Minister’s Foreword

Tourism and recreation opportunities in the alpine resorts provide important benefits to regional economies through jobs and improved local services. Each year the resorts attract over one million visitors and in winter of 2015 alone they generated $671 million in Gross State Product and around 5,942 jobs.

Our changing climate is driving the need to reassess and improve land and environmental management practices across Victoria, from our marine and coastal environments to our alpine regions.

In February 2016, the Victorian Government announced that reform of the alpine resorts governance arrangements is required to ensure the sector can effectively respond and adapt to current and future challenges, particularly the impacts of climate change.

Alpine resorts have a special place in the hearts of many Victorians, and we need to ensure they continue to maximise economic and social benefits for all Victorians.

The Alpine Resort Futures Project, which will support the sector to determine how best to adapt to climate change, combines both adaptation planning and governance structural reform. The Alpine Resorts Governance Reform Project is the first stage of the broader Alpine Resort Futures Project.

This Discussion Paper proposes options to improve the governance of the alpine resorts. It is broadly acknowledged that the current governance structure is complex. Fundamental structural reform is required to produce a simpler framework and to ensure the full potential of Victoria’s alpine resorts is realised.

The governance reform project aims to ensure the alpine sector has a governance and operating model that:

- Enables effective planning to adapt to the impacts of climate change
- Continues to provide economic and social benefits to surrounding regions and across Victoria
- Enhances the public land and environmental values derived from the alpine resorts
- Facilitates collaboration across the sector and ensures effective land management
- Enables a sector-wide strategic approach to issues associated with infrastructure investment

The Victorian Government is seeking feedback on a range of questions that will guide decision making about how best to build the sector’s capacity to respond to current and future challenges. In particular, the people who live and work at Victoria’s alpine resorts have extensive knowledge of the resorts and can make a valuable contribution to the process of reforming their governance.

The need for the sector to evolve, with new and innovative business operations, is critical to its success and the success of surrounding regional economies. We are invested in supporting the alpine resorts to adapt to our changing climate and ensuring they deliver a diverse range of alpine and recreation experiences.

The Hon. Lily D’Ambrosio MP
Minister for Energy, Environment and Climate Change
Executive Summary

Victoria’s alpine resorts are popular recreational and tourism destinations, generating substantial social and economic benefits for local, regional and Victorian communities. The alpine ecosystems provide the foundation for these benefits and have significant intrinsic value.

The Victorian Government is committed to ensuring that the resorts maximise the economic and social benefits to surrounding regions and Victorians generally.

The need for change

Climate change will significantly impact on Victoria’s alpine resorts, including shorter snow seasons, reduced snow cover and a contraction in conditions suitable for snowmaking. This is likely to have a direct effect on alpine visitor numbers and regional economies. The resorts require a sector-wide strategic and collaborative approach to determine and implement effective incremental and transformational measures to adapt to climate changes.

The governance structure of the alpine resorts has been the subject of a number of reviews, including the State Services Authority (SSA) Review of Alpine Resort Areas (2008). The SSA review proposed structural changes to the governance arrangements to reduce fragmentation of roles and structures and drive a more integrated, long-term, strategic approach in key areas such as planning, marketing, infrastructure and service delivery requirements.

Following feedback from stakeholders, the government of the day attempted to address the issues identified in the SSA review within the existing governance structure through the Alpine Resorts Strategic Plan 2012. This approach has had limited success and the recommendations of the SSA Review remain relevant.

The current governance structure is complex, inefficient and ineffective (refer to Part C). Fundamental structural reform and legislative amendment is required to realise the full potential of Victoria’s alpine resort areas now and into the future.

Current governance

There are six alpine resorts, which are governed by four Alpine Resort Management Boards (ARMBs) and the Alpine Resorts Co-ordinating Council (ARCC). Current governance of the ARMBs and the ARCC is depicted in Figure 1.

Criteria for assessment of options

The following criteria for assessing the options incorporate best practice climate adaptation thinking and the Premier’s Circular No. 2013/2 on the Creation and Review of Non-Departmental Entities Policy and Processes.

1. Is there a role for government? If so, to what extent?
2. What degree of autonomy from the Department for Environment, Land, Water and Planning (DELWP) and Minister for Energy, Environment and Climate Change is required?
3. What is the appropriate form of entity/entities that will:
   – enhance the economic benefit to community
   – enhance the social benefit to community
   – facilitate collaboration
   – facilitate community engagement
   – provide flexibility to address climate adaptation and sector transition needs
   – improve the financial sustainability of the resorts and reduce reliance on external funding?
4. Can the functions be performed by existing/alternate entity/entities?

Options for reform

A variety of legal forms were considered, however it became clear that most would not deliver both the government objectives and good governance for Victoria’s alpine resorts. A statutory authority/ies (body corporate) with a board and CEO administration was seen as the only viable entity structure.

This paper focuses on two management models:

1. A single Alpine Resorts Authority
   (operating as a statutory body corporate with board and CEO administration)
   A single overarching Alpine Resorts Authority to provide sector-wide strategic planning and management across all the resorts. Offices may be retained at individual resorts for day-to-day operation and management matters. DELWP would provide the principal source of alpine policy advice to the Minister. This option would deliver a consolidated and integrated responsibility for alpine management and service delivery across Victoria. This legal form would likely be identical to the current legal form of an ARMB.

2. Separate Northern Alpine and Southern Alpine Resorts Authorities.
   (operating as statutory body corporates with board and CEO administration)
   Day-to-day operation and management would be undertaken by a consolidated Northern Alpine Resorts authority (Falls Creek, Mount Buller, Mount Stirling and Mount Hotham) and a Southern Alpine Resorts authority (Mount Baw Baw and Lake Mountain). This model would have site operations and management reporting to the corresponding authority. DELWP would provide the policy and planning framework in which the two entities and sector would operate and provide oversight of the entities on behalf of the Minister. Merging the existing structures into two entities would build capability and scale to undertake integrated strategic planning, and recognises the common issues faced by the ‘larger northern’ and the ‘smaller southern’ resorts by virtue of their location, size, financial and operating environments. This legal form would likely be identical to the current legal form of an ARMB.

Details of these legal entities and those considered inappropriate are presented in Part F: Preferred Future Management Options.

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2 Lake Mountain and Mount Baw Baw ARMBs merged to form the Southern ARMB on 1 January 2017. Mount Buller and Mount Stirling are governed by one ARMB.
Feedback to government
The State Government seeks feedback on the following questions:

- What factors are important to consider in implementing the transition to the new governance model for the alpine resorts sector?
- Are there any relevant drivers for reform that have not been identified?
- Are there any relevant criteria for determining the new governance model and legal entity/ies that have not been identified?
- Is a single Alpine Resorts Authority or separate Northern and Southern authorities more appropriate to meet the future needs of the alpine resort sector?

Responses can be provided via online written submissions through Engage Victoria (www.engage.vic.gov.au) or at targeted workshops for key stakeholders. Written submissions close 17 February 2017.

Discussion Paper structure
Part A: The economic, social, cultural heritage, natural environment and ecological value of Victoria’s alpine resorts
Part B: The current legislative context and governance arrangements
Part C: Limitations of the current system
Part D: Key drivers for governance reform
Part E: Criteria by which the new structure will be assessed
Part F: Preferred future management options.

Alpine sector: Governance arrangements

Figure 1: Current alpine sector governance arrangements

Enquiries can be made via email to alpineresort.futures@delwp.vic.gov.au.
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- Advances in technology
- Access and equity
- Stable visitation
- Environmental stewardship

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- Premiers Circular No. 2013/2 on non-departmental entities
- Climate adaptation requirements
- Criteria for assessment of options

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**Option 1: Single Alpine Resorts Authority**
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- Limitations of a single authority

**Option 2: Northern and Southern Alpine Resort Authorities**
- Benefits of two authorities
- Limitations of two authorities

**Next Steps and Transition Arrangements**

**Appendices**

**APPENDIX 1: Potential Impacts of Climate Change on Victorian Alpine Resorts, University of Tasmania 2016**

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**APPENDIX 3: Examples of Management Options Under Consideration**
- Options 1 and 2 – Consolidated or two separate single statutory authority/ies with governing board and CEO

**APPENDIX 4: Governance Structures Assessed and Considered Inappropriate**
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- Option 5: Committees of management
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Introduction

Purpose of the Discussion Paper

This Discussion Paper outlines:

Part A: The economic, social, cultural heritage, natural environment and ecological value of Victoria’s alpine resorts

Part B: The current legislative context and governance arrangements

Part C: Limitations of the current system

Part D: Key drivers for governance reform

Part E: Criteria by which the new structure will be assessed

Part F: Preferred future management options.

The Discussion Paper reflects the current views of government and will inform the stakeholder engagement in relation to alternate governance arrangements for Victoria’s alpine resorts. Stakeholder engagement will include targeted workshops; written submissions are also invited.

Alpine Resort Futures Project

The alpine resorts are on Crown land and are managed within the context of the Victorian government’s public land management framework. The Alpine Resort Futures Project delivers on government’s commitment to support the alpine resorts to adapt to climate change.

The Alpine Resort Futures Project includes the following sub-projects (see Figure 2):

• Alpine Resorts Governance Reform Project – reform of the legal entities that govern the alpine sector to enable effective response to current issues and challenges

• Alpine Resorts Climate Adaptation Project – the consideration of the specific risks, impacts and adaptation pathways to address the effects of climate change

• Southern Alpine Resort Reform Project – investigation into the sustainable future of Lake Mountain and Mount Baw Baw alpine resorts.

The Alpine Resort Futures Project combines both adaptation planning and governance structural reform. The activities are running concurrently and incorporate stakeholder engagement as key elements of achieving the respective objectives. Rather than duplicating engagement processes and demands on stakeholders’ time it is proposed to combine activities and share engagement outcomes, where practical and relevant.

This paper relates to the Alpine Resorts Governance Reform Project.
Alpine Resorts Governance Reform Project

The government announced in February 2016 that reform of the alpine resorts governance arrangements is required to ensure the sector can effectively respond and adapt to current and future challenges, particularly the impacts of climate change.

Project objectives

The project’s objectives are to ensure the alpine sector has a governance and operating model that:

- enables appropriate planning and development of climate adaptation measures to sustain and enhance the economic and social benefits that flow from the alpine resorts to the Victorian economy and surrounding regional communities
- sustains and enhances the public land values (environmental and intrinsic benefits) derived from the alpine resorts
- ensures effective land management in response to the effects of climate change
- facilitates collaboration within the sector
- enables sector-wide consideration of, and response to, strategic issues such as climate change and infrastructure investment.

Project scope

- Management and governance arrangements for all Victorian alpine resorts (including Alpine Resort Management Boards and the Alpine Resorts Co-ordinating Council).
- Legislation governing the land designated as alpine resorts.

The project’s scope does not include:

- underlying status of the land
- alpine resorts leasing policy
- Traditional Owners Settlement Act changes (separate work is occurring in this space)
- climate adaptation measures for the alpine resorts (the Alpine Resorts Climate Adaptation Project and Southern Alpine Resorts Reform Project will address this)
- financial sustainability of the southern alpine resorts.

Consultation process

Government recognises that the Victorians who live, work and play in Victoria’s alpine resorts have extensive knowledge of the resorts and can make a valuable contribution to the process of reforming their governance.

To enable stakeholder input to the process:

- this discussion paper provides a summary of government’s thinking in relation to the management structures and legal entities appropriate for the alpine resorts
- a series of stakeholder workshops will be held early in 2017

Government is seeking feedback on the following questions:

- What factors are important to consider in implementing the transition to the new governance model for the alpine resorts sector?
- Are there any relevant drivers for reform that have not been identified?
- Are there any relevant criteria for determining the new governance model and legal entity/ies that have not been identified?
- Is a single Alpine Resorts Authority or separate Northern and Southern authorities more appropriate to meet the future needs of the alpine resort sector?

The government will include stakeholder feedback in the factors it considers in determining the future governance model of the Victorian alpine resorts.
Part A: Value Derived From Victoria’s Alpine Resorts

The Victorian alpine resorts, which are located on Crown land, provide significant value to Victorians and visitors to the state. This value includes: direct and indirect economic benefits; social, cultural, recreational and health benefits; and environmental and intangible benefits (such as aesthetic appreciation and tranquillity).³

The economic, social and environmental values of the resorts are described briefly below.

**Economic value**

The resorts attract between 600,000 and 800,000 visitors and generate between 1.2 and 1.4 million visitor days annually.⁴ The 2015 Winter Season Report estimated the Gross State Product generated by the alpine resorts at $671 million. About 6,000 full-time equivalent jobs were generated during the winter season.

The resorts and their adjacent regional communities (such as Mansfield, Mount Beauty, Marysville and Bright) have a synergistic relationship. The resorts rely on the local communities for food, supplies accommodation and employees; the communities benefit from this trade and from visitors en route to the resorts.

In 2011, the Alpine Resorts Co-ordinating Council (ARCC) commissioned the National Institute of Economic and Industry Research (NIEIR) to investigate and report on the economic significance of the alpine resorts. NIEIR estimated the resorts’ economic benefit to local government areas (LGAs) in the 2011 winter season as presented in Table 1:

<table>
<thead>
<tr>
<th>LGA</th>
<th>Alpine resorts</th>
<th>Contribution to gross regional product (% of LGA total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpine Shire</td>
<td>Falls Creek and Mount Hotham</td>
<td>$261.9 million (22.4%)</td>
</tr>
<tr>
<td>Mansfield Shire</td>
<td>Mount Buller and Mount Stirling</td>
<td>$153.2 million (23%)</td>
</tr>
<tr>
<td>Murrindindi Shire</td>
<td>Lake Mountain</td>
<td>$3.5 million</td>
</tr>
<tr>
<td>Baw Baw Shire</td>
<td>Mount Baw Baw</td>
<td>$7.5 million</td>
</tr>
</tbody>
</table>

Table 1: Victorian Alpine Resorts economic benefit to local government areas⁵

⁴ Alpine Resorts Co-ordinating Council (2016) 2015 Winter End of Season Report
Social values

The alpine resorts are some of the most intensively used areas of public land in the State. They provide a range of social benefits associated with recreation and tourism, cultural heritage, education and social connections between families and friends.

Extensive ski fields and associated accommodation and entertainment facilities provide the primary attraction of the resorts during winter. The resorts also provide opportunities for non-snow activities such as mountain biking, road cycling, fly fishing, bushwalking, horse riding and boating. Access to natural environments contributes positively to human health and wellbeing.

Traditional Owners and Indigenous communities retain strong cultural connections to the alpine area. Aboriginal people have been living and travelling around the alpine region for at least 20,000 years. The Traditional Owner Settlement Act 2010 provides a framework for the Victorian government to recognise Traditional Owners of Crown land.

After European settlement, the mountain cattlemen moved into the alpine ‘high country’ in search of summer pastures. Gold was mined from the 1850s onwards and larger-scale forestry activities began in the 1930s and 1940s.

Skiing and the expansion of the resorts began in the late 1930s with the construction of ski tows, club lodges and new buildings through to the mid-1950s. From 1962 through to 1987, there was further expansion of resort-based skiing facilities in Victoria.7

Environmental values

The alpine region contains significant plant species and vegetation communities, habitat for endangered wildlife species, and sites of archaeological, geological, geomorphological and broader landscape importance.

The ecological communities in the region are generally limited in extent and are frequently found as ‘islands’, physically separated from each other, often with their own unique species or subspecies. Many species are listed as rare or threatened under the Victorian Flora and Fauna Guarantee Act 1988 (eg alpine bog communities) and endangered or critically endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (eg Burramys parvus — Mountain Pygmy-possum).

The natural environment has intrinsic value and is the basis of the resorts’ economic activity.

7 The Australian Alpine Club has further information about the heritage of alpine areas on their website: http://www.australianalpineclub.com/heritage
Part B: Current Alpine Sector Governance Model

Alpine Resorts Act 1983

The Alpine Resorts Act 1983 designates six alpine resort areas: Falls Creek; Mount Hotham; Mount Buller; Mount Stirling; Lake Mountain; and Mount Baw Baw. Under this Act, Crown land within the resorts is deemed to be permanently reserved as alpine resorts (s. 21(1)).

Alpine Resorts (Management) Act 1997

The Alpine Resort (Management) Act 1997 establishes the administrative and governance arrangements for the management of the alpine resort areas. The Act establishes the Alpine Resorts Co-ordinating Council (ARCC) and the Alpine Resort Management Boards (ARMBs), sets out their statutory functions and outlines their governance and reporting arrangements. Although there are six alpine resort areas, Mount Buller and Mount Stirling are managed by a single ARMB and Mount Baw Baw and Lake Mountain are managed by the recently amalgamated Southern Alpine Resort Management Board (SARMB).

The Act was introduced to replace the Alpine Resorts Commission (ARC) model of 1983. The Act separated the governance and management arrangements of the resorts from a single entity (the ARC) to individual ARMBs and an ARCC.

The government of the day considered that the three northern resorts had matured (recognising the extent of existing activity and development) to the point of warranting separate management. Furthermore, it was believed that separating the resorts would promote competition between the resorts, and drive innovation and efficiencies.

The current governance model is depicted in Figure 3.

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Figure 3: Current alpine sector governance arrangements

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8 Victorian Parliamentary Debates, Legislative Assembly, Volume 436, 30 October 1997, page no.867
Key characteristics of the current governance arrangements

Alpine Resort Management Boards (ARMBs)

The ARMBs are statutory entities with a multi-member board as the governing body. The board reports to the Minister for Energy, Environment and Climate Change. Currently, each board has seven members and a supporting management organisation.

The ARMBs are required to manage the resorts in accordance with the Object of the Act:

- “for the development, promotion, management and use of the resorts on a sustainable basis and in a manner that is compatible with the alpine environment, having regard to:
  - environmental and ecological considerations, in particular, climate change
  - economic considerations
  - cultural heritage considerations, in particular, Indigenous cultural heritage considerations
- for the use of the resorts:
  - primarily for alpine recreation and tourism
  - in all seasons of the year
  - by persons from varied cultural and economic groups.”

The ARMBs have a wide range of functions including:

- providing municipal services (including fire protection and transport)
- snowmaking
- planning for development, promotion, land management and use
- research
- collecting fees
- attracting investment
- tourism and marketing
- leasing.

ARMBs are deemed to be a Committee of Management, responsible for managing, improving, maintaining and controlling all Crown land within their resort area.

ARMB funding sources include resort entry fees (which are regulated), site rentals, service charges and government grants.

Alpine Resorts Co-ordinating Council (ARCC)

The ARCC is a statutory entity with a multi-member board that reports to the Minister for Energy, Environment and Climate Change. The ARCC board membership is made up of:

- the Chair appointed by the Governor-in-Council on the recommendation of the Minister
- the Chair of each ARMB established under the Act
- four persons appointed by the Governor-in-Council on the recommendation of the Minister.

The ARCC key functions include:

- planning for and facilitating:
  - development
  - promotion
  - strategic planning
  - management
  - use of the resorts
- research
- tourism
- promotion
- encouraging investment
- advice to the Minister.

The ARCC is funded through contributions from the ARMBs under the direction of the Minister.

Department of Environment Land Water and Planning (DELWP)

DELWP’s key functions in relation to the alpine resorts include:

- policy development
- providing advice on all matters undertaken by the ARCC and ARMBs
- environmental matters
- monitoring performance
- governance oversight of the ARMBs and ARCC.
Part C: Limitations Of The Current Governance Model

The current governance model has created a strong commitment to individual resort development and prosperity. It should also enable close connections with the local stakeholders.

This is consistent with the principle of subsidiarity (issues are best dealt with at the most local level that could enable their resolution). However, it poses challenges for cohesion and consistency, and inhibits sector-wide strategic planning and collaboration. This adversely affects the alpine sector’s ability to respond to current and future issues.

The following is a summary of the key limitations of the current governance arrangements. These have been identified through various reviews, in particular the State Services Authority (SSA) Review of Alpine Resort Areas, 2008, which examined the effectiveness of the institutional and governance arrangements of Victoria’s alpine resorts.9

**Functions are broad, duplicated and sometimes inappropriate**

The broad scope of roles and functions has led to internal role conflicts and tensions where ARMBs are required to simultaneously pursue commercial (financial sustainability) and ‘public good’ goals (e.g., provide access to the resorts for persons from varied cultural and economic groups and undertake high standards of environmental stewardship).

The ARMBs’ functions are both broad and vertically integrated. They undertake high-level strategic planning as well as operational planning and delivery of services. This strains resources and the capability to deliver on statutory obligations.

There is a conflict between the ARCC’s role and that of its membership base, as half the council members are also ARMB Chairs. The ARCC is tasked with reviewing the performance of ARMBs against the Alpine Resorts Strategic Plan 2012. Council members who are also ARMB Chairs are effectively assessing themselves.

The ARCC undertakes research and coordination of strategic management issues for the sector. However, public sector governance principles indicate that these high-level policy, planning and accountability matters should be undertaken by the relevant government department.

The Act stipulates that both the ARCC and the ARMBs are required to plan for and facilitate the development, promotion, management and use of alpine resorts. This has led to confusion, overlap and duplication of role and responsibilities. The marketing function provides a clear example of this.

The ARMBs, ARCC and Visit Victoria10 all have statutory responsibilities for alpine resort marketing. Marketing activities are also undertaken by regional tourism bodies and commercial entities. There is a disconnect between the current legislative requirements for the ARCC, ARMBs and Visit Victoria to deliver alpine resort marketing and the current government policy for regional tourism promotion to be delivered by Regional Tourism Boards.

The marketing undertaken by the ARMBs has a resort-specific focus and operates with limited regard to the wider strategic marketing requirements of the alpine resorts sector. Effort is concentrated in limited segments of the market, arguably resulting in a dilution of the effectiveness of that marketing effort.

The Alpine Resorts Strategic Plan 2012 identified the need for a more strategic, co-ordinated approach that better utilised the resources that stakeholders committed to marketing. This led to the Alpine Resorts Strategic Marketing Plan 2014 (ARSMP) being developed.

10 Identified as Tourism Victoria under the Alpine Resorts (Management) Act 1997.
Consultation to inform the ARSMP highlighted a range of challenges, including insufficient cooperation, and limited trust and collaboration between key organisations and stakeholders, particularly at a regional and resort level (ARMBS, lift companies, chambers of commerce and regional tourism boards).

Despite Ministerial commitment to the marketing plan, it has had limited acceptance or implementation by the sector.

Collaboration is inhibited by the sector structure

The current structure poses challenges for cohesion, consistency, collaboration, and sector-wide planning for the benefit of all resorts. ARMBs are obliged to focus on individual resort priorities and concerns rather than working productively together. This results in a loss of synergies, learning opportunities and the benefits of scale and efficiencies.

Delivering sector-wide outcomes through the ARCC is problematic as it is difficult for chairs to balance competing resort-level and sector-level views. This is compounded by the ARCC having no mechanism to enforce the implementation of agreed outcomes.

A collaborative sector-wide approach to tackling many of the challenges and opportunities is essential to the future prosperity of the alpine resorts. Collaboration and partnerships are important in areas such as: master planning; aligning public and private sector investment programs; developing public infrastructure priorities; lowering ARMB costs; building marketing capability; working with Indigenous communities; working with Parks Victoria and catchment management authorities on environmental management issues; and working with Visit Victoria and regional tourism boards on tourism opportunities.\(^\text{11}\)

The lack of cohesion and collaboration was also evident in disagreements about the use and release of research that is critical to determining the future of the sector (such as the report Potential Impacts of Climate Change on Victorian Alpine Resorts, 2016 by the University of Tasmania\(^\text{12}\)); disputes over sector marketing and promotion; and attempts by individual resorts to ‘own’ particular types of green season activity, such as car rallies or mountain biking.


\(^{12}\) This report is discussed in Part D.
Strategic planning and reporting are unnecessarily complex

The multi-entity structure has resulted in complex strategic-planning processes across the alpine sector. This has led to duplication, inconsistency and confusion.

Figure 4 illustrates the current appointment, planning and reporting framework for the ARCC and ARMBs. The framework illustrates duplication and complexity with regard to: strategic, corporate and business planning; annual reporting; and appointment processes. The preparation of multiple documents and the coordination of multiple appointment processes drive administrative inefficiencies and added costs.

Alpine sector: Appointments, planning and reporting framework

### Functions

<table>
<thead>
<tr>
<th>APPONTMENTS</th>
<th>STRATEGIC PLANNING</th>
<th>BUSINESS PLANNING</th>
<th>REPORTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpine Resorts Co-ordinating Council</td>
<td>Council induction</td>
<td>Corporate &amp; business plan</td>
<td>Annual report</td>
</tr>
<tr>
<td>Falls Creek ARMB</td>
<td>Alpine Resorts Strategic Plan (ARSP 2012)</td>
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</tr>
<tr>
<td>Mount Buller and Mount Stirling ARMB</td>
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<tr>
<td>Mount Hotham ARMB</td>
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<tr>
<td>Southern Alpine Resort ARMB</td>
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</tbody>
</table>

### Business Processes

#### Entities

- Board induction
- Master plans
- Corporate & business plan
- Annual report

#### Business Processes

- **Strategic management plans**
- **Financial planning & budgets**
  - Operational budgets
  - Procurement plans
  - Resort fees
  - Leasing
  - Service charges
- **Operational planning**
  - Fire & emergency management plans
  - Engagement plans
  - Environmental management plans
  - Marketing plans
- **Human Resources**
  - Enterprise bargaining agreements
- **Asset Management**
  - Asset management plans
  - Capital investment plans
  - Budget bids
- **Risk Management**
  - Insurance program
  - Risk management plans

Figure 4: Alpine sector appointments, planning and reporting framework
The structure has also led to inconsistent reporting and performance systems. The lack of comparability of documents makes it difficult for government to gain a clear understanding of ARMB performance and provide effective oversight.

The current structure is costly

The duplication, overlap, conflict, and fragmentation of roles and functions within the current structures is resource intensive and not in keeping with the scale of operations.

Each ARMB is a separate statutory authority, subject to all the statutory obligations and needing to undertake all the functions to separately manage its business, despite its small size. This results in inefficient and costly duplication across the sector as each ARMB separately resources its budgeting, financial planning and reporting procedures. There is also additional cost for DELWP’s oversight of multiple ARMBs.

The current ‘competitive’ governance model penalises the resorts with more exposure to balance sheet risk arising from lower revenue, particularly in times of high variability in snow seasons, and limits the individual resort’s ability to absorb financial loss, service their debt levels and maintain their operating activities.

The Alpine Resorts Strategic Plan 2012 acknowledged that ARMBs’ responsibilities are not well aligned with their financial capabilities. For example, individual ARMBs have little capacity to separately resource strategic planning, so it largely rests with CEOs augmented by consultants.

ARMBs currently deliver or contract out a range of services (including garbage disposal, utility supply, road works, transport, snowmaking and grooming). Inefficiencies exist with this model of delivery, due to the small scale of each ARMB’s operations and the wide range of services provided. This increases ARMB operational costs. While there have been limited joint initiatives, there are further opportunities for a sector-wide assessment and market testing of service delivery functions to determine who is best placed to efficiently deliver services.

The Alpine Resort (Management) Act 1997 enables ARMBs to provide snow-making. The demand for snow-making is likely to increase significantly to compensate for decreased natural falls (an expected impact of climate change). The creation of artificial snow is very energy and water intensive, so resorts may expect government to meet these rising demands and costs if ARMBs have insufficient resources.

Previous legislative and institutional reforms, such as the Alpine Resorts Reform Package 2003, required the ARMBs to be financially sustainable and to report on economic key performance indicators (KPIs). However, to date, while the 2012 Plan established a comprehensive suite of alpine sector KPIs, they have yet to be properly measured and reported on, making it difficult to measure the ARMBs’ progress against government’s financial objectives.

ARMBs struggle with financial independence

The Government’s policy objective is that all ARMBs should be financially self-sustainable. The northern ARMBs have generally produced a positive net financial result. They can meet annual asset maintenance needs without government assistance but require additional funding for major capital or asset developments. The southern ARMBs have reported negative net financial results (excluding government operational support payments) for most of their existence. They face difficulties in financing asset acquisitions and maintenance of new and existing assets, and are heavily reliant on government or other external funding for their development programs.

Major revenue sources for the northern and southern resorts differ:

- Revenue for the northern resorts is predominately sourced from site rental fees, service charges and gate entry, and, in the case of Mount Hotham, gas operations.

- Lake Mountain depends on government grants and revenue generated from gate entry fees; the sale of food, beverage, lessons and cross-country trail passes; and clothing and equipment hire and sales, all of which correlate closely with snowfall levels. There is no accommodation at Lake Mountain and so no revenue from site rental fees or service charges.

- Mount Baw Baw depends on government grants and ski field income, the latter varying with snowfall levels. The ARMB is the owner and operator of all ski lift infrastructure at Mount Baw Baw and generates significant income from the sale of ski lift tickets and lessons.

Major expenditure items for all the ARMBs include visitor services, marketing, infrastructure and village operations and administration. Lake Mountain and Mount Baw Baw also have commercial and snowfield operation costs.

The resorts’ ability to generate surpluses and be financially sustainable is strongly influenced by fluctuations in annual snowfall. They are heavily dependent on the length of the winter season, snowfall levels and visitor numbers. This challenge will be exacerbated as the resorts face increased pressures from factors such as climate change.

Capital works funding for new infrastructure and for maintenance and upgrading of existing infrastructure is a significant issue affecting all ARMBs. Each ARMB develops capital works plans to improve infrastructure and services and smooth the pattern of outgoings over a 3-5 year period, but forward projections often assume some level of government funding. There is no recurrent government funding of alpine resorts. When additional government funding is required, the ARMBs are subject to the government grant and budget allocation processes. This creates financial uncertainty and limits the ability of ARMBs to invest in product and infrastructure to achieve strategic initiatives.

To remain financially sustainable, alpine resorts need to be agile in their expenditure and have contingency plans in place to respond appropriately to the unpredictability in snow seasons. The Victorian Auditor-General’s Office (VAGO) financial sustainability analysis shows there are inconsistencies in how well this is being achieved.14 The VAGO recommendation is that the alpine resorts develop strategies to improve their long-term financial sustainability.

The 2003 Alpine Resorts Reform package required all ARMBs to establish a snow drought reserve to maintain cash flow during poor snow seasons and a capital improvement fund to finance asset maintenance and replacement. The resorts have not fully implemented these requirements.

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Pre-emptive action through sector reform is needed to ensure the northern resorts are ‘fit for purpose’ and able to maintain financial sustainability. Streamlining the functional roles in the planning, management, oversight and operations of the alpine resorts will enhance financial sustainability, enable resources to be more effectively deployed and assist in the determination of strategic investment priorities.

**Stakeholder engagement needs strengthening**

The current structure was expected to establish strong links with resort stakeholders. However, various stakeholder groups, such as Alpine Resorts Industry Advisory Group (ARIAG), the Victorian Ski Association (VSA) and individual resort stakeholder bodies, have expressed dissatisfaction with the level of engagement, at both resort and government levels. Current engagement mechanisms between ARMBs and the local community appear not to support consistently open dialogue and strong relationships. It is likely this is the result of organisational culture rather than the industry structure.

**Conclusion**

The SSA review proposed structural changes to the governance arrangements to reduce fragmentation of roles and structures and drive a more integrated, long-term, strategic approach in key areas such as planning, marketing, infrastructure and service delivery requirements. The SSA said a more appropriate institutional model was needed to better align structures with functions, and that the current arrangements did not adequately address key issues. These issues included the need to build capability and scale through integrated strategic planning in critical areas such as financial management, asset management and improved cross-government coordination.  

The SSA’s proposed institutional model of a single Alpine Area Authority with enhanced strategic planning capability was not implemented. In response to stakeholder feedback, the government attempted to address the limitations identified in the SSA review within the existing governance structure via the Alpine Resorts Strategic Plan 2012. The Plan was structured around six strategic objectives, together with a financial and governance implementation framework and a number of key actions that were derived in large part from the SSA review. This approach has had limited success. The issues identified in the SSA review are largely unresolved. Fundamental structural reform and legislative amendment is required to produce a simpler framework to address the long-standing limitations and realise the full potential of Victoria’s alpine resort areas, now and into the future.


Part D: Key Drivers For Governance Reform

The current governance model is the product of a number of reforms to administrative arrangements. However, since then significant issues facing the alpine resorts have emerged and there have been changes in the policy and operating context. In particular, the adverse impact of climate change on snowfall is intensifying the pressures for Victoria’s alpine resorts to adapt to new environmental conditions and reposition themselves as all-season resorts.

The key drivers for governance reform include:

1. The need to respond and to adapt to climate change
2. Sustaining the economic and social contribution to the state and regional economies
3. The requirement to be financially self-sustainable
4. The need to respond to other significant issues facing the resorts.

**DRIVER 1: RESPOND AND ADAPT TO CLIMATE CHANGE**

The Victorian Government has positioned Victoria as a leader in developing strategies to reduce greenhouse gas emissions and help Victoria adapt to the impacts of climate change.

Climate change will have significant effects on the alpine resorts. Addressing these impacts will require a robust and well-informed strategic effort to continue to maximise the economic, social and environmental benefits for the State and regional communities.

**Predicted climate change at Victorian alpine resorts**

The Potential Impacts of Climate Change on Victorian Alpine Resorts, 2016 by the University of Tasmania (Harris, Remenyi and Bindoff) provides a striking description of the immediate, medium and long-term impacts of climate change. The report investigates how snow-making may help combat these effects, while highlighting its limitations. The report provides a reliable scientific basis that can be used in longer-term strategic planning, including investment decisions and the development of climate adaptation plans. Appendix 1 provides the Executive Summary of The Potential Impacts of Climate Change on Victorian Alpine Resorts.

The report examines the projected climate change at each Victorian alpine resort. It says that under the high greenhouse gas emissions scenario modelling, by the end of the century, relative to the period 1961-2010:

- average temperatures across the Australian Alps could increase by 4-5°C
- natural snowfall may decline by 60 to 80%
- annual precipitation may decline by 5 to 20% across the alpine region
- snow cover may contract and only occur on the very highest peaks
- climatic conditions suitable for snowmaking before the season begins are expected to halve at all resorts by 2030, except Falls Creek, where opportunities are expected to halve by 2040
- these impacts will result in a reduced ski season, with a later start and earlier finish.

Snow fall information collected on a consistent basis at Spencers Creek in the NSW snowfields shows clearly the trend of less snow and contracting snow seasons (see Figure 5).

Globally, alpine areas are being affected by climate change in similar ways, with warming measured at three times the global average in European resorts. North American and higher altitude resorts are also affected, with climate change shortening the season and raising the snow line. One study asserts that the United States’ $12.2 billion winter tourism industry cannot survive on snowmaking alone.

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21 The Center for Integrative Environmental Research (2008) Economic Impacts of Climate Change on Colorado, University of Maryland.

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Hot and dry conditions during the summer months will increase the risk of bushfires.\textsuperscript{25} Fires are anticipated to occur more frequently, but the higher frequency may reduce their intensity through reduced fuel build up.\textsuperscript{26}

The increase in temperatures anticipated under some models would reduce soil moisture and potentially affect the structural integrity of resort infrastructure, including ski lifts, communications towers and buildings. Intense rainfall increases the potential for landslides due to the destabilisation effects created by the dry periods.\textsuperscript{27}

Climate change may also cause the extinction of between 15 and 40 of the 200 alpine plant species within 70 years, and an increase of 1^\circ \text{C} with changed precipitation would totally remove the bioclimatic range of the mountain pygmy-possum.\textsuperscript{28}

From a biodiversity protection perspective, pest animal and plant species are likely to extend further uphill and increase in abundance.\textsuperscript{29} The need to preserve biodiversity corridors and maintain connectivity for species migration is an important climate adaptation measure. This will require partnerships with surrounding land managers, including Parks Victoria.


\textsuperscript{25} Office of Environment and Heritage (2011) Case Study 9 – Climate change in Kosciuszko National Park.

\textsuperscript{26} Maunsell (2008) Impact of Climate Change on Australia’s Alpine Areas. Garnaut Climate Change Review.

\textsuperscript{27} Maunsell (2008) Impact of Climate Change on Australia’s Alpine Areas. Garnaut Climate Change Review.

\textsuperscript{28} Office of Environment and Heritage (2011) Case Study 9 – Climate change in Kosciuszko National Park.

\textsuperscript{29} Office of Environment and Heritage (2011) Case Study 9 – Climate change in Kosciuszko National Park.
What is climate adaptation?

The Intergovernmental Panel on Climate Change (IPCC) defines adaptation as: “Adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.”

Adaptation is vital in reducing the risks of climate change on our wellbeing, business and society as well as allowing us to take advantage of the opportunities a changing climate could provide.

Adaptation involves a mixture of strategies:

- building climatic resilience, eg enhanced design specifications
- living with risks, eg increased preparedness and contingency planning
- acceptance of loss, eg accepting occasional losses or reductions in quality.

Climate adaptation measures can be divided into incremental and transformational, although the differences between the two may not always be clear-cut.

- **Incremental adaptation** maintains the essence and integrity of an incumbent system or process at a given scale, ie ‘business as usual’, by using technical and other methods to overcome changes in climate. Snowmaking is an example of incremental adaptation.

- **Transformational adaptation** responses occur at a much larger scale, over a longer period, are new to a particular region or resource system, and transform places and shift locations. ‘Business as usual’ ends but desired values or outcomes can be achieved in a different way. For example, in response to a changing climate Australian wine producers have planted grapes in Tasmania and other cooler areas.

Incremental adaptation is most effective when undertaken at the local level. Transformational adaptation is most effective when undertaken at the state or regional level.

At least some of the impacts of climate change will not be able to be mitigated through incremental adaptation. In the alpine resorts, transformational responses to climate change are likely to be required.

Implications of climate change for Victoria’s alpine resorts

To date, the alpine resorts have been effective at undertaking incremental adaptation measures, particularly snowmaking. However, the scale of the predicted decline in snowfall and snowmaking conditions shows that incremental adaptation will not be sufficient to retain the economic and social benefits currently derived from Victoria’s alpine resorts. Transformational adaptation will be required in the short to medium term.

Independently, the ARMBs will struggle to undertake the necessary adaptation planning and implementation measures. Structural reform to the current governance arrangements is required to enable a long-term, sector-wide response.

Visitors to the alpine resorts are responsive to changes in snow conditions. Visitor numbers and their length of stay increase in line with natural and artificial snow depths. Snowmaking reduces visitor variability associated with low natural maximum snow depths by 33%, demonstrating its effectiveness as an immediate adaptation strategy. For example, with the use of snowmaking Mount Buller increased its ski lift operational days from 100 to 106 between 1979 and 2015, despite the average snow depth decreasing about 30%.

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As conditions suitable for snowmaking continue to deteriorate over the coming decades, the industry would need to invest significantly in snowmaking infrastructure to continue producing the same volume of artificial snow. Technological advancements in snowmaking equipment may partially offset this, although at significant capital investment and operational cost.

Any additional revenue generated through snowmaking should be balanced against financial and environmental costs. For example, the University of Tasmania’s Potential Impacts of Climate Change on Victorian Alpine Resorts, 2016 report indicates that, using the CSIRO snow model to simulate a low-impact scenario, 11 to 27% more snow guns will be required as soon as 2020.32

Figure 6 shows the number of hours suitable for snowmaking (below minus 2°C) accumulated by the season start date (3 June) at the alpine resorts over time. The range in each envelope represents inter-annual variability and the range across the six climate models.

Accumulated Snow Making Hours by Season Start (3rd of June)

While current technologies such as snow-making are effective short-term responses to reduced snow-cover, it is imperative that the long-term limitations of such responses are acknowledged, and that a holistic suite of behavioural, operational and transitional approaches is considered.

Acting now to strengthen the resilience of the Victorian alpine sector and regions, and their ability to plan for and adapt to climate change, is critical.

Exploration of broader opportunities for adaptation that don’t depend on winter season activities is a priority action under the Alpine Resorts Strategic Plan 2012. The Plan promotes all-season activation as a positive measure to diversify revenue streams and guard against the effects of climate change.


**Insight from the southern alpine resorts**

The Mount Baw Baw and Lake Mountain resorts are the lowest lying of the six Victorian resorts. Their size and topography have contributed to their inability to maintain financial sustainability, clearly evident in the past decade (see Figure 7).

Both resorts are experiencing decreased natural snow earlier than the larger northern resorts. Increasingly, the two southern resorts are unable to offer a reliable snow experience without snowmaking. Anecdotally, without snowmaking, Lake Mountain resort would only have been able to open its toboggan slopes on five days rather than 76 in the 2015 snow season.

The government has subsidised the essential operating costs of the southern resorts since 2004. Without this contribution, the resorts would be insolvent. The subsidy was $6.77 million in the 2014-15 financial year and has escalated over time. Financial support for the resorts has been provided from a range of sources including Treasurer’s Advance, state appropriations and DELWP (and its predecessors) contingency and underspends. The decline in natural snow will make it increasingly difficult for the southern resorts to operate sustainably. Over the coming decade, this is expected to also affect the higher-altitude northern resorts.

With the continued variability and decline of natural snowfall, the northern resorts, like the southern resorts, will face an increasing challenge to attract visitors. Snowmaking facilities have smoothed out the volatility of visitor number fluctuations due to poorer natural snow. However, the conditions suitable for snowmaking are predicted to significantly decline for the northern resorts between 2030 and 2040. Without further intervention, gate entry revenue will drop. Site rental income will also potentially decrease because property values may be affected by declining conditions. With this comes a risk of government dependence.

It is instructive to consider the history of attempts to privatise all or parts of the operations at these resorts. In addition to operational support, since 2000, government has invested heavily in capital expenditure at the two southern resorts ($14 million as at 2011), in part to enhance the resorts’ attractiveness to private operators. Despite numerous attempts – and a range of offerings and arrangements – and the recent introduction of outsourcing of all resort operations, private sector involvement has proven to be unsuccessful.

Government may find itself exposed to similar (but potentially more significant) financial dependency with the northern resorts, if their financial sustainability cannot be established and sustained. With this dependency comes a risk of associated reductions in board accountability for strategic achievement and organisational performance, as audit concerns translate into government guarantees – letters of comfort – for operating shortfalls.

**ARMB reported net financial result, excluding government operational support payments**

Graph produced from data in ARMB Annual Reports between 1998 and 2015.

1999 - 2004 Large Resort ARMBs subsidised small resorts 2005 - now DELWP (and predecessors) subsidised small resorts

**Figure 7 ARMB reported net financial result, excluding government operational support**

34 Graph produced from data in ARMB Annual Reports between 1998 and 2015.

The insights from the ongoing financial burden of the southern alpine resorts provides a key driver to reform the alpine resort sector governance arrangements to enable the sector to effectively respond and adapt to current and future challenges, in this case, financial sustainability.

**Climate Change Bill 2016**

The government’s vision for Victoria in 2050 is an agile, prosperous economy that maximises the job opportunities presented by climate change, technology and emerging industries. It will be a state powered by renewable, clean energy with infrastructure that supports low carbon living for all Victorians.

On 22 November 2016, the government introduced the Climate Change Bill 2016 into Parliament to create a new Climate Change Act, as the latest step in reinstating Victoria as a leader in climate change action. The Bill gives effect to most of the commitments set out in the government’s response to the 2015 Independent Review of the Climate Change Act 2010. If passed, the Bill will provide Victoria with a world-leading legislative foundation to manage climate change risks, maximise the opportunities that arise from decisive action, and drive our transition to a climate-resilient community and economy with net zero emissions by 2050. The Bill repeals and re-enacts the Climate Change Act 2010 to:

- embed a long-term emissions reduction target of net zero by 2050
- require five yearly interim targets to keep Victoria on track to meet this long-term target
- introduce a new set of policy objectives and an updated set of guiding principles to embed climate change in government decision-making
- require a Climate Change Strategy every five years to set out how Victoria will meet its targets and adapt to the impacts of climate change
- require Adaptation Action Plans for key systems that are either vulnerable to the impacts of climate change, or are essential to prepare Victoria
- establish a pledging model to reduce emissions from government’s own operations and from across the economy
- establish a system of periodic reporting to provide transparency, accountability and ensure the community remains informed.


**Adaptation planning for Victoria’s alpine resorts**

The government will support adaptation planning for the alpine sector, working closely with the alpine sector stakeholders and communities to meet the challenges and act on the opportunities of climate change. The planning process will produce strategies to assist the alpine sector transition in the short to medium term and adjust to climate change impacts over time.

DELWP is currently planning sector-level action, which will also need to be pursued at a resort level. It will work in partnership with the alpine sector and community to undertake a range of assessments to identify existing and future risks, vulnerabilities and capacities. Establishing a sector vision and determining significant tipping points will help map out pathways to achieve resilience. These inputs will inform the development of a long-term alpine adaptation plan, with key priorities for early implementation, and will lay a strong foundation for the necessary sector transition and transformation.

The aim is to ensure that the alpine resorts remain vibrant, growing, sustainable places, delivering alpine recreational and tourism experiences that are available to all.  

DRIVER 2: SUSTAIN THE ECONOMIC AND SOCIAL CONTRIBUTION

As discussed in Part A, Victoria’s alpine resorts contribute strongly to their adjacent regional economies. Victoria’s six alpine resorts received 763,000 visitors and 1,387,000 visitor days for the 2015 winter season. The National Institute for Economic and Industry Research (NIEIR) estimated that the gross state product contribution of the 2015 winter season to Victoria was $671 million, with 6,000 full-time equivalent jobs created. In 2011, NIEIR estimated that the resorts also generated an estimated $93.7 million during the summer season, with 477 full-time equivalent jobs created.\(^{37}\)

These benefits are threatened by the impacts of climate change and competing recreation and leisure activities.

Stronger Regional Victoria

Regional Development Victoria (RDV) focus is on supporting the Government’s vision of creating a stronger regional Victoria through job creation, better infrastructure and new investment. Over the next four years, RDV will implement the government’s $500 million Regional Jobs and Infrastructure Fund (RYF), supporting major projects, creating jobs and building stronger regional communities. Stronger Regional Victoria\(^{38}\) provides the framework and actions to attract and facilitate investment and help diversify the regional employment base. This will sustain the economic and social wellbeing of the alpine resorts and surrounding sub-alpine regional communities.

A sector-wide approach to strategic planning and facilitating coordinated investment proposals to improve the resorts in line with key government policy directions will deliver better outcomes for the alpine resorts sector.


\(^{38}\) For more information see Regional Development Victoria’s website: https://www.rdv.vic.gov.au/

DRIVER 3: BE FINANCIALLY SELF-SUSTAINABLE

The State Government’s policy objective is that all ARMBs should be financially self-sustainable. The northern ARMBs (Mount Hotham, Mount Buller and Mount Stirling, and Falls Creek) are generally able to cover their operational and recurrent costs. The southern resorts (Lake Mountain and Mount Baw Baw) rely heavily on government subsidising essential operating expenses.

The southern resorts’ inability to be self-funding will not be overcome by changes to the governance structures. This is being addressed separately through the Southern Alpine Resort Reform Project.

The objective of the resorts should be to maintain the condition of the public infrastructure assets that they manage, while servicing their debt levels and maintaining their operating activities within a financially sustainable framework.\(^{39}\) Without grant revenue from the state and federal governments, the resorts are unlikely to be able to self-fund asset renewal and development projects.

DRIVER 4: OTHER SIGNIFICANT ISSUES FACING THE RESORTS

In addition to the challenge of adapting to climate change, there are a number of other significant and interrelated issues facing the resorts.

Increasing year-round visitation

Public and private infrastructure is underutilised at the resorts outside the snow season, with many businesses closing their doors. This reflects the traditional focus of alpine resorts on winter visitors’ access, infrastructure and activities. Some existing winter infrastructure could be transformed or better utilised in all seasons to cater for different markets and increase access to Victoria’s resorts and surrounding public land.

Year-round, all-season use of the resorts has been a government policy direction since the Alpine Resorts 2020 Strategy, written in 2004, and is one of their greatest challenges. While green season products have been developed, the businesses that operate in the winter market may not be appropriate to drive the development of the green season.

All-season visits are growing, particularly during specific events, long weekends and school holidays, but without improvements in visitation, length of stay and visitor yield it will continue to be a challenge to attract private investment in the green season market.

Collaboration between alpine resort managers, other resort stakeholders, government agencies and private tourism operators is needed to create high-quality, competitive, nature-based tourism products that can be integrated into the region’s broader tourism offer. It is important that the approach is strategic, market-driven and sustainable to give confidence to public and private investors.

Maintaining competitiveness with unique product and offer

Victorian alpine resorts have direct competition from a wide range of interstate and international tourism and recreational destinations offering all-season activities. Some factors that influence potential visitors’ perception of value include availability of low cost airfares, expansion of recreation and tourism choices, variations in the value of the Australian dollar, quality of the Victorian alpine experience (snow, accommodation, village setting, variety of activities, etc). Alpine resorts are not immune from the challenges facing many recreation and leisure activities of shorter stays/holidays and less pre-booking.

Each resort has its own characteristics, with numerous strengths and comparative advantages. A collaborative approach would help enhance these aspects, promoting the diversity and depth of resort offerings, rather than competing for similar markets.

While maintaining the resorts’ unique characteristics, an ongoing commitment to cooperative sector-wide marketing of Victoria as a ski destination based on broad, consistent marketing themes is essential.

Advances in technology

Technological advances are affecting alpine resorts in a range of ways. Social media and instant access to real time snow and condition reports is a double-edged sword, driving high visitation when snow conditions are favourable and turning people off when they are not.

Snowmaking is helping flatten out these visitor peaks and troughs by delivering more reliable snow conditions. However, the University of Tasmania’s Potential Impacts of Climate Change on Victorian Alpine Resorts, 2016 indicates that snowmaking conditions will halve between 2020 and 2040.40 Advances in snowmaking technology may allow snow to be made at higher temperatures, prolonging their viability as a climate change adaptation mechanism, but may come at higher costs.

Snowmaking is unlikely to be adequate as a long-term adaptation measure. ARMBs, and ski lift operators, will face increasing costs with greater dependence on snowmaking, particularly as more snowmaking equipment will be needed to produce the same volume of snow. Any revenue gains achieved through snowmaking must be balanced against the capital and operational costs.

**Access and equity**

Both the ARCC and the ARMBs have responsibilities and powers to address ‘access, equity and diversity’ matters in accordance with the Alpine Resorts (Management) Act 1997. The ARMBs must act in a manner that has regard to ‘cultural heritage considerations’ and provides for use by ‘persons from varied cultural and economic groups’.

Current barriers to access may include: cost of skiing and snowboarding; cost and availability of accommodation; travel distance; transport to and within the resorts; consistent and reliable snow conditions; narrow range of experiences offered; cultural norms; lack of familiarity and knowledge; and information.

ARMB initiatives to improve access are varied. They include promoting non-winter (all-season) products and opportunities by: expansion of the resort’s events, festivals and activities calendars; additional facilities, particularly walking and mountain bike trails; concession charges; discounts for school groups; employment (traineeships for Indigenous people); disabled transportation; signage; building design; and public transport to and from the resorts.

However, as the ARCC End of Season Report 2015 details, a range of issues regarding equity and access to the resorts remain, including:

- The highest proportion of visitors to the resort has household incomes of $100,000 to $149,999, compared with the Victorian mean of less than $80,000.
- Ninety-two per cent (92%) of survey respondents described themselves as white/Caucasian at all resorts, except at Lake Mountain (71%) and Mount Buller (75%).
- The median age of alpine visitors was in the 40-49 year range; the median age of Victoria’s population was 37.3 years.

**Stable visitation**

Overall, visitation to the alpine resorts has increased, however it has not kept pace with Victorian population growth. Victoria’s population has grown at 1.1% per year; the number of winter visitors has grown at 0.2% per year and the number of winter visitor days has grown at 0.7% per year. This is demonstrated in Figure 8. The low growth rates in winter visitation suggest it is a mature industry, particularly when considered in the context of rapidly rising state population.

Environmental stewardship

The ARCC and the ARMBs all have environmental and climate change responsibilities. Each resort has an environmental management plan and site environmental management plans are required as part of planning permit applications. Mount Buller and Mount Stirling, and Mount Hotham have Mountain Pygmy-possum enhancement plans. All resorts have designated environmental staff and have made significant investments in environmental management, including research, weed and pest animal control, waste water treatment and energy efficiency.

However, the planning and development of resorts are largely driven by economic priorities, potentially at the expense of environmental (and social) considerations.

There is a lack of transparency around monitoring and reporting on the progress against current environmental key performance indicators (KPIs) with limited, inconsistent or inadequate evidence of progress detailed in reports. This issue remains despite the requirement for such reporting in the 2012 Plan and efforts to standardise reporting arrangements.

It is important that the ARMBs continue to sustain and enhance the many resort environmental values, now and into the future.

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Part E: Criteria To Assess Governance Structures

In determining the optimal design for governance structures for the alpine resort sector, government must make a range of decisions about which functions should be performed and by whom, how those functions should be allocated between the public and private sectors, which accountability systems might apply, and the overarching governance arrangements.

Governments delegate functions to public entities to focus attention on service delivery, to provide independent performance of public functions, to gain access to specialist expertise or to manage the stewardship of public assets.

The reformed Victorian alpine sector will need to fulfil multiple functions, including service delivery and stewardship. It is well accepted that there is merit in using a public entity for the alpine resort sector. Public entities are organisations that exercise a public function but are established outside the Departmental structure, and operate at arm’s length from government. They are generally autonomous in their operational role, but bound by Ministerial direction and compliance with government policies and strategies.

Separate entities are the best structural form when:

- it is essential to access certain skills and experience that can be best provided by members of a board
- a degree of separation from the Minister is desirable for operational autonomy
- it is essential to an entity’s successful operation that there is a defined, identifiable policy objective to be delivered
- it is necessary to limit the scope for Ministers to become involved in decision-making
- there is a commercial element

Any proposed governance structural reform model should be tested to:

- understand how it may address current challenges
- determine whether it will provide enhanced outcomes for the sector and/or individual resorts
- identify if it will effectively showcase flexibility in the face of climate change

Premiers Circular No. 2013/2 on non-departmental entities

The Premiers Circular No. 2013/2, Creation and Review of Non-Departmental Entities Policy and Processes, sets the framework for new non-departmental entities and the review of existing entities. The circular says entities should be reviewed regularly (every 10 years) to ensure they operate efficiently and remain relevant and appropriate.

Climate adaptation requirements

The scale of the predicted impact of climate change shows that transformational adaptation will be required in the short to medium term. Transformational climate adaptation is most effective when undertaken at the state or regional level.

Effective stakeholder and community engagement is required for climate change adaptation pathways to be effectively implemented. This engagement should be driven by the needs of the sector and regional communities rather than by individual resort priorities.

Effective adaptation will require a broad range of strategic expertise. A multi-person governing board is best able to provide this breadth of strategic thinking.

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43 Appendix 2 provides further information about governance roles and responsibilities.
Criteria for assessment of options

To guide decision-making and to inform transparent engagement with sector stakeholders, an assessment framework has been developed with four criteria for determining a suitable governance structure for the alpine sector. These criteria are derived from the Premier’s Circular and adapted to the alpine context and government’s objectives for the sector.

**Criterion 1 – Is there a role for government? If so, to what extent?**

This requires a clear rationale for government intervention, balancing the social, environment and economic benefits derived from the preferred model against the administrative and governance oversight costs.

There is a significant, historical and largely uncontested role for government in management of alpine resorts. Government has indicated a preference to maintain its role in this domain. Wholesale alpine resort management would be difficult and problematic to contract out, and no viable, alternative providers currently exist.

**Criterion 2 – What degree of autonomy is required from the Department of Environment, Land, Water and Planning and the Minister for Environment, Water and Planning?**

The current structure presupposes a degree of autonomy from department and Minister, particularly at the operational level. However, over time, a combination of factors have meant that alpine resort management in Victoria has found it difficult to maximise the economic and social benefits for local, regional and Victorian communities.

Government wishes to maintain departmental and ministerial involvement in strategic directions and policy, and is comfortable with limited departmental and Ministerial control over day-to-day operations.

**Criterion 3 – What is the appropriate form of entity/entities?**

This criterion considers the nature of the activity or function undertaken by the entity/entities, considers cost effectiveness and form to support sector wide policy objectives, and has therefore been expanded with seven sub-criteria that the proposed structure:

- **Criterion 3a:** enhances the economic benefit to community
- **Criterion 3b:** enhances the social benefit to community
- **Criterion 3c:** facilitates collaboration
- **Criterion 3d:** facilitates community engagement
- **Criterion 3e:** has flexibility to address current and future climate adaptation and sector transition needs
- **Criterion 3f:** has capacity to improve the financial sustainability of the resorts and reduce reliance on external funding.
- **Criterion 3g:** enhances Crown land managers’ ability to perform the environmental stewardship functions.

In general, the Victorian jurisdictional preference is for service delivery to be undertaken through public entities established by or under legislation. Delegated service delivery is intended to focus attention on service delivery, provide independent performance of public functions, gain access to specialist expertise or to manage the stewardship of public assets. The alpine resorts meet the Victorian Public Sector Commission’s criteria for when a separate entity is appropriate.

A consolidated alpine sector structure would increase the sector’s strategic planning capacity while decreasing its costs. A move from a resort-specific focus to a regional or state-wide focus would improve the social and economic benefits to community, increase collaboration and improve the sector’s ability to implement climate adaptation measures.

Measures will need to be put in place so that a consolidated structure maintains strong community engagement with resort stakeholders.

**Criterion 4 – Can the functions be performed by an existing/alternate entity?**

There is no existing entity capable of undertaking alpine resort management, if the aims and challenges of transformational reform for the alpine sector in Victoria are to be realised.
Part F: Preferred Future Management Options

As the existing multi-entity management model is not suitable to address the current and future needs of the sector various alternative management and governance models have been considered and assessed against the assessment criteria. This resulted in two viable options.

- Option 1 involves a single entity while Option 2 involves two entities (Northern and Southern).
- Both proposed options would replace the ARCC and all the ARMBs.
- Both proposed options involve the same legal form, ie a statutory body corporate with a governing body that is a multi-member board (the same legal form as existing ARMBs).
- In both options, DELWP would serve as the principal source of alpine policy advice to the Minister, provide the policy and planning framework in which the entity would operate.

The following table presents an overview of the governance structure options that were considered. Appendix 3 provides examples of these management options. The viable options for reform are then discussed in detail. Further details of the options assessed as inappropriate are provided in Appendix 4.

### Legal forms considered and assessed as viable options

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Statutory body corporate as a consolidated single statutory Alpine Resorts Authority with board and CEO administration. A single overarching Alpine Resorts Authority to provide sector-wide strategic planning and management across all the resort alpine areas in Victoria. The Authority would be supported by a single board and CEO, accountable to the Board. Regional site offices at individual alpine areas may be retained and be responsible for operational matters. This option would deliver consolidated and integrated responsibility for alpine management and service delivery across Victoria with independent governance. This legal form is likely to be identical to the current legal form of an ARMB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 2</td>
<td>Statutory body corporate – as a separate Northern and Southern Alpine Resorts Model. Day-to-day operation and management of alpine areas in Victoria would be undertaken by a consolidated Northern Alpine Resorts Authority (Falls Creek, Mount Buller and Mount Stirling, and Mount Hotham) and a Southern Alpine Resorts Authority (Mount Baw Baw and Lake Mountain). This model may retain site operations reporting to the corresponding statutory authority. Each statutory authority’s board would provide strategic direction and oversight. Merging the existing ARMB structures into two single Northern and Southern Authorities will build capability and scale to undertake integrated strategic planning, and recognises the common issues faced by the ‘larger northern’ and the ‘smaller southern’ resorts by virtue of their location, size, financial and operating environments. This legal form is likely to be identical to the current legal form of an ARMB.</td>
</tr>
</tbody>
</table>

### Legal forms considered and assessed as inappropriate (see Appendix 4)

| Option 3 | Consolidated Statutory body corporate with a single person governing body. |
| Option 4 | Private Sector Head Lease |
| Option 5 | Committee of Management |
| Option 6 | State Business Corporation |
| Option 7 | Trust |
Option 1: Single Alpine Resorts Authority

This model (Figure 9) consolidates the ARCC and ARMBs into a single Alpine Resorts Authority with a skills-based board as the governing body. The board would report to the Minister for Energy, Environment and Climate Change, through DELWP. It would provide sector-wide strategic planning and management across all the resort alpine areas in Victoria. Individual alpine areas may maintain site operations reporting to the central management entity and board. DELWP would provide advice to the Minister and the policy framework in which the sector would operate.

Benefits of a single authority

A single, expanded and strengthened Alpine Resorts Authority would deliver consolidated and integrated responsibility for alpine management and service delivery across Victoria. It would significantly reduce the complexity of the current system.

The challenges of climate change, population growth and ageing infrastructure are only likely to accelerate in the alpine resort sector, and a cross-resort body at arm’s length to government would be best positioned to work with stakeholders to identify and implement sector-wide solutions.

The authority would deliver a greater focus on the integration of responses to cross-cutting alpine issues, a stronger conduit to the scientific and general community, and more focused oversight of policy and strategy implementation.

A centralised authority would be better able to balance the competing needs of each resort and judge them impartially on their merits. Some decisions that maximise the benefits for the sector may, in fact, lead to poorer outcomes for an individual resort. This would be the case if it became no longer financially viable to sustain all resorts.

There may be opportunities for economies of scale.
This model would also potentially alleviate limitations in the current ARMB structures. For example, there is no process to support aggregation of financial information or the establishment of priority projects over time. There is also evidence of duplication of effort and inconsistent processes for budgeting and financial planning procedures across alpine resorts. There are opportunities to improve information sharing between resorts about best practice asset maintenance, capital works and risk management procedures.  

Despite the introduction of standardised reporting arrangements as part of the Alpine Resorts Reform Package, there are still variations and inconsistencies in the way ARMBs report financial information, making cross-comparisons difficult. This model would ensure that funding gaps for operational and capital requirements at alpine resorts were appropriately reported, considered and backfilled if appropriate, through government funding, without resorting to ad hoc processes with incomplete information. Government needs to be fully informed of the financial position of its entities in order to manage risks and plan appropriately.

**Limitations of a single authority**

A single authority may be less responsive to local and regional differences and less connected to local stakeholders. These effects may be ameliorated by the continuation of the Alpine Resorts Industry Advisory Group (ARIAG) and/or Resort Industry Advisory Committees. ARIAG was established in 2013 to work with the ARCC, Government and portfolio agencies. It provides valuable input into policy, strategic planning, management, development, use and promotion at the alpine resorts and includes representation by lift companies, chambers of commerce, local councils, regional. 

Managing a diverse range of alpine infrastructure and natural environments across Victoria would require an organisation with a large variety of skills and expertise and may internalise a number of competing priorities and directions. This may make it less agile in dealing with resort-specific and emerging issues.

This model is not intended to avoid addressing the issue of the southern alpine resorts not being self-funding. This is being addressed through the Southern Alpine Resort Reform Project. However, it may be perceived by stakeholders as a return to the larger resorts subsidising the smaller resorts.

**Single authority examples**

- Zoological Parks and Gardens Board
- Great Barrier Reef Marine Park Authority
- Adult, Community and Further Education (ACFE)

See Appendix 3 for further detail.

**Option 2: Northern and Southern Alpine Resorts Authorities**

This model (Figure 10) consolidates the ARCC and ARMBs into a Northern Alpine Resorts Authority and a Southern Alpine Resorts Authority, each with a skills-based board as the governing body. The boards would report to the Minister for Energy, Environment and Climate Change, through DELWP. Each would provide strategic planning and management across their region. Individual alpine areas may maintain site operations reporting to the central management entity and board. DELWP would provide the policy framework in which the sector would operate, undertake a coordination role and provide advice to the Minister.

**Benefits of two authorities**

This model shares many of the benefits of a single Alpine Resorts Authority (economies of scale, financial savings, increased strategic focus) while retaining strong links to the resorts’ geographic regions. 

The Northern and Southern Alpine Resorts Authorities would be well placed to be involved in strategic and operational planning at a local government and regional level. This includes economic development, tourism promotion and emergency planning. This link to the regions will become increasingly important as the resorts transition away from snow-based activities. As snow declines the alpine resorts will become more closely aligned with the broader tourism offerings of the region. Emergency planning is playing an increasingly important role as fire risk increases.
This structure recognises the common issues faced by the larger, higher-altitude northern resorts and the smaller, lower-altitude southern resorts. For the southern alpine resorts these issues include earlier significant impact of snow decline, undertaking activities usually undertaken by commercial operator and challenges with financial viability. This model isolates the financial challenges of the southern resorts from the northern resorts. The northern resorts have slightly longer time horizons before the snow decline reaches critical levels. However, they have a higher level of infrastructure and economic activity to consider in adaptation planning. This model would ensure that the issues facing the small resorts are not subsumed by the issues of the larger resorts and vice versa.

Legislation to consolidate the Southern ARMBs of Mount Baw Baw and Lake Mountain has recently been enacted. This model would enable ownership and provide continued impetus for the outcomes of the Southern Alpine Resort Reform Project, and concordant direction setting for the Northern Alpine sector.

Limitations of two authorities

The model of a Northern and Southern Alpine Resorts Authority addresses, in part, the greater distance from resort stakeholders of a single Alpine Resorts Authority. In doing so the benefits of being able to take a total sector-wide perspective are lost. The entities’ focus would become ‘what is in the best interests of the region’s alpine resorts’ rather than ‘what is in the best interests of Victorian alpine resorts overall’.

Northern and Southern Alpine Resorts Authorities Structure

![Diagram showing the structure of the Northern and Southern Alpine Resorts Authorities](image)
Next Steps and Transition Arrangements

The government is committed to a consultative and transparent stakeholder engagement and consultation process for the reform of the alpine resorts sector. Prior to the determination and establishment of new governance structures and associated changes, government will engage with stakeholders seeking advice and input on new governance structures.

The government is now seeking feedback on the following questions:

- What factors are important to consider in implementing the transition to the new governance model for the alpine resorts sector?
- Are there any relevant drivers for reform that have not been identified?
- Are there any relevant criteria for determining the new governance model and legal entity/ies that have not been identified?
- Is a single Alpine Resorts Authority or separate Northern and Southern authorities more appropriate to meet the future needs of the alpine resort sector?

Responses to these questions can be provided via online written submissions through Engage Victoria (www.engage.vic.gov.au) or at targeted workshops for key stakeholders. Written submissions close 17 February 2017.

Following input from stakeholders and the community, the government will receive a report on the consultation findings. Government will consider this feedback in deciding the most appropriate governance model.

Implementing government’s decision will involve a range of critical activities, including:

- consideration of the legislative amendments required to transition to the new governance structures;
- process improvements (eg reporting and reviewing requirements);
- transitional arrangements;
- adequate and appropriate resources to effectively implement the proposed changes;
- cross-portfolio coordination;
- industry liaison; and
- engagement with relevant stakeholders.

The recommendations will have major implications for DELWP, the ARMBs and the ARCC, and require coordination with other government organisations involved in alpine resort areas.

Enquiries can be made via email to alpineresort.futures@delwp.vic.gov.au.
APPENDIX 1: Potential Impacts of Climate Change on Victorian Alpine Resorts, University of Tasmania 2016


Executive Summary

Australia has experienced warming of 0.1°C per decade since 1950 (Nicholls and Collins 2006), and this trend is projected to continue and increase as climate change continues (IPCC 2014). Several studies have investigated the impact of this warming on snow cover and the ski industry. Twenty-five years ago, Ruddell et al. (1990) reported a decline in snow depths at several Australian alpine resorts, and similar results have been documented since by various authors. A recent report focusing on Victoria demonstrated that maximum snow depths have declined and the snow season has finished earlier as temperatures have increased across Australia (Bhend et al. 2012). This trend has been attributed to human influences on the climate (Bindoff et al. 2013), and is expected to increase under continuing climate change (CSIRO and Bureau of Meteorology 2015).

This report outlines a study designed to investigate the potential impacts of ongoing climate change on the Victorian alpine resorts. Part I of the report, “The Impact of Investing in Snowmaking”, includes:

1. A review of Australian and international research into the economic viability of snow-making under climate change; and
2. An assessment of the viability of snow-making in relation to its impact on visitor numbers, based on work carried out by Dr Lee, Dr Iftekhar and Prof Tisdell as part of The Landscapes and Policy (LaP) Hub (http://www.nerplandscapes.edu.au/);

Part II of the report, “Climate change in the Australian Alps region”, includes:

1. An overview of the changes projected to occur in mean temperature, precipitation, and snow over the Australian Alps region, with new regional insights from the new Climate Futures for the Australian Alps projections;
2. An assessment of the changes projected to occur in temperature, precipitation and snow cover, between the baseline (1961-2010) and end of century (2070-2099) time periods, at each of the six Victorian alpine resorts (Falls Creek, Lake Mountain, Mt Baw Baw, Mt Buller, Mt Hotham and Mt Stirling);
3. An assessment of shifts in the timing and duration of the ski season based on natural snowfall; and
4. An analysis of variability in snowmaking conditions and changes in the frequency of suitable snowmaking conditions under future climate conditions.

Summary of Part I: The Impact of Investing in Snowmaking

1.0 Review of literature relevant to assessing the economic viability of snow-making under climate change

The potential impact of climate change on alpine resorts has received extensive attention in recent decades, focusing on the supply side (climatic constraints on natural snow and snow-making conditions), as well as the demand side (visitor response) and the cost of snow-making operations and infrastructure. Several studies have shown that snow-making has an important role to play as alpine resorts adapt to declining natural snow cover around the world.
Some consistent messages emerge from the review of the literature:

- There is overall consensus around the world that natural snow cover and depth will continue to decline and the length of the ski season contract further as the climate warms;
- Smaller resorts, those at lower altitudes, and those with inadequate snow-making facilities will be the most vulnerable to climate change;
- Snow-making is expected to sustain the ski industry in many regions until the middle of this century using current snow-making technologies;
- By mid-century there will be less natural snow and a significantly increased need for snowmaking at the same time as snow-making opportunities will decline. This may lead to shorter and less reliable ski seasons;
- The economic costs of snow-making are expected to rise as natural snow cover declines, melting and evaporation rates increase and water and electricity costs rise. More snow will need to be made at warmer temperatures, particularly at the beginning of the ski season, at greater costs (Scott et al. 2007);
- The economic viability of snow-making into the future will be determined by the extent of natural snow cover decline and the cost of snow-making required to sustain the ski season. The ability of alpine resorts to absorb rising costs will depend strongly on visitor perceptions of climate change and their responses to declining and less reliable natural snow cover.

2.0 The relationship between visitor numbers and snow depth at Victorian alpine resorts

Researchers with the Landscapes and Policy (LaP) research hub (http://www.nerplandscapes.edu.au/) investigated the relationships between natural snowfall, snowmaking and visitation rates at six resorts in Victoria, Australia, over a sixteen year period (1997 to 2012). This research is extended here to include the years 2013-2014, and new results are presented to highlight the relationship between visitation and snow depth at individual resorts. The results provide information to support decisions about future investment in snow making infrastructure.

The results show that:

- Visitors to the Victorian alpine resorts are responsive to changes in snow conditions;
- On average, the number of visitors increases with maximum snow depth, both natural and artificial, and they stay for longer. For an increase of 1cm in natural snow, there was an increase of 110 visitors (1.8% increase) and 187 more visitor-days (1.6% increase) across all resorts;
- Similar increases were associated with increases in snow in the artificial snow-making areas (102 more visitors (1.6% increase) and 181 more visitor-days (1.5% increase));
• Visitor response differs at different resorts, with the higher altitude resorts (Mount Buller, Falls Creek and Mount Hotham) showing the greatest increases in visitor numbers and duration of stay with increased snow depth (both natural and artificial). Mount Buller, with 191 visitors per cm of snow and 338 visitor days per cm of snow, gains the most from increases in snow depth. Mount Stirling was the least responsive to changes in snow depth (28 visitors per cm; 55 visitor days per cm);

• The Lake Mountain resort is highly sensitive to maximum snow depth, with 200 more visitors and 215 more visitor days associated with a 1cm increase in natural snow;

• All resorts recorded positive growth in visitor numbers and visitor-days between 1997 and 2014;

• Variability in visitation varied less across years than across resorts, but in certain years, such as 2006, visitor numbers and snow depth were particularly low;

• Snow-making did not substantially alter the relationship between snow cover and visitation, but it did reduce the inter-annual variability in visitor numbers by a third;

• Visitors are more responsive to changes in natural snow depth than to changes in artificial snow depth when resorts and years are considered separately. This suggests there may be opportunities to increase potential visitors’ understanding of the extent of current snowmaking and its success in maintaining reliable skiing conditions.

Summary of Part II: Climate change in the Australian Alps region

3.0 Changes in climate projected for the future in the Australian Alps region

The Climate Futures for the Australian Alps projections provide regional details of climate change between the baseline period (1961-1990) and the end of the century (2070-2099). They show that, by the end of the century, under a high emissions scenario (RCP 8.5):

• Average temperatures across the Australian Alps could increase by 4-5°C;

• Annual precipitation may decrease by 0-20%;

• Snow cover and volume will decline to the extent that eventually only the highest peaks (such as Mt Perisher and Falls Creek) will experience any snow;

• These changes vary seasonally and across the south east Australian region, influenced by elevation, aspect and distance from the coast.

These changes in climate are likely to have significant consequences for natural ecosystems and recreational use across the Alps region.

3.1 Changes projected to occur at the Victorian Alpine Resorts between current and future time periods

The results show that by the end of the century (2070-2099), relative to recent decades (1961-2010), under the high emissions scenario (RCP 8.5) considered here:

• There is an increase of approximately 4°C in mean temperature at all resorts;

• There is an increase in the number of extreme hot days and a decrease in the number of very cold days at all resorts;

• The coldest Winter temperatures increase by 2.5 to 7°C;

• The hottest Summer days are approximately 5°C warmer in the future;

• On average, Falls Creek is projected to experience the greatest decline in annual precipitation (-14%, model range -23% to 0%), followed by Lake Mountain (-13%, model range -20% to -3%), Mt Baw Baw (-11%, model range -19% to -2%) and Mt Hotham (-11%, model range -20% to +3%). Mt
Stirling and Mt Buller are projected to have the lowest decline in precipitation (-7%, model range -13% to +6%);

- All models at all resorts project decreased Winter precipitation;
- Snowfall declines substantially at all resorts, with mean annual snowfall decreasing from between 60% and 80%. Falls Creek shows the largest decline in snowfall (-79%, model range -85% to -72%), followed by Mt Baw Baw (-78%, model range -81% to -76%), Mt Buller (-74%, model range -86% to -70%) and Mt Stirling (-74%, model range -86% to -67%), Mt Hotham (-71%, model range -86% to -63%) and then Lake Mountain (-59%, model range -69% to -35%).

3.2 Shifts in the timing and duration of the ski season based on natural snow

Consistent with observations, model projections indicate a steady reduction in snow depth across all resorts over recent decades. A contraction in the duration of the ski season is shown, with a later start and earlier finish relative to the modelled historical period (1960’s). The length of the ski season has contracted by 17% to 28% across the resorts over recent decades, and is projected to contract by 65% to 90% by the 2070 period relative to 2000-2010. Projections show the greatest contraction in season length at Mt Stirling and Mt Buller, and the lowest contraction at Mt Baw Baw and Falls Creek.

3.3 Changes to the frequency of suitable snowmaking conditions under future climate conditions

As natural snow declines, more snow will need to be made, under warmer conditions, to achieve the target snow depth profiles throughout the season. The number of hours suitable for snowmaking before the start of the ski season (June 3rd) is projected to decline substantially at all resorts. There is a gradual decline from 1960 to 2000, superimposed on large year-to-year variability, followed by a marked drop in available hours for snowmaking between the 2020’s and 2030’s. Relative to the 2010’s, opportunities for snowmaking are halved by 2030 at all resorts, with the exception of Falls Creek where opportunities halve by the 2040’s.

However, if snow is made at warmer temperatures, opportunities for snowmaking may be able to be maintained at current (2010) levels until the 2030’s (-1°C wet bulb temperature), or until 2080-2090 if snow can be made at -0.5°C wet bulb temperature. However, making snow at warmer temperatures may be associated with trade-offs in cost and quality of snow.

The new projections confirm previous research by CSIRO that demonstrated reductions in natural snowfall and contractions in season length based on both natural snow and opportunities for artificial snowmaking (Whetton et al. 1996, Hennessy et al. 2008, Bhend et al. 2012). In line with previous work, the current work suggests that climate change impacts are not only a challenge for the future, but are already impacting the Victorian alpine resorts.

The future viability of skiing at the alpine resorts will rest on the ability to make snow, but by 2020-2030 conditions suitable for snowmaking are projected to decline substantially, and the costs of making more snow under warmer conditions are likely to continue rising.
## APPENDIX 2: Governance Roles and Responsibilities

### Role of a board

A governing board is a group of people appointed to oversee the operations of an entity. The primary roles of a governing board are:

- collective decision-making incorporating a range of expertise
- oversight of management and the performance of the organisation, including appointing and removing the CEO
- approving key organisational policies, including the organisation’s strategy
- approving the budget and monitoring expenditure
- ensuring legal requirements are met
- determining the risk appetite and monitoring risk management of the organisation.

The existence of a governing board provides clarity about who is responsible for these checks and balances, and a mechanism and resources to ensure that they are being carried out.

Where a board would only be tasked with delivering a limited set of objectives, for example delivery of a specific project, holding either a chief executive officer or commissioner directly accountable for performance would produce better governance, as a board could cloud accountability lines.

Boards can have the effect of creating barriers to cooperation due to their legal obligation to make decisions in the best interest of the individual entity.

### Creation of a statutory authority

A statutory authority is a separate legal entity that is created under legislation to provide independent oversight of specific functions. Given the costs, time and demands on the public sector in establishing a statutory authority, there is a general principle that a statutory authority should only be considered if the necessary autonomy of decision-making and capacity to engage and involve the private sector, including financial participation, cannot be accommodated within a departmental structure or an executive agency.

### Level of executive control

In establishing a public entity, the Parliament decides that a particular function should be performed with some degree of separation from executive government. The level of executive control is on a spectrum ranging from close oversight, control and direction, as for departments, to limited control and direction.

Ministers are responsible to Parliament, and by extension the people, for the conduct and performance of public entities, and so no public entity is entirely independent.

The decision to establish a board should take into account what its role will be in relation to the Minister. If Ministerial involvement is such that the board becomes solely an implementation mechanism, this would negate the utility of a governing board and an executive management structure should be considered. If a board exists, it should have clearly demarcated responsibilities.
When there is a dynamic policy environment, a high degree of executive control or central coordination by a department will often be wanted. In this case, a governing board would not be appropriate.

For example, when an entity is operating in an environment where there are strong competing stakeholder interests, a changing body of evidence or ideological drivers, the entity’s operations will be expected to be responsive to these changes, potentially at the instigation of the responsible Minister.

A board is most effective when the purpose of the entity is clear and relatively unchanging, and therefore the board can be held accountable for outcomes. A board will also be an appropriate governance structure when the policy context is underpinned by clinical or technical decision-making. In this case, the existence of a board is useful to delineate the limits of Ministerial control and direction over these deliberations.

If an entity is operating in a high-risk environment, the need for a board is more pronounced. In addition to policy risk, the size and complexity of a business will contribute to the risk environment.

If a governing board is not established, the governance functions must be performed by someone else, most often executive management overseen by the department or the department itself.

The greater the number of executive management structures reporting into a department, the greater the risk the department has to manage.

It is relevant to consider whether it is appropriate for an executive management to perform both management and oversight functions or whether it would be preferable to disperse power to a board that will perform oversight functions and exercise collective decision-making.
APPENDIX 3: Examples of Management Options Under Consideration

Options 1 and 2 – Consolidated or two separate single statutory authority/ies with governing board and CEO

Royal Botanic Gardens

The Royal Botanic Gardens Board Victoria is a statutory authority established under the Royal Botanic Gardens Act 1991. It administers Melbourne Gardens, Cranbourne Gardens, the National Herbarium of Victoria and the Australian Research Centre for Urban Ecology (ARCUE). The Board has seven members, including a Chairman and a Deputy Chairman, appointed by the Governor-in-Council and responsible to the Minister for Energy, Environment and Climate Change. Board members have a diverse knowledge and expertise in the fields of botany, financial management, business management, public administration and nature conservation. The Board oversees the governance of the Royal Botanic Gardens Victoria and may delegate its functions and powers to a committee of the Board, the Chief Executive, any of the Board’s members or any of its employees. The Chief Executive has responsibility for the day-to-day management and control of the Royal Botanic Gardens Victoria.

The Zoological Parks and Gardens Board

The Zoological Parks and Gardens Board operates under the Zoological Parks and Gardens Act 1995 with functions across three sites, all of which are on public land. This approach offers the benefit of collaborative planning and research, enhances the visitor experience through diverse but complementary options, and enables membership passes for access to all sites. The Board has seven members, including a Chairman and a Deputy Chairman, appointed by the Governor-in-Council and responsible to the Minister for Energy, Environment and Climate Change. The Chief Executive Officer has responsibility for the day-to-day management and control of the Zoological Parks and Gardens Board.

The Royal Botanic Gardens and the Zoological Parks and Gardens Board are examples of unique brands and identities being established successfully to showcase distinct offerings.

Great Barrier Reef Marine Park Authority

The Great Barrier Reef Marine Park Authority is responsible to the Federal Minister for the Environment. The governance for the Great Barrier Reef Marine Park includes a ministerial forum, interdepartmental committee and two specialist advisory groups. The role of board members is to ensure the efficient and effective performance of the legislative functions of the Authority, consistent with the government’s expectations in regards to performance, objectives, values and broader government policies. Discussions by the board focus on broad policy and legislative matters, responsibility for operational matters (including permit and development applications) rests with senior management.
There are some common factors between the alpine resort sector and the Great Barrier Reef Marine Park: environmental, tourism and economic factors; involvement of several government departments, stakeholders, businesses and communities; and receipt of funding from government and private investment. There are also some significant differences: the Great Barrier Reef Marine Park is the largest living structure on the planet; it is a World Heritage Area; it covers one single area; and its operating revenue, government funding and operating expense significantly exceed those of Victoria’s dispersed alpine resort sector.

The Adult, Community and Further Education (ACFE) Board

The ACFE Board is a statutory authority, whose role is to plan and promote adult learning, allocate resources, develop policies, and advise the Minister for Training and Skills on matters related to adult education in Victoria. The Board has 12 members, including a Chairperson and Deputy Chairperson. Members of the Board are appointed by the Governor-in-Council on the recommendation of the Minister. The composition of the Board reflects the breadth and diversity of adult education in the community and its links with government, industry and the community sector. The ACFE Board has eight Regional Councils across Victoria, each with nine voluntary members whose role is to provide expertise and local knowledge about adult education needs, advise the ACFE Board on regional priorities, implement plans and policies that promote and support adult education provision, recommend resource allocations to Learn Local organisations in their regions in line with priorities and guidelines established by the ACFE Board.
APPENDIX 4: Governance Structures Assessed and Considered Inappropriate

Option 3: Consolidated statutory body corporate with a single person governing body

This model would consolidate the ARMBs into a single entity with a CEO and administrative office; strategic decision-making would rest with the CEO. DELWP would serve as the principal source of alpine policy advice to the Minister and perform the strategic planning function and coordination of alpine matters. This model would enable consolidated and integrated responsibility for alpine management and service delivery across Victoria but, in the absence of a board, with limited independent governance oversight.

Benefits of a consolidated statutory body corporate with a single person governing body

Strategic decision making would remain internal to the CEO only, in the absence of a Board, enabling consolidated and integrated responsibility for alpine management and service delivery across Victoria. There would be no dilution of authority or interference in business decision-making.

The decision to not have a governing board should balance a number of considerations such as the desire to drive more integrated policy and service delivery with whether there are other ways to achieve this end, for example, through a Ministerially issued Statement of Expectations.

Limitations of a consolidated statutory body corporate with a single person governing body

A key limitation in this scenario is that all formal responsibility and authority is vested in a single person-based structure. Concentrated powers and functions in the CEO (or a Chair appointed without a Board) is now broadly acknowledged as neither consistent with modern governance principles nor practical or reasonable to demand of any individual.46

The absence of a Board would lose: the significant strategic and oversight role that a Board would normally undertake (eg oversight of the CEO, corporate performance, risk management, financial management and effective use of resources, and ensuring the sector meets its statutory obligations as a public entity).


Owing to the scale and breadth of functions required to develop, manage, promote and operate alpine resorts, a board structure is considered prudent to provide the requisite oversight and accountability. This is especially important given the complexity, and competing and vocal interests of the alpine sector.

Without a representative board, this model would not adequately deliver on broad criteria to facilitate collaboration and community engagement. This model demonstrates moderate flexibility needed to address future unknown climate adaptation needs, because it can move to a board model at any time. However, the EPA example (below) cautions against moving to an Authority model without a Board.

Option 4: Private sector head lease

Private sector head lease arrangements are an alternative management option for the three larger resorts in particular. Day-to-day operation and management of alpine areas would be undertaken by private sector provider(s) under a head lease arrangement, but remaining as Crown land in public ownership. DELWP would serve as the principal source of alpine policy advice to the Minister and perform the strategic planning function and coordination of alpine matters.

Benefits of a private sector head lease

Potentially, this option could identify and deliver a management model that would secure the long-term future of the resorts through increased private sector investment and year-round visitor activities. The flexibility surrounding this structure could present a unique opportunity for the market to partner with the government to deliver a vision, with Government retaining ownership of the land. This option would accord with the view that Government should focus solely on its core business of alpine resort sector policy oversight and leave the day-to-day operational management of the alpine resorts to the private sector. However, a significant caveat to this approach is that the resorts are not currently considered an attractive package for private sector interest.

Limitations of a Private Sector Head Lease

The recent Southern Alpine Resorts Model has resulted in number of issues in relation to diminished board responsibilities and oversight, and demonstrated limitations in the ability of the private sector to understand and adequately service public sector accountability requirements.
Head lease models are common in other jurisdictions, with positive experiences in terms of effective land stewardship, service delivery and high-quality visitor experiences, both internationally and in New South Wales. In most cases, these relate to year-round resort operations, a significant limitation in the current status of the Victorian alpine sector.

This model would present limited levels of flexibility needed to address future unknown climate adaptation needs and restricted opportunity and avenues for collaboration and community engagement.

Transition from existing arrangements to this option would be complex, and significantly impact on effective adaptation planning.

Option 5: Committees of management

This model establishes either a single or multiple incorporated committees of management (CoM) under the Crown Land (Reserves) Act 1978. Alternatively, an existing statutory authority such as Parks Victoria could be appointed as the committee of management responsible for all alpine reserves.

The role of a CoM is to ‘manage, improve, maintain and control’ an allocated Crown land reserve for the purposes under which it is reserved under the Act. The CoM is accountable to the Minister for Energy, Environment and Climate Change.

Benefits of Alpine Areas Committees of Management (local government or other statutory authority)

This model could demonstrate high levels of regional focus and connection, collaboration and community engagement, which would enable better integration with regional planning (economic development, emergency management, etc) and potential infrastructure delivery savings.

Limitations of Alpine Areas Committees of Management (local government or other statutory authority)

A CoM arrangement for the alpine resorts sector would need to be tied in with the reintegration of the land under local government jurisdiction. This would involve significant restructuring of local government boundaries.

Local government as a CoM would make coordination between alpine resorts in different local government areas difficult.

This model would present limited levels of the flexibility needed to address future unknown climate adaptation needs at this time.

Option 6: State business corporation

A state-owned enterprise/business corporation is a statutory authority established under the State Owned Enterprises Act 1992. It can take a number of forms, such as a state body (a fully government-owned entity established by an Order-in-Council), a state business corporation (a transitional vehicle for existing authorities to become more commercially oriented) or a state-owned company (an ordinary company fully owned by the state).

The corporation would undertake day-to-day operation and management of alpine areas. DELWP would serve as the principal source of alpine policy advice to the Minister and perform the strategic planning function and coordination of alpine matters.

The State Owned Enterprises Act notes that a State business corporation is required to operate its business as efficiently as possible, consistent with prudent commercial practice, and to maximise its economic contribution to the State.

Benefits of a state business corporation

The state business corporation form is suitable for entities where there is a commercial focus and where a skills-based Board is required to navigate through, and make decisions on, a range of complex infrastructure, commercial, legal, environmental or other issues.
Limitations of a state business corporation

Alpine resorts are not established under the Act on purely economic grounds. Rather they are formed to maximise the benefits from recreation and tourism, within the context of environmental stewardship. Although the private sector operates within the boundaries of the resorts, the Alpine Resort Management Boards do not perform significant commercial activities. Their role as land stewards requires functions in developing the resorts, but this is primarily discharged through managing lease agreements.

There are a range of factors which make this proposal inadequate for consideration, notably the requirements as stated in the Victorian Public Sector Commission Legal Form and Governance arrangements for Public Entities for State Business Corporations to operate its business as efficiently as possible, consistent with prudent commercial practice, and to maximise its economic contribution to the state.47

This model would present limited levels of flexibility, needed to address future unknown climate adaptation needs. The model would also preclude, to a significant degree, widespread collaboration and community engagement with local communities.

There is not a strong case for creating an entity to maximise the economic benefits from the alpine sector, particularly in light of the current object of the Act, and the threat posed by climate change.

Option 7: Trust

Trusts encompass a variety of complex types of structure, broadly unsuitable for the delivery of public entity functions within a legal structure.

There are three alternatives commonly referred to as trusts: a Trust created by Trust Deed, a Trustee responsible for the management of Crown Land established by Crown Grant, an entity known as a trust that is actually a statutory body corporate.

Trust (created by Trust Deed)

A trust is an arrangement whereby the Trustee holds property or an asset on trust for the benefit of the beneficiary. The Trustee is the legal owner of the property. Unlike a company, a trust is not a separate legal entity or person, it is essentially a relationship that is recognised and enforced by the courts in the context of their equitable jurisdiction. The trustee holds and deals with property (eg assets, income, etc) in a certain way for the benefit of the beneficiaries. Due to the scale and breadth of functions required to develop, manage, promote and operate alpine resorts, a suitable trust structure will not deliver efficient or appropriate governance structure for the day to day operation and management of an alpine resort.

Trustee responsible for the management of Crown Land, established by Crown Grant

This is a historical form of authorised management of crown land in Victoria. Prior to 1898, it was the practice to permanently reserve a piece of Crown land for a public purpose and to appoint trustees by a restrictive Crown grant to manage that land. A restrictive crown grant is a grant that restricted the use of that area to certain permitted purposes specified in that grant (such as use as a racecourse or for public recreational purposes, etc).

The use of trusts to manage Crown land evolved from the trust concept that was part of English common law at the time of European settlement in Australia. These trustees could be a group of local people, the council, a charity, other public body or any of these jointly with a Minister. In the case of Caulfield Racecourse Reserve Trustees, it is a group of individuals appointed as trustees via a crown grant.

As a legal form for a public sector entity, it is out of date, and has been heavily criticised by VAGO and others. It also creates significant practical difficulties when compared to an incorporated entity.

A statutory body corporate with a multi-member governing body that is referred to as a trust:

Melbourne and Olympic Park Trust Act 1985

Melbourne Convention and Exhibition Trust Act 1996

Benefits of an Alpine Areas Trust

There are no identified benefits of a trust for Victoria’s alpine resorts.

Limitations of an Alpine Areas Trust

Overall, the suitability of a trust-based structure is limited given the complexities and incompatibilities of this form with the requirements for the delivery of functions within the alpine sector.

This model would demonstrate limited levels of the flexibility needed to address future unknown climate adaptation needs.
