



MILFORD
OPPORTUNITIES

MILFORD OPPORTUNITIES PROJECT

Land Analysis Report

17 March 2021

Boffa Miskell



Boffa Miskell Ltd

Report prepared by:

Yvonne Pfluger
Associate Partner Landscape Planner
Boffa Miskell Ltd



For Boffa Miskell and Stantec



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Prepared by:	Yvonne Pfluger Associate Partner Landscape Planner Boffa Miskell Ltd	
Reviewed by:	Tim Church Associate Partner Urban Designer Boffa Miskell Ltd	
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EXECUTIVE SUMMARY

The landscape within the wider Fiordland National Park area and along the Milford Corridor is of exceptional value. It is a resource that attracts numerous visitors in this area and has to be treated carefully to ensure its characteristics can be protected while providing for a world-class experience for its visitors.

The proposed development of opportunities along the Te Anau- Milford Highway takes the sensitivities of the landscape into account and protects these special places in a sustainable way, as they are the very reason that visitors are attracted to the area. While the landscape values throughout the Milford Road corridor and beyond are high, the Te Anau Basin and Fiordland landscape also contains areas that have an ability to absorb change if undertaken in a sensitive way.

This report contains descriptions of attractive landscape features, nodes of existing modification, enhanced visitor destination and the landscape's ability to absorb change for the Milford Corridor and Milford Sound Piopiotahi. This informed - in close collaboration with other disciplines - the master planning process through identification of areas most suited for development, both in terms of land capability and opportunities to harness the greatest experience of the landscape for visitors. For each of the visitor attractions / opportunities identified for development or enhancement in the masterplan an evaluation of the areas most suited for development is provided together with relevant recommendations relating to the design of buildings, structures and tracks.

The character of the wider Southland area is varied and has been described to provide context for the more detailed analysis of the Milford Corridor. For the Corridor along SH 94, between the two hubs of Te Anau and Milford Sound Piopiotahi, four sections were identified that provide for a distinctive variety of experiences as a visitor progresses through the area:

- Te Anau Section (Te Anau Town to National Park (NP) Entrance)
- Eglinton Section (NP Entrance to The Divide)
- Hollyford Section (The Divide to Homer Tunnel)
- Cleddau Section (Homer Tunnel to Milford Sound Piopiotahi)

For these sections a more detailed analysis of existing modifications and the landscape's ability to absorb further change is outlined. This includes an assessment of potential landscape, visual and natural character effects that could arise from the interventions that are proposed as part of the shortlist of ideas for the Milford Opportunities Project.

The land analysis undertaken as part of the overall project provided input into the masterplan design process throughout the long and shortlisting of ideas where potential impacts on the landscape were flagged in order to ensure that an appropriate design response is provided.

Following the concept design undertaken for the masterplan, and as the short-listed ideas will progress into detailed design, the assessment of effects of proposed interventions, including tracks, buildings and other structures, can be refined. The micro-siting of structures in relation to the terrain and existing vegetation is often a determining factor in relation to the overall landscape and visual effects. Recommendations were made in this report regarding specific design aspects that should be considered, such as location and scale of tracks and structures.

In order to improve the visitor experience without impacting on the wider landscape, the design interventions also take into account key viewshafts from the roads and tracks. The overall intention is to cluster development into nodes, rather than spreading it, and thereby containing effects. To protect the remote and wild experience that is currently provided along the Milford Corridor, the masterplan nodes will be mostly located in areas that have already undergone modification in the past. This will avoid unnecessary sprawl of development into more untouched areas, while maximising the benefit from existing and proposed infrastructure

1 PROJECT BACKGROUND / DEFINITION

PURPOSE OF PROJECT

- 1.1 The purpose of the Milford Opportunities Project (MOP) is to develop a collaborative Master Plan for the Milford corridor and Milford Sound Piopiotahi sub-regional area to ensure:

that Milford Sound Piopiotahi maintains its status as a key New Zealand visitor 'icon' and provides a 'world class' visitor experience that is accessible, upholds the World Heritage status, national park and conservation values and adds value to Southland and New Zealand Inc."

PROJECT AMBITION

- 1.2 The Milford Opportunities Project Master Plan must be world class, ambitious and creative. It should not be constrained simply by what can be done now within the current rules, instead it must consider what needs to be done and what the most appropriate outcome will be. The project is about making a substantive change and creative 'outside the box' thinking is needed before it is filtered by practical operation realities. The outcome must be.

- Consistent with the project's purpose and objectives.
- Consider a time frame of at least 50 years.
- Able to significantly enhance both conservation and tourism.

The Master Plan must give effect to the seven pillars (or values) identified in Stage One of the project and be supported by robust assessment and analysis.

PROJECT PILLARS

1) MANA WHENUA VALUES WOVEN THROUGH



Iwi's place in the landscape and guardianship of mātauranga Māori me te taiao (Māori knowledge and the environment) are recognised. Authentic mana whenua stories inform and contribute to a unique visitor experience.

2) A MOVING EXPERIENCE



Visitors experience the true essence, beauty and wonder of Milford Sound Piopiotahi and Murihiku / Southland through curated storytelling, sympathetic infrastructure and wide choices suited to a multi-day experience

3) TOURISM FUNDS CONSERVATION AND COMMUNITY



The visitor experience will become an engine for funding conservation growth and community prosperity.

4) EFFECTIVE VISITOR MANAGEMENT



Visitors are offered a world class visitor experience that fits with the unique natural environment and rich cultural values of the region.

5) RESILIENT TO CHANGE AND RISK



Activities and infrastructure are adaptive and resilient to change and risk, for instance avalanche and flood risks, changing visitor trends, demographics and other external drivers.

6) CONSERVATION



Manage Fiordland National Park to ensure ongoing protection of pristine conservation areas, while enabling restoration of natural ecological values in less pristine areas.

7) HARNESS INNOVATION AND TECHNOLOGY



Leading technology and innovation is employed to ensure a world class visitor experience now and into the future.

PROJECT OBJECTIVES

1.3 The objective for the MOP are:

- a) Protect and conserve the place now and into the future.
- b) Recognise iwi's place in the landscape, guardianship and values.
- c) Increase the effectiveness, efficiency and resilience of infrastructure.
- d) The visitor experience funds conservation growth and community prosperity.
- e) Reduce visitor exposure and risk to natural hazards.
- f) Increase the connection of people with nature and the landscape.
- g) Offer a world class visitor experience that is unique and authentically New Zealand.
- h) Identify sustainable access opportunities into Milford Sound Piopiotahi.

- i) Identify parts of the built environment that are surplus to requirements or could be shifted to improve visitor function and resilience.
- j) Identify opportunities to create additional economic benefit for the communities of Southland and Otago including Queenstown via the pulling power of Milford Sound Piopiotahi.
- k) Develop a Master Plan that:
 - i. Creates and encapsulates a unique experience.
 - ii. Is culturally, environmentally and physically appropriate and sustainable.
 - iii. Clearly articulates what is acceptable and what is not acceptable visitor management and development within the identified value framework.
 - iv. Considers the impacts of climate change at place.
 - v. Supports the economic stability of Te Anau, Queenstown, Southland and NZ Inc.
 - vi. Portrays a clear future for investment.
 - vii. Informs the review processes for Fiordland National Park Plan and Southland Coastal Plan.
 - viii. Sets out the ideal governance and management structure to ensure successful delivery on the objectives.

NATURAL DISASTERS AND COVID-19 IMPACTS

- 1.4 MOP stage 2 approach was impacted significantly by the 2020 Fiordland floods and then the COVID-19 pandemic.
- 1.5 Strategically, the consultant project team were required to be flexible in our approach and creative in our delivery. As a response to changing conditions we proposed methodologies to make allowance for factors such as lack of visitors, an initial inability to undertake site visits and at times a restricted or reduced availability of staff from external organisations.

WORKSTREAM OBJECTIVES

Table 1: Work Stream Objectives.

#	Stage Two Objective	Application to Land Analysis
1	Ngāi Tahu’s role as mana whenua and Treaty partner is acknowledged and Te ao Māori values are embedded throughout.	Many mana whenua interests and aspirations relate to the special landscape in the study area. These were considered as part of the interactive design process.
2	Milford Sound Piopiotahi is protected and conserved as required by its World Heritage status.	The important landscape aspects as recognised under the World Heritage Status were a key consideration in the option selection process.
3	The visitor experience is world class and enhances conservation of natural and cultural heritage values and community.	Trade-offs have to be made at times between the visitor experience benefits and protection of landscape values. Recommendations provide guidance for the detail design of key nodes.
4	Infrastructure is effective, efficient, resilient, and sustainable (including access methods).	While the use of areas with existing modification is generally preferable, hazards at times required new and different approaches. Advice to minimise landscape and visual effects was provided.
5	Visitors benefit communities, including Ngāi Tahu, communities of Te Anau, Southland, and Otago.	The landscapes in the study area are a major visitor draw card. The land analysis informed the site selection in terms of attractiveness and sensitivities.

2 SCOPE OF WORK – LAND ANALYSIS

- 2.1 In order to respect the place (in particular the national park) it is necessary to know not only where the critically important areas are but also where there is the potential to site any development that might occur. The land analysis project is evaluation, assessment and spatial mapping of the location of appropriate visitor experience opportunities or development.
- 2.2 It will assist in determining what is and is not an appropriate place for potential visitor opportunities or development.
- 2.3 The key outcomes of this project are to:
- a) Produce a report that includes:
 - An analysis of the landscape character at three geographic scales, Milford and the corridor, Te Anau Basin and surrounds, Southland Region to Queenstown.
 - An evaluation of the locations most suited for development – either as part of a journey or as a destination. This includes a description of the opportunities and constraints of each location.
 - An analysis of areas specific to the 'strategic options' incorporated in the Master Plan, including high-level guidance in relation to landscape and visual effects that may arise from proposed interventions.
 - b) Contribute information to the Master Plan that enables the identification and development of strategic options (short-list and long-list process). This included qualitative input for the areas most suited for development, both in terms of land capability and opportunities to harness the greatest experience of the landscape for visitors, as well as flagging any potential risks in relation to landscape sensitivities.

3 INTRODUCTION LAND ANALYSIS

- 3.1 The key to providing a world class visitor experience lies in a sound understanding of the resource, including the landscape and ecological values of the area, and in tailoring a recreation offering that is contemporary, unique to place, and future-facing. The development of opportunities along the Te Anau- Milford Highway has to take the sensitivities of the landscape into account and protect these special places in a sustainable way, as they are the very reason that visitors are attracted to the area.
- 3.2 While the landscape values throughout the Milford Road corridor and beyond are high, the Te Anau Basin and Fiordland landscape also contains areas that have an ability to absorb change if undertaken in a sensitive way. The land analysis undertaken as part of the wider Milford Opportunities Project (MOP) provides an important bridge between the design for the masterplan and the protection of the existing values found in and adjacent to Fiordland National Park. This task provided the basis for site selection for the proposed interventions and development opportunities identified in the masterplan to ensure that the landscape, amenity and scenic values of the Fiordland landscape are respected and protected for future generations.
- 3.3 In our view, the visionary planning of world-class visitor experiences and recreation opportunities undertaken for the MOP masterplan needs to:
- Ensure that any development upholds the World Heritage status, conservation values, including landscape values, set out in the National Park Management Plan.
 - Alleviate pressure on hotspot areas where sensitive resource cannot absorb further development.
 - Utilise areas within the landscape for future development that have a high capacity to absorb change.
- 3.4 The land analysis input was provided as part of the MOP masterplan development included extensive review and feedback on proposed visitor destination enhancements and developments throughout the long-listing and short-listing process. The iterative design process took into account the landscape and ecology feedback, including feedback received from the Environmental Reference Group (see Engagement reporting).
- 3.5 Initially a broader landscape character description was provided to the MOP team to inform the baseline reporting on existing landscape attractions and sensitivities in the western Southland area that may be experienced by visitors to Te Anau on their approach from Queenstown or Invercargill (see Section 3 Regional Landscape Context). As the design progressed, more detailed landscape descriptions were provided for the Milford Corridor between Te Anau and Milford Sound Piopiotahi (see Section 4 Milford Corridor Analysis) and Milford Village (see Section 5 Milford Sound Piopiotahi Land Analysis). This ensured that the existing landscape character was captured at three different scales, as required by the design phases of the project.
- 3.6 This report contains descriptions of attractive landscape features, nodes of existing modification, enhanced visitor destination and the landscape's ability to absorb change for the Milford Corridor and Milford Sound Piopiotahi. This informed in close collaboration the master planning process through identification of areas most suited for development, both in terms of land capability and opportunities to harness the greatest experience of the landscape for visitors. For each of the visitor destinations identified for development or enhancement in the master plan an evaluation of the areas most suited for development is provided together with relevant recommendations relating to the design of buildings, structures and tracks.

4 REGIONAL LANDSCAPE CONTEXT

4.1 For the description of the wider landscape that provides the context for this project, including the journey from Queenstown or Invercargill to Te Anau, a number of character areas were identified within the north-western part of the Southland Region. For each of these landscape character areas the key characteristics, attractive landscape features and a list of existing modifications is provided in this section of the report.

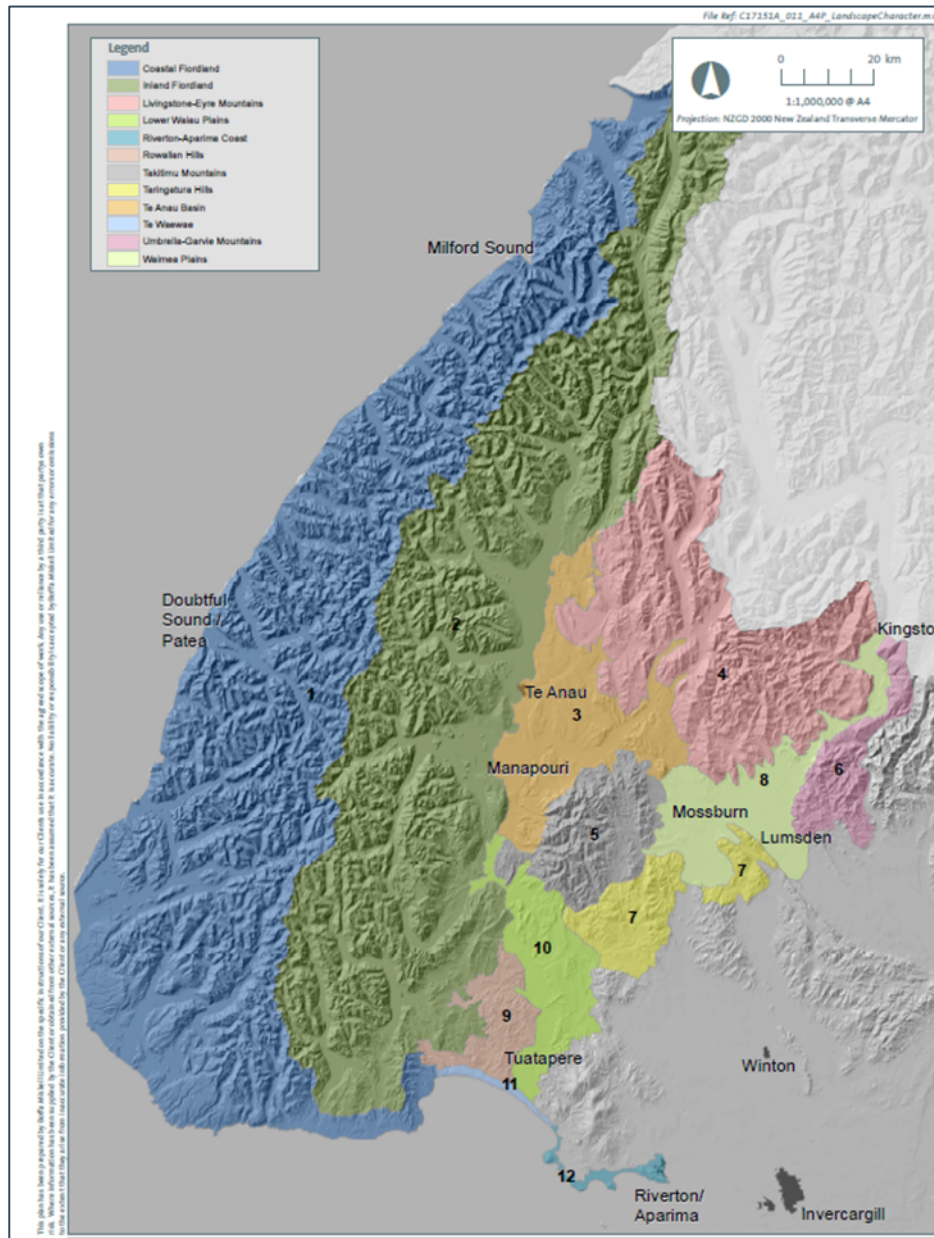


Figure 1: Landscape Character Areas

COASTAL FIORDLAND CHARACTER AREA / TE ATAWHENUA KI TAI



Figure 2: Milford Sound

KEY CHARACTERISTICS

- UNESCO World Heritage Status due to its 'superlative natural phenomena' and 'outstanding examples of the earth's evolutionary history'.
- Fiordland's steep and crenulated coastline, with fiords extending from U-shaped glaciated valleys carved out from the southern part of the Southern Alps, is unique in New Zealand and rare globally.
- The U-shaped valleys were carved by deep glaciers during the Ice Ages, the last of which ended some 14,000 years ago with the hard rocks forming steep-sided walls.
- Mitre Peak is a spectacular glacially-carved mountain peak with iconic status within Milford Sound the wider Coastal Fiordland character area.
- Milford Sound Piopiotahi is one of the major drawcards for Southland in addition to being the most accessible fiord.
- The Waitutu marine terraces are a special feature within Fiordland National Park with the oldest being over 900,000 years old.
- The lowland forests of Waitutu contain one of the largest tracts of unmilled lowland forest in New Zealand with unmilled rimu-dominated forests of national importance. Although these blocks are managed as National Park land under the Waitutu Block Settlement Act, they are part of Māori land.
- Occurrence of pounamu (greenstone), and a variety of mahinga kai (food gathering) sites.

ATTRACTIVE LANDSCAPE FEATURES

- Milford Sound with largest tourist numbers (boat, plane, bus, car)
- Mitre Peak is a spectacular glacially-carved mountain peak, identified as a Geopreservation Site of national significance- particularly iconic feature within the Milford Sound landscape

- Doubtful Sound is currently accessible by boat via Lake Te Anau / Wilmot Pass and the second most visited fiord
- Dusky Sound at end of Dusky Track
- George Sound with difficult access but popular hunting
- South Coast to Port Craig as part of Humpridge Track and many historic saw milling features and impressive viaducts

EXISTING LANDSCAPE MODIFICATIONS

- Largely pristine landscapes with very little development, apart from tracks, huts and marine fisheries
- Existing node of development at head of Milford Sound (Milford Village and underwater observatory)
- Existing node of development at head of Doubtful Sound (Manapouri Tailrace and Wilmot Pass Road)
- Fishing and craypot industry in various fiords, as well as cruise ships and charter boats

INLAND FIORDLAND CHARACTER AREA / TE ATAWHENUA KI UTA



Figure 3: Eglinton Valley

KEY CHARACTERISTICS

- Internationally significant conservation area forming part of the World Heritage Area.
- Unique part of New Zealand having a vast range of rock types, landforms, habitats and landscapes found nowhere else in such a combination.
- Milford Road is one of the most renowned alpine highways in the world.
- Lakes Te Anau and Manapouri are large glacier-carved lakes with multiple arms and complex shorelines.

- Main features of this landscape are the extensive array of alpine lakes and rivers set within native bush clad mountains and valleys.
- World class Great Walks including the Kepler, Milford and Routeburn Tracks, with the Humpridge Track soon to follow.
- Murchison Mountains have very high conservation value (Takahe breeding area).
- Lakes Te Anau, Moturau/Manapōuri and Hauroko, as well as the Waiau River are Statutory Acknowledgement Areas for Ngāi Tahu.

ATTRACTIVE LANDSCAPE FEATURES

- Eglinton Valley provides open views along Milford Road.
- Hollyford Valley as access to northern part of Fiordland and viewpoint.
- Darran Mountains - impressive views and stunning side valleys.
- Lakes Te Anau and Manapouri- only visible from selected viewpoints.
- Lakes Monowai and Hauroko- local tourists and boaters.
- Te Ana-au Glow Worm Caves.
- Green Lake along Borland Road.
- Mt Titiroa with highly visible white granite that forms the summit and high ridges.

EXISTING LANDSCAPE MODIFICATIONS

- Majority of mountainous area pristine landscapes with very little development, apart from tracks and huts.
- Milford Road with associated modifications (campgrounds, carparks, viewpoints, tracks) provides access to Milford Sound.
- Upper Hollyford Valley - Gunns Camp and several trail heads with carparks.
- Lake Te Anau provides access to Milford Track and more remote tracks.
- Lake Manapouri provides access to Manapouri power station and Doubtful Sound.
- Transmission lines cross area from West Arm along Borland Road to Monowai.
- Lake Monowai historic hydro electricity generation, including the raising of the lake.
- Lake Hauroko little modification (Dusky Track).
- Lake Poteriteri very remote landscape feature.

TE ANAU BASIN CHARACTER AREA



Figure 4: Te Anau Downs

KEY CHARACTERISTICS

- The Te Anau Basin provides the main access into the spectacular Fiordland National Park, Lake Te Anau and Lake Manapōuri. The basin provides the foreground to the highly valued views towards the surrounding mountains.
- Te Anau Basin is strongly influenced by the Fiordland mountains which dominate the climate.
- The rivers which flow out of the inland mountains shaped the basin with the gravels they transport and their eroding forces that create sequences of terraces.
- This landscape contains many remnant wetlands and tussock areas, a number of which are very significant for both ecological and landscape reasons, such as Kepler Mire. While these wetlands are more fragmented in the centre of the basin, the northern part of Te Anau Basin contains substantial connected wetland areas.
- The Te Anau Basin landforms vary from a rolling, rural landscape to a series of large lateral moraine deposits between the Upukerora and Eglinton Rivers. The history of glaciation is as legible as more recent processes relating to river erosion.
- Te Anau and Manapōuri are the largest settlements and have dual roles in servicing both the agricultural industry and the tourist and recreation industry. Rural living spreads into some of the areas near the settlements.

ATTRACTIVE LANDSCAPE FEATURES

- Open views out towards Lake Te Anau and Manapouri and the surrounding mountain ranges from SH 94 and 95 are important, Snowdon Forest Conservation Area on foothills.
- Upukerora, Whitestone, Mararoa and Waiiau Rivers are important landscape and recreation features.
- Large wetland areas in northern part of Te Anau Basin (Retford Stream and Henry Creek, Upukerora), as well as beech forest and regenerating kanuka forest (mostly DOC managed).
- Kepler Mire is largest wetland in central basin, Bog Lake at Eglinton River Mouth.

- Freestone Wetland, Kakapo Swamp and Home Creek are wetland restoration areas.
- Freestone Hill is glacial landform with limestone bluffs.
- Red Tussock Conservation Area next to SH94 on approach from Mossburn (largest intact protected area of red tussock in Southland) and Centre Hill is covered in mature red tussock, DOC's Takahe Rearing Unit nearby.

EXISTING LANDSCAPE MODIFICATIONS

- Large parts are agricultural landscape with grazing and shelterbelts, number of large Landcorp Farms with productive use.
- Level of modification decreases towards Eglinton River and Eyre Mountains, but recent intensification around Te Anau Downs, also node of development at Te Anau Downs boat harbour.
- Te Anau and Manapouri are key settlements, but increasing rural lifestyle development along SH, Te Anau is expanding onto Upukerora Fan.
- The Ramparts and Sinclair Road downlands are experiencing rural residential development.
- William Steven Road area is experiencing rural residential development.

LIVINGSTONE-EYRE MOUNTAINS CHARACTER AREA / MATA-PUKE-KOIKOI



Figure 5: Mavora Lakes

KEY CHARACTERISTICS

- Extensive tracts of indigenous vegetation, including tussock grasslands and large areas of beech forest at low altitudes exist within this character area in addition to large lakes in the headwaters of many of the region's significant rivers.
- The Mavora Lakes (Hikuraki and Manawapora) and Snowdon Forest are part of the Te Wāhipounamu – South West New Zealand World Heritage Area.

- Much of the area has been created by fluvial and glacial processes, reflected in river terraces and features such as U-shaped valleys.
- The area is popular for camping, hunting and tramping utilising the extensive but basic backcountry hut facilities.
- Hikuraki and Manawapora are both Statutory Acknowledgement Areas under the Ngāi Tahu Claims Settlement Act, as well as the Oreti and Waiau Rivers.

ATTRACTIVE LANDSCAPE FEATURES

- Livingstone Range frame eastern side of Eglinton Valley with impressive views from SH94.
- Eyre Mountains accessible from Queenstown and Te Anau- large conservation park popular for tramping and hunting in beech forest clad valleys and open tops.
- Mavora Lakes very popular for recreation in a stunning mountain setting.
- Upper Mararoa River popular with kayakers.
- Upper Oreti River with impressive landscape setting and key trout fishery.
- Views across red tussock lands at SH 94 (Red Tussock Conservation Area).

EXISTING LANDSCAPE MODIFICATIONS

- Large part in DOC managed conservation land, but some areas have been grazed in the past. Many valleys contain beech forest, and the open tops are largely unmodified. Huts and tracks in conservation areas.
- The Lower Maraora and Oreti Valleys contain agricultural use.
- High country character with extensive grazing at Mt Nicholas and Walter Peak Stations.
- Connection to Greenstone Valley / Lake Wakatipu from Mavora Lakes and Routeburn Track connecting Hollyford Valley to head of Lake Wakatipu.
- Mt Nicholas Road connects from Mavora Lakes to central Lake Wakatipu (Around the Mountains cycle trail).

TAKITIMU MOUNTAINS CHARACTER AREA / TE MAUKA TAKITIMU



Figure 6: Takitimu Mountains

KEY CHARACTERISTICS

- This area is made up of steep, eroded and rugged volcanic mountains which dominate the skyline from State Highway 94 between Te Anau and Mossburn with highly visible scree features.
- The Takitimu Mountains contain extensive indigenous forest areas, with intact altitudinal sequences evident, and alpine tussocklands, shrublands, wetlands, screes, rocky areas and fellfields.
- The valley and headwaters of the Aparima River begin within the Takitimu Mountains and contain notable wetlands.
- The Aparima is also a popular fishery, as the river rises in an area with very little pollution.
- The Takitimu Mountains are named after the famed Takitimu waka that capsized at Te Waewae Bay. Three large waves caused the waka to capsize near the mouth of the Waiau River.

ATTRACTIVE LANDSCAPE FEATURES

- The Takitimu Mountains are a notable and memorable landmark in Southland for travellers along the “Southern Scenic Route” as they clearly stand out from the Te Anau Basin and surrounding plains landscape.
- The steep eroded and rugged Takitimu Mountains are regionally important geological landforms originating from volcanic rocks including submarine and pillow lava flows. Scree features, expressive uplift and erosive forces are highly legible and dominate the Takitimu skyline which is visible from a wide range of viewpoints in the Te Anau Basin.
- The Takitimu Mountains contain extensive tawhai/silver beech and mixed hardwood forests containing kōwhai.
- The valley floors in the headwaters of the Waterloo, Aparima and Wairaki/Mangarewa Rivers contain extensive wetlands and peatlands.

- The Aparima River is a popular fishery and is also a Statutory Acknowledgement Area under the Ngāi Tahu Claims Settlement Act.
- The Takitimu Mountain range is widely recognised by the local community for the recreational opportunities available. Te Araroa Trail and other tracks provide public access through the Takitimu Mountains.

EXISTING LANDSCAPE MODIFICATIONS

- In DOC conservation land beech forest dominates the valley floors and large wetland areas can be found in headwaters of Aparima. On mountain slopes sub-alpine shrublands, alpine tussocklands, screes and rocky outcrops form intact altitudinal sequences.
- Connection of conservation land to the north towards Mavora Lakes through the Red Tussock Conservation area.
- Forestry on lower slopes, in particular large-scale plantations on the western side (above Waiau Valley).
- Agricultural use on remainder of lower slopes on privately owned land.
- No residential development, only backcountry huts and trails.

UMBRELLA-GARVIE MOUNTAINS CHARACTER AREA / MATA-PUKE-TARATARA

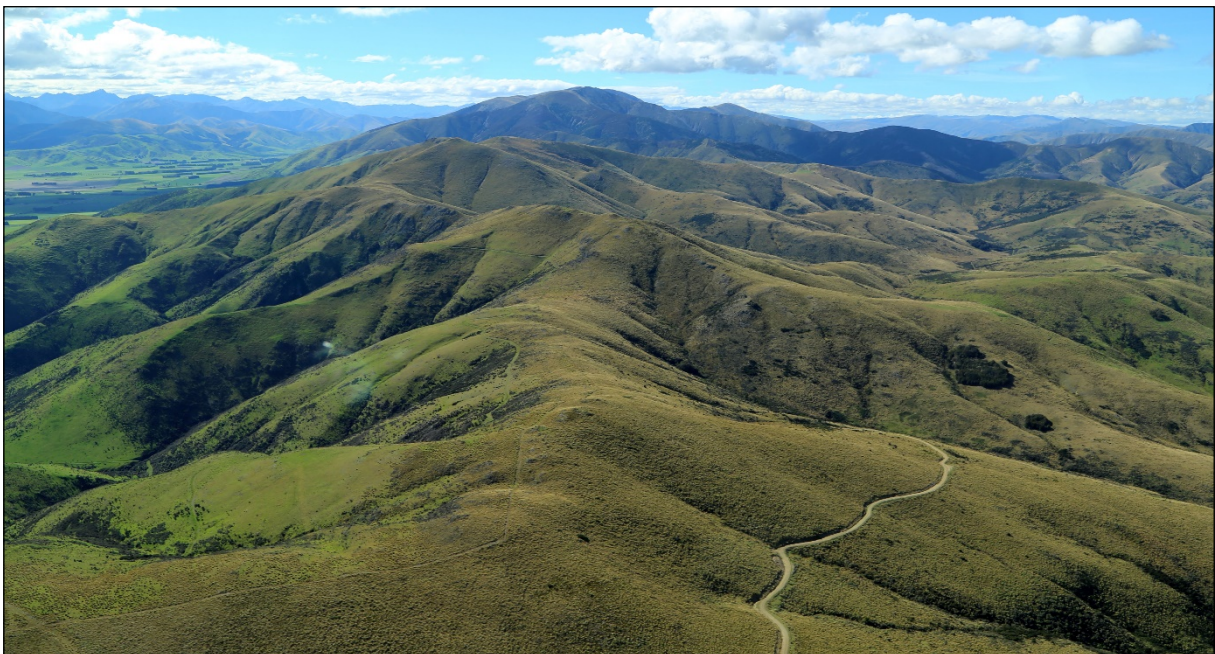


Figure 7: Garvie Mountains

KEY CHARACTERISTICS

- Large, expansive tussocklands dominate the vegetation, with snow-capped mountains in winter.
- Waikaia Forest is the largest forest remnant in the area.
- Most land within this character area is used for pastoral grazing with farm tracks criss-crossing the mountains.

- Recreational activities such as hunting, tramping and fishing are common within a number of public conservation areas.
- The Matāura River is also a Statutory Acknowledgement Area under the Ngāi Tahu Claims Settlement Act.

ATTRACTIVE LANDSCAPE FEATURES

- Vivid landscape with long distance mountain views present a memorable entrance to Southland/Murihiku or Lake Wakatipu / Whakatipu Waimāori.
- The Garvie Mountains/Te Rau glacierised plain is regionally important and contains glaciated gullies and cirque basins.
- Legible rock outcrops with distinctive tors along the ridgelines are a key element of the mountain ranges.
- Mid Dome landmark in Five Rivers area.

EXISTING LANDSCAPE MODIFICATIONS

- The naturalness of this area is displayed by native forest in the valleys, gullies, and lower slopes, with alpine vegetation on the mountain tops.
- Alpine vegetation and wetlands exist in higher-lying areas.
- Extensively grazed pasture is found in the farmed areas.
- A major weed threat in the Garvie Range is the wilding species *Pinus contorta*.

TARINGATURA HILLS CHARACTER AREA / WHAKAPAPAKURA



Figure 8: White Hill near Mossburn

KEY CHARACTERISTICS

- Geological features associated with the Southland Syncline and limestone outcrops at Castle Rock which are clearly visible from the State Highway.
- Ridges and valleys of North Range are notable geological features.

- Extensive sheep grazing and pine plantations dominate this landscape with small areas in conservation land.
- Historic mining towns.

ATTRACTIVE LANDSCAPE FEATURES

- Elevated landscape feature forms backdrop to Mossburn and Lumsden.
- Limited aesthetic values, apart from rural amenity provided by the pastoral land use.

EXISTING LANDSCAPE MODIFICATIONS

- White Hill wind farm above Mossburn with associated turbines and earthworks.
- Extensive forestry on Taringatura Hill and White Hill.

WAIMEA PLAINS CHARACTER AREA



Figure 9: Waimea Plains

KEY CHARACTERISTICS

- The Waimea Plains are crossed by major rivers which link the mountains with the lower plains and coast. This large area contains the middle reaches of the Oreti and Mataura Rivers, with their alluvial flats.
- The Murihiku escarpment (a physical expression of the Southland Syncline) is a major visual feature to the south of the plains.
- This area is intensively farmed with parts of the plains extending into the Waikaia and Garston Valleys.
- In this higher altitudinal section of the plains landscape, there is a strong contrast between the river valleys and terraces developed for intensive farming use, and the more natural land cover of the surrounding mountains and hills.
- The Mataura (1997) and Oreti Rivers (2008) have Water Conservation Orders in recognition of their outstanding fisheries.

- The Kingston terminal moraine and spillway channel is a regionally significant Geopreservation Site.

ATTRACTIVE LANDSCAPE FEATURES

- Oreti, Aparima and Mataura Rivers are key landscape features.
- Upper Mataura valley and foothills provide a memorable landscape entrance to Southland/Murihiku and Lake Wakatipu framed by impressive mountain ranges.
- The glacially sculpted, U-shaped valley with patches of native vegetation make this landscape distinctive and memorable to visitors and locals travelling along State Highway 6. Key access route through the northern Southland Region with connection to Wakatipu area.
- Between Kingston and Garston this valley with distinctive rocky outcrops along the ridges of the front ranges is highly memorable as an entrance to either Southland/Murihiku or Lake Wakatipu by locals and visitors. Scattered rocks and schist boulders on the valley floor have similarities to Central Otago landscapes.
- Disused steam railway line now provides for the alignment of the northern part of the Around the Mountain cycle trail.
- During winter, the views to snow-capped mountains further enhance the amenity values of this landscape.

EXISTING LANDSCAPE MODIFICATIONS

- Settlements of Mossburn, Lumsden and Five Rivers.
- Valley floor is intensively farmed with pastures and shelterbelts.
- In northern part (north of Athol) a moderate level of naturalness relates to a mix of native vegetation and pastoral rural land use, farm tracks, and buildings. Some discordant elements relate to the rural land use, such as scarring earthworks for the formation of tracks. However, overall, the uniform land cover and open views to the distant mountains make this landscape read coherently.
- In southern part the landscape has been extensively modified to pasture, with some cropping and exotic plantations.
- Few remnant wetlands remain, although some in the western part near the slopes of the Taringatura and Takitimu ranges are particularly significant.

ROWALLAN HILLS CHARACTER AREA / HAUKORE KI MAKAREWA



Figure 10: Waitutu Hills

KEY CHARACTERISTICS

- The extensive and intact native forest cover and the sequences of unmodified vegetation from the coast to mountain tops make this one of the important landscapes in the region.
- The smooth terrain of the Rowallan Hills complements the rugged mountains of Fiordland which form a spectacular backdrop.
- The land cover of the Rowallan Hills consists of a mix between relatively intact podocarp and beech forest, scattered forestry blocks of differing sizes and high producing grassland.

ATTRACTIVE LANDSCAPE FEATURES

- Forms the visual foreground in views to Fiordland National Park from Lower Waiau Valley, but no particular attractions in the area itself.

EXISTING LANDSCAPE MODIFICATIONS

- No settlements in this area.
- Mix of forestry and native vegetation with some areas dominated by plantation forestry.
- Limited farmland mostly confined to the eastern part of the area close to the Waiau Plains.

LOWER WAIAU PLAINS CHARACTER AREA



Figure 11: Waiiau River mouth

KEY CHARACTERISTICS

- The Waiiau Valley is a varied landscape with a mixture of river terraces, plains and a series of hills, scarps and cliffs.
- Significant natural features include limestone caves, forest remnants and wetlands.
- The historic suspension bridges at Clifden and Monowai are reminders of the settlement history.
- The Waiiau River is still a very dominant feature in this landscape along with several scattered wetlands.
- Tuatapere is the main township of the area with smaller settlements throughout the valley.
- State Highway 99 is part of the “Southern Scenic Route” to Fiordland and provides access to many key recreation destinations on the eastern edge of the national park.
- The Waiiau River is a Statutory Acknowledgement area under the Ngāi Tahu Claims Settlement Act.

ATTRACTIVE LANDSCAPE FEATURES

- Important access and part of Scenic Route to South Coast.
- Legible river channels and gravel banks demonstrate the river’s formative processes. In places the river is confined in limestone bed with interesting features.
- Black Mount is a distinctive feature that divides the upper and lower part of the valley where the Waiiau River flows through a confined section.
- Monowai area gives access to Borland Valley and Lake Monowai.
- Lillburn Valley gives access to Lake Hauroko.
- Limestone features around Clifden including accessible caves.

- Clifden suspension bridge.

EXISTING LANDSCAPE MODIFICATIONS

- Clifden and Tuatapere are the main settlements in the Lower Waiau Valley.
- Generally farmed landscape with typical landscape features such as pastures and shelterbelts.
- Native vegetation in conservation areas that contain the Lower Waiau Valley, providing attractive views from the valley.

TE WAEWAE COAST CHARACTER AREA / WAIKŌAU KI WAIMEHA



Figure 12: Te Wae Bay

KEY CHARACTERISTICS

- Te Wae Wae Bay is a very large, sweeping bay and the largest embayment on the Southland coast.
- Semi-braided Waiau River is a key feature in the Southland landscape.
- The Southern Scenic Route provides a dramatic and scenic drive around Te Wae Wae Bay as the road sweeps along the cliff-tops, providing expansive bay and mountain views of Fiordland National Park and the Longwood Range in places.
- The entire coast is important to Ngāi Tahu and coastal Māori-owned land is significant in the area.
- This is a transitional landscape which ranges from being on the edge of Fiordland National Park to gradually changing into a rural working landscape.
- The coastal wetlands and lagoons of the Waiau River are a very important wildlife habitat for native fish and bird species.

ATTRACTIVE LANDSCAPE FEATURES

- Humpridge and South Coast Tracks provide vast views across Te Wae Wae Bay.

- Highly memorable and expansive views can be gained of the bay, foreshore and out to Fiordland National Park from the Southern Scenic Route along State Highway 99.
- Typical cliff and terrace landforms and gullies formed by coastal streams are also seen.
- The Waiau River mouth consists of a barrier beach, gravel bar and lagoon. The interaction between coastal and river processes make the Waiau River mouth a striking feature along the Southland coast, specifically within Te Waewae Bay.
- Shallow water fossil shells of national importance are found east of Rowallan Burn River near the coastal cliffs.
- Layered mafic rocks and shore platform potholes near Monkey Island / Kumikumi are regionally important landforms as Geopreservation Sites.
- Dolphins and whales can occasionally be seen within Te Waewae Bay, which contains a marine mammal sanctuary.
- Recreational activities include surfing, fishing, swimming and a popular picnic and swimming spot at Monkey Island.

EXISTING LANDSCAPE MODIFICATIONS

- Few residential dwellings mostly related to farming activities.
- Hinterland of the coast contains farmland.
- Coastal escarpment generally eroding but some native vegetation can be found.

RIVERTON-APARIMA COAST CHARACTER AREA / WAIMEHA KI WAIHŌPAI



Figure 13: Riverton

KEY CHARACTERISTICS

- Characterised by three long, curved sandy beaches with smaller intimate inlets separated by rocky shorelines and headlands backed by wind swept vegetation or grazed grassland.

- Impressive views to the hills and islands to the south are gained from the beach.
- Predominantly modified rural area with a pleasant, green, agricultural landscape and a rugged coastline.
- The setting and character of Riverton township and popularity of the area for recreation and tourism.
- Importance of the Jacob's River Estuary for birds, salt marsh vegetation, shellfish and fish.

ATTRACTIVE LANDSCAPE FEATURES

- This coastline features a diversity of rock landform features including sea cliffs, crags, pillars and small boulder beaches/bays.
- Cosy Nook-Wakaputa Point area has diverse coastal features exposed to Foveaux Strait which includes a remote and rugged landscape. Cosy Nook has a unique charm and character which draws people to visit. It also has a small fishing fleet. The coastal stretch around Cosy Nook is used by the public for recreational fishing, diving, swimming and picnicking.
- The Ōraka headland is a highly legible headland with volcanic origins along the Southland Coast.
- Layered mafic rocks and shore platform potholes at Pahia Point/Te Ahi Rahuru are regionally important landforms, which are recognised as a Geopreservation Site.
- Kawakaputa / Kawhakaputaputa Bay is a large, sandy embayment backed by a dune ecosystem and contained by the prominent rocky Ōraka headland. The shallow Lake George / Kurumoeanu is a regionally important dune dammed lake with swamps which have formed behind parabolic dunes. Lake George is a Wildlife Management Reserve and a remnant of what was once an extensive wetland system.
- Riverton Hill / Te Haki Ki Taramea includes the prominent, bush clad ridgeline which extends from Howells Point to Colac Bay / Ōraka featuring small sandy and boulder beaches in addition to rocky outcrops and reefs. Nationally significant, well developed pillow lavas are found at Howells Point / Taramea.
- The landscape is an important area with a distinctive sense of place to the local community while not particularly obvious to passers-by.
- The entire coastline remains valued as a source of kaimoana.
- Jacobs River Estuary/Aparima is a regionally important tidal estuary which is fed by both the Pourakino and Aparima Rivers. Jacobs River Estuary forms part of a wider wetland landscape making up one of the most important wading bird habitats in Southland/Murihiku.

EXISTING LANDSCAPE MODIFICATIONS

- Large settlement of Riverton, small coastal settlements (Orepuki, Colac Bay and Cosy Nook).
- Howells Point has a series of steep gravel beaches with adjacent dunes. Extensive native forest consisting of broadleaf, fernland, manuka and kānuka span the length of Howells Point/Taramea headland.
- Apart from these headlands, the area is generally dominated by farmland.

5 MILFORD CORRIDOR LAND ANALYSIS

5.1 The following section focusses on the corridor along State Highway 94 that extends between Te Anau township and Milford Sound Piopiotahi. The highway initially follows the eastern shore of Lake Te Anau to Te Anau Downs. From there the road extends along the Eglinton Valley as far as the Divide which forms the watershed to the Hollyford Valley draining in a westerly direction. As the road climbs upwards along the Hollyford Valley towards Homer Tunnel the landscape character becomes more and more alpine. The road on the western side of Homer Tunnel provides access to the coastal Fiordland character area, as the road drops steeply to sea level at the head of Milford Sound. The experience that can be gained in these different landscape areas is described in sections along the Milford Road corridor.

LANDSCAPE MANAGEMENT APPROACHES

5.2 Throughout the MOP Master Plan design process multi-disciplinary input was provided to prepare a long and shortlist of options that may be included in the final Master Plan. Some of the overarching management approaches apply to the entire corridor as drivers for the development of individual ideas within the project. Two of the key drivers and game-changers for the management of visitors along the corridor and within Te Anau and Milford Sound Piopiotahi were:

- the change of transport models that minimise the use of private vehicles.
- the development of Te Anau as a visitor hub that encourages visitors to stay overnight.

5.3 The public transport model is focused on a mix of tour bus, hop-on-hop-off and express buses. Bus stops and enhanced visitor destinations will be designed to support a more immersive experience on the Milford Road and in Milford Sound Piopiotahi. A transport interchange / terminal where visitors can start their journey along the Milford Road will be located in Te Anau.

5.4 In order to extend the visitors' stay it is considered desirable to provide more attractions along the Milford corridor in addition to the Milford Sound Piopiotahi (currently mostly boat related) experiences. In order to facilitate these extended visits, it is planned to develop a visitor hub in Te Anau. A number of interventions are proposed within Te Anau, which are not assessed as part of this report since they will be accommodated within the existing urban environment and land analysis is not specifically required.

5.5 During the development process for proposed visitor experiences / destination enhancements the landscape and ecology advice, in combination with a hazards / climate change risk analysis pointed to the adoption of an approach that aims to cluster development in areas that have already been modified to minimise sprawl of modification on conservation land. Given that Fiordland National Park is of very high value from a landscape and ecology perspective it was considered preferable to consolidate nodes of development instead of scattering visitors and associated modifications across wider, currently unmodified areas.

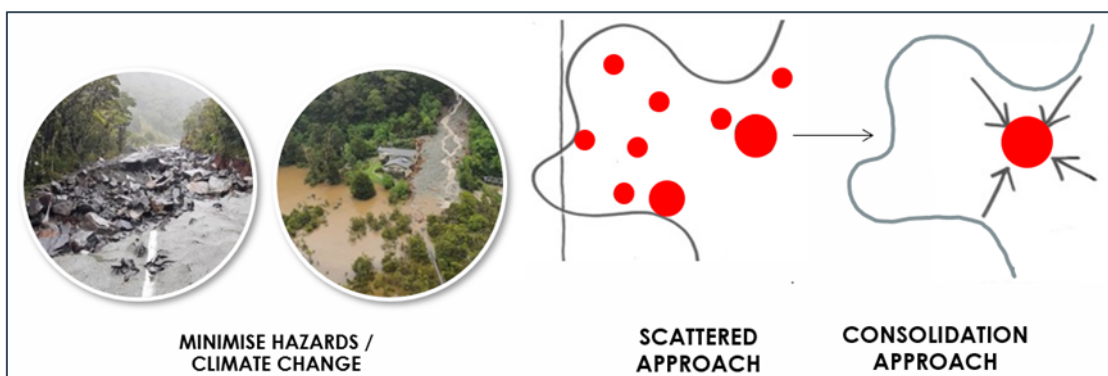


Figure 14: Milford Corridor Landscape Management Approaches

- 5.6 The environmental consequences of visitor activities in conservation areas are not always clear, which makes it sometimes difficult to determine appropriate responses to changing trends in visitor use, or to proposals for new visitor destinations / attractions. It is difficult to generalise the effects of visitor destinations, owing to the particular set of environmental conditions, spatial boundaries, temporal effects, species characteristics, or type of activity occurring. Some changes to the resource are obvious, but not significant in their impact on conservation values. They rather tend to compromise the quality of visitor experiences and satisfaction with the quality of facilities and services at a natural setting (e.g., trampling alongside muddy tracks).
- 5.7 As part of the long-listing and short-listing process of various options the landscape and ecology input involved an assessment of potential effects on the respective values in various locations. For some locations and / or proposed ideas the potential effects were considered too high to be pursued further, while some of the proposals received full support. This evaluation process was documented in table format and discussed between all the workstreams. Several potential ideas that involved large-scale change, such as a tunnel linking to Glenorchy or a road to Haast were considered to have significant conservation and landscape impacts. The long-listed ideas that gained highest support from a landscape and ecology perspective were those that either had a beneficial outcome for the landscape / ecology of an area (e.g., predator control) or were proposed in locations with a very resilient resource (e.g., in an urban context). A number of potential ideas were considered to be potentially supportable if their design and location minimise conservation impacts. This applied to some of the proposals at key nodes (see following section) that involved creation of buildings and / or tracks, where particular care needed to be taken through site-specific design solutions.
- 5.8 The proposed ideas that received most detailed scrutiny in the shortlisting process were those that may potentially be supportable from a landscape / ecology perspective if designed and implemented in a way that avoids substantial adverse effects on the resource. For some of these visitor destination options the detailed design and micro-siting of buildings, structures and other modifications will be crucial to determine whether effects are acceptable in light of the landscape and ecological sensitivity. This applied in particular to areas that already contain a level of modification but are in proximity to unmodified landscapes, features or ecosystems. For the Milford Opportunities Project (MOP) the landscape and ecological values were assessed as part of the baseline reporting and subsequently the potential visitor destinations and Master Plan design ideas were cross-checked against the values that occur in the proposed areas. This has led to amendments in location or design for proposed site-specific ideas, and in some instance's deletion of options through the short-listing process.
- 5.9 Social impacts can be more significant in some areas than biophysical impacts, in terms of visitor experience, crowding, conflicts and displacement. The tourism experts considered these aspects as part of their assessment of long-listed options, focussing on the quality of the recreational experience, such as visitor satisfaction and visitors' perceptions of overcrowding in locations.
- 5.10 The combined input that was provided from all disciplines throughout the short-listing process led to the definition of a management approach that directs more substantial development of new visitor destinations (e.g., buildings) into nodes of existing development where landscape, ecological and recreation experience effects can be effectively managed.

LANDSCAPE EXPERIENCES

- 5.11 The corridor was split into separate sections for the land analysis and master planning to reflect the different landscape experiences that can be gained by visitors along the way. The diagram below shows indicatively the different corridor sections based on the experience when moving along the highway on the way to Milford Sound Piopiotahi. The landscape very clearly displays its formative processes, such as glaciation during the ice-ages. This includes both the underlying geology and morphology of the landscape as well as the land cover that is associated with the different ecosystem types that are traversed. The changes in outlook and sense of place throughout the journey are defining elements of the experience.

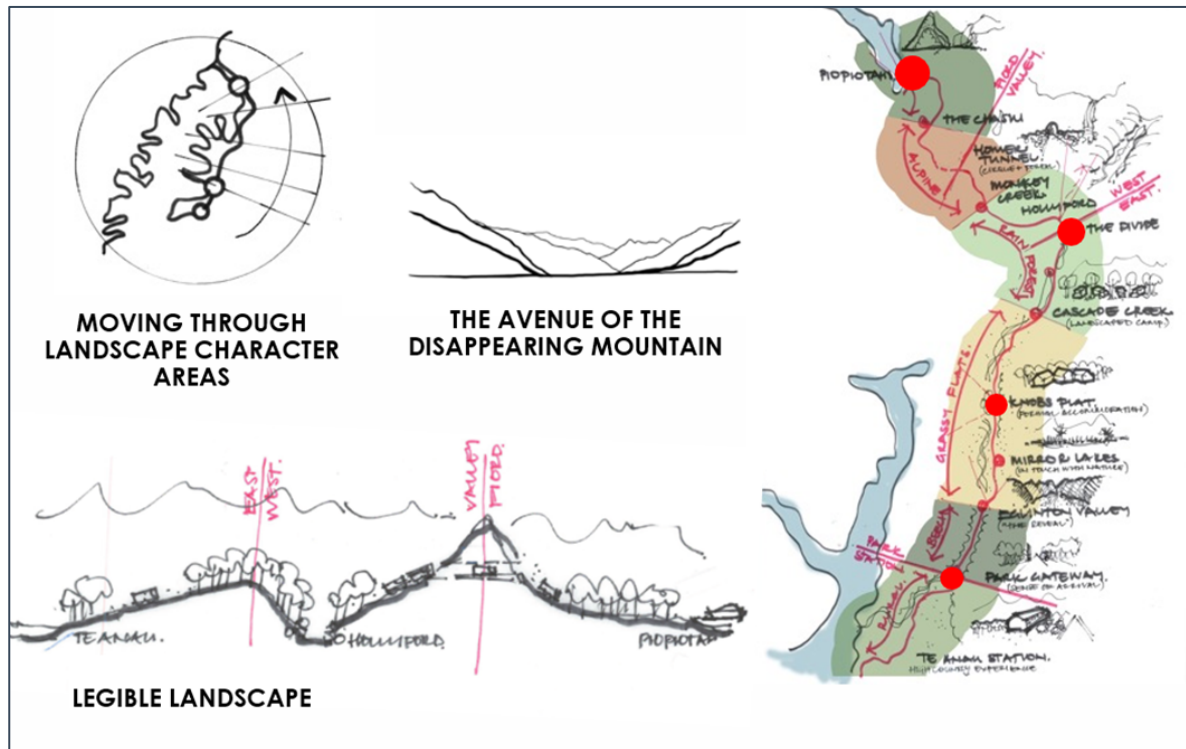


Figure 15: Milford Corridor Landscape Experiences

5.12 The following sections are described in more detail in terms of the nodes of existing modification present in the area, enhanced visitor destinations proposed as part of the MOP Master Plan and the landscape’s ability to absorb the proposed change:

- Te Anau Section (Te Anau Town to National Park (NP) Entrance).
- Eglinton Section (NP Entrance to The Divide).
- Hollyford Section (The Divide to Homer Tunnel).
- Cleddau Section (Homer Tunnel to Milford Sound Piopiotahi).

5.13 The proposed key interventions within the following Key Nodes are included in the assessment of potential landscape and visual effects included for each section. The hubs and key nodes include the following:

- Te Anau Hub
- Gateway Nodes – Fiordland National Park Boundary and Eglinton Reveal
- Eglinton Valley Accommodation Nodes – Knobs Flat and Cascade Creek / Mistake Creek Overnight Walk
- Whakatipu Super Track Head Node
- Alpine Nodes – Gertrude Valley and Cleddau Cirque
- Milford Sound Piopiotahi – Visitor Hub and Freshwater Basin, Deepwater Basin and Cleddau Delta Nodes

The long-established Mirror Lakes and The Chasm destinations are important secondary nodes.

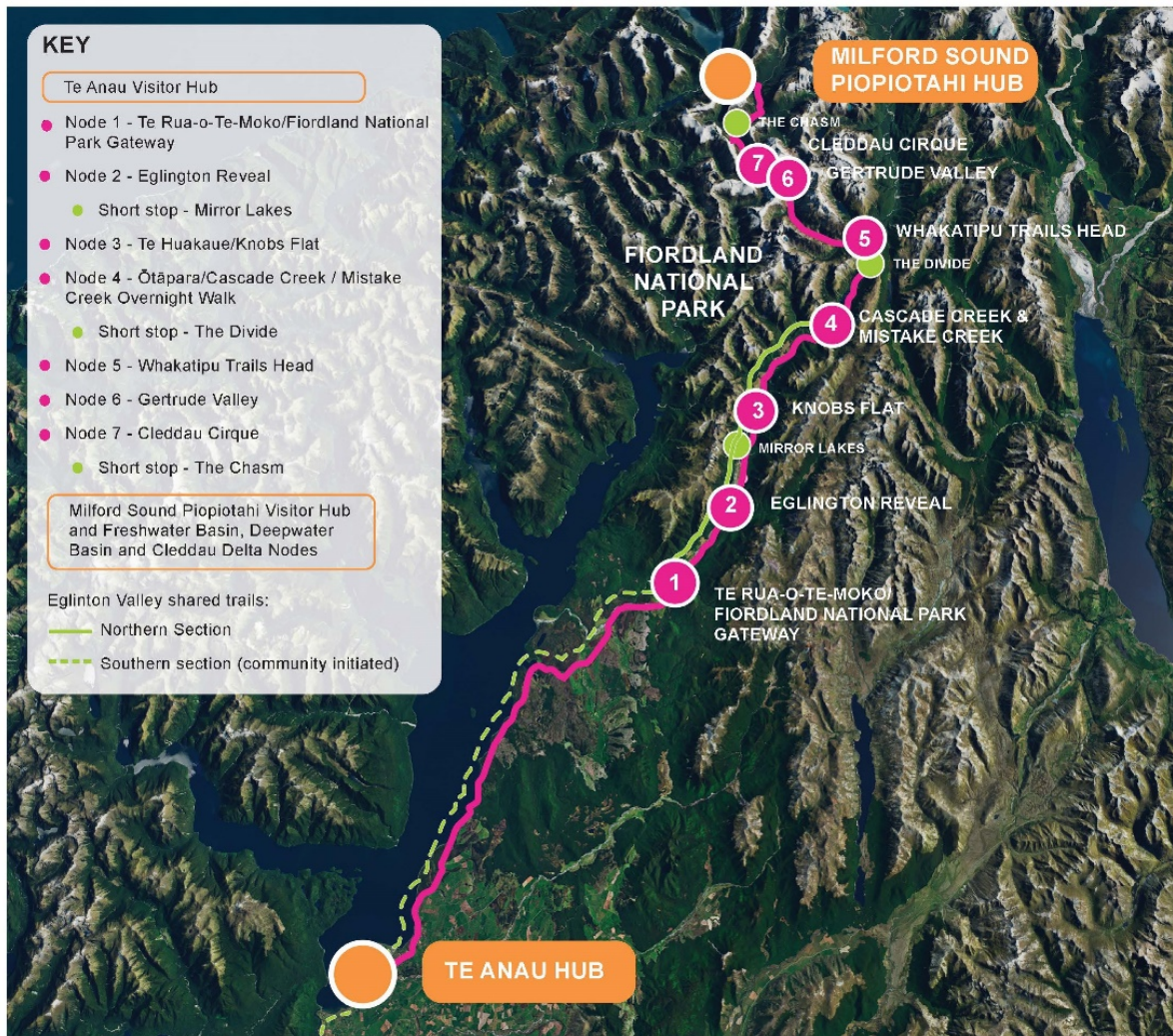


Figure 16: Hubs and Key Nodes along Corridor

5.14 In addition, short stop bus stops are proposed in five locations along the route. These sites offering key visitor experience and interpretation opportunities should be developed to accommodate short stop visitation. These could be incorporated into tour bus schedules and hop-on/hop-off bus service options. These simple shelters will consist of either waterproof stretch awning attached between poles in peak season or simple solid roof (site dependant), with a single sealed vault toilet. In other instances, it could include a timber lined structure and interpretation boards. The locations could include the Eglinton Reveal, Mirror Lakes, Cascade Creek, Lake Gunn, Gertrude Valley, Cleddau Cirque and the Chasm.

TE ANAU SECTION (Te Anau Town to NP Entrance)

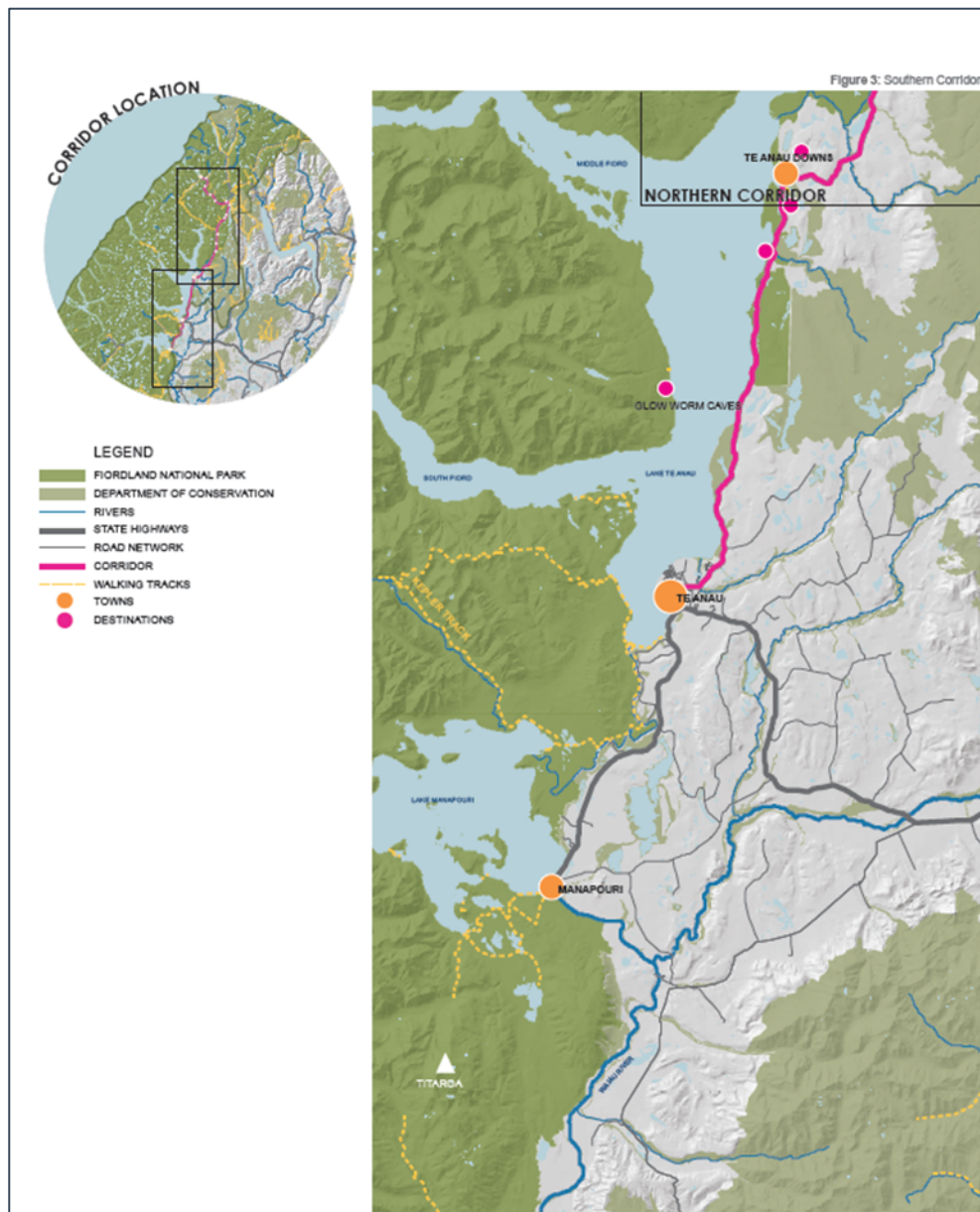


Figure 17: Southern Milford Corridor to Te Anau Downs

NODES OF EXISTING MODIFICATION

5.15 Currently the following modifications occur within this corridor section:

- Rural residential development extending as far north as Sinclair Road area from Te Anau Township.
- South of Snowden Forest Park mostly rural farmland with land cover modification on eastern side of SH94.
- Between lake shore and SH94 mostly regenerating native vegetation that generally does not allow for views towards the lake. Few access points available to lake shore.
- Henry Creek Campsite: small-scale campsite near the shore of Lake Te Anau off SH 94 with access to gravel beach, incl toilet.
- Lake Mistletoe Walkway: popular walkway with carpark near Te Anau Downs.

- Te Anau Downs- Accommodation, Boat harbour and historic site: This departure point for the Milford Track boat transport is often busy with boat users and visitors. Carparking available. This is the last accommodation available before entering the National Park with a range of options (backpackers to hotel).
- Te Anau Downs Station has undertaken substantial vegetation clearance on farmland along the highway between Te Anau Downs boat harbour and the National Park entrance which has substantially modified this area.

ENHANCED VISITOR DESTINATIONS

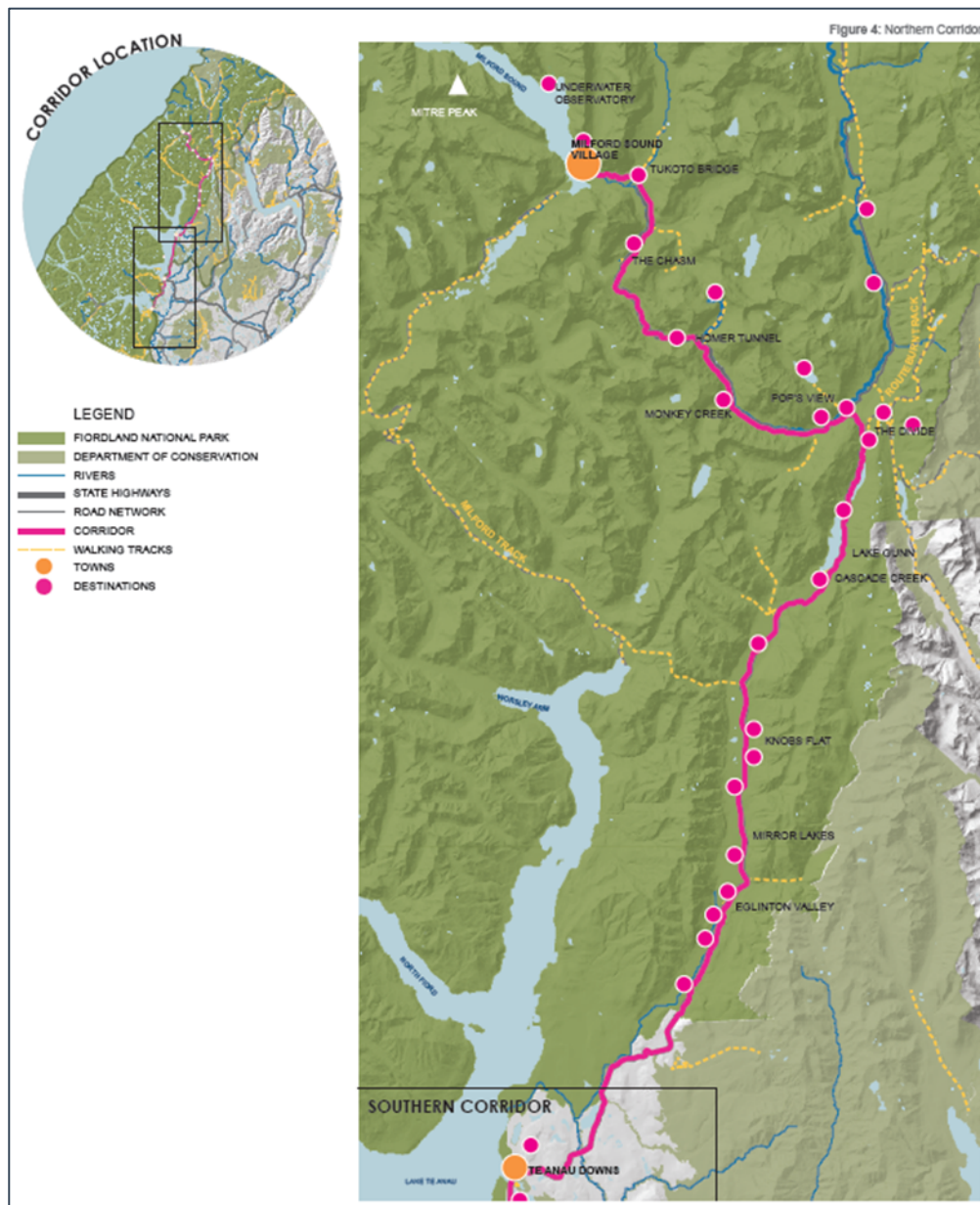
5.16 Creation of a National Park Entrance:

- Create a strong entry threshold at the current National Park boundary to clearly define the transition into Fiordland National Park and its associated values, experience opportunities and expected behaviours, allied to a wider Milford Road unfolding experience theme through to Milford Sound Piopiotahi.
- The design and form of the threshold will be strong but setting/context appropriate in the form of signage/visual gateway marker structures. These can be allied to priority interpretive themes.

LANDSCAPE ABILITY TO ABSORB CHANGE

- 5.17 The landscape to the south of the National Park entrance has been substantially more modified than areas within the park. The vegetation along the lake shore is mostly regenerating native shrubland, while the areas to the east of the highway are mostly in agricultural use. The rural land to the south of Snowdon Conservation Area (where it extends towards SH 94 and Lake Te Anau) is relatively open with some shelterbelts. The hummocky terrain does in many places provide the ability to absorb some development without necessarily causing visual effects.
- 5.18 The area around the existing Te Anau Downs accommodation node could absorb additional buildings without compromising the landscape character. Part of the Te Anau Downs Station land currently provides a rural character that contrasts with the more natural character of the surrounding landscape within conservation land. It is recommended to create the entrance threshold to the National Park where the open rural landscape changes to the more enclosed forested landscape character.
- 5.19 The most sensitive landscapes along this section of road include the following areas / features:
- Lake Te Anau lakeshore to west of SH94, incl Boat Harbour.
 - Wetlands in Te Anau Downs area (Retford Stream) and to east of SH in various areas (in particular near Lake Te Aroha) and north of Henry Creek.
 - Snowdon Forest Conservation Area.

EGLINTON SECTION (NP Entrance to The Divide)



NODES OF EXISTING MODIFICATION

- Walker Creek Campsite: small scale campsite near Eglinton River at Walker Creek confluence with minimal modification, i.e., gravel surface and limited facilities (e.g., toilet).
- Totara Campsite: small scale campsite near Eglinton River suitable for larger vehicles with sites sheltered by beech forest, i.e., gravel surface and limited facilities (e.g., toilet).
- Mackay Creek Campsite: small scale campsite near Eglinton River at Mackay Creek confluence with limited facilities (e.g., toilet) and short walks nearby.
- Eglinton Valley Viewing Area: at entrance to wide grassy flats of the Eglinton Valley a number of information panels are installed next to a car / bus pull off area.

- Mirror Lakes Walkway: carparking area adjacent to SH94 with short easy walkway, mostly on boardwalk suitable for wheelchair users and strollers. Lookout platform provides view across Mirror Lakes and Earl Mountains.
- Deer Flat Campsite: small scale campsite near Eglinton River with pockets of beech forest, ie gravel surface and limited facilities (e.g. toilet).
- Knobs Flat Visitor hub: contains a larger visitor information building with panels and flushing toilets that are regularly used by bus tours. Accommodation in studio units and campsites is provided to the east of the information building.
- Kiosk Creek Campsite: small scale campsite east of highway surrounded by beech forest with views of moraine deposits, limited facilities (e.g., toilet).
- Upper Eglinton Campsite: small scale campsite Walking and tramping tracks nearby, including the Earl Mountain Tracks.
- Hut Creek and Mistake Creek tracks: carpark at SH, walk wire across Eglinton River.
- Cascade Creek Campsite: Campsite suitable for larger vehicles. Located next to Cascade Creek and Eglinton River with limited facilities, incl toilet and covered picnic area. Provides access to Lake Gunn Nature Walk on southern end of Lake Gunn.
- Lake Gunn Picnic Area: located on northern end of Lake Gunn. Carpark, toilet and picnic table provided set within forest adjacent to lake.
- The Divide: start of the Routeburn (Key Summit), Caples and Greenstone Tracks; toilet and large carpark adjacent to SH.

ENHANCED VISITOR DESTINATIONS

5.20 Enhancing the Milford corridor experience to expand the options available to visitors:

- Develop Knobs Flat experience node.
- Develop Knobs Flat accommodation node.
- Enhance and/or create additional walk/cycle tracks or network connections enabling new experience opportunities in the Knobs Flat- Cascade Creek area.
- Enhance Cascade Creek campsite.
- Upgrade short stop options along corridor.
- Develop U Pass track connecting Mistake and Hut Creek tracks.

LANDSCAPE ABILITY TO ABSORB CHANGE

5.21 This section of the corridor contains both open river flats along the Eglinton River and forested sections. This difference in openness / enclosure provides a variety of experiences and views to the surrounding landscape. Where the Eglinton River flats open up along the Avenue of the Disappearing Mountain the outlook to the steep U-shaped valley and surrounding mountains is particularly impressive. Within large open areas it is generally difficult to visually integrate any buildings or larger structures due to the lack of topographical variation. It is recommended to avoid placement of larger-scale structures or building in open areas where the visual effects cannot be contained by landform and/or vegetation.

5.22 The Knobs Flat area already contains a higher level of existing modification with buildings to the east of the highway. The area is surrounded by beech forest and the lower slopes of the Livingstone Mountains form the visual backdrop when viewed from the road. This area has a high potential to absorb additional buildings due to the landform and land cover characteristics. The

terrain undulations and clusters of mature vegetation provide opportunities to site buildings in appropriate locations where visual effects can be minimised. In order to absorb additional buildings, the micro-siting is important to ensure a visual backdrop is provided. The proposed design for accommodation consists of a lodge and cabins to the north of Kiosk Creek and a research facility and cabins to the south of Kiosk Creek at Knobs Flat. Within both areas the open flats will be used to avoid vegetation clearance as much as possible. The 25 bed lodge building would be located in the existing enclosed clearing at Kiosk Creek where visual impacts would be confined to a small area with limited views from the highway. The design of buildings should be comparable in scale with the existing modification at Knobs Flat but of higher architectural quality. An appropriate choice of colours and materials will help to create a sense of place while also helping to visually integrate structures with the surroundings. Additional planting can also soften any visual impacts and provide a buffer, including for carparking areas that may be visible from the highway.

- 5.23 Continuous, shared cycling and walking trails are proposed to link between primary nodes in the Eglinton Valley to enable a new journey experience away from the Milford Road. A trail network (with loop tracks and tracks connecting to Te Anau Downs or Cascade Creek) and interpretation structures could be relatively easily integrated in this environment, while providing interesting and attractive experiences, due to the high visual diversity of the environment. The width and formation of tracks (e.g., surface) influence their visual appearance and the ability to absorb them through existing vegetation (i.e., narrower tracks can avoid vegetation removal more readily). Since the track alignment would be generally on relatively flat terrain earthwork requirements are limited. It is recommended to limit loop tracks through the beech forest to narrower widths (up to 1.5m) to avoid substantial vegetation removal, while the physical impact of wider tracks (up to 3m) could be absorbed through the grassy flats.
- 5.24 It is proposed to implement cabins, and additional tent and campervan sites at the Cascade Creek campsite. The area is located close to two waterways with high natural character (Cascade Creek and Eglinton River) which requires setbacks to avoid adverse effects. Setbacks from the waterways are also required for flood protection reasons. The existing footprint of the campsite could potentially be expanded, but care needs to be taken to avoid the spread of visual clutter often associated with larger-scale campsites. The use of native mitigation planting can be highly effective in breaking up the space and creating more enclosed areas, while providing amenity and privacy for the users.
- 5.25 For additional short stops multiple options are considered subject to site availability, experience value assessments and access model requirements. This will help to disperse current uses, create additional capacity and introduce new experience opportunities. Selection of sites and level of infrastructure is linked to the access models. The roadside pullover/stopping sites will link with short walks to key attractions/viewpoints with interpretation. In order to minimise the potential for the spread of visual clutter that could potentially be associated with the provision of carparking, signs and structures (such as shelters and toilets) it is important that micro-siting is given appropriate consideration. Setbacks from the road, mitigation planting and the avoidance of key viewshafts for the location of these modifications would help to ensure that they do not attract the viewers' attention thereby detracting from the experience.
- 5.26 The Mistake Creek Overnight Walk development provides an opportunity for visitors to venture into the alpine environment with views towards the Fiordland ranges from Mistake Creek Valley and Hut as part of an overnight tramp. The track traverses through of the scenic experience in Mistake Creek valley on a high standard (Great Walk) track. The Hut Creek and Mistake Creek Valleys currently contain backcountry tracks, but the level of modification is low overall. The part of the round trip over U Pass currently requires off-track travel as no track is established in this area. The introduction of a track would lead to a landscape character change with an increased level of development. Therefore, the high standard track will only extend as far as the proposed Mistake Creek Hut. The proposed location for the hut is within the valley floor, adjacent to the surrounding beech forest where it can be absorbed into the landscape without significant visual effects, depending on the scale and design of the building and micro-siting.

HOLLYFORD SECTION (The Divide to Homer Tunnel)

NODES OF EXISTING MODIFICATION

- Pops View Viewing Area: small carparking area to access a viewing platform that provides views of the Hollyford valley.
- Hinepipiwai Lake Marian Walkway: a gravel carpark is located 1 km down the unsealed Hollyford Road. The track starts with a crossing of the Hollyford River via a swing bridge to access a boardwalk and subsequently relatively rough track to the lake.
- Monkey Creek Viewing Area: An informal pull-over area off SH94 provides an opportunity to park the car for spotting whio / blue duck and kea. No facilities are provided, and waste problems are reported.
- Gertrude Saddle Track: A carpark is provided off SH94 in the vicinity of the Homer Hut (New Zealand Alpine Club) to access a walking track that provides for a 4–6 hr return journey to the head of the Gertrude Valley for experienced parties.
- Homer Tunnel Carpark: A sealed carpark area was established on the eastern side of Homer Tunnel where impressive views of the McPherson cirque can be gained. The existing rock fall risk in this area has led to a closure of the carpark.

ENHANCED VISITOR DESTINATIONS

5.27 Enhancing the Milford corridor experience to expand the options available to visitors:

- Create a super track head in the Hollyford valley (Hinepipiwai Lake Marian carpark area).
- Hinepipiwai Lake Marian Walkway – creation of three loop tracks.
- Maintain short stop options along corridor, including Monkey Creek.
- Provide key node with alpine viewing area and new track at Gertrude Valley.

LANDSCAPE ABILITY TO ABSORB CHANGE

5.28 The road access leads through an altitudinal sequence of ecosystems from the forested Hollyford Valley to the glacially carved alpine cirque at the Homer Tunnel Portal. The change in landscape and vegetation can be very clearly observed along this stretch of the highway. In order to provide visitors with an experience that recognises this change in environment, a number of short stops are proposed along the way.

5.29 A number of options were under investigation for a super track head, with the mid Hollyford Valley (at Hinepipiwai Lake Marian carpark) the most feasible option. This more clearly defined track network node and experience entry point would support the change in access models and would provide opportunities for the creation of track threshold/theming and the provision of node facilities, such as toilets. The area around the Divide is spatially very constrained; the Hollyford Valley location provides more appropriate space and supports the mana whenua aspirations in relation to convergence of Ara Tawhito (traditional trails), linking Whakatipu Waimāori / Lake Wakatipu with the West Coast. A wānanga / living classroom is provided primarily for Ngāi Tahu rangatahi (young people) to learn about the protection and endorsement of tangible and intangible cultural heritage of Ngāi Tahu. It will include a cultural storytelling element with ownership of culture, practices, rituals and stories is to be held by Ngāi Tahu. The site selection and design (eg scale of buildings and carpark) will determine the level of modification required (including earthworks and vegetation removal). Structures can generally be better visually absorbed if they are set against a landform and / or vegetation backdrop. The location within the densely vegetated Hollyford Valley provides opportunities to sensitively site the proposed whare wananga, shelter and carpark amongst mature trees.

- 5.30 Hinepitiwai Lake Marian walkway will be developed with a loop track option and a shorter, covered nature walk to provide for various experiences and walking distances / lengths of stay. The existing walking track will be incorporated for parts of the track, while new track sections will be required. The exact location of the trail will determine both landscape and natural character effects in relation to the forest environment and Marian Creek. Given that the track standard will be comparable to a Great Walk the visual effects of the track construction and required structures will be higher than the existing upper part of the trail, and probably more akin to the lower trail section with substantial gantry structures along Marian Creek.
- 5.31 The Gertrude Valley is currently used by day walkers and visitor numbers have been increasing significantly over the years (see MOP Tourism Report). While the start of the trail is relatively easy, it crosses a number of rock slabs about halfway up the valley which can pose a risk in wet conditions. Since the valley offers stunning views to the steep Darran Mountains, it is proposed to improve the lower track near the road end / Hollyford River confluence. This area could also serve as a short stop on the bus route. The landscape in this area is already modified through an existing carpark and Homer Hut (NZAC owned). It would be relatively straightforward from a landscape perspective to develop this area into a more formal stopping point with an interpretative walking track and associated bus shelter structures.
- 5.32 The Gertrude Valley site was considered more appropriate for the development of a walking track than the existing Monkey Creek pull-off area from a recreation perspective. From a landscape perspective a track at Monkey Creek would be in relatively close proximity to the road and in the alpine shrub vegetation, so great care would have to be taken to avoid visual impacts. While the Hollyford Valley around Monkey Creek is open and provides interesting long-distance views, the Gertrude Valley is considered to be more suitable for the enhancement of the existing track as it provides more visual diversity. At Monkey Creek a bus stop for hop-off busses will be provided for short stops to take photographs. It would be more attractive to provide a walking track off the main Milford Road at Gertrude Valley with sufficient space to develop the stop as a key node for longer duration activities.
- 5.33 The eastern side of Homer Tunnel is exposed to rock fall and stopping is currently not allowed. The area provides excellent views, but it is understood that due to the hazards it would be very costly to provide for a safe stopping area on the eastern side of the portal. The Gertrude Valley key node described above will serve as the key alpine node in the upper Hollyford Valley instead.

CLEDDAU SECTION (Homer Tunnel to Milford Sound Piopiotahi)

NODES OF EXISTING MODIFICATION

- The Chasm Walkway: a spatially constrained carpark is provided to give access to a 20 min return walk. The walkway provides spectacular views of waterfalls.
- Tutoko Suspension Bridge Viewing Area and Track: A small pull-off area provides limited carparks. Information panels about the suspension bridge and start of Tutoko Valley track located in this area.
- Milford Sound Piopiotahi (see following section): Visitor Terminal, Milford Sound Piopiotahi Foreshore Walk (30 min), Lookout Walk (10 min), Bowen Falls Walkway (5 min).
- Milford Sound Piopiotahi Marine Reserve Observatory at Harrison Cove (see following section).

ENHANCED VISITOR DESTINATIONS

- 5.34 The journey from Homer Tunnel to Milford Sound Piopiotahi provides a varied experience with open alpine views into the U-shaped valley near the tunnel portal, giving way to the dense rain forest and coast below. The highway is spatially very constrained along this alignment and the options for stopping are limited. It is understood that the Chasm walkway will continue to be used in its current form once the repairs from the 2020 floods have been undertaken.

5.35 In addition, the following two areas will be developed into areas where enhanced visitor experiences can be provided:

- Homer Tunnel western side (short stop) - Cleddau cirque viewing area.
- Tutoko Valley track upgrade, with connection to Milford lodge through walkway parallel to SH94 or via Cleddau Delta.

LANDSCAPE ABILITY TO ABSORB CHANGE

5.36 The tunnel portal on the western side has been extended out with a temporary rock protection shelter to mitigate the existing hazard in this area. Due to hazards and spatial constraints visitors need to move through this portal area swiftly. In order to provide an alternative viewpoint for visitors to stop and take in the spectacular views of the Upper Cleddau Valley with its sheer rock walls, a viewing area is proposed at Loop 2 along the highway. In this area a shelter and bunding is proposed that provides protection for internal and external viewing areas from rock fall and avalanche hazards. Areas will be available for bus stops and potentially some private vehicle parking. The area will be adjacent to the highway and the existing flat terrain will be utilised for bus parking without substantially expanding it further. It is recommended to work with the sloping terrain and to construct a semi-subterranean structure for protection on the western edge of the stopping area. This means that visual effects of the structure could be minimised while enabling expansive views out towards the west.

5.37 The Chasm will be developed as a secondary node with an enhanced visitor destination, as it provides a very unique opportunity for viewing of the Cleddau River cascades. A bus shelter and toilets will be included at the carpark.

The Tutoko Suspension Bridge is currently a small viewing area along the Milford Road which will be maintained in its current form. The Tutoko Valley track provides an opportunity to improve an existing recreation opportunity to enable a wider range of visitors to experience the lush forests and stunning rivers of the western part of Fiordland National Park. The existing valley track is relatively flat and by upgrading the track surface its usability could be expanded to a wider group of users. The track leads through intact forest and risks are associated with the spread of weeds through machinery during construction and walkers' boots through access by visitors. It is recommended to maintain a relatively narrow trail (no more than 1-1.5m) to ensure that excessive vegetation removal can be avoided. At the head of the track impressive views of the Tutoko Valley and River can be gained. A viewing platform around the forest edge in this area could be successfully integrated into the landscape.

6 MILFORD SOUND PIOPIOTAHİ LAND ANALYSIS



Figure 19: Milford Sound Piopiotahi from Mitre Peak

KEY CHARACTERISTICS

- Milford Sound Piopiotahi is the northernmost fiord in the huge, largely untouched area of Fiordland. It has UNESCO World Heritage Status due to its ‘superlative natural phenomena’ and ‘outstanding examples of the earth’s evolutionary history’.
- Milford Sound Piopiotahi is a true fiord in the original sense of the Norwegian word meaning “threshold”, as it is deeper in its inner reaches (290m) than at its entrance (80m). Fiordland’s steep and crenulated coastline, with fiords extending from U-shaped glaciated valleys carved out from the southern part of the Southern Alps, is unique in New Zealand and rare globally.
- An intriguing feature of this area is the evenness of the height of the summits of the mountains, which increases northwards from the south coast to reach a maximum of 2400m in the Milford area. This represents an old erosion surface, which has been uplifted. The Alpine Fault forms the western boundary of the Fiordland geological unit and can be seen just north of the entrance to Milford Sound Piopiotahi.
- One of the best exposures of the Milford rock formation is in the fiord walls of Milford Sound Piopiotahi. The typical rocks are strongly laminated varieties of gneiss, the differences between layers reflect the differences in the original sedimentary sequence. Typical folding of these layers can be clearly seen on the north shore of Milford Sound east of Stirling Falls. The 15km narrow canyon that forms the sound occupies the trunk portion of a glacial trough cut into the 1800m high surrounding mountains. Sindbad Gully, enclosed by the slopes of Mt Philipps, is an impressive example of a hanging valley.
- Numerous waterfalls cascade from the hanging valleys formerly occupied by tributary glaciers to the main ice flow. At its head the fiord receives the waters of the Arthurs and Cleddau Rivers which emerge at a delta. The Cleddau is gradually building up across the mouth of the Arthur Valley to form a freshwater lake. The Harrison River enters the inner fiord from the north at Harrison Cove.
- The tidal flats southwest of Freshwater Basin provide landscape and intertidal habitat values distinct to areas located further out in the fiords. The inner sounds are contained by steeply rising mountain slopes, which open up to the sea at the mouth west of Dale Point.

- The Darran Ecological District (located within the Fiordland Ecological Region) is one of the few areas of relatively unmodified vegetation on the mainland of New Zealand, as it is largely inaccessible for browsing mammals. Milford Sound Piopiotahi is noted for its relative isolation from introduced and invasive species like deer, and therefore has areas of some of the only unmodified vegetation in Fiordland.
- The vegetation communities are partly dependent on altitude and consist of indigenous forest in the lower parts, broadleaved indigenous hardwoods in gullies, and sub-alpine shrubland, tussocks, and alpine grass-herb fields in higher altitude locations. The tops of the ranges are formed by extensive exposed rock and gravel slopes.

ATTRACTIVE LANDSCAPE FEATURES

- It is the exceptional naturalness and spectacular scenic qualities of much of the Sound that underpin the tourism and recreation experiences in the area. The extraordinary beauty and drama of this landscape is the key attraction for the thousands of visitors to the Sound.
- Mitre Peak is a spectacular glacially-carved mountain peak, identified as a Geopreservation Site of national significance- particularly iconic feature within the Milford Sound Piopiotahi landscape. The shear rock walls rise 1200m almost vertically from the sea. Mitre Peak (1692m) forms a notable feature from the head of the sound, with the Footstool in front. Opposite, rising from the eastern shoreline is the Lion (1302m) and further up the ridge behind it Mt Pembroke (2045m).
- Nearest to the head of the sound are the Bowen Falls (161m) in the course of the Bowen River, which drops from the hanging valley in the Darran Range.
- About midway along the eastern wall of the fiord the Stirling Falls plunge 155m from a crag, forming one of the main tourist attractions.
- The Fairy Falls are a temporary waterfall, which carry a large amount of water after rainfalls, drying up a few days after the rain.
- The northern edge of the Sound from Dale Point east to Freshwater Basin is recognised as the Milford Sound Piopiotahi Marine Reserve, where fishing and removal of marine life and natural features is strictly prohibited. Encounters with wildlife, including rare species, explanations of climate, geology, landforms and so on all enhance the visitor experience.

NODES OF EXISTING MODIFICATION

- Milford Sound Piopiotahi is the most accessible fiord within the National Park, while being an outstanding natural feature set in an outstanding natural landscape.
- The Sound enjoys very high levels of natural character away from the few localised areas of development. These areas include the commercial wharf at Deepwater Basin and the visitor terminal at Freshwater Basin, as well as the Milford Village with workers' accommodation, hotel, hospitality, airport, stopbanks and carparking. The Milford Sound Lodge near the entrance of the village contains buildings outside the remainder of the development node.
- The Underwater Observatory in Harrison Cove is the only localised node of development outside Milford Village.

ENHANCED VISITOR DESTINATIONS



Figure 20: Milford Sound Piopiotahi Preferred Concept

6.1 The goal for the redesign of Milford Village is to lift the quality of the built environment and reflect its world-class status. By developing a compelling suite of experiences in Milford Sound Piopiotahi the goal is to encourage visitors to stay longer and contribute to conservation and the local and regional economy. The enhancements for the village include the following suite of interventions:

- A new Milford Sound Piopiotahi visitor hub is proposed through the masterplan, including visitor safety features. This will centralise visitors in the safest location and direct them from here. The hub will serve as the main transport, education and orientation hub, as well as a place where people can relax and shop. Establish an interpretive Marine Centre in Milford Sound Piopiotahi as part of visitor hub.
- New visitor accommodation with a five-storey building is proposed in combination with the visitor hub (three storey hotel to be established above the two-storey visitor hub).
- Resident accommodation is recommended to be moved adjacent to the west of the new visitor hub as one consolidated four-storey building. The existing resident village is to be redeveloped for carparking.
- Tsunami shelter / refuge within proposed hub facility with two smaller shelters located next to walking track at Cleddau River and adjacent to the airport runway.
- To create a compelling sense of arrival into Milford Sound Piopiotahi better landscaping will be implemented framing the key viewshafts. In addition, the existing visual clutter will be removed, and sculptural elements potentially introduced in appropriate locations. Splitting the existing Milford Road at the Deepwater Basin Road junction and diverting their one-way, inbound approach along the existing aerodrome taxiway would further improve the experience.
- Develop new walking tracks and observation points in Milford Sound Piopiotahi in four locations with observation points for 20-40 people (with formal viewing area and shelter):

- at the rear of the proposed visitor hub behind the existing hotel site up onto Barren Peak Spur lookout track with 2 elevated viewing platforms at different elevations (around 25masl and 100masl).
 - along the waterfront (avoiding interference with estuarine environment where possible).
 - to Bowen Falls via a pontoon walkway and linking up with the existing walkway at Bowen Falls Delta.
 - along the Cleddau River Delta: One track primarily links between observation points along the foreshore and the other track provides a nature trail through the Bush.
- Bowen Falls Experience: A new fixed cable car up to Bowen Valley with a nature walk to the top of Bowen Falls is proposed. This allows visitors to experience rising views over Milford Sound Piopiotahi, a nature trail along the edge of the hanging valley, and dramatic views from an iconic cantilevered lookout structure at the top of the Bowen Falls. A cable car alignment would originate from a base building near the tourist boat terminal and follow the steep alignment of the existing hydro pipeline.
 - Relocation of public car park from foreshore to Cleddau Delta area
 - Freshwater Basin tourist boat terminal redevelopment (within existing structure)
 - Enhance Deepwater Basin commercial / recreational wharf, including optimising boat ramp management. Incorporate the commercial port (Deep Water Basin) into the visitor experience, leveraging off the leverages the fresh seafood story.
 - Remove fixed wing runway from Milford Sound Piopiotahi (phased withdrawal).

LANDSCAPE ABILITY TO ABSORB CHANGE

- 6.2 The village in Milford Sound Piopiotahi is a consolidated existing node of development within an otherwise largely unmodified landscape. In order to ensure that the surrounding landscape can be protected, the decision was made to redevelop and enhance the existing facilities within the village, rather than expanding beyond the current boundaries. This will avoid further modification of sensitive areas. Given the multitude of hazards within the area, including rockfall, tsunami waves and flooding from the Cleddau River, any solution has to be designed, keeping these risk factors in mind.



Figure 21: Milford Sound Piopiotahi 3D model of visitor hub & accommodation and staff accommodation buildings

NEW VISITOR HUB

- 6.3 To ensure that visitors congregate in the safest waterfront location, a visitor hub is proposed that will be designed to act as a refuge. In order to minimise the visual effects of this large-scale, five-storey structure (including visitor hub and accommodation) it is proposed to be located against landform. The choice of location was also influenced by the desire to select the best location for circulating visitors around Milford Sound Piopiotahi. The creation of a central hub enables development that is contained within already modified / built areas to avoid effects on sensitive unmodified areas surrounding the existing village. The proposed structure could be accommodated in this location without adversely affecting the outlook towards the landscape features of the Sound from the approach into the village.

NEW VISITOR AND RESIDENTS' ACCOMODATION

- 6.4 The consolidation of accommodation is a preferred option from both a conservation and hazards perspective. The accommodation is recommended to be co-located with the proposed visitor hub. The hotel is designed to have a smaller footprint than the visitor hub and the rectangular building could potentially be oriented towards the Mitre Peak views. The hotel is proposed against the landform to avoid obstruction of views toward the harbour. The spur that descends from Barren Peak in a south-westerly direction provides the opportunity to locate the proposed hub outside the main viewshaft along the final SH94 approach. The landform encloses the south-eastern side of Freshwater Basin, while enabling views out towards Milford Sound / Mitre Peak which are the main visitor attractions in this location. The Cleddau Delta, where the existing village is located, is otherwise flat which makes it more difficult to visually absorb a multi-storey structure in this area.
- 6.5 The co-location of the residents' accommodation with the proposed visitor hub and hotel is considered essential to provide for a very robust consolidated structure to address hazard risks. It would allow to centrally manage staff accommodation enabling higher quality standards and common facilities (more aligned with a higher density urban typology). Through the removal of the existing low-quality buildings in the village a more condensed footprint can be achieved, opening up the space of the existing village for carparking in a location that is visually less sensitive than the current waterfront location. The residents' accommodation would be four storeys high, slightly lower than the proposed hotel. It is considered that this height can be absorbed in the context of the Barren Peak spur without attracting the viewer's eye to it, as it is in character with the scale of the immediately adjacent landform. The 3D screenshot (Figure 22: Google Earth with sketch up model at proposed building height) illustrates that the proposed buildings would be subservient in scale in comparison to the surrounding landscape.
- 6.6 The design of the proposed buildings will further determine the visual effect in relation to the surrounding environment. The expectation is that the architectural design of the visitor hub, hotel and staff accommodation would be of a high quality with a homogenous appearance that complements the surroundings. The cluster of buildings would be perceived as one consolidated node of modification in a location that can absorb the proposed change. This approach is considered preferable from a landscape character and visual perspective as it avoids clutter and sprawl of development. It is envisaged that the design of the buildings will fit in with the environment through the choice of darker colours and appropriate materials, while show-casing attractive, high-end architecture. In views from the waters of Milford Sound Piopiotahi the impressive, steeply rising landform of Barren Peak would frame the proposed development, dwarfing the scale of the built form in comparison.

FIXED WING RUNWAY

- 6.7 Currently, the existing runway severs the connection between the proposed visitor hub site and Deepwater Basin. The runway is the dominant feature in views as the visitors enter Milford Village, as it forms the foreground in views towards Mitre Peak from SH94. The removal of the runway would enable the re-alignment of the highway to optimise the sense of arrival/reveal experienced by visitors. While the visual effects of the existing runway are relatively low due to the absence of structures (apart from air traffic control tower), there would be landscape character benefits associated with the runway removal, even though they would not be the key driver. The

location of helipads to replace the runway would be adjacent to the Cleddau River in a visually discrete location with minimal landscape or visual effects.

WALKWAYS AND BOWEN FALLS EXPERIENCE

- 6.8 The proposed walkways are proposed to be loop tracks if possible. The foreshore walkway will connect observation points, focusing on the estuarine margins and longer views to the surrounding landscape features that include those most important for mana whenua. The other track provides a nature trail through the Bush. Both are intended to be sensitively integrated utilising existing trap lines where possible. Low-profile multi-purpose shelters are distributed around Cleddau delta. These types of trails could be visually accommodated and with sensitive design natural character effects within the coastal margin can be avoided. As these trails would be located in sensitive ecosystems, ecological input would be important as part of the detail design.
- 6.9 While the walkways would be a relatively small intervention, the proposed cableway that would connect from the tourist boat terminal area to the top of Bowen Falls would require more substantial modifications in technically challenging, steep terrain. The alignment would follow more or less the existing hydro pipeline in this area and co-location of this infrastructure with the cableway would reduce the overall impact. The landscape and visual effects of this proposed tourist attraction is difficult to assess without a detailed assessment of the alignment, scale and design of the proposal. The effects would be determined by factors such as required vegetation removal, need for earthworks/ rock removal, associated hazard control works and the actual design of the cableway itself, including size, colour, tracks/ pylons, top and bottom station etc. It is considered important to design this proposal very carefully to ensure that the high visual, landscape and natural character values of Bowen Fall itself are not compromised.

7 CONCLUSION

- 7.1 The landscape within the wider Fiordland National Park area and along the Milford Corridor is of exceptional value. It is a resource that attracts numerous visitors in this area and has to be treated carefully to ensure its characteristics can be protected while providing for a world-class experience for its visitors.
- 7.2 The character of the wider Southland area is varied and has been described to provide context for the more detailed analysis of the Milford Corridor. For the Corridor along SH 94, between the two hubs of Te Anau and Milford Sound Piopiotahi, four sections were identified that provide for a distinctive variety of experiences as a visitor progresses through the area:
- Te Anau Section (Te Anau Town to NP Entrance).
 - Eglinton Section (NP Entrance to The Divide).
 - Hollyford Section (The Divide to Homer Tunnel).
 - Cleddau Section (Homer Tunnel to Milford Sound Piopiotahi).
- 7.3 For these sections a more detailed analysis of existing modifications and the landscape's ability to absorb further change is outlined. This includes an assessment of potential landscape, visual and natural character effects that could arise from the interventions that are proposed as part of the shortlist of ideas for the Milford Opportunities Project.
- 7.4 The land analysis undertaken as part of the overall project provided input into the Master Plan design process throughout the long and shortlisting of ideas where potential impacts on the landscape were flagged in order to ensure that an appropriate design response is provided.
- 7.5 Following the concept design undertaken for the Master Plan, and as the short-listed ideas will progress into detailed design, the assessment of effects of proposed interventions, including tracks, buildings and other structures, can be refined. The micro-siting of structures in relation to the terrain and existing vegetation is often a determining factor in relation to the overall landscape and visual effects. Recommendations were made in this report regarding specific design aspects that should be considered, such as location and scale of tracks and structures.
- 7.6 In order to improve the visitor experience without impacting on the wider landscape, the design interventions also take into account key viewshafts from the roads and tracks. The overall intention is to cluster development into nodes, rather than spreading it, and thereby containing effects. To protect the remote and wild experience that is currently provided along the Milford Corridor, the Master Plan nodes will be mostly located in areas that have already undergone modification in the past. This will avoid unnecessary sprawl of development into more untouched areas, while maximising the benefit from existing and proposed infrastructure.