. Key Strategic Directions for Tasman Council

1. Leadership and Community

Policy and Effective Management

Council commits to addressing climate change issues and broader sustainability objectives and recognises the importance of allocating appropriate resources to implementing effective actions.

Climate change actions are often complimentary to broader sustainability and resilience issues, and as such, broader sustainability and resilience leadership by Council will compliment climate change objectives. For example, healthy eating is promoted by eating locally produced seasonal foods, which in turn reduces environmental impacts and boosts the local economy.

Working with the Community

Council recognises the essential role it plays in engaging, mobilising and responding to the community at the local level and aims to provide leadership in mitigating, planning for and adapting to climate change.

Council seeks to assist in preparing the community for the effects of climate change and to help make the adjustments necessary to minimise risk, improve economic sustainability and make the community more resilient. Engagement is key to achieve this and Council will integrate climate change issues into relevant community engagement activities.

Council has already undertaken various activities that align with this key direction, for example making available a Home Energy Audit Toolkit (HEAT) and participating in the Home Energy Bulk Buy Scheme.

Setting Greenhouse Gas Emission Reduction Targets

Targets are a powerful means of improving performance. In order to set targets to reduce emissions and environmental impacts it is necessary to fully understand and quantify energy use, emissions and other environmental impacts. It is then possible to set meaningful targets concentrating on areas that will produce the greatest benefit.

Council's electricity use at all its facilities is currently compiled using datasheets developed by Sustainable Systems and Solutions. These are converted to kg CO₂e based on emission factors from the Australian National Greenhouse Accounts. For a more comprehensive view of Council's emissions, fuel usage and the Municipality's waste quantity and composition also need to be monitored.

Energy use and greenhouse gas emissions for the municipality as a whole were established by the Regional Community Energy Use and Greenhouse Gas Emissions Project, an RCCI initiative. This accounted for emissions from the residential, commercial, transport, industrial, agriculture and forestry sectors as well as tracking the increased use of local renewable energy sources. The data from 2006/07 to 2016/17 is presented in the Tasman Council Community Energy Use and Greenhouse Gas Footprint.

Council will need to invest resources in updating its own emissions data to include fuel use and waste information, and to update the municipal wide data. This will be essential information to identify, design and monitoring mitigation projects.

Council will calculate, monitor and report on its own greenhouse gas emissions associated with its electricity and fuel use, and will update and report on the emissions in the municipality as a whole. This will be the basis for setting meaningful reduction targets for Council and for the Municipality in the future that are achievable, cost effective and result in ancillary benefits.

Development and Growth Planning

Tasman Council will undertake a strategic review to guide land use and planning throughout the Municipality in the most sustainable, orderly and fair way possible.

To achieve ecologically sustainable development through the land use and planning process consideration must be given to climate change, the retention of biodiversity and energy efficiency

measures to foster a resilient local economy and community. Such work shall be implemented carefully, monitored and regularly reviewed and updated.

2. Mitigation and Transition

Council Emissions

Council is committed to reducing its greenhouse gas emissions to play its part in mitigating climate change whilst reducing costs and improving efficiency. This will be of increasing value as Australia transitions to a lower carbon economy and is in line with the Tasmanian Government's aim of 200% renewable energy by 2040.

The main areas within Council's sphere of influence include:

- Council buildings
- Streetlights
- Council plant and fleet
- Waste
- Roads, footpaths and other infrastructure
- Parks and reserves
- Stormwater network
- The ability to influence or incentivise good practice among local residents and businesses

For these areas greenhouse gas emissions from electricity and fuel use, waste disposal and treatment, emissions associated with building materials and offsetting by tree planting or increasing soil carbon can be considered.

To guide decision-making relating to mitigation the following principles should be used for energy consumed by Council:

1. Use energy more efficiently
2. Supply energy from renewable sources.
3. Where eliminating fossil fuel use is impractical, utilise efficient, clean technology

Electricity Use

Electricity use is an area where Council can cut costs through renewable energy generation (e.g. solar PV) and increased energy efficiency (e.g. LED lighting).

Whilst most of Tasmania's electricity generation is currently renewable (hydro and wind power), it also has some thermal generation (gas) and, during periods of low rainfall, imports power from the mainland with a significantly higher fossil fuel generation mix. In addition, Tasmania is developing its capacity to export renewable energy (Battery of the Nation) assisting in the national transition to clean energy and boosting the Tasmanian economy. Self-produced energy and reduced energy consumption by Council takes pressure off the grid and allows greater scope for Tasmania to export renewable energy, providing a tangible benefit to national climate change efforts.

It should also be considered that electricity has a much lower carbon footprint than burning fossil fuels therefore emissions reductions could be made by switching vehicles and power tools, where practical and cost effective, from petrol and diesel to batteries or other low emission technology.

Council has already delivered or is in the process of delivering a number of projects aimed at producing renewable energy, reducing Council greenhouse gas emissions, improving efficiency and providing long-term savings. These include:

- Converting streetlights to LED (stage 1 complete)
- Collaborating on pilot Solar PV microgrid on new affordable housing units at Pearl's Court
- Developers installing LED street lighting within all new subdivisions
- Efficient heat pumps within Council Offices and Depot
- Roof insulation in Council Offices
- Solar hot water at Taranna Hall

Council will pursue further mitigation activities having regard to financial implications, emissions, and the ability to achieve meaningful outcomes.

Areas to consider include:

- Solar PV on Council owned buildings (Council Offices complete)

This currently has a payback period of approximately 5 to 6 years for the main Council Offices. Other buildings not utilised as much during the day would have a longer payback period.

- Requirement/incentives for new buildings to incorporate Solar PV

Waste

Emissions related to municipal and commercial waste are one of the main emission sources relating to council services. Council has limited control over waste generation, but it does have a major role to play in waste management, including the efficiency of services, volumes to landfill, recycling, reuse and green waste.

Local actions such as encouraging composting and reducing food waste can play a significant role in reducing the amount of organic matter going to landfill where it decays and produces significant quantities of methane, a much more potent greenhouse gas than carbon dioxide. Council's waste is sent to Copping Landfill run by Southern Waste Solutions, which is part owned by Tasman Council. The landfill has facilities to capture and burn produced methane to generate electricity, which partly mitigates this effect.

As well as reviewing its own waste management system and services to phase-in improvements, Council will lobby for and support meaningful State and Federal waste avoidance, reduction and management programs, especially those that result in greater recycling and a reduction in greenhouse emissions.

Many of these actions will be driven by DPIPWE's draft Waste Action Plan which has a focus on recycling. This includes targets for reducing waste, increasing recovery from waste streams, a container deposit scheme, improved packaging and moving towards a circular economy.

Transportation

Electric vehicle use has the potential to greatly reduce greenhouse gas emissions particularly in Tasmania where most electricity produced is from renewable sources. There are also benefits as the vehicles are quieter and help to address fuel security as Tasmania has no domestic fuel supply.

There are currently few electric vehicles in Tasmania and a sparse charging station network. The Tasmanian Government is addressing this by investing \$450,000 through grants aimed at installing additional charging stations and increasing the numbers of organisations and individuals that are investing in electric vehicles.

Three businesses in the Tasman Municipality have charging stations available to customers of those businesses (<https://www.plugshare.com>).

Council will look for funding opportunities to improve the charging network on the Tasman Municipality and consider the option of purchasing electric vehicles, where operationally practical and cost effective, as Council vehicles become due for replacement.

Leadership

Council is in the prime position to show leadership and encourage change in the community by adoption of renewable energy and energy saving measures. It is also an area where Council can save money and reduce its environmental footprint.

Significant tangible investments such as major building upgrades, street lighting projects, changes to waste management regimes or significant fleet changes are to be presented as separate budget items. This will ensure a high level of transparency and ensure any actions taken are evaluated fully prior to council committing to them.

Council recognises its responsibility to provide leadership in driving positive change in the community.

3. Risk and Adaptation

Climate change effects are already occurring locally, and Council needs to adapt its services (e.g. information provision, community programs, emergency management) and infrastructure (e.g. designing for the increasing likelihood and severity of flood, drought and bushfire, and the impacts of sea level rise) accordingly.

Research and Collective Approaches

Council recognises the need for research to better predict climate change impacts and to develop solutions to them, especially in the local region. Such work is critical to support and steer Council's objectives of having sound strategies and policies, and of facilitating behavioural change.

Council actively supports and participates in various locally relevant projects to improve its understanding of the local context, in particular the Regional Climate Change Initiative (RCCI) under the Southern Tasmanian Councils Association (STCA).

Council will continue its participation in relevant groups and projects and aims to build effective relationships with research institutions, government bodies and the private sector to support this objective.

Infrastructure, Hazards and Risk Management

Tasman is geographically diverse and has a wide range of land uses. As such, risks posed by climate change are also diverse. Significant portions of the Municipality are forested or managed pasture, which are vulnerable to bushfire and drought. There is also an extensive coastline which is subject to

sea level rise causing erosion and inundation. Other risks relate to changes in rain patterns, evaporation, air temperature and the frequency and magnitude of extreme events.

In certain areas Council infrastructure will need to be upgraded to accommodate a changing climate. This may include low lying roads and stormwater drainage subject to inundation, road sealing to accommodate higher temperatures and foreshore infrastructure impacted by an eroding coastline.

Future decisions, actions and plans need to be based on the best available climate information at the time to provide transparency, certainty and consistency for the community, developers and other levels of government.

Council will continue to engage with relevant organisations and processes to manage its diverse responsibility and prepare the community for the impacts of climate change.

Council's membership of the RCCI which is managing projects developing a Local Climate Profile and a Regional Coastal Hazards Strategy will provide important information to inform future actions.

Emergency Management

Climate change is predicted to increase the frequency and magnitude of emergency events such as bushfire, flooding and storm damage placing a greater importance on emergency management services. Council will liaise with and support local emergency services in planning for these increased risks.

The increasing impact of these events requires a greater focus on managing the recovery effort.

Environmental Resilience

Addressing climate change involves maintaining and restoring long-term sustainable ecosystems which will make them more resilient to changes due to climate. Healthy ecosystems within the Tasman municipality support human health, facilitate economic development particularly through tourism and agriculture, and are critical to supporting biodiversity. Many properties that were previously farmed or forested are being sold as bush blocks and if not suitably managed can result in the outbreak of significant weed infestations. It is likely that invasive species better adapted to a warming climate will proliferate without suitable management.

Council will ensure it adequately considers ecological health in its land use planning and infrastructure functions and will actively investigate and consider projects that maintain or restore sustainable ecological systems (for example, revegetating open space, water courses, coastal areas).

Ecosystem restoration projects can provide multiple benefits:

- removing invasive species
- improving stormwater systems and reducing flooding
- stabilising erosion
- creating habitat
- acting as a carbon sink
- providing an opportunity for recreation.

Council will provide long-term support to ecosystem restoration projects and will promote and assist other organisation's programs e.g. Landcare, Coastcare and Parks and Wildlife Service where it is appropriate, through its NRM Officer and other applicable resources.

4. Opportunity

Renewable Energy Generation and Storage

Billions of dollars have now been invested nationally in renewable energy and tens of thousands of ongoing jobs have been created. Whilst Tasmania predominantly uses renewable energy from hydropower (it is currently close to being 100% self-sufficient in renewable energy) the Tasmanian Government's aim is to generate 200% of its electricity needs by renewable energy by 2040. An increase in local renewables will assist this ambition. In addition to this goal, it is increasingly clear that Tasmania has a great opportunity to develop pumped hydro and become a significant exporter of renewable energy through the Marinus Link to assist Australia's transition to clean energy and to provide major economic opportunities within the state.

In simple terms, the more renewable power generated in Tasmania the more can be exported. This is the case even with site specific energy generation, as it takes demand away from state generation and storage.

Energy security is also becoming increasingly important and providing a greater diversity of energy sources helps secure sufficient, affordable, and consistent energy supplies. It means that current and future energy needs have a higher probability of being met, irrespective of economic or political instability, or short term shocks such as bushfires or storms.

The 2013 bushfires highlighted the insecurity of the Municipality's electricity supply. There are also occasional electrical outages that would be minimised by having local sources of renewable electricity generation and storage.

Council will support projects aimed at the provision of renewable power or greater energy security.

Council's partnership with Tasman Peninsula Power to create a residential microgrid with solar PV and battery storage for the new affordable housing units in Nubeena fulfils both these aims.

Attracting such investment and managing stakeholders is supported by having a clear long-term vision with meaningful and practical local support in the short term. In return, renewables projects may provide local employment, training and economic boosts and potentially cheaper power to residents and businesses. Council can support such initiatives in a number of ways.

Council to consider in-kind or financial support, direct investment or simply committing to installing or utilising proven technologies or solutions to support a project and to reduce Council's own greenhouse emissions and energy costs.

Other Sustainability Initiatives

There may be other local opportunities in other key climate change-related areas such as waste management and the emerging 'circular economy'; greening of the freight fleet; and sustainable land management and agriculture. Council's collaboration with Tasman Landcare is a means of identifying opportunities in the agricultural sector to improve sustainability. Current projects include

pasture trials; and the set-up of a weather station network to monitor the changing climate to help local primary producers adapt.

Council should actively monitor and pursue opportunities in sustainability initiatives, especially those which potentially have broad social, economic and environmental benefits for the area.

E. Implementation

For each of the four key strategic directions, a number of objectives have been identified to guide how Council will integrate consideration of climate change into its normal operations. Each objective is further defined through a series of broad actions with responsibilities and indicative timelines.

Strategic Direction 1: Leadership and Community

1. Improve climate change capacity within Council.
2. Work with the community and local business to tackle climate change issues and increase resilience.
3. Develop targets, encourage action and ensure actions have an impact.
4. Integrate Climate Change considerations into Council processes to encourage community acceptance and action.

Strategic Direction 2: Mitigation and Transition

5. Implement plans to reduce greenhouse gas emissions throughout Council operations.
6. Support the community and provide services that help to reduce emissions and increase resilience.

Strategic Direction 3: Risk and Adaptation

7. Continue participation in local and regional research to improve Council's understanding of climate change risks and opportunities.
8. Integrate adaptation responses that meet Council's obligations to protect the community and the environment.
9. Improve the resilience of Council infrastructure.
10. Improve hazard and emergency management to minimise climate change risk.
11. Improve ecological resilience to climate change.

Strategic Direction 4: Opportunity

12. Facilitate opportunities to develop renewable energy and a low carbon economy and for local contributions to this.
13. Promote and engage with markets, technologies and institutions that adapt to and/or mitigate climate change.

Implementation Resourcing

Much of the work required to effectively address climate change does not require a significant adjustment to Council's core responsibilities or reallocation of its resources. However, it does require better integration of climate change considerations when planning and delivering projects, programs, and legislative functions. Generally, such integration is more efficient than creating a separate position(s) to address climate change associated issues.

Council has strong financial drivers for being efficient and for minimising costs. Council will benefit from being innovative and considering opportunities that will benefit the community, provide a saving or generate additional revenue. This Strategy will require internal resourcing and potentially

certain external resources. However, climate change actions can generate both long-term financial savings, benefits to the local economy, community benefit and improvements to the local environment.

Strategic Direction 1: Leadership and Community

1. Improve climate change capacity within Council.				
#	Action	Responsibility	When	Supporting documents / organisations
1	Pursue grant opportunities for better understanding of local climate change issues.	Development Services, Asset Services, NRM	Ongoing	
2	Monitor the latest science and best practice relating to climate change and update Council's responses as necessary.	Development Services, Asset Services, NRM	Ongoing	
3	Pursue external funding opportunities for projects (including collaborations/partnerships) that address sustainability and community resilience issues.	Development Services, Community Development, NRM	Ongoing	
4	Engage with and share information, plans and processes with other LGAs and organisations, especially those within the region.	SMT, NRM	Ongoing	STCA, RCCI, SERDA, LGAT
5	Ensure appropriate professional development opportunities for relevant staff to effectively manage and address climate change issues.	SMT	Ongoing	Annual budgets
6	Support the development of local community sustainability or energy generation initiatives.	Development Services, Community Development, NRM	Ongoing	Tasman Peninsula Power
7	Engage and educate staff on sustainability in the workplace.	SMT	Ongoing	
8	Develop a climate change and sustainability - informed purchasing policy and procedure.	Asset Services, Depot	2021	

2. Work with the community and local business to tackle climate change issues and increase resilience.				
#	Key Action	Responsibility	When	Supporting documents / organisations
9	Consult with relevant stakeholders on key climate-related risks (e.g. SES, TFS).	Asset Services, Environmental Health, NRM	Ongoing	Bushfire MP, Emergency MP
10	Support climate change education and engage with such programs in partnership with government and non-government organisations.	SMT, NRM	Ongoing	Council Website, Social Media, RCCI

2. Work with the community and local business to tackle climate change issues and increase resilience.

#	Key Action	Responsibility	When	Supporting documents / organisations
11	Encourage and assist development applications to integrate climate change and sustainability considerations into the design and function (e.g. renewable energy generation, energy efficiency, WSUD, materials & waste management, transport, ecology).	Development Services, Asset Services	2021 + ongoing	Develop / source information sheets
12	Inform the community on how Council is addressing climate change.	Development Services, Asset Services, NRM	Ongoing	Council Website, Social Media, Annual Reports, Council Reports
13	Improve/develop plans for communities to better reflect design principles that support ecological sustainability, community resilience and support local business.	Development Services & Asset Services	Ongoing	Master Plans, Structure Plans, Streetscapes, Recreational Plan
14	Facilitate and support local programs aimed at increasing production, distribution and consumption of local produce and healthy eating generally.	Community Development, Environmental Health	Ongoing	Tasman District School, eat well Tasmania, Council Website
15	Facilitate and support programs assisting the creation of healthier and energy efficient homes e.g. HEAT, Bulk Buy schemes	Development Services, NRM	Ongoing	
16	Investigate feasibility and costs of free native / food trees for community or with approvals.	Community Development	2020	Tasman Landcare revegetation program

3. Develop targets, encourage action and ensure actions have an impact.

#	Key Action	Responsibility	When	Supporting documents / organisations
17	Support national, state and regional climate change related targets.	SMT	Ongoing	
18	Maintain council's energy and emissions data sheets	Development Services	2020 + Ongoing	Aurora data, Australian National Greenhouse Gas Accounts
19	Develop a system for monitoring council's greenhouse gas emissions from fuel use.	Asset Services, Corporate Services, NRM	2020	Fuel use data

3. Develop targets, encourage action and ensure actions have an impact.				
#	Key Action	Responsibility	When	Supporting documents / organisations
20	Develop a system for monitoring the quantity and composition of the Municipality's waste stream.	Asset Services	2020	Veolia reporting, Oldhams' Waste Services reporting,
21	Develop and maintain a process for reporting Municipal Energy Use and Greenhouse Gas Footprint	SMT, NRM	2020 + Ongoing	Municipal Energy Use and Greenhouse Gas Footprint
22	Review implementation of this Strategy each year and report to Council.	SMT	Ongoing	

4. Integrate climate change considerations into Council processes to encourage community acceptance and action.				
#	Key Action	Responsibility	When	Supporting documents / organisations
23	Integrate relevant parts of the Strategic Plan and Annual Plan into the Climate Change Strategy and vice versa.	SMT	2021	Strategic Plan, Annual Plan, Climate Change Strategy, Annual Report
24	Integrate climate change considerations into Council operations, policies and strategies, including consideration in all relevant Council reports.	SMT	Ongoing	Various
25	Integrate climate change risks into Council's risk management framework.	Corporate Services	Ongoing	Risk Management System / Strategies
26	Incorporate climate change impacts and risks into assessments and modelling (e.g. hydrology, inundation models, stormwater systems).	Asset Services	Ongoing	
27	Incorporate consideration of climate change into principal activities of council, including: land use planning; community services; asset planning and management; waste management; emergency management.	SMT	Ongoing	All relevant documents
28	Incorporate council and municipality energy and greenhouse gas emissions data and trends in a Council reporting system, and include in the Annual Report.	SMT	2021	Annual Report
29	Appoint an appropriate staff member / provide resources to oversee and drive the implementation of this Strategy.	GM	2021	Annual Budgets / Review

Strategic Direction 2: Mitigation and Transition

5. Implement plans to reduce greenhouse gas emissions throughout Council operations.				
#	Key Action	Responsibility	When	Supporting documents / organisations
MANAGEMENT				
30	Develop and implement a Greenhouse Gas Reduction Strategy based on emissions data	Asset Services	2021	Council Greenhouse Gas Emissions
31	Deliver savings by reducing Council's energy costs.	Asset Services	Ongoing	
32	Develop ESD guidelines to integrate energy, WSUD and sustainability features into future Council developments /capital projects.	Development Services, Asset Services	2021	
33	Investigate local carbon offset opportunities for Council's emissions (e.g. tree planting, watercourse revegetating, enhancing soil carbon, relevant investments)	Asset Services	2022	Annual Budgets
BUILDINGS AND FACILITIES				
34	Set a target to improve the energy efficiency of council's buildings	Asset Services	2021	Council Greenhouse Gas Emissions
35	Implement energy saving measures within Council facilities and operations.	Asset Services, Corporate services, Works	Ongoing	Council Greenhouse Gas Emissions
36	Install solar PV at Council facilities sequentially, subject to funding, where the payback period is less than 15 years.	Asset Services	Ongoing	Council Greenhouse Gas Emissions, Annual Budget
37	Prioritise energy efficiency and whole of life costs when renewing electrical equipment.	Asset Services	Ongoing	Asset Management Plans
STREETLIGHTING				
38	Set a target to improve the energy efficiency of council's streetlighting (Stage 2 LED)	Asset Services	2022	Energy Contracts, LED Installations
39	Complete energy efficient refit of Council street lighting.	Asset Services	2022	Asset Plans, Annual Budget
40	Specify energy efficient street lighting be installed in all new subdivisions and developments (develop Council policy if necessary).	Development Services	2020	Development Permit Condition

5. Implement plans to reduce greenhouse gas emissions throughout Council operations.				
#	Key Action	Responsibility	When	Supporting documents / organisations
FLEET				
41	Prioritise low emissions, fuel efficiency, fit for purpose and whole of life costs when evaluating fleet acquisitions.	Asset Services, Depot	2020	Plant Replacement Plan
42	Utilise telephone and video conferencing for meetings where appropriate.	SMT	2020	
43	Evaluate installing an EV charger at Council offices.	Asset Services	2021	
WASTE MANAGEMENT				
44	Improve monitoring and understanding of local waste streams.	Asset Services, NRM	Ongoing	
45	Calculate and utilise for reporting and decision-making local greenhouse emissions related to the waste management system.	Asset Services, Development Services	2021 + Ongoing	Annual Report
46	Review entire waste management system and develop long term waste management plan.	Asset Services, STWMG	2021	Draft Waste Action Plan
47	Optimise resource recovery from Council works and the use of recycled materials in Council projects and works.	Asset Services, Development Services	Ongoing	
48	Investigate options to divert household and commercial food and organic waste (FOGO) from landfill.	Asset Services, STWMG	2021	Draft Waste Action Plan
49	Work with SWS Copping Landfill to reduce their greenhouse gas emissions through continued methane capture and future FOGO options.	STWMG, Asset Services	2021	Draft Waste Action Plan, SWS Long Term Plans & Strategies

6. Support the community and provide services that help to reduce emissions and increase resilience.				
#	Key Action	Responsibility	When	Supporting documents / organisations
PUBLIC & ACTIVE TRANSPORT				
50	Facilitate and support improved public transport, active transport services and infrastructure.	Asset Services, Development Services	Ongoing	Tassielink, Tasman Peninsula Buses

6. Support the community and provide services that help to reduce emissions and increase resilience.

#	Key Action	Responsibility	When	Supporting documents / organisations
51	Improve bicycle and pedestrian options within the Municipality.	Development Services, Asset Services, Community Development	Current & Ongoing	Draft Footpath Strategy, Asset Plans, Recreational Plan
52	Investigate opportunities / support enterprises to install EV charging stations	Development Services	2022	
WASTE				
53	Develop and implement a plan for community waste reduction and education (e.g. coordinated education campaign) and Business Recycling	Asset Services, Development Services	2021	Website, social media, Tasman Gazette
PARKS AND OPEN SPACE				
54	Investigate the value and feasibility of providing some 'edible landscapes' within parks, open space, streetscapes. (e.g. fruit trees in parks or along pathways)	Development Services, Asset Services	2021	Recreational Plan

Strategic Direction 3: Risk Management and Adaptation

7. Continue participation in local and regional research to improve Council's understanding of climate change risks and opportunities.				
#	Key Action	Responsibility	When	Supporting documents / organisations
55	Support and facilitate local, regional, state and national climate change research partnerships.	SMT, NRM	Ongoing	STCA, RCCI, LGAT, SERDA
56	Form partnerships with local government agencies to coordinate climate change projects within the area.	SMT, NRM	Ongoing	STCA, RCCI, LGAT, SERDA, STWMG
57	Review <i>Tasman Council Corporate Climate Change Adaptation Plan 2012</i> to reference into this Strategy.	SMT	2022	RCCI, STCA, LGAT
58	Ensure Council standards and guidelines are based on current climate science, Australian Standards and legislative requirements.	Asset Services, Development Services	Ongoing	Australian Standards, Tasman Climate Profile
59	Ensure future asset maintenance and replacement programs fully consider climate change, including coastal hazards and inundation modelling.	Asset Services	Ongoing	Asset Management Plan, Long Term Financial Plan

8. Integrate adaptation responses that meet Council's obligations to protect the community and the environment.				
#	Key Action	Responsibility	When	Supporting documents / organisations
60	Advocate that state and federal governments adequately consider climate change impacts when reviewing or creating new planning instruments, guidelines and legislation.	Development Services	Ongoing	
61	Ensure that Council fully understands its insurer's climate change requirements when considering new policies and projects, undertaking activities and reporting.	Corporate Services	Ongoing	Insurance Policies
62	Support water reuse schemes and water recycling.	Whole Organisation	Ongoing	TasWater, Ag Community
63	Ensure Council's approach to on-site septic systems and alternatives considers climate change impacts, including sea level rise and inundation.	Development Services, Planning	Ongoing	Planning Scheme

8. Integrate adaptation responses that meet Council's obligations to protect the community and the environment.

#	Key Action	Responsibility	When	Supporting documents / organisations
64	Improve water storage capacity e.g. through incentives for additional tanks	Development Services, Planning	Ongoing	

9. Improve the resilience of Council infrastructure.

#	Key Action	Responsibility	When	Supporting documents / organisations
65	Ensure Council standards and guidelines are based on current climate change science, Australian Standards and legislative requirements.	Asset Services, Development Services	Ongoing	Australian Standards, Relevant Legislation
66	Ensure future asset maintenance and replacement programs consider climate change, including coastal hazards and inundation modelling.	Asset Services	Ongoing	Asset Management Plans
67	Review the vulnerability of critical Council infrastructure and buildings in line with Asset Management Plans, Emergency Management Plans, the latest climate change projections and legislation.	SMT, Asset Services	Ongoing	Asset Management Plans, Emergency Management Plan

10. Improve hazard and emergency management to minimise climate change risk.

#	Key Action	Responsibility	When	Supporting documents, programs
68	Proactively work to address the highest priority stormwater management works, including working with the state government.	Asset Services	Ongoing	Asset Management Plans, Budget
69	Ensure Council's bushfire management system considers the predicted impacts of climate change.	Development Services, Planning, Asset Services	Ongoing	

11. Improve ecological resilience to climate change.

#	Key Action	Responsibility	When	Supporting documents / organisations
70	Develop and implement a Tasman Biodiversity & Natural Values Strategy to improve understanding and aid management of local flora and fauna values, weeds and pests within the Municipality	NRM	2021	TasVeg, Threatened Native Vegetation Communities
71	Encourage private land conservation, especially where identified high values, habitat or threatened species exist.	Development Services, NRM	Ongoing	Landcare, Land for Wildlife, PWS
72	Work collaboratively with regional landscape management agencies to improve management of Tasman's natural assets in a changing climate. (e.g. Crown, NRM South, DPIPWE).	Development Services, NRM	Ongoing	
73	Continue local weed management and engage with state and federal governments to increase capacity to manage weeds and pests, many of which are predicted to get worse due to climate change.	NRM	Ongoing	Weed Management Plan
74	Support and facilitate local and regional biodiversity partnerships and projects. (e.g. Landcare, Coastcare PWS)	NRM	Ongoing	
75	Investigate stormwater catchment improvements that also include revegetation and environmental improvement/restoration in conjunction with stormwater modelling for future infrastructure needs.	Asset Services	2021 + Ongoing	Asset Management Plans, Annual Budget

Strategic Direction 4: Opportunity

12. Facilitate opportunities to develop renewable energy and a low carbon economy and for local contributions to this				
#	Key Action	Responsibility	When	Supporting documents, programs
76	Actively participate in the Regional Climate Change Initiative group.	NRM / SMT	Ongoing	
77	Actively participate in the Southern Tasmanian Waste Management Group to achieve its goals.	NRM, Asset Services	2020	
78	Support the establishment of sustainable enterprises within the Council area.	Development Services	Ongoing	
79	Help facilitate actions within local businesses which reduce energy consumption and emissions whilst improving profitability.	Development Services	Ongoing	
80	Consider climate risks in any new and existing investments. Invest in sustainable projects where appropriate.	All	2021	All Plans, Annual Budget
81	Promote the uptake of sustainable technologies, including via incentive schemes.	Development Services	Ongoing	
82	Support landholder efforts to preserve or increase carbon stores e.g. soil carbon.	Development Services, NRM	Ongoing	
83	Assist local businesses to take advantage of state and federal programs that support reducing greenhouse gas emissions.	Development Services	Ongoing	Emissions Reduction Fund

F. Acronyms and Abbreviations Used

ESD	Ecologically Sustainable Development
EV	Electric Vehicle
FOGO	Food Organics and Garden Organics
HEAT	Home Energy Audit Toolkit
kg CO₂e	kg of CO₂ equivalent
LGAT	Local Government Association of Tasmania
PV	Photovoltaic
PWS	Tasmania Parks and Wildlife Service
RCCI	Regional Climate Change Initiative
SERDA	South East Regional Development Associations
SES	State Emergency Service
SMT	Senior Management Team
STCA	Southern Tasmanian Council Authority
STWMG	Southern Tasmanian Waste Management Group
SWS	Southern Waste Solutions
TFS	Tasmania Fire Service
WSUD	Water Sensitive Urban Design