



Hokitika to Westport Tourist Rail Feasibility Study Stop/Go Report: July 2019

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1. Executive Summary

1.1. Overview

Stafford Strategy (Stafford) was commissioned to undertake a feasibility study for a tourist passenger rail service from Hokitika to Westport. KiwiRail has been funded via the Provincial Growth Fund from MBIE to undertake this work, as an initiative to assist the West Coast with economic uplift.

The purpose of this feasibility, however, is to verify if a tourist passenger service on the West Coast is commercially viable for KiwiRail. It has been agreed with KiwiRail that if the tourist passenger service is shown to be commercially viable, at an initial first stage assessment (Stop/Go Report), then KiwiRail will continue to assess the broader economic benefits which may accrue to the West Coast economy from introducing such a service.

It was also agreed by KiwiRail that options for assessment should also include a tourist passenger service between Greymouth and Westport, as an alternative to a Hokitika to Westport service.

The KiwiRail Engineering Assessment was broken down by line sections, enabling KiwiRail to have a multi-dimensional view of potential costs (capex and opex). Through discussions in the development of the Engineering report, it became apparent that the capital investment costs between Hokitika and Greymouth were significantly more (circa 100%) than Greymouth to Westport.

A decision was taken to model both the full route from Hokitika to Westport and a partial route from Greymouth to Westport for completeness.

This report is noted as a Stop/Go Report, meaning that if the commercial viability of a tourist passenger service is not shown to be commercially viable for KiwiRail, and therefore, KiwiRail can then decide whether to have the broader economic benefits assessed or to cease the project at this interim stage.

Stafford has called the potential West Coast tourist service the *West Coast Adventurer (WCA)*, purely as an interim name to reflect its point of difference and for ease of reference.

1.2. Key Findings – Markets and Visitor Hubs

The following are key findings from the research and analysis to this stop/go point:

- The most comparable tourist rail service operated by KiwiRail is the TranzAlpine (TA) as it offers a daily service 12-months of the year, and focusses on domestic and international visitor markets;
- The Coastal Pacific (CP) and Northern Explorer (NE) are seen as both a tourist service and a public travel service for residents in lieu of domestic self-drive, coach and flight options between their operating destinations. The characteristics from a tourism perspective of each is quite different;
- Unlike the TranzAlpine (Christchurch to Greymouth), Coastal Pacific (Picton to Christchurch) and Northern Explorer (Wellington to Auckland), which all have two primary points of entry, the WCA potentially has three, being Christchurch to Greymouth and on to Westport, Westport to Greymouth (and potentially on to Christchurch), and Hokitika south up to Greymouth and on to Westport;
- A WCA service may also drive a visitor market from three distinct entry points being; Christchurch across to Greymouth, Queenstown up to Hokitika and/or Greymouth, and from Tasman/Nelson into Westport;
- There are five distinct niche visitor markets which have been identified for the WCA and segmented being:
 - The general leisure market (which would include a mix of group tours, free independent travellers, those doing the WCA as part of a post or pre-conference/convention excursion ex Christchurch or Queenstown);
 - The adventurer market looking to undertake a variety of passive and active experiences and which the WCA could be the “glue” which effectively brings these together on the West Coast including rafting, mountain biking, trekking, jet boating etc;
 - The specific train enthusiast market who will treat the WCA as a bucket item to tick off as a domestic market experience and/or as an international wider niche market experience;
 - A nature market keen to gain access (passively or actively) into areas via heritage tours (gold and coal mining), fauna and flora enthusiasts, etc. and

- A local West Coaster market looking to travel on the WCA as an annual or biannual experience with visiting friends and relatives or as part of a group excursion.
- The market demand analysis has determined the likely size of these various markets ex Christchurch, Queenstown and Tasman/Nelson, in addition to visitors already coming to the West Coast primarily for holiday/leisure purposes.

Table 1 provides a succinct summary of the likely levels of estimated market penetration for the WCA based on years 1, 5, 10 and 20. The full details are contained within this report.

Scenarios 2 and 3 are 6-month operations and Scenarios 4 and 5 are 12-month operations. Scenarios 2 and 4 operate 6 days per week services and scenarios 3 and 5 operate 7 days per week.

Table 1: Market Summary Table (Models 1 and 2)

	Scenario 2: 6 days p/week, 6 months p/a				Scenario 3: 7 days p/week, 6 months p/a				Scenario 4: 6 days p/week, 12 months p/a				Scenario 5: 7 days p/week, 12 months p/a			
Year 1 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	2.6k	3.5k	220	-	3.4k	5.7k	659	-	3.7k	5.4k	440	-	4.6k	7.5k	879	-
Train Enthusiasts Market	1.7k	3.1k	172	-	2.9k	4.3k	344	-	2.6k	4.6k	287	-	3.9k	5.7k	459	-
General Leisure	3.3k	5.2k	659	-	3.9k	6.4k	791	-	4.6k	7.4k	923	-	5.2k	8.6k	1.1k	-
Nature Market	2.4k	3.5k	488	-	2.6k	3.5k	651	-	3.3k	4.6k	705	-	3.5k	4.6k	867	-
Resident Market	-	-	-	2.0k	-	-	-	2.0k	-	-	-	2.0k	-	-	-	2.0k
Total users (unique)	28.7k users				37.2k users				40.5k users				48.9k users			
Total trips	36.3k trips				46.5k trips				50.5k trips				60.7k trips			

Year 10 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	3.4k	3.9k	276	-	4.4k	6.4k	828	-	4.8k	6.1k	552	-	5.9k	8.5k	1.1k	-
Train Enthusiasts Market	2.1k	3.5k	216	-	3.8k	4.8k	432	-	3.4k	5.2k	360	-	5.0k	6.5k	577	-
General Leisure	4.2k	5.9k	828	-	5.0k	7.3k	994	-	5.9k	8.3k	1.2k	-	6.7k	9.7k	1.3k	-
Nature Market	3.1k	3.9k	613	-	3.4k	3.9k	817	-	3.1k	5.2k	885	-	3.4k	5.2k	1.1k	-
Resident Market	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k
Total users (unique)	33.9k users				44.1k users				46.8k users				57.0k users			
Total trips	42.6k trips				54.9k trips				58.3k trips				70.6k trips			

Year 20 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	4.5k	4.5k	358	-	5.9k	7.3k	1.1k	-	6.4k	6.9k	715	-	7.8k	9.8k	1.4k	-
Train Enthusiasts Market	2.9k	4.1k	280	-	5.0k	5.6k	560	-	4.5k	5.9k	467	-	6.7k	7.4k	747	-
General Leisure	5.6k	6.8k	1.1k	-	6.7k	8.3k	1.3k	-	7.8k	9.5k	1.5k	-	9.0k	11k	1.7k	-
Nature Market	4.1k	4.5k	794	-	4.6k	4.5k	1.1k	-	4.1k	6.0k	1.1k	-	4.6k	6.0k	1.4k	-
Resident Market	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k
Total users (unique)	41.3k users				53.8k users				57.0k users				69.5k users			
Total trips	51.5k trips				66.7k trips				70.7k trips				85.9k trips			

1.3. Key Findings – Additional Factors to Drive Visitor Growth

There are a number of additional factors which may also help drive stronger market penetration to the WCA, but which are not easily quantified. These haven't been included in the market demand assessments but need to be noted:

- The significance of Queenstown as the major South Island leisure hub with more than 55% of all domestic and international visitors flying in direct and with a number of day and overnight visitor excursions to various spokes from the hub. This scenario is expected to grow with Wanaka and Te Anau also becoming part of the greater Queenstown Lakes tourism development hub to a greater extent;
- The reduction of traditional touring circuits, especially for most domestic visitors to the South Island and to a growing extent the short break Australian and South East Asian markets who are becoming more interested in single or dual regional travel rather than traditional multi region drive circuits;
- The significant growth of point to point travel between Christchurch and Queenstown either via the West Coast or via Mount Cook and Lake Tekapo which now dominates leisure travel (noting that many visitors fly into one destination and then fly out of the other);
- 60% of all estimated visitation to the West Coast enter from Christchurch though this is slowly changing as Tourism West Coast actively encourages more Queenstown visitors to travel back up the West Coast en-route to Christchurch or Nelson/Tasman and as Queenstown visitors continue to undertake overnight excursions up the West Coast with the option of travelling back to Queenstown or heading to Christchurch;
- Over 72% of visitors flying into Christchurch disperse without going to Christchurch, though with new major infrastructure (convention centre, stadium etc), Christchurch is expected by 2023 to become a far more dominant visitor destination hub as it was pre the 2011 earthquake; and
- The potential closure of the Fox Glacier access road will potentially put significant pressure on visitor numbers to Franz Josef Glacier, which may result in DOC reducing accessibility in the medium-longer term to help preserve the glacial environment. This factor alone could result in more visitors travelling to visitor experiences in other parts of the West Coast if glacier experiences become overly restricted.

In the absence of many other major visitor attractions on the West Coast, one could see a move in the medium to longer term by visitors focussing on Hokitika and environ attractions, and nature, heritage and adventure products between Greymouth and Westport including in the Buller Gorge, Reefton and north to Karamea. This is likely to be heavily promoted by central government agencies, industry on the West Coast and DOC especially, who control 87% of the land area of the West Coast.

The implications of these market demand factors noted above may be the potential for stronger visitation especially ex Queenstown north to Hokitika, Greymouth and Westport, providing that there is well packaged, quality product and related services. In turn, this may lead to stronger visitation across to Christchurch and/or north to Tasman and Nelson through the Buller Gorge as different circuits start to be strengthened as more product comes on stream.

A WCA experience could, therefore, potentially be a key product, which anchors many of the smaller visitor attractions and experiences on the West Coast, especially between Greymouth and Westport.

Though many tourism stakeholders (both industry and government) would rather not dwell on the risk of glacier closures, recent stakeholder discussions on the West Coast with councils, other government agencies and industry, indicates an expectation of significant change occurring with access to the two glaciers. Any further major landslides or climatic events which destroy key infrastructure to access the glaciers, will likely exacerbate the problem and speed up the timeframe for change to occur.

1.4. Key Findings – Financial Results

The cost benefit analysis presents different options for KiwiRail's consideration. The options provided include:

- A 6-day per week 6-month service from Hokitika to Westport;
- A 7-day per week 6-month service from Hokitika to Westport;
- A 6-day per week 12-month service from Hokitika to Westport;
- A 7-day per week 12-month service from Hokitika to Westport;
- A 6-day per week 6-month service from Greymouth to Westport;
- A 7-day per week 6-month service from Greymouth to Westport;
- A 6-day per week 12-month service from Greymouth to Westport; and
- A 7-day per week 12-month service from Greymouth to Westport.

The financial and economic analysis ultimately compares the economic results as shown through a net present value achieved and a benefit-cost ratio achieved, over a 20-year period. Though the value of the rolling stock and associated infrastructure extends beyond 20 years (rolling stock is noted as having a 30-year life cycle), the life of a tourism service and its associated costs and benefits are better determined over a 20-year period at best. Externalities and global tourism trends are hard to predict beyond 5-10 years.

There are, therefore, too many externalities and unknowns beyond a 20-year period to offer a robust assessment of product life as a tourism experience.

Table 2 and Table 3 provides a summary of the key economic and financial findings for each scenario under Models 1 and 2 respectively. The supply-side elements (both capital and operating expenditure) are drawn directly from modelling provided by KiwiRail. The market demand side assessment and assumptions are determined by Stafford Strategy, from extensive work undertaken for this KiwiRail project and a parallel major piece of work looking at a Destination Management Plan for the entire South Island.

It also illustrates that market demand under both Model 1 and Model 2 is the same, recognising that adding the Hokitika to Greymouth line to the Greymouth to Westport rail experience is not seen to add additional passenger numbers.

Table 2: Model 1 – Cost Benefit Results Summary

Model 1 – Greymouth to Westport					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Total Seats Sold - Economy	-	Year 1: 36k Year 10: 43k Year 20: 52k	Year 1: 46k Year 10: 55k Year 20: 67k	Year 1: 51k Year 10: 58k Year 20: 71k	Year 1: 61k Year 10: 71k Year 20: 86k
Pax per day operational (average)	-	Year 1: 232 Year 10: 272 Year 20: 329	Year 1: 254 Year 10: 300 Year 20: 365	Year 1: 161 Year 10: 186 Year 20: 226	Year 1: 166 Year 10: 193 Year 20: 235
Revenue	-	Year 1: \$4.7m Year 10: \$6.6m Year 20: \$9.7m	Year 1: \$6.1m Year 10: \$8.5m Year 20: \$12.6m	Year 1: \$6.6m Year 10: \$9.1m Year 20: \$13.3m	Year 1: \$8.0m Year 10: \$11.0m Year 20: \$16.2m
Expenses	-	Year 1: \$5.3m Year 10: \$7.1m Year 20: \$12.3m	Year 1: \$5.5m Year 10: \$7.4m Year 20: \$12.6m	Year 1: \$7.0m Year 10: \$9.2m Year 20: \$14.7m	Year 1: \$7.5m Year 10: \$9.8m Year 20: \$15.4m
EBITDA ¹	-	Year 1: -\$509k Year 10: -\$452k Year 20: -\$2.6m	Year 1: \$6m Year 10: \$1.2m Year 20: -\$5.2k	Year 1: -\$336k Year 10: -\$85k Year 20: -\$1.3m	Year 1: \$482k Year 10: \$1.2m Year 20: \$819k
Capex	-	\$45.6m	\$45.6m	\$45.6m	\$45.6m
NPV	-	-\$50.7m	-\$31.6m	-\$45.2m	-\$30.2m
BCR	-	0.56	0.70	0.65	0.75
Rev per ticket sold	-	Year 1: \$130.95 Year 10: \$155.62 Year 20: \$188.71	Year 1: \$131.03 Year 10: \$155.70 Year 20: \$188.79	Year 1: \$131.05 Year 10: \$155.72 Year 20: \$188.80	Year 1: \$131.10 Year 10: \$155.76 Year 20: \$188.85
EBITDA per seat sold	-	Year 1: -\$14.04 Year 10: -\$10.61 Year 20: -\$50.42	Year 1: \$12.39 Year 10: \$21.48 Year 20: -\$0.08	Year 1: -\$6.65 Year 10: -\$1.45 Year 20: -\$18.44	Year 1: \$7.94 Year 10: \$16.66 Year 20: \$9.53

¹ The EBITDA under each scenario fluctuates over the 20-year period primarily due to higher carriage refurbishment costs as replacement parts are fitted. **withheld under section 9(2)(b)(i)**

Table 3: Model 2 – Cost Benefit Results Summary

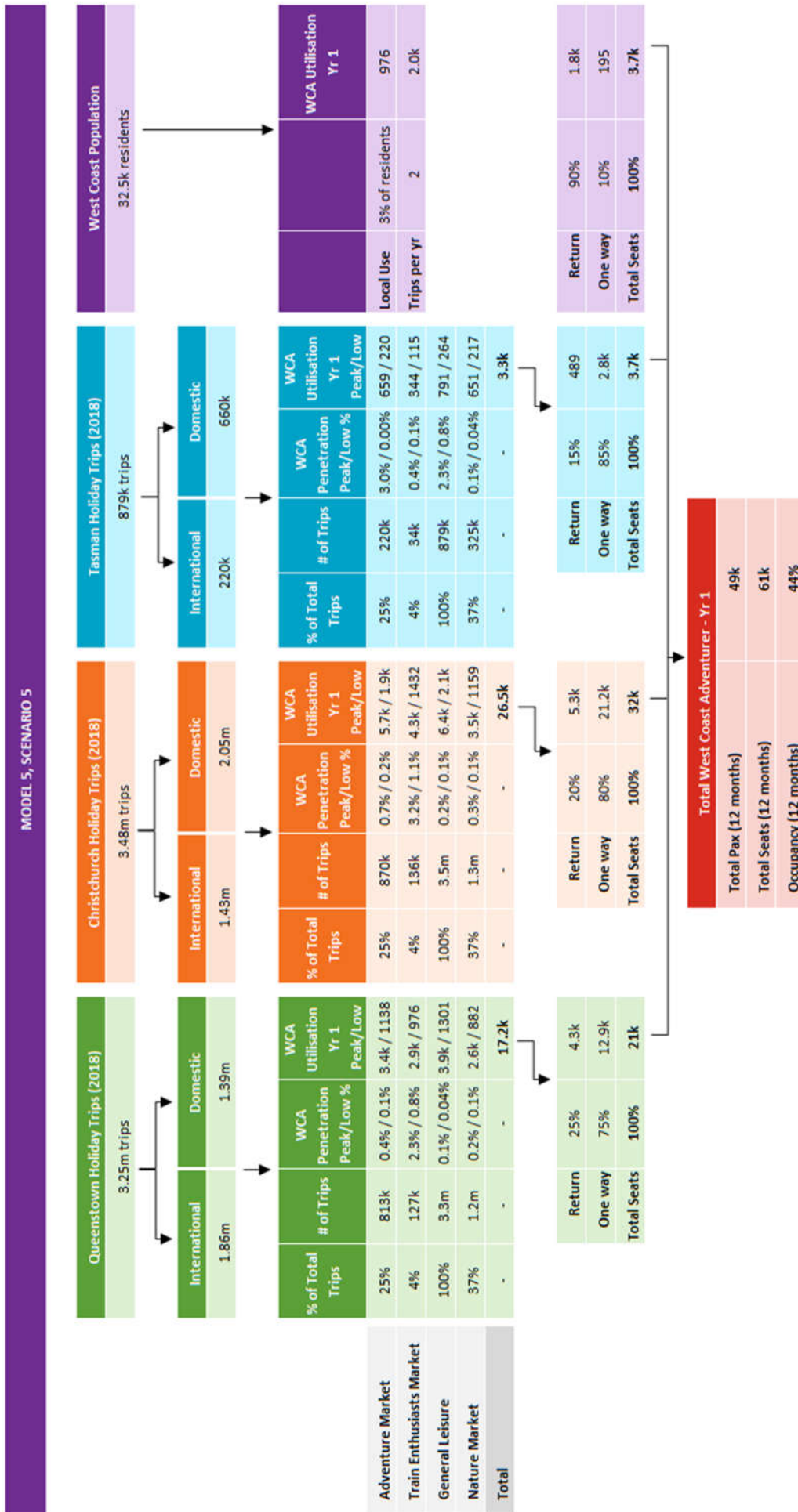
Model 2 – Hokitika to Westport					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Total Seats Sold - Economy	-	Year 1: 36k Year 10: 43k Year 20: 52k	Year 1: 46k Year 10: 55k Year 20: 67k	Year 1: 51k Year 10: 58k Year 20: 71k	Year 1: 61k Year 10: 71k Year 20: 86k
Pax per day operational (average)	-	Year 1: 232 Year 10: 272 Year 20: 329	Year 1: 254 Year 10: 300 Year 20: 365	Year 1: 161 Year 10: 186 Year 20: 226	Year 1: 166 Year 10: 193 Year 20: 235
Revenue	-	Year 1: \$4.7m Year 10: \$6.6m Year 20: \$9.7m	Year 1: \$6.1m Year 10: \$8.5m Year 20: \$12.6m	Year 1: \$6.6m Year 10: \$9.1m Year 20: \$13.3m	Year 1: \$8.0m Year 10: \$11.0m Year 20: \$16.2m
Expenses	-	Year 1: \$5.4m Year 10: \$7.2m Year 20: \$12.5m	Year 1: \$5.7m Year 10: \$7.5m Year 20: \$12.7m	Year 1: \$7.3m Year 10: \$9.4m Year 20: \$14.9m	Year 1: \$7.9m Year 10: \$10.1m Year 20: \$15.7m
EBITDA	-	Year 1: -\$691k Year 10: -\$565k Year 20: -\$2.7m	Year 1: \$363k Year 10: \$1.0m Year 20: -\$151k	Year 1: -\$700k Year 10: -\$311k Year 20: -\$1.6m	Year 1: \$1.1m Year 10: \$911k Year 20: \$527k
Capex	-	\$91.6m	\$91.6m	\$91.6m	\$91.6m
NPV	-	-\$94.5m	-\$75.6m	-\$90.4m	-\$75.9m
BCR	-	0.39	0.50	0.47	0.55
Rev per ticket sold	-	Year 1: \$130.95 Year 10: \$155.62 Year 20: \$188.71	Year 1: \$131.03 Year 10: \$155.70 Year 20: \$188.79	Year 1: \$131.05 Year 10: \$155.72 Year 20: \$188.80	Year 1: \$131.10 Year 10: \$155.76 Year 20: \$188.85
EBITDA per seat sold	-	Year 1: -\$19.06 Year 10: -\$13.26 Year 20: -\$52.85	Year 1: \$7.82 Year 10: \$19.08 Year 20: -\$2.27	Year 1: -\$13.85 Year 10: -\$5.33 Year 20: -\$21.98	Year 1: \$0.95 Year 10: \$12.91 Year 20: \$6.13

Figure 1 on the following page illustrates likely visitation for Scenario 5 from key generating markets for year 1 only, as this is the strongest scenario for financial and economic results. Market penetration levels are determined by Stafford based on:

- confidential discussions with industry players and other stakeholders on the West Coast and in other locations;
- assessment of niche market sector growth prospects;
- analysis of market segmentation data from Tourism NZ and other data sources; and
- market demand modelling undertaken by Stafford over the last 25 years including visitor growth forecasting.

It should be noted that market penetration levels attributed to a WCA service have been developed to align with estimated market niche penetration levels achieved by the TranzAlpine and the Coastal Pacific services.

Figure 1: Scenario 5 Market Demand Projections (Year 1 only)



1.5. Sensitivity Analysis

Table 4 illustrates the impact from sensitivity analysis undertaken for each scenario under each model focused on:

- increases and decreases in seat utilisation levels (occupancy); and
- increases in the return and one-way ticket prices.

A tick (✓) represents a positive result achieved.

Importantly, the sensitivity analysis has only been performed on Model 1 because the CAPEX is so high under Model 2 (\$92m compared with \$46m) that all sensitivities noted above produce negative results. In order to generate a positive result under Model 2 (Hokitika to Westport) would require either:

- growing the number of seats sold by an additional 60% (equating to 97k seats sold in year 1 under Scenario 5); or
- increasing the ticket price to \$400 return (up from \$240) and \$200 one way (up from \$120) under Scenario 5.

Both of these results are not considered commercially realistic and, therefore, have not been outlined in detail.

The sensitivity undertaken illustrates the challenge of reaching a positive NPV result with not even a 30% increase in seats sold achieving this. In fact, a positive NPV is only achieved for Scenario 5 in Model 1 (Greymouth to Westport) if a return ticket price of \$320 (and \$160 one way) is achievable.

Whilst establishing a return ticket price of \$320 (\$160 one way) for the WCA service is considered reasonable especially for a service likely to commence operating post 2022, analysis of actual achieved ticket pricing for the TranzAlpine and the Coastal Pacific both indicate levels of reduced achieved ticket revenue from the advertised rates due to wholesaler commission rates paid, seasonal adjustments and other specials offered. For this reason, we have applied a reduced average annual achieved ticket price of \$240 return or \$120 one way, to better reflect current KiwiRail average ticket revenue experiences.

For the Greymouth to Westport model, it is the 7 days per week (6 or 12 months per annum) scenarios which illustrate a positive NPV is able to be generated only with higher achieved ticket pricing, as illustrated below.

Table 4: Model 1 – Sensitivity Analysis Results Summary

Model 1 – Greymouth to Westport											
	No Sensitivity	Seats Sold Sensitivity						Ticket Price (Return) Sensitivity			
Positive NPV?	Base	+5% Seats Sold	+10% Seats Sold	+30% Seats Sold	-5% Seats Sold	-10% Seats Sold	-30% Seats Sold	\$300 ticket	\$320 ticket	\$340 ticket	\$360 ticket
Scenario 2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
Scenario 3	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
Scenario 4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
Scenario 5	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

1.6. Marketing Conclusions

Based on our assessment of likely visitor target markets, their size, growth potential and changing market trends we offer the following conclusions:

- A tourist rail service is more likely to appeal as a one-way train experience in a single day, other than for train enthusiasts and those on tight itineraries who may do a return same day journey;
- An estimated 20% of passengers will do a repeat train experience but are thought to more likely to stay overnight at either Greymouth or Westport so the experience is two days;
- To make the train experience commercially viable, it would need to be packaged up with various nature, adventure and heritage tourism products on the West Coast as we consider that a standalone tourism rail experience would struggle, in our opinion to generate sufficient market demand;
- Train passengers will come from those visitor markets which already feed into the West Coast, particularly Christchurch, Queenstown and to a lesser extent Tasman/Nelson;

- The orientation of the Stillwater to Ngakawau Line through the Gray River and Buller Gorge takes it away from the coast road and offers an interesting inland experience. Offering some visitor markets a train trip one way and a coastal road experience (via Punakaiki) back, is likely to appeal more strongly to a general leisure market looking to tick off the iconic attractions and experiences of the West Coast.
- An estimated 20% of seats occupied will be sold to those looking to undertake a package which includes the train experience linking with adventure, nature and heritage tour operators who will want to partner with KiwiRail. This is based on our discussions with West Coast tourism operators, analysis of their current visitor markets and visitor spend patterns, and our experience over the last 25 years determining likely levels of market demand for both free independent markets and structured tour groups.
- Though some WCA train passengers are expected to link to the journey from the TranzAlpine (not necessarily as a same day experience), it is not assumed that operating times will necessarily need to ensure this link is essential;
- Some adventure seekers are likely to get off the train at Reefton to access various sites although it is anticipated that the vast majority will do this from Westport primarily.
- While the overall visitor numbers booking seats on the train experience may appear strong, from a market demand perspective they reflect relatively low market penetration rates, so conservative levels of niche market penetration have been applied to this feasibility. This means that with strong marketing and promotional campaigns and well-formed partnerships with key tourism stakeholders on the West Coast and in key generating markets, higher levels of passenger seat utilisation could be possible and stronger revenue streams generated.

In summary, we would expect a rail only experience to struggle to be commercially viable, without partnering with nature, adventure and heritage product operators already established on the West Coast. And like the TA, the majority of rail passengers will likely take the journey one way as a same day experience.

1.7. Project Operational Risks

The WCA service does come with a variety of operational risks. These include the following, which are not in priority order:

- The WCA may cannibalise some same day return passengers on the TA, if visitors want to use the WCA and see more of the West Coast.
- If the glaciers issue does reduce access and visitation, [REDACTED]
- Tourism is a 7-day, 24-hour service-related sector and peak and shoulder season visitors often expect attractions and experiences to be operational 7 days per week. We have shown both 6- and 7-day services as scenario options to illustrate seat capacity increases through a 7 day per week service and the need to also gather market demand over 7 days rather than 6 to help the commercial viability of a tourist rail service. If for any reason the WCA could only be a 6-day service, this would limit both seat capacity and market demand potential.
- Currently most West Coast visitation is focussed on the route between Haast/Glaciars and Hokitika/Greymouth though increasingly more visitors are travelling north to visit the Punakaiki pancake rocks and blowholes (550k visitors pa), the Ghost Road for mountain biking and trekking and the various nature and adventure tourism products and experiences as far north as Karamea, as well as into the Buller Gorge. The WCA is focussed on the northern route from Greymouth to Westport. There is a risk that this service is not focussed on the current higher travelled route from Hokitika south (or from the Glaciars north to Hokitika and across to Arthurs Pass) and is trying to change visitor flows. This change from south bound to north bound West Coast travel patterns has been occurring for some time however, and if the capacity of the glaciers gets curtailed, more visitors are likely to be interested in the product to the north. DOC is certainly looking at this trend occurring and have invested heavily in the Paparoa Trail, south of Westport to attract both a domestic and international visitor market.
- It is assumed that all of the infrastructure identified as essential within the KiwiRail Engineering Assessment Report and noted in this feasibility study, will be in place prior to the service commencing, if market demand levels are to be achieved.
- Whilst there is currently spare commercial accommodation capacity in Westport (noted as the preferred site for the WCA stabling and servicing requirements), there is limited quality commercial accommodation services available.

Current commercial accommodation occupancy rates in Westport indicate there is adequate spare capacity to support a WCA service though improvements in the quality of accommodation facilities would be required. A WCA service, however, may provide the impetus for some commercial accommodation operators to upgrade existing facilities to help meet a more discerning market.

- withheld under section 9(2)(b)(i)
- withheld under section 9(2)(b)(i)
- There is always going to be an ongoing risk of line closures due to rock wall/embankment slips and wash outs especially through environmentally challenging areas such as the Buller Gorge. Whilst mitigation measures have been identified and costed as noted in the KiwiRail Engineering Assessment Report, this may be an ongoing issue identified in any safety case assessment for the WCA service if the project moves to a more detailed business case stage.
- The proposed WCA service is unlike the existing KiwiRail tourist services; it is a service which can only work through combining the rail experience with adventure, nature and heritage-based tourism experiences on the West Coast through product packaging. It needs to be a true tourism service to be commercially viable and as such, is not an operating model KiwiRail have previously had experience with.
- There is a risk that if the Fox and Franz Josef Glaciers were both to be either closed off to walkers and only accessible by helicopter access to hover over rather than land, or significantly reduced in visitation to reduce safety and related concerns, their prominence as one of the top 3-4 related iconic visitor experiences in the South Island could be lost. Without other stronger anchor tourism products in place to continue to stimulate West Coast tourism, there is a risk that visitation to the West Coast could consolidate or even noticeably reduce. Our understanding, however, is that DOC and other parties are currently investigating ways to mitigate environmental and safety risks and impacts in the hope that sufficient quality experiences can still be offered to maintain sustainable visitor flows to the glacier region.
- There are very few larger tourism operators on the West Coast, with the resource capacity to work in true partnership with a potential KiwiRail tourist passenger service. Some are growing sustainably at 4-5% per annum but for most, it is a highly seasonal operation. KiwiRail may have few well established adventure, nature and heritage operators and other industry players to leverage off, in a way to help reduce start up risk especially.
- The opex and capex estimates provided by KiwiRail are based on a standard, rather than premium service. A “luxé” premium product has, therefore, not been investigated as part of this interim report. KiwiRail don’t yet have a premium product on any of its tourist rail services to offer a comparative perspective though we understand it is currently being investigated. It may be that a luxé product could be viable for the WCA and as per the global research undertaken, command a ticket price of 1.5 -2 times that of a standard service. This may, therefore, have a material impact on the commercial viability of a West Coast tourist rail passenger service and warrant additional investigation.

1.8. Financial Conclusions

As illustrated in the financial and economic summary tables above, the results highlight the following.

- The inability to generate a positive NPV result under any of the models and their scenarios.
- The inability to generate a positive NPV result for a tourist rail service from Hokitika to Westport primarily due to the significant additional capex required (\$91.6m) to make the Hokitika to Greymouth line fit for purpose.
- The inability of a 6-day or 7-day operation, either over 6 or 12-months, to generate a positive NPV from Greymouth to Westport partly due to the level of capex (\$45.6m) and the estimated average annual ticket revenue achieved of \$240 return (\$120 one way) along with significant OPEX costs, which creates a very modest EBITDA result at best.
- Noting that the most positive scenario is model 1 scenario 5 (12 month 7 day service from Greymouth to Westport) which does generate a positive annual EBITDA commencing at \$0.5m in year 1, \$1.2m in year 10 and \$0.8m in year 20, though it generates a negative NPV of -\$30.2m and a BCR of 0.75.
- The sensitivity analysis (Table 5) recognises the ability to generate a positive NPV if a potential 7-day operation over 12-months was offered from Greymouth to Westport, subject to:
 - Achieving a stronger ticket price (at least \$320 achieved average return and \$160 one way).
 - These financial improvements would also push the BCR far closer to 1 as noted below.

Table 5: Ticket Price Sensitivity (Model 1, Scenario 5)

\$300 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$9.8m	\$11.2m	\$13.5m	\$16.4m	\$20.0m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$2.3m	\$2.1m	\$3.7m	\$5.7m	\$4.6m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.3m	\$2.1m	\$3.7m	\$5.7m	\$4.6m
NPV		-\$560k				
BCR		0.92				
Rev per seat sold		\$161.46	\$174.39	\$192.05	\$211.55	\$233.08
EBITDA per seat sold		\$38.30	\$33.48	\$52.94	\$73.07	\$53.77

\$320 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$10.4m	\$11.9m	\$14.4m	\$17.5m	\$21.3m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$2.9m	\$2.9m	\$4.6m	\$6.7m	\$5.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.9m	\$2.9m	\$4.6m	\$6.7m	\$5.9m
NPV		\$9.3m				
BCR		0.98				
Rev per seat sold		\$171.58	\$185.34	\$204.14	\$224.90	\$247.82
EBITDA per seat sold		\$48.42	\$44.43	\$65.04	\$86.42	\$68.51

\$340 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$11.0m	\$12.6m	\$15.3m	\$18.5m	\$22.5m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$3.6m	\$3.6m	\$5.4m	\$7.8m	\$7.2m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$3.6m	\$3.6m	\$5.4m	\$7.8m	\$7.2m
NPV		\$19.2m				
BCR		1.04				
Rev per seat sold		\$181.7	\$196.3	\$216.2	\$238.3	\$262.6
EBITDA per seat sold		\$58.54	\$55.39	\$77.13	\$99.78	\$83.26

\$360 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$11.7m	\$13.3m	\$16.1m	\$19.6m	\$23.8m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$4.2m	\$4.3m	\$6.3m	\$8.8m	\$8.4m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$4.2m	\$4.3m	\$6.3m	\$8.8m	\$8.4m
NPV		\$29.1m				
BCR		1.10				
Rev per seat sold		\$191.8	\$207.3	\$228.3	\$251.6	\$277.3
EBITDA per seat sold		\$68.67	\$66.34	\$89.23	\$113.13	\$98.00

- It may be, however, that if additional wider (beyond KiwiRail) economic benefits were to be added to the cost benefit assessment, a positive BCR figure of 1 or higher, may be able to be achieved for the 7 days per week options with the lower achieved base ticket price of \$240 return (\$120 one way).
- At this stage, however, this feasibility study assessment is solely focussed on the commercial viability (or otherwise), to KiwiRail of operating a tourist passenger rail service on the West Coast and the base case fails to generate a positive NPV or a BCR of 1 or greater.

1.9. Summary Conclusions

Based on the capex and opex data and technical engineering information provided by KiwiRail for establishing a West Coast tourist passenger rail service from either Hokitika or Greymouth to Westport, and Stafford's assessment of market demand, segmented by key generating niche markets from major source destinations, a tourist rail passenger service is unable to easily generate a positive NPV or a BCR close to 1.

Visitation and associated revenue for the WCA are in line with revenue and seat utilisation rates achieved by KiwiRail on the TranzAlpine and Coastal Pacific which are existing and well-established tourist rail services.

It is important to note, however, that unlike the other tourist rail services offered by KiwiRail, this WCA service needs to be linked to tourism product (adventure, nature, heritage) on the West Coast to offer a stronger compelling tourist product with greater market appeal. It is not just about the rail journey experience. Care should therefore be taken in trying to use the TranzAlpine and Coastal Pacific current market demand levels as a check and balance against this potential West Coast tourist rail passenger service.

As noted previously, if wider economic benefits (beyond just KiwiRail) were to be included in this feasibility assessment, this may generate improved financial and economic outcomes to support a West Coast tourist passenger rail service. Balanced against this, however, are the various project risks identified which would need to be quantified as part of any stage 2 business case detailed assessment, and appropriately mitigated where possible.

2. Introduction and Context

2.1. Overview

Stafford Strategy (Stafford) was commissioned by KiwiRail to complete a feasibility study investigating the establishment of a daily tourism passenger rail service between Hokitika and Westport (on the South Island's west coast).

2.2. The Problem Definition

For KiwiRail, there really is not a problem per se, other than a desire to improve asset utilisation for the rail infrastructure currently operational on the West Coast, and its sole use for freight movements from Hokitika to Christchurch via Greymouth for milk powder and potentially garnet rock in the near future, and for coal trains from Ngakawau to Christchurch via Stillwater.

For the West Coast as an economic region, however, there is a broader problem which relates to:

- The inability to generate sufficient economic uplift to assist with ongoing social improvement requirements;
- The risk of reduction in mining activity and the lack of many alternative economic sectors to drive uplift;
- The lack of population growth and local employment; and
- The recognition by the three district councils (Buller, Grey and Westland) and the West Coast Regional Council that tourism sector growth is likely to be the best opportunity for economic improvement and sustainability.

The challenge for the West Coast is that nearly all of the tourism operators (accommodation providers, attractions and experience operators) are small to medium size businesses with a number only operating during the 6-7-month tourism season.

The exceptions to this are the Fox and Franz Josef Glaciers, which offer one of the top three iconic visitor attractions to the South Island (Milford Sound, Mount Cook/Lake Tekapo, and the Glaciers) and which generate nearly 875k visitors per annum. The challenge for these is the lack of ability to maintain access roads and supporting infrastructure and with strong DOC and community concerns over the ability of both glaciers to sustainably manage current levels of visitor flows. The glaciers, however, are also at the far southern end of the West Coast, which is a narrow long lineal region making it harder to cluster tourism products together. It is questionable in the medium-longer term if one or both of the glaciers may be closed off to visitors, other than those helicoptering to view but not landing. This would significantly alter visitor travel patterns and put greater pressure on the West Coast to find alternative major tourism products to maintain visitor flows.

To help grow and maintain the tourism sector on a sustainable but seasonal basis, the West Coast needs an “anchor product” which many of the smaller operators can partner with and leverage off. This also needs to be a commissionable tourism product, rather than a free walkway or cycleway experience if economic benefit is going to be derived.

An anchor tourism product for the West Coast could be a tourist rail service, which acts as the glue to structurally bring in the other nature and adventure tourism operators which currently mostly operate with a degree of independence. There are currently few, if any, other anchor product options for consideration. While Punakaiki Pancake Rocks and Blowholes is the next biggest visitor attraction on the West Coast (receiving over 500k visitors per annum), it is a free entry experience.

2.3. Purpose of the Feasibility

The purpose of this feasibility is to test the commercial viability of KiwiRail introducing a tourist passenger service on the West Coast, using the existing track infrastructure where this is shown to be possible, and cost-effective.

2.4. Scope

The scope of works entailed the following, taken directly from the EOI.

2.4.1. Overview

As value diminishes from traditional industries, tourism is being recognised as an important source of income for the West Coast. Investment in infrastructure and activities is required to fuel ongoing tourism growth and regional rejuvenation.

Tourism is already a contributor to the West Coast economy, with KiwiRail's TranzAlpine a key feeder service. However, the natural flow of tourism is to the south of Greymouth towards the glaciers and Queenstown beyond. A tourist rail service between Hokitika and Westport has been suggested as a way of lifting and sharing the value of tourism across the region. Passenger demand for such a service is unknown.

KiwiRail Tourism's strategy has traditionally been 'point to point' but is shifting to a strategy focused on 'packages and partnerships' to collectively enable regional growth. This feasibility study will allow KiwiRail and the other stakeholders to size the market opportunity of this route. It will also allow a wide range of interested parties to review and consider the range of packages and partnerships which would drive economic growth of Tai Poutini / West Coast.

2.4.2. Scope of services

While KiwiRail can model the direct investment and running costs, the commercial sustainability of a rail service in isolation will be more difficult to justify than a service integrated with a wider tourism, infrastructure and transport networks.

KiwiRail is looking for an experienced partner to help deliver a robust feasibility study to the Ministry of Business, Innovation and Employment in accordance within agreed timelines.

A consultative approach will be necessary with a wide group of stakeholders. Alignment with stakeholder objectives and other PGF initiatives is necessary for the long-term sustainability of such a service. The key stakeholders will be identified as part of this project, but should consider:

- West Coast Tourism and local development agencies
- Air New Zealand
- Department of Conservation
- Christchurch Airport
- InterCity
- Iwi - Ngāi Tahu and/or Ngāti Waewae
- Tourism New Zealand and/or Tourism Industry Aotearoa

Along with tourism aspects, KiwiRail will have significant input into the establishment and ongoing costs for infrastructure, assets, promotion and delivery of the rail service under consideration.

2.5. Methodology

The methodology established by [REDACTED] and agreed to by KiwiRail was very detailed, and for the purposes of brevity only the stages have been noted below to reflect work undertaken:

- Project inception and stakeholder consultation
- Literature review
- Visitor flows to West Coast and surrounding areas
- Visitor profiles, length of stay and spend patterns
- Synthesis of visitor market analysis and industry workshops
- Determination of tourism barriers and challenges
- Top line product gap analysis by sectoral types
- Review of rail track experience (high rail) and KiwiRail West Coast operational discussions
- Integration of KiwiRail operational cost data and market demand material for the CP, TranzAlpine and the NE;
- Reviewing and integrating the KiwiRail internal cash flow modelling
- Development of cost benefit model to combine supply and demand factors
- Incorporating the KiwiRail engineering report findings and rail line cost impacts (Stillwater to Ngakawau, Greymouth to Stillwater, Hokitika to Greymouth)
- Sensitivity analysis to illustrate changes in seat utilisation occupancy rates
- Assessment of ticketing prices
- **Synthesis of key findings into a “stop-go” Report to determine if the model is commercially viable for KiwiRail based on cost benefit findings**
- If the ROI is viewed by KiwiRail as acceptable, moving to next stage including full product gap analysis
- Priorities for broader infrastructure investment which could include commercial accommodation, transport options, attractions and experiences etc. to help offer stronger partnership options for KiwiRail
- Identify scope for rail-based visitor attractions and partnerships with industry
- Determination of broader economic benefits
- Development of draft full feasibility study synthesising the findings from the other stages
- KiwiRail workshop to discuss draft final recommendations
- Finalisation of the Feasibility Study.

2.6. About KiwiRail

KiwiRail is a state-owned enterprise which owns and operates New Zealand’s rail transportation network and the between-island ferry service. KiwiRail is in the business of operating and optimising public transportation and supply chain networks to enable New Zealand’s economic growth.

KiwiRail undertakes business in the following areas:

- **Logistics:** KiwiRail is a logistics provider to customers who use its rail freight and ferry services.
- **Shipping:** KiwiRail is an owner and operator of shipping services operating under the Interislander brand.
- **Tourism Experiences:** KiwiRail under the brand ‘Great Journeys of New Zealand’ provides tourism experiences by rail and sea, utilising three long-distance passenger trains and inter-island ferry services between Wellington and Picton.
- **Public Transport:** KiwiRail operates the Capital Connection, a limited passenger service running between Palmerston North and Wellington on weekdays. KiwiRail also controls the movements of passenger trains in

Auckland and Wellington which are operated by Transdev Wellington and Transdev Auckland respectively on contract to Wellington Greater Regional Council and Auckland Transport respectively.

- **Infrastructure:** KiwiRail is an infrastructure provider in the form of the 4000km New Zealand rail network including tunnels which KiwiRail operates, maintains and improves.
- **Rolling Stock:** KiwiRail is a rolling stock owner, manufacturer, maintainer and refurbisher, responsible for more than 190 mainline locomotives, more than 4,700 freight wagons and approximately 60 passenger carriages.
- **Property:** KiwiRail's property group leases, manages and develops a property portfolio.

2.7. Existing Tourism Services

KiwiRail already operates a number of existing tourism rail services in New Zealand, marketed under the brand "The Great Journeys of New Zealand". These journeys include:

- The **TranzAlpine:** The TranzAlpine service runs return daily services between Christchurch and Greymouth. It covers 223km one-way and takes just under five hours in each direction. The service runs through the Canterbury Plains and the Southern Alps.
- The **Coastal Pacific:** The Coastal Pacific service runs daily from Christchurch to Picton and return throughout the summer season only. The service was halted in 2016 following the Kaikoura earthquakes but returned in December 2018.
- The **Northern Explorer:** The Northern Explorer travels between Auckland and Wellington, stopping at Palmerston North, Ohakune, National Park and Hamilton. The service travels through the Tongariro National Park and Raurimu Spiral. The service is New Zealand's longest running passenger service. It offers both a tourist service and a public transport service which competes with coach services and flights.

In addition, KiwiRail also operates the **Interislander** ferry which sails between Wellington (North Island) and Picton (South Island). The service is known as one of the most beautiful ferry journeys in the world and one of New Zealand's most iconic tourism experiences, with consistently high customer service rankings.

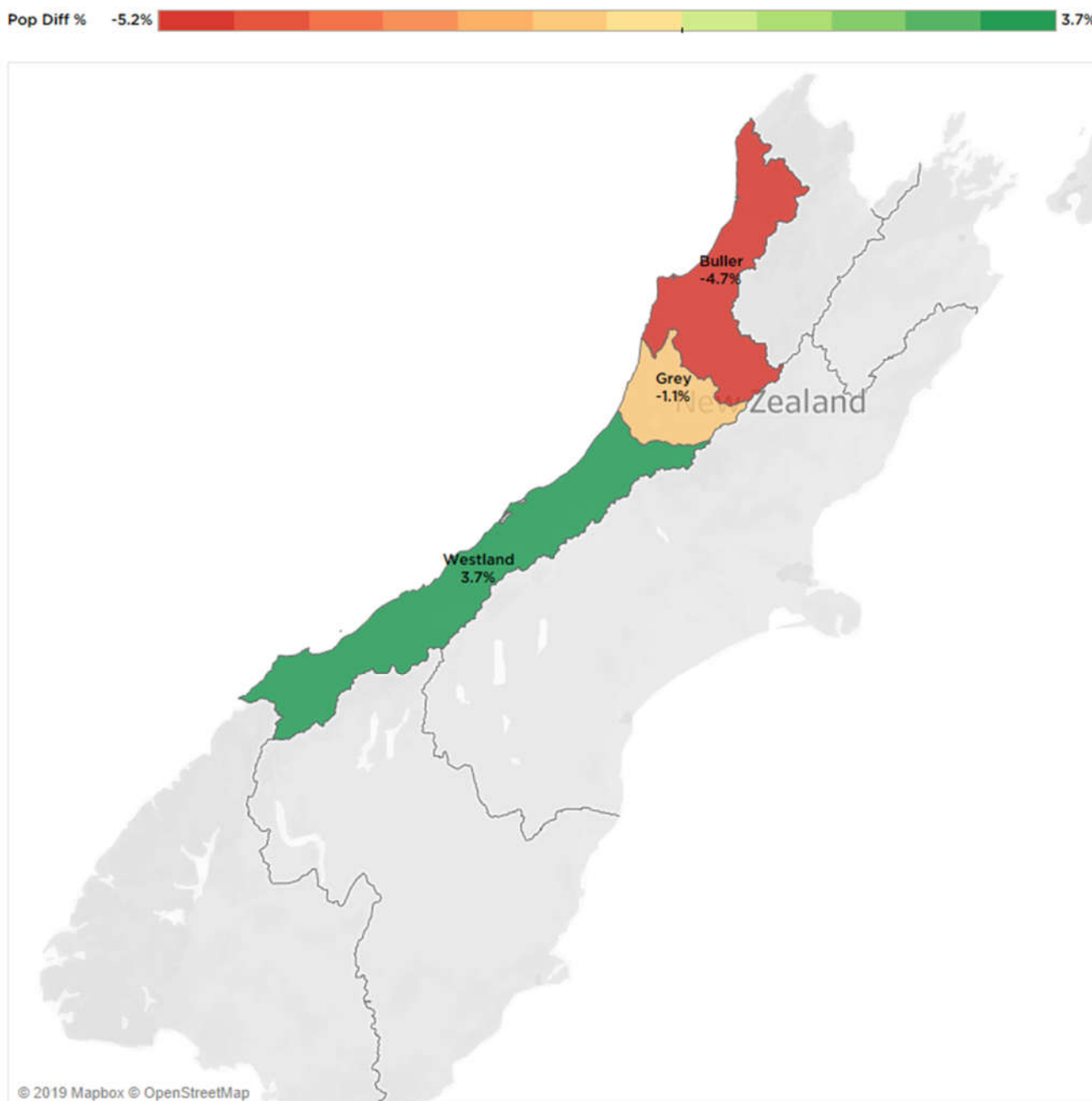
3. About the West Coast

3.1. About the West Coast

The area covered by the West Coast is geographically large and lineal, stretching over 32,000 square kilometres and encompassing three territorial authorities (Councils) including Buller District, Grey District and Westland District (see Figure 2) along with the West Coast Regional Council.

It is sparsely populated with 32,590 people, as of 2018, and has experienced a declining population base, falling by 1% (330 residents) between 2013 and 2018. The importance of the visitor economy is therefore significant in helping to make tourism ventures viable, along with the broader regional economy through the supply of goods and services.

Figure 2: West Coast region population change (2013-2018)²



² Subnational population estimates (TA, community board), by age and sex, at 30 June 2013-18 (2018 boundaries)

3.2. Tourism in the West Coast

Figure 3 which follows provides a summary of visitation to the West Coast region, summarised according to TLA. It demonstrates the following.

- Westland District receives, by far, the largest number of visitors, totalling over 1.8m in 2018. This visitation is driven by the large number of visitors who travel to Franz and Fox Glaciers, situated to the south of Westland District. The Glaciers received over 850k visitors each year.
- Domestic day visitors are the largest market for the combined region, comprising 32% (1.04m trips). This is followed by international day visitors (24% or 795k visitors), international overnight (24% or 773k visitors) and domestic overnight visitors (20% or 664k visitors). While the day trip market is not discounted, there is a desire by each of the Councils in the region to grow the share of overnight visitation to the region. This is because of the higher-yielding nature of overnight markets through spend on accommodation, additional food and beverage, transport and experiences.
- The predominant purpose of travel for visitors to each TLA is for a holiday, comprising 72% of trips to Westland District, 61% to Buller District and 60% to Grey District. VFR is the second most common motivator of travel.

Figure 4 - Figure 6 provides a comparative assessment of trips taken to each TLA within the South Island. This includes domestic and international, day and overnight trips. Key take-outs from the assessment include the following.

- Westland TLA, in particular, ranks strongly in terms of total trips, receiving the 7th largest number of visitors, behind Christchurch, Queenstown, Dunedin, Southland (Fiordland), Mackenzie (Mt Cook and Lake Tekapo) and Timaru.
- When looking at holiday visitation alone (as a purpose of visit), Westland ranks 5th, demonstrating its role as a key tourism drawcard in the South Island.
- The West Coast's close proximity to Queenstown, which is a major visitor-generating market, is highly beneficial and provides strong leverage opportunities. The Glaciers already receive a large proportion of their visitation based on day trips out of Queenstown³. There is a desire, however, to attract a greater proportion of overnight visitors to stay within the West Coast region and to encourage visitation by these visitors around the West Coast, rather than focusing primarily on the Glaciers.
- In total, the South Island generates an estimated 21.7m unique visitors (including domestic and international day trip and overnight visitors).
- Queenstown and Christchurch are the main points of access into the South Island and play important feeder roles.

Importantly, while actual seat utilisation (occupancy levels) is a key financial determinant for KiwiRail on all of its tourism services, for forecasting visitor growth and correlating visitor demand, a key metric should be actual visitor market penetration. As shown in this Report, the actual market penetration levels applied are very low, reflecting the potential for ongoing visitor growth and seat utilisation rates, and the opportunity to market into niche areas.

For many tourism operators within the South Island, the major changes which are reflected in hub and spoke travel into Queenstown especially by leisure markets, and point to point travel especially between Queenstown and Christchurch, highlight an opportunity for those able to capitalise on product which:

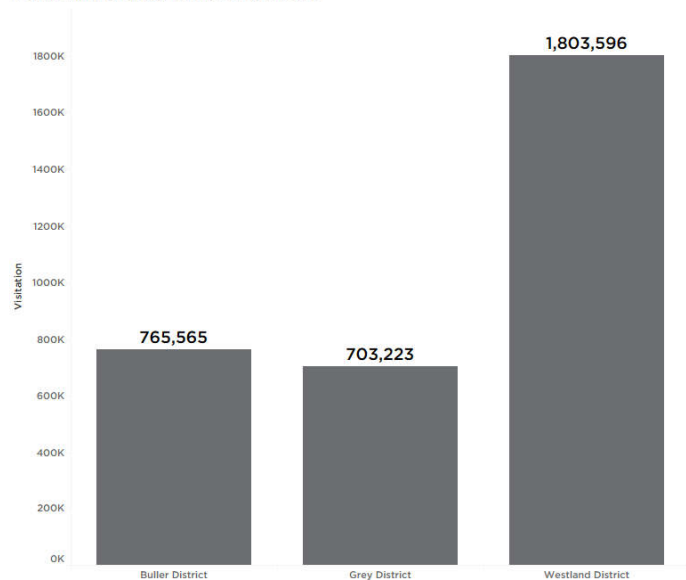
- Can either be undertaken as a spoke from the Queenstown hub as a 1-2-day overnight experience; and or
- As a tourism experience which can be offered en route between Queenstown and Christchurch or vice versa, either via the West Coast, through the Mackenzie country (Aoraki and Tekapo) or even via Dunedin to a much lesser extent.

The growth of these hub and spokes and point to point visitor journeys, come at the expense of the traditional longer touring circuits which combined far more visits to different locations especially throughout the South Island. The recent visitor data created for the South Island Destination Management Plan has provided empirical evidence of this significant change in visitor journey patterns, especially for leisure visitors.

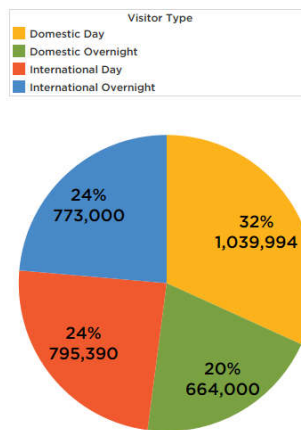
³ Based on discussions with industry operators

Figure 3: Summary of visitation to West Coast TLAs (2018)⁴

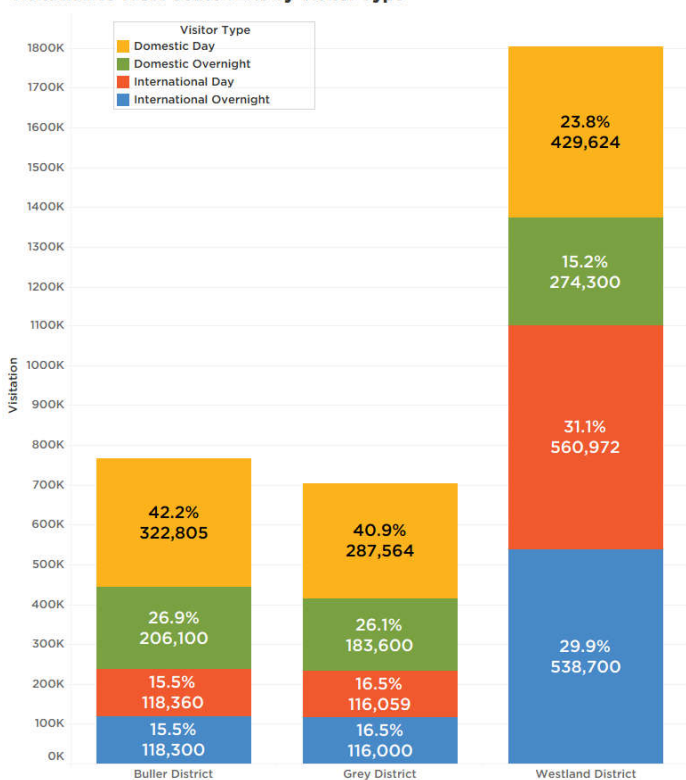
Total Visitation to West Coast TLAs



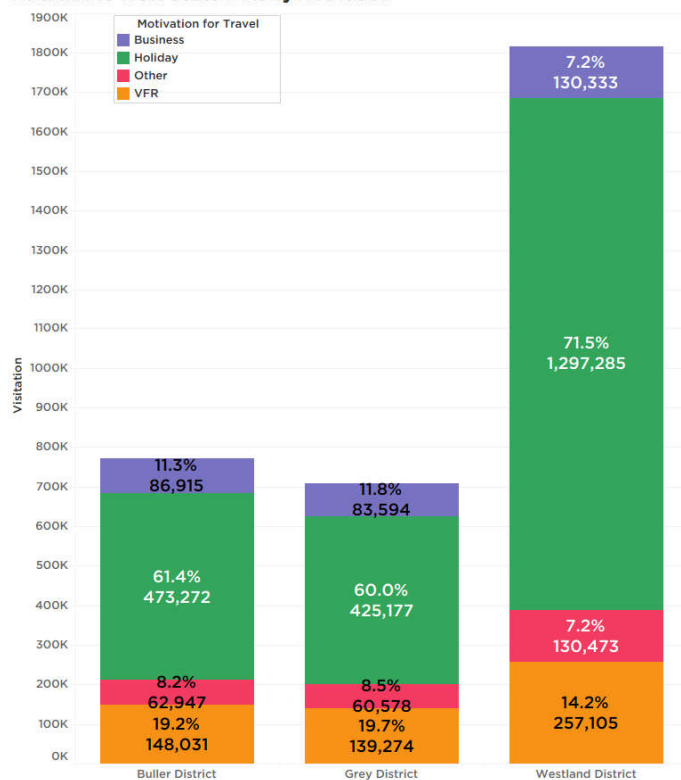
Total Visitation to West Coast TLAs



Visitation to West Coast TLAs by Visitor Type



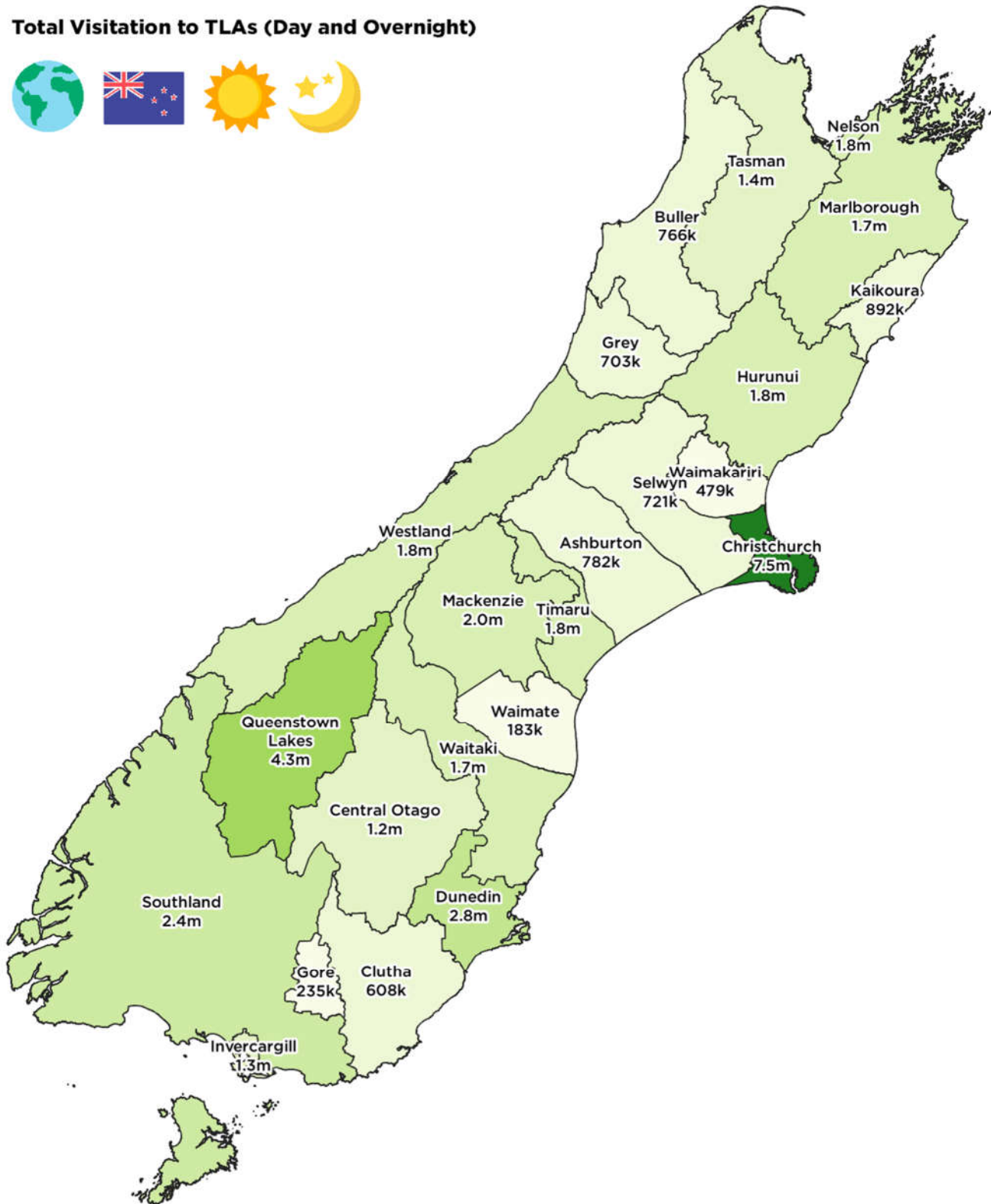
Visitation to West Coast TLAs by Motivation



⁴ International overnight numbers are based on the IVS. Domestic overnight numbers are based on a special data collection compiled for the South Island DMP. This is based on a major survey of over 4,000 AA members.

Figure 4: Total trips to South Island TLAs – all purposes of visit (2018)⁵

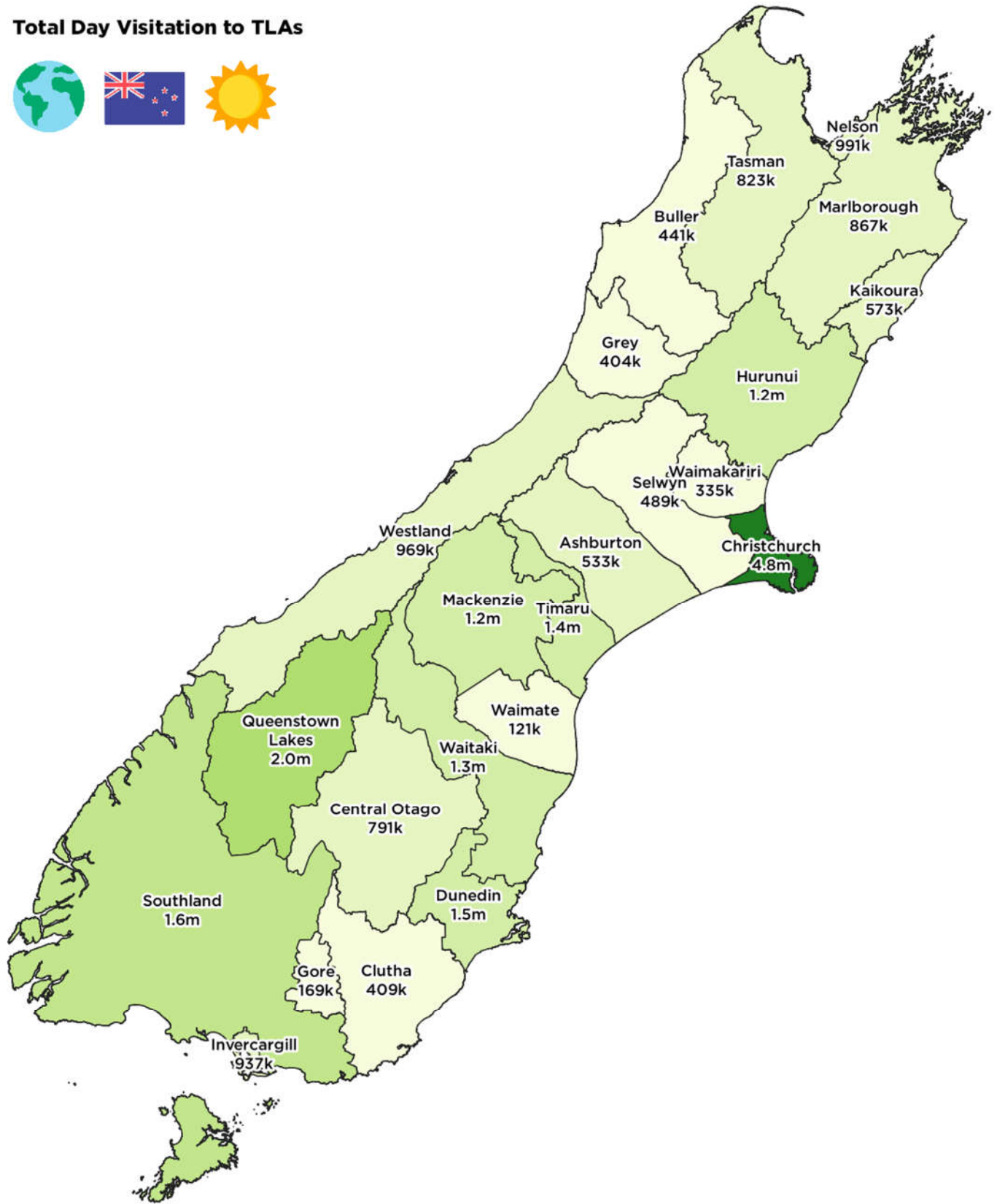
Total Visitation to TLAs (Day and Overnight)



⁵ International overnight numbers are based on the IVS. Domestic overnight numbers are based on a special data collection compiled for the South Island DMP. This is based on a major survey of over 4,000 AA members.

Figure 5: Total day trips to South Island TLAs (2018)⁶

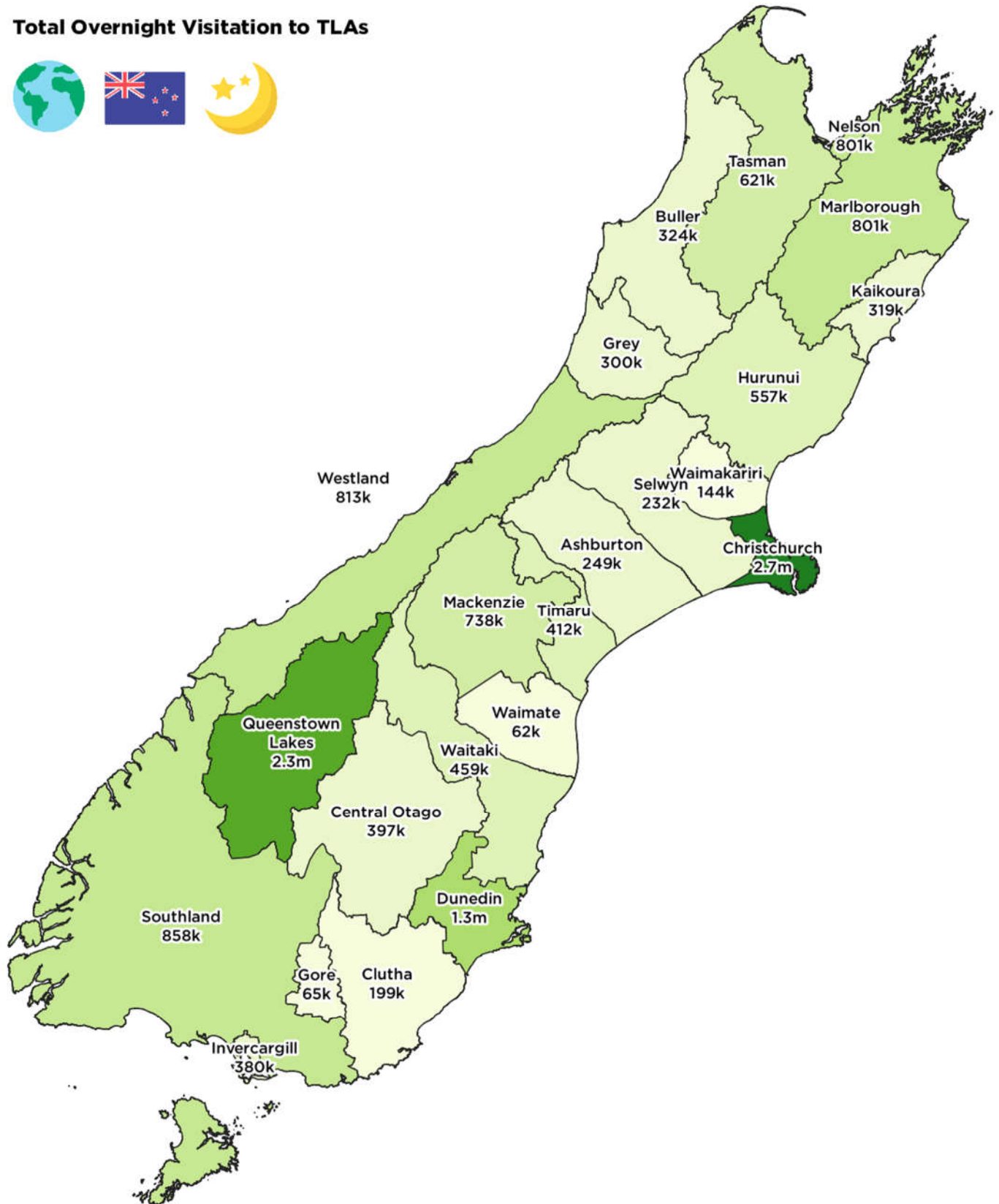
Total Day Visitation to TLAs



⁶ International overnight numbers are based on the IVS. Domestic overnight numbers are based on a special data collection compiled for the South Island DMP. This is based on a major survey of over 4,000 AA members.

Figure 6: Total overnight trips to South Island TLAs (2018)⁷

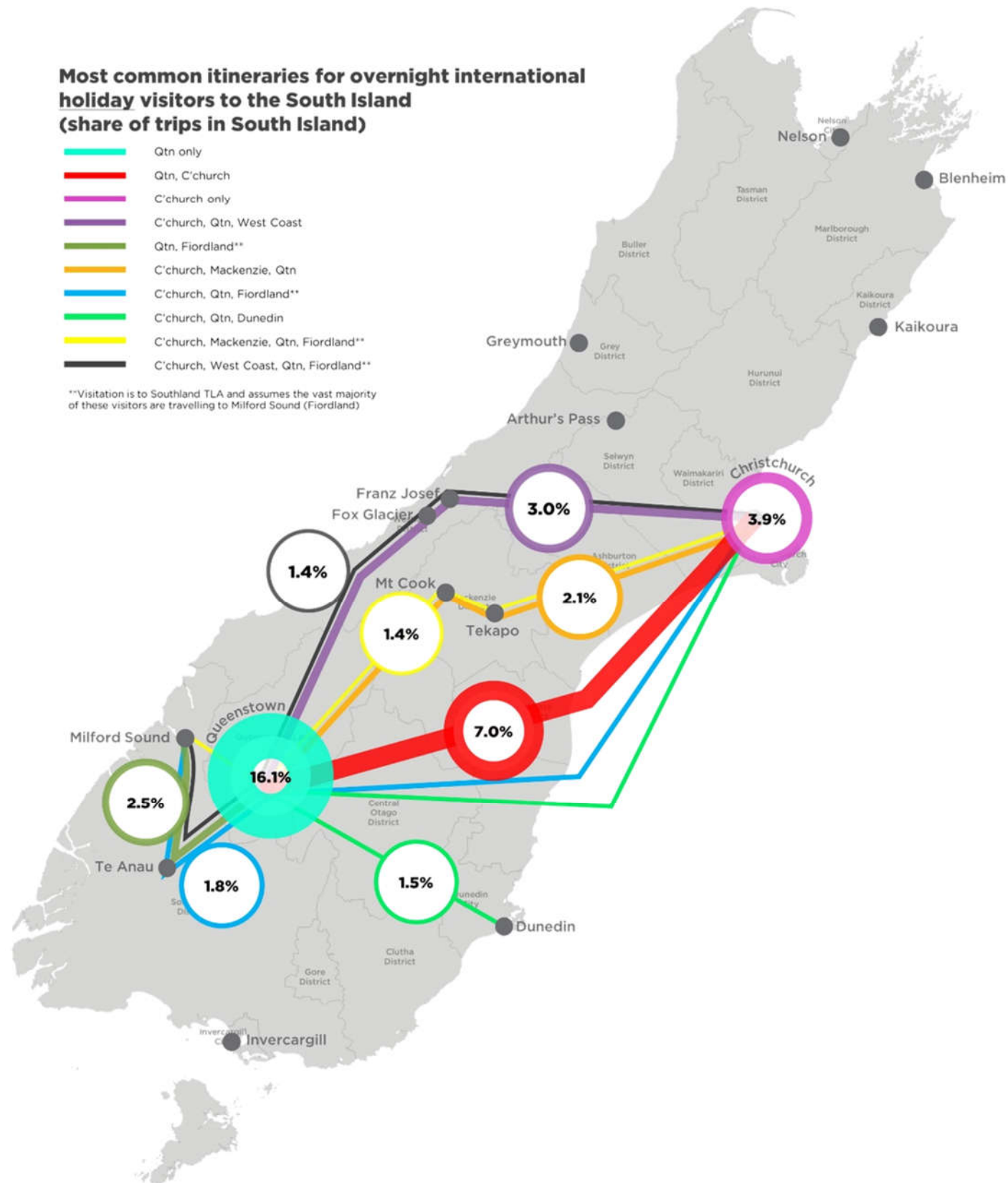
Total Overnight Visitation to TLAs



⁷ International overnight numbers are based on the IVS. Domestic overnight numbers are based on a special data collection compiled for the South Island DMP. This is based on a major survey of over 4,000 AA members.

Figure 7 below highlights the significance of the major international holiday visitor flows in the South Island and the importance of both the West Coast and the Mt Cook/Tekapo routes to link Christchurch and Queenstown. The diagram doesn't follow main roads so is for illustrative purposes only.

Figure 7: South Island Visitor Flows (international holiday visitors)



3.3. Tourism Audit

This section will be completed if a decision is made by KiwiRail to go beyond the stop/go point of this feasibility study.

3.3.1. Accommodation

This will include all forms of commercial accommodation to help illustrate where overnight capacity exists, in what form of accommodation etc.

3.3.2. Experiences/Attractions

The audit of experiences and attractions will provide an illustration of where these are located, which ones are free and which ones are paid and allowing a determination of what product could potentially be clustered and packaged together.

3.4. Product Gap Analysis

This section will be completed if a decision is made by KiwiRail to go beyond the stop/go point of this feasibility study.

3.4.1. KiwiRail Related Tourism Product Gaps

This section would likely include the following.

- Various options including train one way and self-drive, coach or tour operator back.
- Linking KiwiRail history in the West Coast to proposed regional all-weather visitor attractions and experiences of a heritage historic nature.
- Options for dropping off and picking up adventure and nature visitors at Reefton Station noting the road connection as well to wider regional attractions such as the 49-minute drive to Maruia Hot Springs and Thermal Resort at Lewis Pass, along with the nearby Buller Gorge for cycling, rafting etc.
- As well as other product options.

3.4.2. Broader West Coast Tourism Product Gaps

This section would likely include the following.

- Options for partnering with Ngāti Waewae on their proposed 4 major all-weather visitor experiences planned for locations such as Punakaiki, Greymouth, Hokitika and Westport and which would offer an additional important all-year-round visitor experience.
- Potential for a new mid-range hotel or lodge style development in Westport if the option for overnight train stays is adopted.
- Expansion of existing nature and adventure-based visitor attractions and experiences who have indicated a desire to take on more full time and seasonal staff if visitor numbers can be grown.
- The impact from the opening of the Paparoa Track which will be a designated DOC Great Walk and will offer 2-3-day walking and mountain biking. The track opens in late 2019 with the 3 major huts already fully booked for the 2019-2020 summer season.
- Expansion of retail, food and beverage and hospitality services in various locations to take advantage of visitor growth trends;
- Impacts from increases in tour and scheduled passenger bus services moving people both north to Westport and Karamea, and south.
- Expansion of shoulder season periods, especially September-October and April-May due to all-year-round packaged product options.

4. Comparative Assessment

As part of the market demand assessment for the WCA, comparative analysis (see Table 6) has been undertaken to determine:

- global market trends for rail experiences;
- competitive product where identified; and
- specific points of difference which other rail journeys are creating.

4.1.1. Key Findings

The comparative analysis undertaken has highlighted some common success factors for tourism-related rail journeys being:

- the market is after “luxé” experiences, with many of the globally renowned services adding these recently;
- premium tickets tend to be 1.5-2 times the price of a standard ticket;
- packaged product is essential (pre and post, experiences, tours and accommodation) so it’s not necessarily just about the train journey;
- many services stop for signature photo moments;
- GPS guided device tours are becoming more prevalent;
- outdoor viewing cars are common and well-liked; and
- TA and Coastal Pacific rate globally among the best day scenic train excursions.

The fact that KiwiRail’s existing product offering is rated highly is a useful indicator of the standard required should a WCA service be deemed viable. What has not been included, at this stage, is the introduction of a premium carriage experience, noting that the existing rail journeys KiwiRail offers are all quality standard services.

In terms of comparative pricing, the following is noted.

- The average ticket price (converted to NZD⁸) per kilometre:
 - for a standard fare is \$0.84 p/km one way and \$0.86 p/km return; and
 - for a premium fare \$1.58 per/km one way and \$1.50 per/km return.
- KiwiRail’s existing services have an average standard (as no premium services are currently offered) ticket price per kilometre of: \$0.46 p/km one way and \$0.46 p/km return on the Coastal Pacific; and \$0.80 p/km one way and \$0.80 p/km return on the TranzAlpine (the same rate is achieved for one way and return because currently there are no savings offered for return tickets on the services). This demonstrates that:
 - the pricing p/km for standard tickets on the TranzAlpine is on par with other similar high-quality day tourist rail services elsewhere/globally; and
 - the pricing p/km for the Coastal Pacific is almost half other similar experiences.
- The WCA has a journey length of 149 km (under Model 1, Greymouth to Westport). To achieve pricing rates in line with global per kilometre averages, the ticket pricing would need to be approximately \$120 one way and \$240 return, equating to a p/km rate of \$0.81 p/km one way and \$0.81 p/km return. This is also in line with the TranzAlpine.

⁸ Based on conversion rates as at July 5, 2019

Table 6: Comparative Assessment

Name	City, Country	Length, Time	Service	Cost Adult - Single NZD p/km	Cost Adult - Return NZD p/km	Cost Adult Single - Premium NZD p/km	Cost Adult Return - Premium NZD p/km	Cost Adult - Single	Cost Adult - Return	Cost Adult Single - Premium	Cost Adult Return - Premium	Features
Kuranda scenic railway	Cairns, Australia	37km, 120mins	Daily (1 service)	\$1.42	\$1.08	\$2.81	\$2.47	NZ\$52 /AU\$50	NZ\$80 /AU\$76	NZ\$104 /AU\$99	NZ\$183 /AU\$174	Links Cairns, Queensland's gateway to the Great Barrier Reef
Le Petit Train Jaune	Villefranche-de-Conflen, France	64km, 140mins	Daily	\$0.30	-	-	-	NZ\$20 /€13	-	-	-	Electric line, links to ski station, open cart
Hello Kitty Train	Osaka, Japan	km, 471mins	Daily	-	-	-	-	NZ\$ /¥19000	-	-	-	Bullet train, the first carriage of the train is a temple to all things Hello Kitty, with a space decorated with the famous cat and her friends, merchandise and a photo booth for taking the ultimate Hello Kitty selfie.
Coastal Pacific	Christchurch, New Zealand	348km, 300mins	October - April	\$0.46	\$0.46	-	-	NZ\$159	NZ\$318			Connects with Interislander ferry in Wellington & the Northern Explorer
TranzAlpine	Christchurch, New Zealand	223km, 270mins	Daily	\$0.80	\$0.80	-	-	NZ\$179	NZ\$358			Brief photo stop in Arthur's Pass. Provides access (via coach) to Franz and Fox Glaciers.
The Bergensbanen	Oslo, Norway	496km, 390mins		\$0.27	\$0.27	\$0.30	\$0.27	NZ\$132 /NOK779	NZ\$265 /NOK1558	NZ\$149 /NOK879	NZ\$265 /NOK1558	
Flam Railway	Flam, Norway	20km, 60mins	Daily	-	\$2.51	-	-		NZ\$100 /NOK590	-	-	Allows bike transfers, 20 tunnels can combined with The Bergen (Oslo) line, can package with activities and accommodation, has been called the most beautiful train journey in the world, It's also one of the steepest train rides, taking guests nearly 3,000 feet above sea level in just one hour.
360° Machu Picchu Train	Machu Piccu, Peru	115km, 210mins	Daily	\$1.37	\$1.30	\$2.74	\$2.61	NZ\$158 /US\$105	NZ\$299 /US\$199	NZ\$315 /US\$210	NZ\$600 /US\$400	6 rail cars, outdoor viewing platform, floor to ceiling windows, GPS-activated iPhone audio guide narrates the journey from Poroy Station in Cusco to Machu Picchu, giving passengers insights into their surroundings and the ancient Inca civilization
Iron Road to the Isles	Ben Nevis, Scotland	266km, mins		\$0.26	\$0.13	-	-	NZ\$68 /£36	NZ\$68 /£60	-	-	Links with ferries over the sea to Skye
Train Malmo Copenhagen	Malmo, Sweden	28km, 39mins	Daily (76 services)	\$1.65	\$1.65	\$2.44	\$2.44	NZ\$46	NZ\$92	NZ\$68	NZ\$136	16-km-long bridge
Moriarty Express	Meiringen, Switzerland	km, mins	April-October	-	-	-	-	NZ\$45 /£24	-	-	-	Travel one way by paddle-steamer
Bernina Express	Chur, Switzerland	122km, 240mins		\$0.78	\$0.78	\$1.38	\$1.38	NZ\$96 /CHF63	NZ\$192 /CHF126	NZ\$169 /CHF111	NZ\$337 /CHF222	55 tunnels; 196 bridges & viaducts. Trains run in both directions, from Chur, Davos, or St. Moritz in Switzerland to Tirano in Italy. There are 25 stops along the route.

Name	City, Country	Length, Time	Service	Cost Adult - Single NZD p/km	Cost Adult - Return NZD p/km	Cost Adult Single - Premium NZD p/km	Cost Adult Return - Premium NZD p/km	Cost Adult - Single	Cost Adult - Return	Cost Adult Single - Premium	Cost Adult Return - Premium	Features
Glacier Express	Zermatt, Switzerland	289km, 470mins	Daily (7 services)	\$0.80	\$0.80	\$1.41	\$1.41	NZ\$231 /€136	NZ\$461 /€272	NZ\$407 /€240	NZ\$814 /€480	191 tunnels, upmarket experience. One Glacier Express a day in each direction between St Moritz and Zermatt will include the new coach for just 20 people. In addition to enjoying the scenery through the panoramic windows, passengers will have a five-course lunch of regional and seasonal dishes, including wine and an aperitif and canapés during the afternoon. 91 tunnels and across 291 bridges
Denali Star, Alaska Railroad	Anchorage (Alaska), USA	572km, 720mins	May - September (Daily)	\$0.40	\$0.32	\$0.79	\$0.79	NZ\$228 /CAD\$199	NZ\$366 /CAD\$320	NZ\$452 /CAD\$395	NZ\$904 /CAD\$790	Enjoy sights of the train's namesake peak: Denali, the tallest mountain in North America, links with other rail experiences
Coastal Classic, Alaska Railroad	Anchorage (Alaska), USA	183km, 240mins	May - September (Daily)	\$2.25	\$0.55	\$0.69	\$0.68	NZ\$412 /CAD\$360	NZ\$200 /CAD\$175	NZ\$126 /CAD\$110	NZ\$249 /CAD\$218	Glass dome ceilings, outdoor viewing platforms, a variety of tours connect with the experience, A seven-hour stopover near Kenai Fjords National Park enables travellers to explore at their leisure, even take a park ranger narrated cruise and dine on a delicious prime rib buffet, before settling in for an evening return to Anchorage
Grand Canyon Railway	Arizona, USA	104km, 120mins	Daily	\$0.59	\$0.59	\$1.63	\$1.63	NZ\$62 /US\$41	NZ\$123 /US\$82	NZ\$170 /US\$113	NZ\$339 /US\$226	Various classes including a luxury dome class and an outdoor lounge class, the journey takes just over two hours one-way and the train disembarks in front of the historic El Tovar Hotel. On the return, plan on cowboys, shoot-outs, sing-alongs and, of course, all the majestic scenery, from wide-open prairies to ponderosa pine forests, you care to take in.
Napa Valley Wine Train	California, USA	57km, 180mins	Daily	-	\$1.70	-	\$3.01	-	NZ\$194 /US\$129	-	NZ\$344 /US\$229	Stops for tastings at vineyards and includes lunch or dinner on board
Conway Scenic Railroad	New Hampshire, USA	88km, 330mins	Seasonal	-	\$0.51	-	\$0.89	-	NZ\$90 /US\$60	-	NZ\$156 /US\$104	-
Jacobite Steam Train	Fort William, USA	135km, 65mins	April - October	\$0.45	\$0.27	-	\$0.42	NZ\$60 /€32	NZ\$72 /€38	-	NZ\$114 /€60	Harry Potter train, crosses the famed Glenfinnan Viaduct, the train pauses for photos of the tremendously scenic views. Allows 90 minutes to explore Mallaig and have lunch before chugging back to Fort William.
Average (NZD)	-	-	-	\$0.84	\$0.86	\$1.58	\$1.50	NZ\$122	NZ\$205	NZ\$218	NZ\$370	-

5. Challenges and Issues

The following offers a variety of issues and possible challenges for KiwiRail in the assessment of the viability of a tourist passenger service for the West Coast, some direct and others are indirect. These are not provided in any priority order:

5.1.1. Marketing Related

- With the exception of a few medium-sized hotels in Greymouth, and the visitation levels of over 850k pa to Fox and Franz Josef Glaciers, most existing tourism operations on the West Coast would be classified as smaller to medium-sized tourism enterprises with limited marketing spend. There are a small number of medium-sized tourism operations to initially leverage off for KiwiRail.
- While visitation to Punakaiki blowholes and pancake rocks is estimated at 600k, it is a free entry experience with the site managed by DOC. Finding ways to package this up with a KiwiRail experience is challenging as tour operators and wholesalers can't generate commission fees from this.
- While the current estimated visitor flows to the West Coast are seen to reflect 60% heading south from Greymouth or Hokitika to the glaciers and Haast, there is a need for more higher profile tourism product to actively encourage greater visitor movements north of Greymouth to Westport and potentially up to Karamea.
- With a low population base (circa 32k) and minimal growth in most locations, the West Coast is heavily reliant on an inbound visitor market (both domestic and international) to drive sustainable tourism product and the visitor economy.
- Resources to market West Coast tourism product are limited, and heavily reliant on support from central government and key government agencies to drive promotional campaigns.
- Seasonality impacts the visitor economy heavily, with a robust 6-month season, but a very quiet 4-month low season and slowly growing shoulder months.

5.1.2. Development and Infrastructure Related

- The West Coast roading and supporting infrastructure is regularly impacted by landslips, flooding and road closures.
- The Buller Gorge rail corridor also experiences landslides and rockfalls which stop rail use for periods of time.
- Much of the actual rail infrastructure on the West Coast is class C or B rail line; only the Midland Line from Greymouth to Stillwater is class A and is that part of the West Coast rail infrastructure used by the TA. The net effect appears to be regular and costly track maintenance work requirements to class B and C rail lines in particular.
- The quality of the bulk of the rail track infrastructure necessitates slower train speeds. Upgrades to allow a WCA service to travel up to 70 km p/hr through much of the proposed journey is estimated to cost an additional \$5m for culvert upgrades alone.
- While much of the engineering improvements noted in the KiwiRail engineering report relate to introducing a passenger service, slope and embankment work to increase the reliability of services especially through the Buller Gorge would have application and benefit for the regular coal freight trains which already run this route from Ngakawau to Stillwater.
- The engineering report covers the potential to upgrade and improve stations and platforms, especially from Stillwater through to Westport. The heritage nature of stations especially and requirements to apparently retain and restore heritage features introduces higher costs for capex and opex.
- Where the rail corridor runs parallel to a road, accessing the train in case of breakdowns is possible. Where the rail corridor enters the Buller Gorge, there is no parallel accessible roadway or easy mechanism to get passengers off the train in case of an emergency.
- KiwiRail notes that if this feasibility study passes this stop/go point and moves into a more detailed stage of analysis and assessment, a detailed safety case would need to be undertaken. This may necessitate additional capex and opex requirements which could sufficiently reduce financial and economic returns to generate a negative NPV result and EBITDA.

5.1.3. Broader West Coast Related

- While there are new tourism products appearing on the West Coast, there are elements of the tourism product base which are now appearing tired and in need of upgrades or replacement. This particularly includes some commercial accommodation facilities.
- The West Coast is noted as an economically challenged region (a Surge Region) in New Zealand and heavily reliant on Central Government for development funding assistance. There are 6 Surge Regions noted in New Zealand challenged by social and economic disadvantage.
- There is limited local capital investment for new tourism ventures and strong seasonality impacts reduce interest from existing tourism operators to upgrade existing facilities in many locations.
- There is a lack of connectivity between major transport modes and minimal synergy to support intermodal transport options. Flights ex Hokitika to Christchurch are heavily booked outbound by locals but very limited return seat bookings occur into the region. There is no airport operating at Greymouth to link to the TranzAlpine as a major transport junction.

5.1.4. Other Challenges and Issues

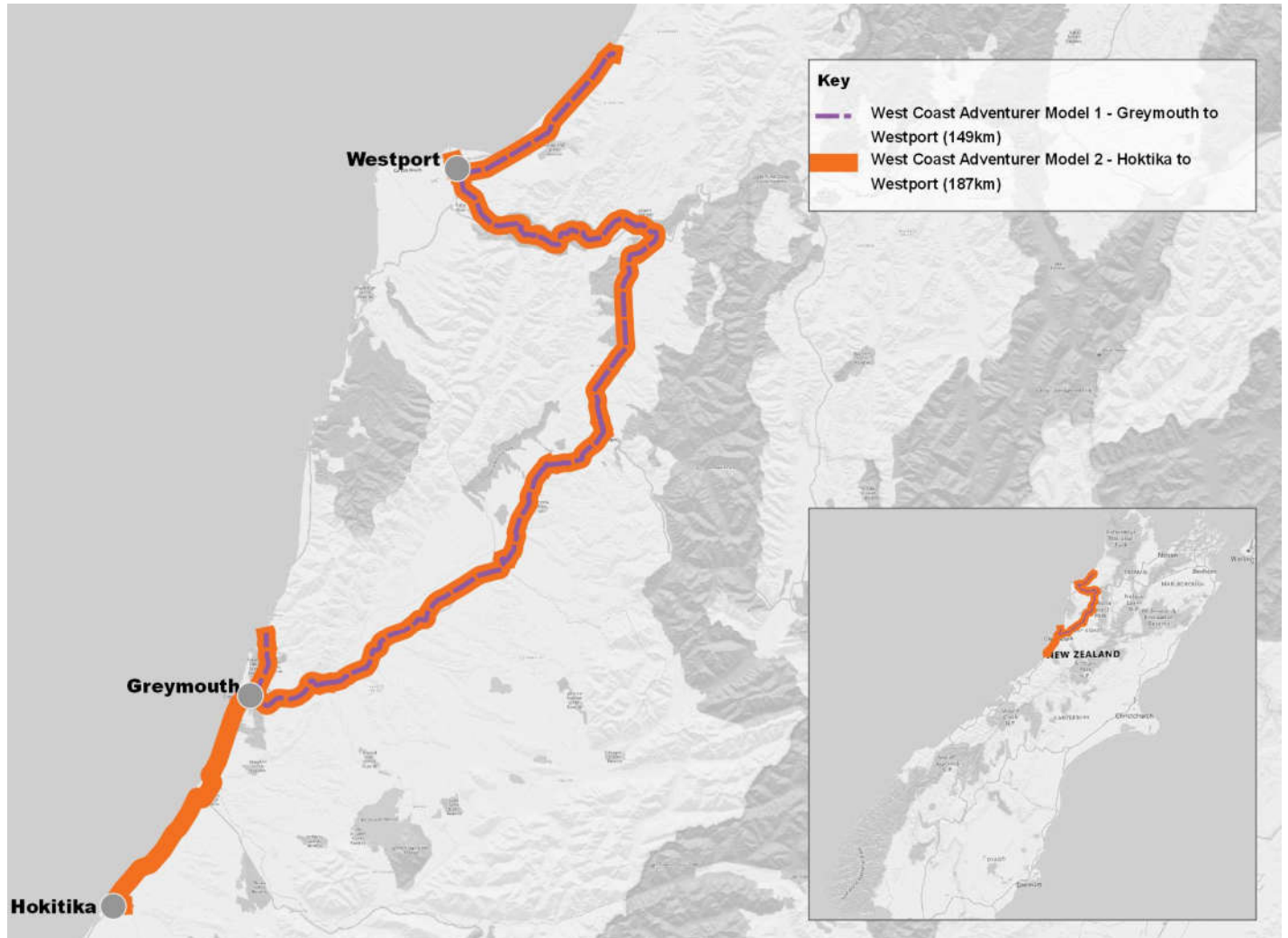
- The region has a very small population base (32,000 residents) yet is supported by four councils, three district councils and one regional council.
- The new DOC Paparoa National Park Track is expected to be operational by late 2019 and we note that hut bookings are now fully subscribed for the summer 2019-2020 season. The ability to link in commissionable product options in and around the Conservation Estate for guiding experiences for walkers and mountain bikers, and mini-bus transfers to/from Westport particularly, need to be offered.
- The implications of visitor flows into the West Coast if the glacier experience gets curtailed or removed, needs to be assessed. While there is expected to be strong industry resistance to limit visitor flows to the glaciers, the longer-term sustainability issues centred on road closures and visitor safety will ultimately need to be addressed.
- The importance of new anchor attractions and experiences for the West Coast will grow if there are concerns (small or large) over the ability to drive current visitation levels into the glaciers. Other than the proposed 4 unique site attractions which Ngāti Waewae are driving as new visitor experiences on the West Coast, with proposed funding support from MBIE, the adventure and nature-based products from Karamea in the north to the gold mine tours closer to Hokitika in the south and rafting, mountain biking, caving, swing bridges and jet boating on the Buller Gorge in between, there is a need for a major operator to link the various nature and adventure operators in particular together.

6. The Models and Scenarios Considered

This Feasibility Study has assessed two primary models (see Figure 8):

- Model 1: a return service running between Greymouth and Westport (blue line) which extends 149 km; and
- Model 2: a return service running between Hokitika and Westport (orange line) which runs 187 km.

Figure 8: The Models Considered



Across these two models, a variety of operational scenarios were assessed. Table 7 provides a summary of these. These scenarios include a 6-day per week operation (allowing 1 day for maintenance) across 6-months or across a full year as well as a 7-day per week operation (which would require maintenance be undertaken during evenings) across 6-months or a full year. This results in the maximum seats possible per annum varying from 58,968 seats in the 6-day, 6-month scenario (Scenario 2) to 137,592 seats possible in the 7-day, 12-month scenario (Scenario 5). Scenario 1 has not been modelled as this is the base case and depicts a status quo scenario (that is, the development of the West Coast Adventurer does not take place).

Table 7: The Scenarios Assessed

Item	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Days per week	0	6 days	7 days	6 days	7 days
Maintenance per week	0	1 day	-	1 day	-
Months operational p/a	0	6-months	6-months	12-months	12-months
Daily return	0	2	2	2	2
Carriages per train run	0	3	3	3	3
Train runs p/a	0	312 runs	364 runs	624 runs	728 runs
Capacity per carriage	0	63 pax	63 pax	63 pax	63 pax
Max seats possible p/a	0	58,968	68,796	117,936	137,592

6.1. Journey Matrix

Table 8 on the following page provides a journey matrix which illustrates the various options which are available to KiwiRail. In addition, the journey options reflect the potential for same-day return trips and one-way journeys with an overnight stay.

The focus of journeys is deliberately on Greymouth to Westport (or vice versa) as the financial analysis has shown that the required capital investment for trips to and from Hokitika more than doubles the capital cost, making it non commercially viable. However, this assumes that the WCA passenger service has to absorb all of this capital cost requirement rather than the possibility of sharing some of this capital cost with existing freight services.

KiwiRail has advised that existing freight services will not need the capital-intensive track and related upgrades required from Hokitika to Greymouth, which a new passenger service would need.

Table 8: Journey Matrix

Est. train journey time	4.5 hours	9 hours	9 hours	12 hours	Same day too long for the majority of markets, and not enough in daylight hours	Overnight break likely to be more marketable
Could it offer a loop with a coach back down the coast?	Possibly	No	No	No	Visiting Punakaiki important so rail one-way coach back may work for some markets	Overnight
Best location to overnight due to commercial accommodation	Not enough in Westport yet	Greymouth has enough midrange accommodation	Not enough in Westport yet though lower occupancy levels in lower-mid	Enough in Hokitika but spread out	Lack of good quality 3-4-star accommodation is an issue for the Coast. Greymouth possibly best placed, just	Overnight in Greymouth based on current supply
The appeal of the journey	Stop at Reefton for adventure products, Buller Gorge seen in the right sequence	Long day with lack of sufficient train wow; need to have value adds. Could work better if coach back via the coastal road and Punakaiki stop	Long day with lack of sufficient train wow; need to have value adds. Could work better if coach back via the coastal road and Punakaiki stop	The 1.5-hour trip from Hokitika to Greymouth low level of scenic appeal. Might work if coach back to the starting point so train one way only	The best scenic appeal would likely be Greymouth to Reefton through Grey River flats, stop off for adventure products, into Buller Gorge, exit at Westport. Buller Gorge as the hero component	Greymouth to Westport
Ability to link with TA	Could work well if a 4.5-hour experience up to Westport overnight	Wouldn't work as would need to leave Greymouth around 2 pm and no point travelling back in the dark	Works if linking to 1 pm TranzAlpine service ex Greymouth so an 8 am departure from Westport	Wouldn't work as can't get back in daylight hours	Not all visitors will come on TranzAlpine and we wonder if linked rail journeys might be too much for all markets other than hardened rail enthusiasts	Leave Greymouth in the morning for adventure drop off at Reefton, or link with TranzAlpine if there is ample demand
Supports Reefton adventure operators	Yes, as enough time to stop and drop off	Yes, as enough time to stop and drop off	Yes, as enough time to stop and drop off	Would struggle timing-wise	Maybe 30-40 adventure pax per day in the peak period for Reefton stop	Important to offer Reefton adventure as the train journey by itself isn't enough
Best link for a rental car or camper van drop off/pickup	Works in Greymouth to leave the vehicle and collect next day	Works in Greymouth to leave the vehicle and collect the same day	Works in Westport to leave the vehicle and collect the same day	Works in Hokitika to leave the vehicle and collect the same day	An option could be TranzAlpine to Greymouth, rail journey one way, collect in Westport and either stay overnight or drive back the same day or head to Tasman/Nelson	Greymouth hub with the ability to head north or south with north options being rail, coach or campervan/rental
Flight connections	No flights into Greymouth so limited connectivity	No flights into Greymouth so limited connectivity	Flights ex Wellington only to Westport so could do fly, rail, then campervan	Flights ex Chch come into Hokitika but not possible to do same day link	Always better to try and cluster intermodal transport services in the one location	Flight scheduling currently doesn't offer any significant benefit to any location
Stabling of pax trains	Greymouth may have capacity issues in railyards	Greymouth may have capacity issues in railyards	Westport railyards has the capacity to stable train	No railyard in Hokitika for stabling	Easier to stable in Westport as capacity exists along with maintenance services	Overnight stabling in Westport for journeys originating in Greymouth may work best
Existing visitor travel patterns	Matches current visitation movements	Matches current visitation movements	If starting at Westport issue is how to get pax to Westport ex Greymouth	Hokitika could be a good visitor hub to link with rail pax	60% come ex Chch to Greymouth, although 30% of these break off at Arthurs Pass to head straight to the glaciers	Hubbing from Greymouth probably picks up most visitors and allows for impulse visitors

7. Market Demand

7.1. Historic Data (Existing Services)

7.1.1. Total PAX

Assessing historical utilisation data of KiwiRail's existing tourist rail services is an important factor in assessing the potential demand for a new service. This is particularly the case for the two services which run on the South Island (the Coastal Pacific and the TA) because the new service may potentially leverage off similar markets.

Figure 9 provides a snapshot of historic utilisation of the three existing KiwiRail tourist rail services. All data is financial year-end. It demonstrates the following.

- withheld under section 9(2)(b)(i)
- [redacted]
- The CP, which operates seasonally (through the summer season) received few to no patrons over the 2017-2018 period because of the Kaikoura earthquake (service resumed in December 2018). However, prior to this service disruption, patronage of the service averaged 40k.
- While the TranzAlpine especially is well patronised with solid seat occupancy levels, the actual passenger numbers generated reflect a low level of market penetration when looking at visitation to the South Island generally and Christchurch specifically. This should be seen as the ongoing potential for passenger growth, both as a stand-alone rail experience, and also when linked to the CP.

Figure 9: KiwiRail – Total PAX on tourist rail services (2014 FY – 2018 FY)

withheld under section 9(2)(b)(i)

7.1.2. PAX by Market

Figure 10 and Figure 11 summarise utilisation of the tourist rails services by visitor origin. They demonstrate the following.

- The international market makes up the largest proportion of patrons on the Coastal Pacific and TranzAlpine services.
withheld under section 9(2)(b)(i)
- The Northern Explorer, however, generates far stronger patronage from the domestic market, with the international/domestic split for the service averaging [redacted] over the period assessed. This is likely because of the stronger resident population base which the service leverages off (in Auckland and Wellington) and the utilisation of the service by non-leisure visitors (such as for business and to visit friends and relatives) looking to travel between Auckland and Wellington. While the Northern Explorer is a tourist rail service, it also performs a stronger dual function (more so than the Coastal Pacific and TA) as a transportation (rather than scenic) service. Additionally, because it is an alternate day service, the ability to generate stronger sales through tourism wholesalers is limited because of planning challenges for tour groups especially, who often want to see daily services particularly in case of schedule delays and the need for changes.
- It is anticipated that the West Coast Adventurer is likely to attract a stronger international visitor market (similar to the Coastal Pacific and TA) because of its primary function as a tourist rail service.

Figure 10: KiwiRail – PAX by market on tourist rail services (2014 FY – 2018 FY)

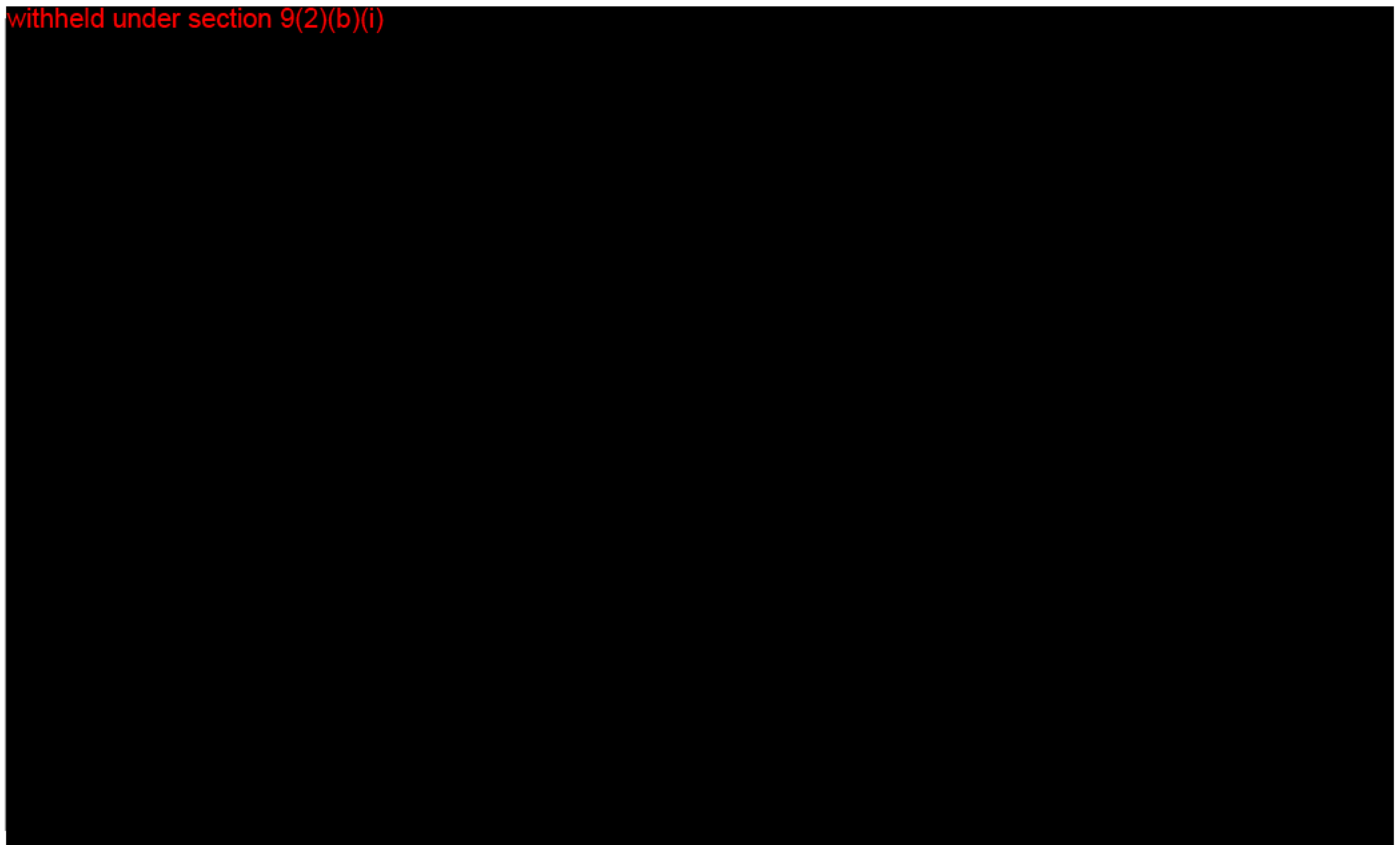
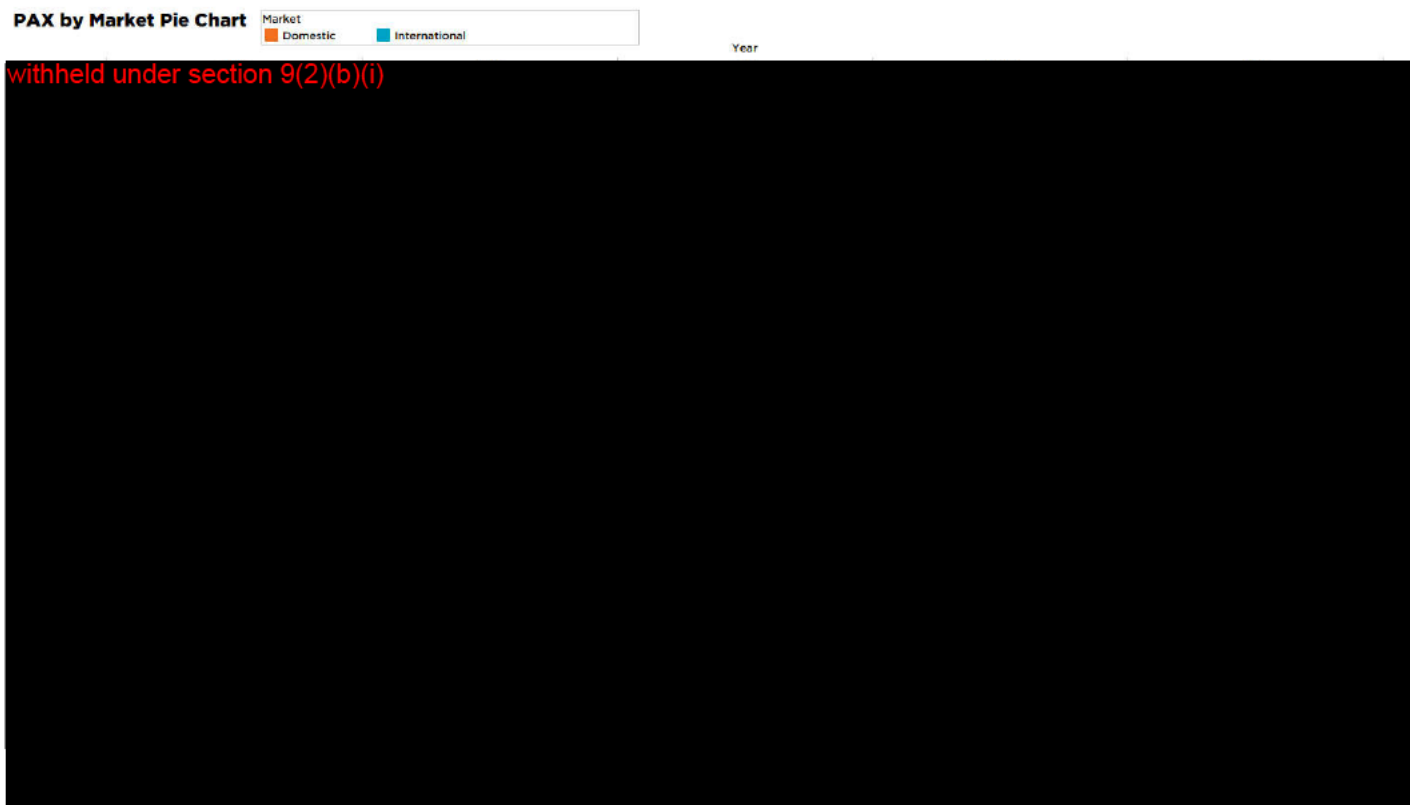


Figure 11: KiwiRail – PAX by market on tourist rail services (%) (2014 FY – 2018 FY)



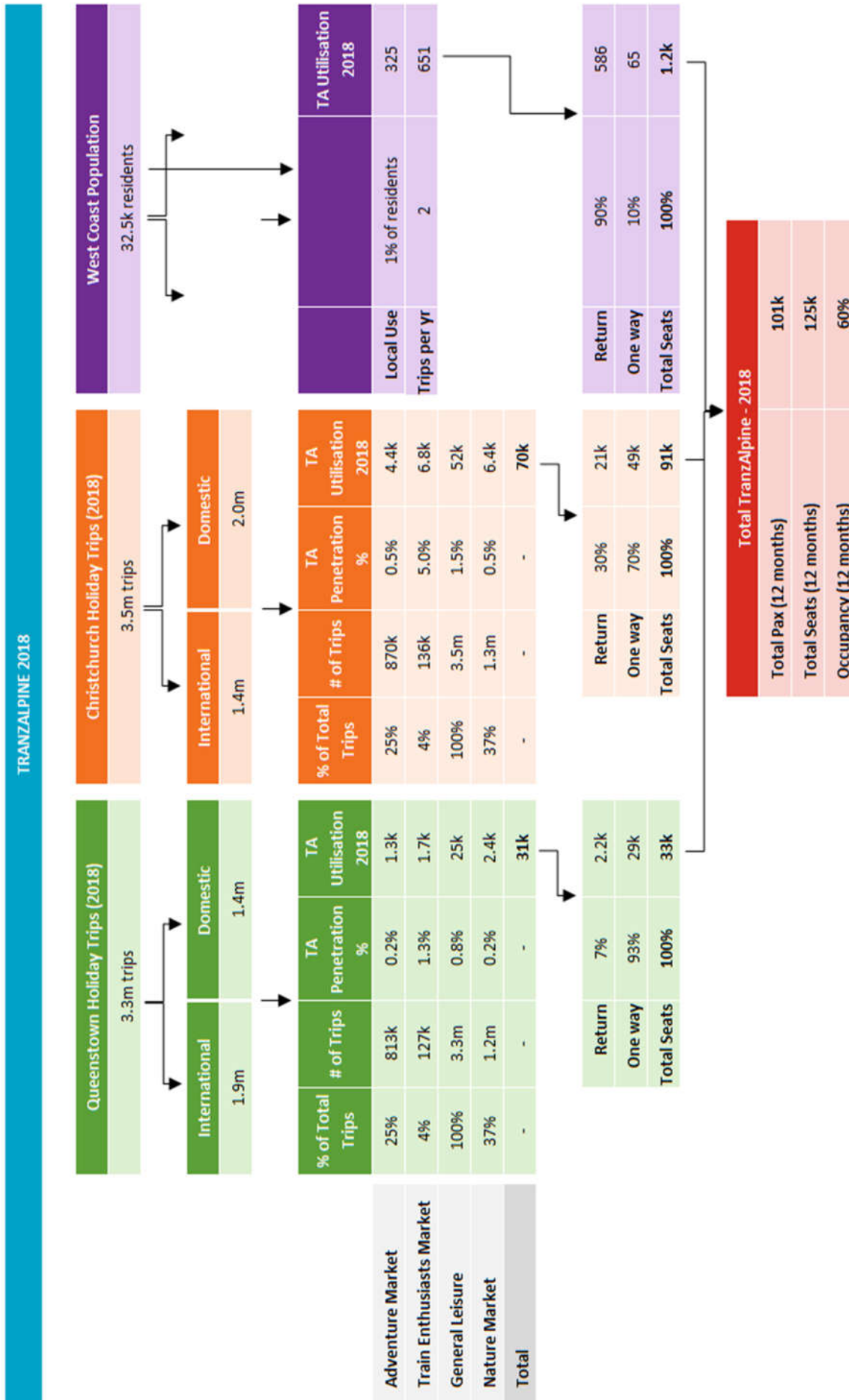
7.1.3. Estimated Existing Service Market Penetration

The following figure (Figure 12) demonstrate the penetration levels the TranzAlpine service is currently estimated to be achieving. This was an important exercise to undertake as it used further on as a check and balance when projecting patronage levels for the WCA.

It demonstrates the following.

- [Redacted]
- [Redacted]
- [Redacted]
- The WCA is anticipated to draw from similar generating markets being Christchurch, Queenstown as well as Tasman. However, the WCA is not projected to generate the same level of overall demand as the well-established TranzAlpine though, over time, demand levels may get more closely aligned. As a result, lower penetration rates have been applied for the WCA over 20 years.

Figure 12: TranzAlpine Estimated Market Penetration



7.2. Projected Demand for the WCA

The section provides a summary of the projected market demand. It is important to note that the actual level of market demand is not expected to differ under models 1 and 2, being the Greymouth to Westport option, or the Hokitika to Westport option. This is because:

- while the track journey from Hokitika to Greymouth adds a further 38km to the overall journey, it is a lower level of scenery quality than the rest of the journey to Westport so adds little additional value;
- it is still a 4 hour plus drive from Queenstown to Hokitika, so numbers ex Queenstown are not expected to grow as a result of being an hour closer than Greymouth; and
- we would see any connection to inbound flights to Hokitika ex Christchurch to have minimal impact on the WCA though they may stimulate a TranzAlpine one-way passenger market as a day return experience. E.g. pax capacity CHC->HOKTIKA = 50 seats – arrival 8/9am - \$179

7.2.1. Key Findings – Markets and Visitor Hubs

The following are key findings from the research and analysis to this stop/go point.

- The most comparable tourist rail service operated by KiwiRail is the TranzAlpine (TA) as it offers a daily service 12-months of the year, and focusses on domestic and international visitor markets.
- The Coastal Pacific (CP) and Northern Explorer (NE) are seen as both a tourist service and a public travel service in lieu of domestic self-drive, coach and flight options between their operating destinations. The characteristics from a tourism perspective of each is quite different.
- Unlike the TranzAlpine (Christchurch to Greymouth), Coastal Pacific (Picton to Christchurch) and Northern Explorer (Wellington to Auckland), which all have two primary points of entry, the WCA potentially has three, being Christchurch to Greymouth and on to Westport, Westport to Greymouth (and potentially on to Christchurch), and Hokitika south up to Greymouth and on to Westport.
- A WCA service may also drive a visitor market from three distinct entry points being; Christchurch across to Greymouth, Queenstown up to Hokitika and/or Greymouth, and from Tasman/Nelson into Westport.
- There are five distinct niche visitor markets which have been identified for the WCA and segmented being:
 - The general leisure market (which would include a mix of group tours, free independent travellers, those doing the WCA as part of a post or pre-conference/convention excursion ex Christchurch of Queenstown;
 - The adventurer market looking to undertake a variety of passive and active experiences and which the WCA could be the “glue” which effectively brings these together on the West Coast including rafting, mountain biking, trekking, jet boating etc;
 - The specific train enthusiast market who will treat the WCA as a bucket item to tick off as a domestic market experience and/or as an international wider niche market experience;
 - A nature market keen to gain access (passively or actively) into areas via heritage tours (gold and coal mining), fauna and flora enthusiasts, etc. and
 - A local West Coaster market looking to travel on the WCA as an annual or biannual experience with visiting friends and relatives or as part of a group excursion.
- The market demand analysis has determined the likely size of these various markets ex Christchurch, Queenstown and Tasman/Nelson, in addition to visitors already coming to the West Coast primarily for holiday/leisure purposes.

Table 9 provides a succinct summary of the likely levels of estimated market penetration for the WCA based on years 1, 5, 10 and 20. The full details are contained within this report.

Scenarios 2 and 3 are 6-month operations and scenarios 4 and 5 are 12-month operations. Scenarios 2 and 4 operate 6 days per week services and scenarios 3 and 5 operate 7 days per week.

Table 9: Market Summary Table (Models 1 and 2)

	Scenario 2: 6 days p/week, 6 months p/a				Scenario 3: 7 days p/week, 6 months p/a				Scenario 4: 6 days p/week, 12 months p/a				Scenario 5: 7 days p/week, 12 months p/a			
Year 1 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	2.6k	3.5k	220	-	3.4k	5.7k	659	-	3.7k	5.4k	440	-	4.6k	7.5k	879	-
Train Enthusiasts Market	1.7k	3.1k	172	-	2.9k	4.3k	344	-	2.6k	4.6k	287	-	3.9k	5.7k	459	-
General Leisure	3.3k	5.2k	659	-	3.9k	6.4k	791	-	4.6k	7.4k	923	-	5.2k	8.6k	1.1k	-
Nature Market	2.4k	3.5k	488	-	2.6k	3.5k	651	-	3.3k	4.6k	705	-	3.5k	4.6k	867	-
Resident Market	-	-	-	2.0k	-	-	-	2.0k	-	-	-	2.0k	-	-	-	2.0k
Total users (unique)	28.7k users				37.2k users				40.5k users				48.9k users			
Total trips	36.3k trips				46.5k trips				50.5k trips				60.7k trips			

Year 10 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	3.4k	3.9k	276	-	4.4k	6.4k	828	-	4.8k	6.1k	552	-	5.9k	8.5k	1.1k	-
Train Enthusiasts Market	2.1k	3.5k	216	-	3.8k	4.8k	432	-	3.4k	5.2k	360	-	5.0k	6.5k	577	-
General Leisure	4.2k	5.9k	828	-	5.0k	7.3k	994	-	5.9k	8.3k	1.2k	-	6.7k	9.7k	1.3k	-
Nature Market	3.1k	3.9k	613	-	3.4k	3.9k	817	-	3.1k	5.2k	885	-	3.4k	5.2k	1.1k	-
Resident Market	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k
Total users (unique)	33.9k users				44.1k users				46.8k users				57.0k users			
Total trips	42.6k trips				54.9k trips				58.3k trips				70.6k trips			

Year 20 / Generating Market:	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC	QT	CCH	TAS	WC
Adventure Market	4.5k	4.5k	358	-	5.9k	7.3k	1.1k	-	6.4k	6.9k	715	-	7.8k	9.8k	1.4k	-
Train Enthusiasts Market	2.9k	4.1k	280	-	5.0k	5.6k	560	-	4.5k	5.9k	467	-	6.7k	7.4k	747	-
General Leisure	5.6k	6.8k	1.1k	-	6.7k	8.3k	1.3k	-	7.8k	9.5k	1.5k	-	9.0k	11k	1.7k	-
Nature Market	4.1k	4.5k	794	-	4.6k	4.5k	1.1k	-	4.1k	6.0k	1.1k	-	4.6k	6.0k	1.4k	-
Resident Market	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k	-	-	-	1.9k
Total users (unique)	41.3k users				53.8k users				57.0k users				69.5k users			
Total trips	51.5k trips				66.7k trips				70.7k trips				85.9k trips			

7.2.2. Key Findings – Additional Factors to Drive Visitor Growth

There are a number of additional factors which may also help drive stronger market penetration to the WCA, but which are not easily quantified. These have not been included in the market demand assessments but need to be noted.

- The significance of Queenstown as the major South Island leisure hub with more than 55% of all domestic and international visitors flying in direct and with a number of day and overnight visitor excursions to various spokes from the hub. This scenario is expected to grow with Wanaka and Te Anau also becoming part of the greater Queenstown Lakes tourism development hub to a greater extent.
- The reduction of traditional touring circuits, especially for most domestic visitors to the South Island and to a growing extent the short break Australian and South-East Asian markets who are becoming more interested in single region travel rather than drive circuits.
- The significant growth of point to point travel between Christchurch and Queenstown either via the West Coast or via Mount Cook and Lake Tekapo (noting that many visitors fly into one destination and then fly out of the other).
- 60% of all estimated visitation to the West Coast enter from Christchurch though this is slowly changing as Tourism West Coast actively encourages more Queenstown visitors to travel back up the West Coast en route to Christchurch

or Nelson/Tasman and as Queenstown visitors continue to undertake overnight excursions up the West Coast with the option of travelling back to Queenstown or heading to Christchurch.

- Over 72% of visitors flying into Christchurch disperse without going to Christchurch, though with new major infrastructure (convention centre, stadium etc), Christchurch is expected by 2023 to become a far more dominant visitor destination as it was pre the 2011 earthquake.
- The potential closure of the Fox Glacier access road will potentially put significant pressure on visitor numbers to Franz Josef Glacier, which may result in DOC reducing accessibility in the medium-longer term to help preserve the glacial environment. This factor alone could result in more visitors travelling to visitor experiences in other parts of the West Coast if glacier experiences become overly restricted.

In the absence of many other major visitor attractions on the West Coast, one could see a move in the medium- to longer-term by visitors focusing on Hokitika and environ attractions, and nature, heritage and adventure products between Greymouth and Westport including in the Buller Gorge, Reefton and north to Karamea.

The implications of these market demand factors noted above may be the potential for stronger visitation especially ex Queenstown north to Hokitika, Greymouth and Westport providing that there is well packaged, quality product and related services. In turn, this may lead to stronger visitation across to Christchurch and/or north to Tasman and Nelson through the Buller Gorge as different circuits start to be strengthened as more product comes on stream.

A WCA experience could, therefore, potentially be a key product, which anchors many of the smaller visitor attractions and experiences on the West Coast, especially between Greymouth and Westport.

Though many tourism stakeholders (both industry and government) would rather not dwell on the risk of glacier closures, recent stakeholder discussions on the West Coast with councils, other government agencies and industry, indicates an expectation of significant change occurring with access to the two glaciers. Any further major landslides or climatic events which destroy key infrastructure to access the glaciers, will likely exacerbate the problem and speed up the timeframe for change to occur.

7.2.3. Demand Projection Summary

Figure 13 - Figure 16 and Table 10 - Table 13 provide the demand projections for the WCA under each Scenario. Points to note include the following.

- With the only difference between Model 1 and Model 2 being a slightly longer service (an additional 38.45 km down to Hokitika), it is not anticipated that demand will differ between the two scenarios. The same demand, therefore, has been modelled for Models 1 and 2 under the varying scenarios.
- Scenario 5 generates the strongest level of projected demand, equating to 60.7k seats sold in year 1, compared to 36.3k seats sold in Scenario 1. This is because the service runs year-round (rather than for 6 months only) and operates 7 days per week (rather than 6 days). The vast majority of this demand (circa 75%), however, is anticipated to occur in peak visitation periods (October – April).
- West Coast industry feedback indicates gradual growth in shoulder periods including May and September but very quiet in the low season from June – August. We would, therefore, anticipate that over time, the shoulder seasons could be grown but would expect the low season to remain weak.

Figure 13: Demand Projections - Model 1 & 2, Scenario 3 (Year 1 only)

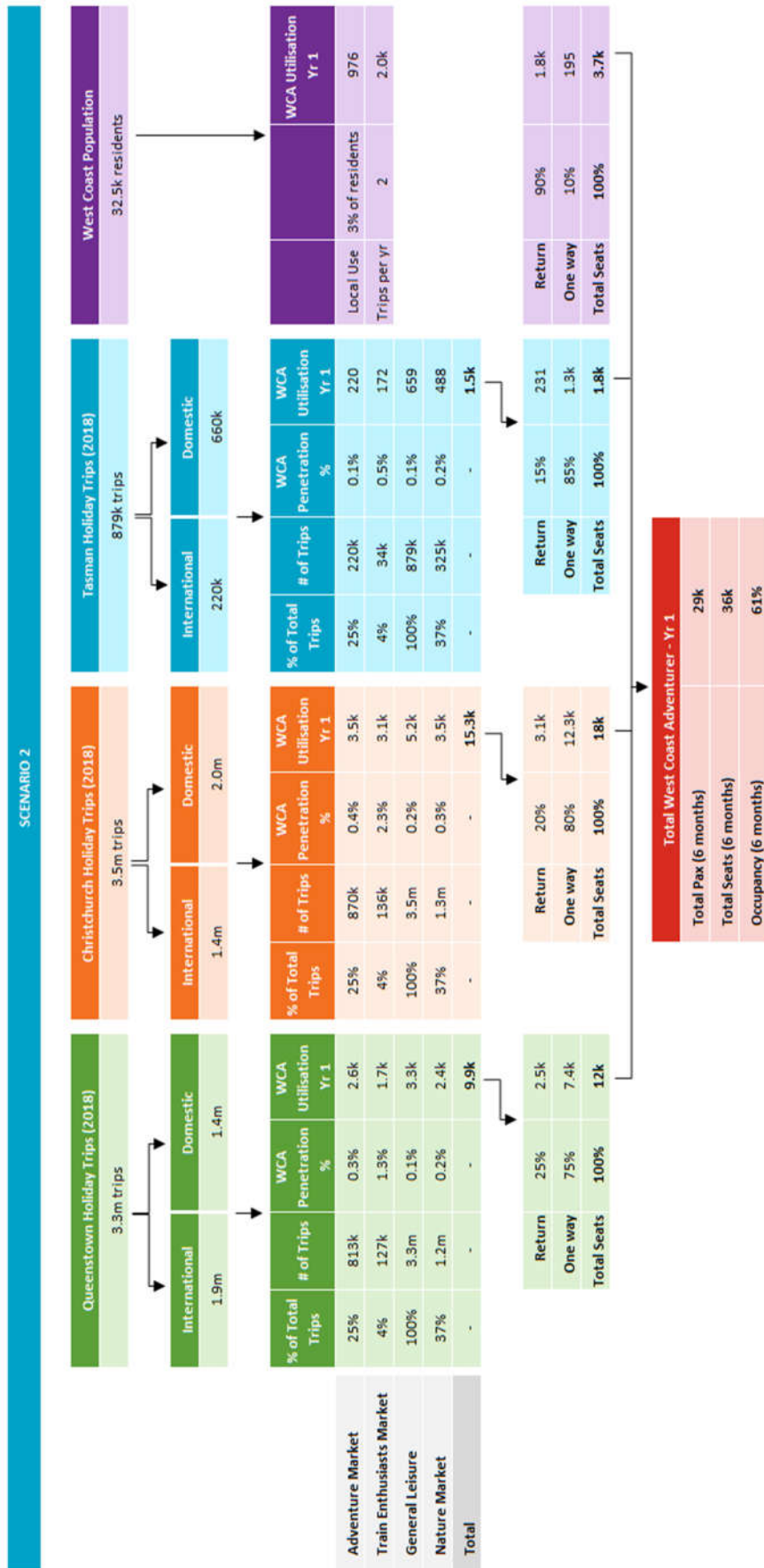


Table 10: Demand Projections - Model 1 & 2, Scenario 2

				Year 1	Year 5	Year 10	Year 15	Year 20
Scenario 2 - 6 days, 6 months	% of Total Holiday Market	Penetration - Peak	Penetration - Low	2021	2025	2030	2035	2040
Queenstown Generating Market - Holiday Purpose Only				3.3m	3.6m	4.2m	4.8m	5.6m
Adventure Market	25.0%	0.3%	n/a	2.6k	2.9k	3.4k	3.9k	4.5k
Train Enthusiasts Market	3.9%	1.3%	n/a	1.7k	1.9k	2.1k	2.5k	2.9k
General Leisure	100%	0.1%	n/a	3.3k	3.6k	4.2k	4.8k	5.6k
Nature Market	37.0%	0.2%	n/a	2.4k	2.7k	3.1k	3.6k	4.1k
Σ Subtotal				9.9k	11k	13k	15k	17k
% return		25.0%	n/a	2.5k	2.8k	3.2k	3.7k	4.3k
% one way		75.0%	n/a	7.4k	8.3k	9.6k	11k	13k
Σ Subtotal Trips				12k	14k	16k	18k	21k
C' church Generating Market - Holiday Purpose Only				3.5m	3.7m	3.9m	4.2m	4.5m
Adventure Market	25.0%	0.4%	n/a	3.5k	3.7k	3.9k	4.2k	4.5k
Train Enthusiasts Market	3.9%	2.3%	n/a	3.1k	3.3k	3.5k	3.8k	4.1k
General Leisure	100%	0.2%	n/a	5.2k	5.5k	5.9k	6.3k	6.8k
Nature Market	37.0%	0.3%	n/a	3.5k	3.7k	3.9k	4.2k	4.5k
Σ Subtotal				15k	16k	17k	18k	20k
% return		20.0%	n/a	3.1k	3.2k	3.5k	3.7k	4.0k
% one way		80.0%	n/a	12k	13k	14k	15k	16k
Σ Subtotal Trips				18k	19k	21k	22k	24k
Tasman Generating Market - Holiday Purpose Only				879k	972k	1.1m	1.3m	1.4m
Adventure Market	25.0%	0.1%	n/a	220	243	276	314	358
Train Enthusiasts Market	3.9%	0.5%	n/a	172	190	216	246	280
General Leisure	100%	0.1%	n/a	659	729	828	942	1.1k
Nature Market	37.0%	0.2%	n/a	488	540	613	697	794
Σ Subtotal				1.5k	1.7k	1.9k	2.2k	2.5k
% return		15%	n/a	231	255	290	330	376
% one way		85%	n/a	1.3k	1.4k	1.6k	1.9k	2.1k
Σ Subtotal Trips				1.8k	2.0k	2.2k	2.5k	2.9k
West Coast Resident Market				33k	32k	32k	32k	31k
% likely to use service		3%	n/a	976	973	964	950	931
Avg times per year used		2	n/a	2.0k	1.9k	1.9k	1.9k	1.9k
Σ Subtotal				2.0k	1.9k	1.9k	1.9k	1.9k
% return		90%	n/a	1.8k	1.8k	1.7k	1.7k	1.7k
% one way		10%	n/a	195	195	193	190	186
Σ Subtotal Trips				3.7k	3.7k	3.7k	3.6k	3.5k
Total Users				28,723	30,904	33,941	37,372	41,261
Total return				7,530	8,012	8,681	9,433	10,284
Total oneway				21,193	22,891	25,260	27,939	30,977
Total Trips				36,253	38,916	42,622	46,804	51,546
Occupancy				61%	66%	72%	79%	87%

Table 11: Demand Projections - Model 1 & 2, Scenario 3

Scenario 3 - 7 days, 6 months	% of Total		Penetration - Peak	Penetration - Low	2021	2025	2030	2035	2040
	Holiday Market								
Queenstown Generating Market - Holiday Purpose Only					3.3m	3.6m	4.2m	4.8m	5.6m
Adventure Market	25%	0.4%	n/a		3.4k	3.8k	4.4k	5.1k	5.9k
Train Enthusiasts Market	4%	2.3%	n/a		2.9k	3.3k	3.8k	4.4k	5.0k
General Leisure	100%	0.1%	n/a		3.9k	4.4k	5.0k	5.8k	6.7k
Nature Market	37%	0.2%	n/a		2.6k	3.0k	3.4k	3.9k	4.6k
Σ Subtotal					13k	14k	17k	19k	22k
% return		25.0%	n/a		3.2k	3.6k	4.2k	4.8k	5.6k
% one way		75.0%	n/a		9.7k	11k	12k	14k	17k
Σ Subtotal Trips					16k	18k	21k	24k	28k
C'church Generating Market - Holiday Purpose Only					3.5m	3.7m	3.9m	4.2m	4.5m
Adventure Market	25%	0.7%	n/a		5.7k	6.0k	6.4k	6.8k	7.3k
Train Enthusiasts Market	4%	3.2%	n/a		4.3k	4.5k	4.8k	5.2k	5.6k
General Leisure	100%	0.2%	n/a		6.4k	6.8k	7.3k	7.8k	8.3k
Nature Market	37%	0.3%	n/a		3.5k	3.7k	3.9k	4.2k	4.5k
Σ Subtotal					20k	21k	22k	24k	26k
% return		20.0%	n/a		4.0k	4.2k	4.5k	4.8k	5.1k
% one way		80.0%	n/a		16k	17k	18k	19k	21k
Σ Subtotal Trips					24k	25k	27k	29k	31k
Tasman Generating Market - Holiday Purpose Only					879k	972k	1.1m	1.3m	1.4m
Adventure Market	25%	0.3%	n/a		659	729	828	942	1.1k
Train Enthusiasts Market	4%	1.0%	n/a		344	381	432	492	560
General Leisure	100%	0.1%	n/a		791	875	994	1.1k	1.3k
Nature Market	37%	0.2%	n/a		651	719	817	929	1.1k
Σ Subtotal					2.4k	2.7k	3.1k	3.5k	4.0k
% return		15.0%	n/a		367	406	461	524	597
% one way		85.0%	n/a		2.1k	2.3k	2.6k	3.0k	3.4k
Σ Subtotal Trips					2.8k	3.1k	3.5k	4.0k	4.6k
West Coast Resident Market					33k	32k	32k	32k	31k
% likely to use service		3.0%	n/a		976	973	964	950	931
Avg times per year used		2	n/a		2.0k	1.9k	1.9k	1.9k	1.9k
Σ Subtotal					2.0k	1.9k	1.9k	1.9k	1.9k
% return		90%	n/a		1.8k	1.8k	1.7k	1.7k	1.7k
% one way		10%	n/a		195	195	193	190	186
Σ Subtotal Trips					3.7k	3.7k	3.7k	3.6k	3.5k
Total Users					37,160	40,042	44,059	48,602	53,755
Total return					9,321	9,956	10,840	11,836	12,966
Total oneway					27,839	30,085	33,219	36,766	40,789
Total Trips					46,481	49,998	54,900	60,438	66,721
Occupancy	68,796				68%	73%	80%	88%	97%

Figure 15: Demand Projections - Model 1 & 2, Scenario 4 (Year 1 only)

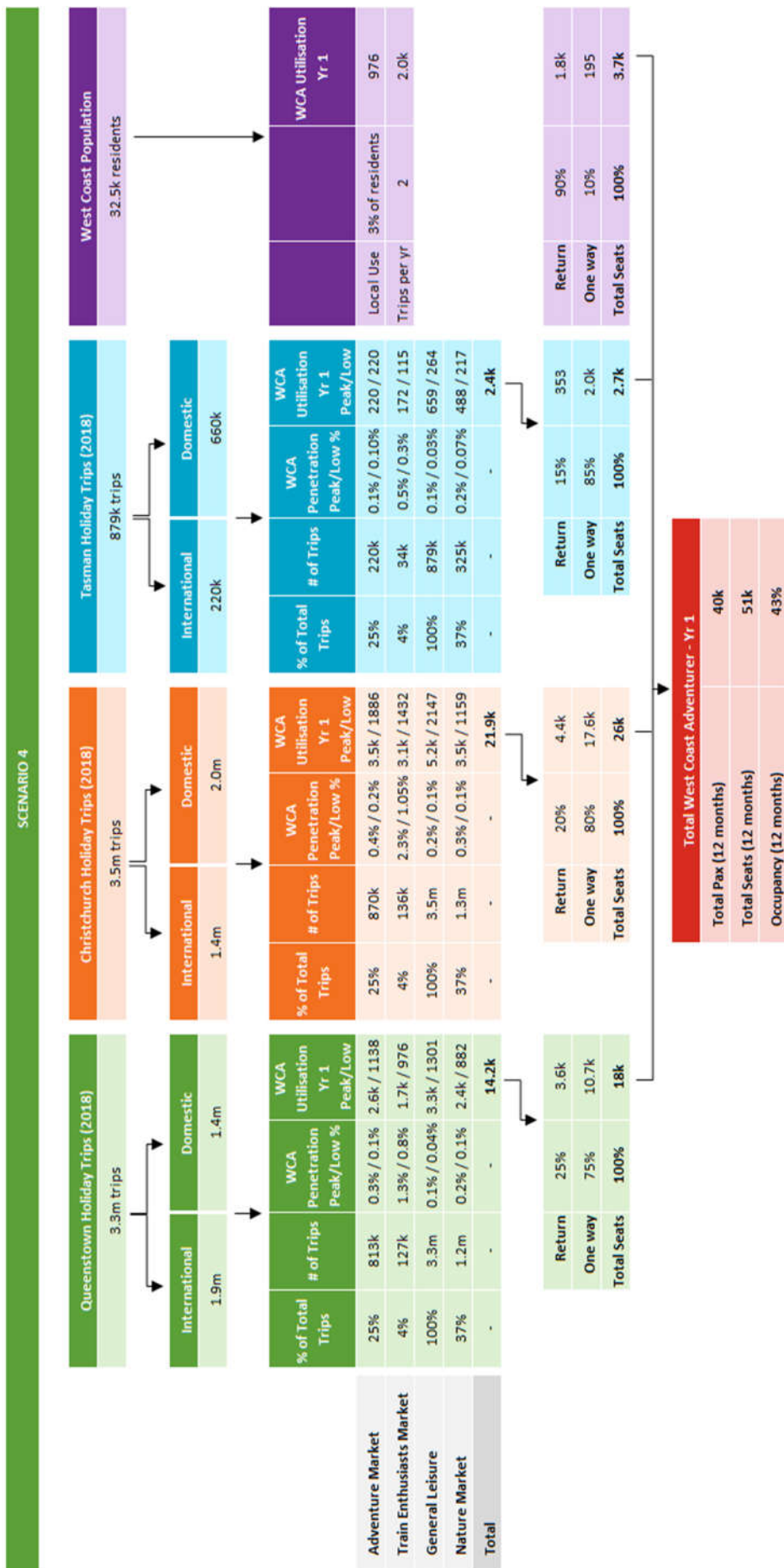


Table 12: Demand Projections - Model 1 & 2, Scenario 4

Scenario 4 - 6 Days, 12 months	% of Total Holiday Market	Penetration - Peak	Penetration - Low	2021	2025	2030	2035	2040
Queenstown Generating Market - Holiday Purpose Only				3.3m	3.6m	4.2m	4.8m	5.6m
Adventure Market	25%	0.3%	0.1%	3.7k	4.2k	4.8k	5.6k	6.4k
Train Enthusiasts Market	4%	1.3%	0.8%	2.6k	2.9k	3.4k	3.9k	4.5k
General Leisure	100%	0.1%	0.0%	4.6k	5.1k	5.9k	6.8k	7.8k
Nature Market	37%	0.2%	0.1%	3.3k	2.7k	3.1k	3.6k	4.1k
Σ Subtotal				14k	15k	17k	20k	23k
% return		25.0%	25.0%	3.6k	3.7k	4.3k	5.0k	5.7k
% one way		75.0%	75.0%	11k	11k	13k	15k	17k
Σ Subtotal Trips				18k	19k	22k	25k	29k
C'church Generating Market - Holiday Purpose Only				3.5m	3.7m	3.9m	4.2m	4.5m
Adventure Market	25%	0.4%	0.2%	5.4k	5.7k	6.1k	6.5k	6.9k
Train Enthusiasts Market	4%	2.3%	1.1%	4.6k	4.8k	5.2k	5.5k	5.9k
General Leisure	100%	0.2%	0.1%	7.4k	7.8k	8.3k	8.9k	9.5k
Nature Market	37%	0.3%	0.1%	4.6k	4.9k	5.2k	5.6k	6.0k
Σ Subtotal				22k	23k	25k	26k	28k
% return		20.0%	20.0%	4.4k	4.6k	5.0k	5.3k	5.7k
% one way		80.0%	80.0%	18k	19k	20k	21k	23k
Σ Subtotal Trips				26k	28k	30k	32k	34k
Tasman Generating Market - Holiday Purpose Only				879k	972k	1.1m	1.3m	1.4m
Adventure Market	25%	0.1%	0.1%	440	486	552	628	715
Train Enthusiasts Market	4%	0.5%	0.3%	287	317	360	410	467
General Leisure	100%	0.1%	0.0%	923	1,021	1,159	1,319	1,502
Nature Market	37%	0.2%	0.1%	705	779	885	1,007	1,147
Σ Subtotal				2,355	2.6k	3.0k	3.4k	3.8k
% return		15.0%	15.0%	353	391	444	504	575
% one way		85.0%	85.0%	2,001	2,213	2,513	2.9k	3.3k
Σ Subtotal Trips				2.7k	3.0k	3.4k	3.9k	4.4k
West Coast Resident Market				33k	32k	32k	32k	31k
% likely to use service		3%	3%	976	973	964	950	931
Avg times per year used		2	2	2.0k	1.9k	1.9k	1.9k	1.9k
Σ Subtotal				2.0k	1.9k	1.9k	1.9k	1.9k
% return		90%	90%	1.8k	1.8k	1.7k	1.7k	1.7k
% one way		10%	10%	195	195	193	190	186
Σ Subtotal Trips				3.7k	3.7k	3.7k	3.6k	3.5k
Total Users				40,459	42,615	46,846	51,624	57,038
Total return				10,051	10,501	11,431	12,480	13,668
Total oneway				30,407	32,114	35,414	39,144	43,371
Total Trips				50,510	53,115	58,277	64,104	70,706
Occupancy				43%	45%	49%	54%	60%

Figure 16: Demand Projections - Model 1 & 2, Scenario 5 (Year 1 only)

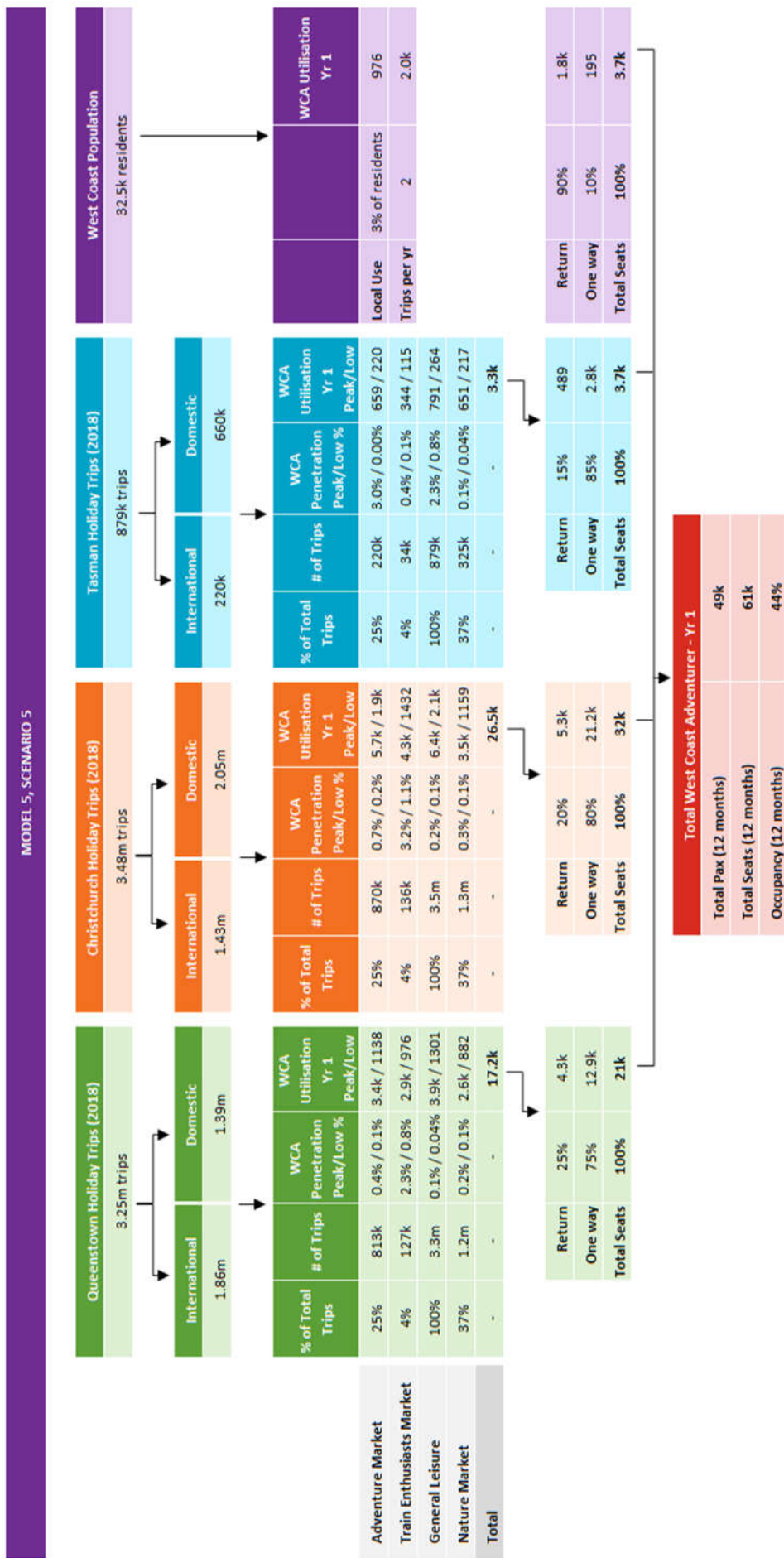


Table 13: Demand Projections - Model 1 & 2, Scenario 5

Scenario 5 - 7 days, 12 months	% of Total Holiday Market	Penetration - Peak	Penetration - Low	2021	2025	2030	2035	2040
Queenstown Generating Market - Holiday Purpose Only				3.3m	3.6m	4.2m	4.8m	5.6m
Adventure Market	25%	0.4%	0.1%	4.6k	5.1k	5.9k	6.8k	7.8k
Train Enthusiasts Market	4%	2.3%	0.8%	3.9k	4.4k	5.0k	5.8k	6.7k
General Leisure	100%	0.1%	0.0%	5.2k	5.8k	6.7k	7.8k	9.0k
Nature Market	37%	0.2%	0.1%	3.5k	3.0k	3.4k	4k	5k
Σ Subtotal				17k	18k	21k	24k	28k
% return		25.0%	25.0%	4.3k	4.6k	5.3k	6.1k	7.0k
% one way		75.0%	75.0%	13k	14k	16k	18k	21k
Σ Subtotal Trips				21k	23k	26k	30k	35k
C'church Generating Market - Holiday Purpose Only				3.5m	3.7m	3.9m	4.2m	4.5m
Adventure Market	25%	0.7%	0.2%	7.5k	8.0k	8.5k	9.1k	9.8k
Train Enthusiasts Market	4%	3.2%	1.1%	5.7k	6.0k	6.5k	6.9k	7.4k
General Leisure	100%	0.2%	0.1%	8.6k	9.1k	9.7k	10.4k	11.1k
Nature Market	37%	0.3%	0.1%	4.6k	4.9k	5.2k	5.6k	6.0k
Σ Subtotal				26k	28k	30k	32k	34k
% return		20.0%	20.0%	5.3k	5.6k	6.0k	6.4k	6.9k
% one way		80.0%	80.0%	21k	22k	24k	26k	27k
Σ Subtotal Trips				32k	34k	36k	38k	41k
Tasman Generating Market - Holiday Purpose Only				879k	972k	1.1m	1.3m	1.4m
Adventure Market	25%	0.3%	0.1%	879	972	1,104	1,256	1,430
Train Enthusiasts Market	4%	1.0%	0.3%	459	508	577	656	747
General Leisure	100%	0.1%	0.0%	1,055	1,167	1,325	1,507	1,716
Nature Market	37%	0.2%	0.1%	867	959	1,089	1,239	1,411
Σ Subtotal				3.3k	3.6k	4.1k	4.7k	5.3k
% return		15.0%	15.0%	489	541	614	699	796
% one way		85.0%	85.0%	2.8k	3.1k	3.5k	4.0k	4.5k
Σ Subtotal Trips				3.7k	4.1k	4.7k	5.4k	6.1k
West Coast Resident Market				33k	32k	32k	32k	31k
% likely to use service		3%	3%	976	973	964	950	931
Avg times per year used		2	2	2.0k	1.9k	1.9k	1.9k	1.9k
Σ Subtotal				2.0k	1.9k	1.9k	1.9k	1.9k
% return		90%	90%	1.8k	1.8k	1.7k	1.7k	1.7k
% one way		10%	10%	195	195	193	190	186
Σ Subtotal Trips				3.7k	3.7k	3.7k	3.6k	3.5k
Total Users				48,895	51,753	56,964	62,854	69,532
Total return				11,842	12,445	13,590	14,883	16,350
Total oneway				37,053	39,308	43,374	47,971	53,183
Total Trips				60,738	64,198	70,555	77,737	85,882
Occupancy	137,592			44%	47%	51%	56%	62%

8. Financial Assessment

8.1. CAPEX

Table 14 provides a summary of the CAPEX for Model 1 and Model 2. It demonstrates that Model 2, which involves a longer line length (187km compared with 149km under Model 1), has a higher CAPEX estimate at \$91.57m. Model 1's CAPEX is estimated at \$45.62m.

The significant difference between the CAPEX figures for Model 1(ex Greymouth) and Model 2 (ex-Hokitika) reflects the quality of track and supporting infrastructure and associated upgrades required for passenger services. In summary, KiwiRail advises that:

- the Hokitika line to Greymouth is class C and is fit for purpose for current freight traffic which has an 18T wagon axle load and a speed restriction of 40 km/ph;
- the Midland Line from Greymouth to Stillwater is class A, has an 18T wagon axle load and a speed restriction for the TranzAlpine of 70 km/ph; and
- the Stillwater to Ngakawau Line is class B, has an 18T wagon axel load and has various speed restrictions through the Grey River and Buller Gorge sections.

As is illustrated, the Hokitika – Westport model (Model 2) more than doubles the capital cost required to meet passenger service standards and is, therefore, for that reason alone is not seen as commercially viable for passenger services.

The capex estimate for AK Carriages reflects new carriages rather than retrofitted/upgraded carriages withheld under section 9(2)(b)(i)
[REDACTED] We have applied the upper end estimate because of the likely cost increase in carriages by the time the service is operational by 2022-2023.

Table 14: CAPEX Assessment

Item	Model 1: Greymouth - Westport		Model 2: Hokitika - Westport	
	\$	%	\$	%
Platform upgrades at Westport, Reefton and Greymouth only	withheld under section 9(2)(b)(i)			
AK Carriages only	withheld under section 9(2)(b)(i)			
Safety capex (rainfall TARP)	withheld under section 9(2)(b)(i)			
Level crossing safety impacts	withheld under section 9(2)(b)(i)			
Stabling at Westport	withheld under section 9(2)(b)(i)			
Buller Gorge remote rock monitoring system	withheld under section 9(2)(b)(i)			
Buller Gorge formation slopes and embankments - do minium	withheld under section 9(2)(b)(i)			
Vegetation removal - Stillwater to Nga Line	withheld under section 9(2)(b)(i)			
Curves 80 km/ph	withheld under section 9(2)(b)(i)			
Civil works culvert maintenance and renewal - priority works	withheld under section 9(2)(b)(i)			
Civil works river protection - Stillwater to Nga	withheld under section 9(2)(b)(i)			
Civil work culvert maintenance Midland line	withheld under section 9(2)(b)(i)			
Marketing	withheld under section 9(2)(b)(i)			
Turntable Hokitika	withheld under section 9(2)(b)(i)			
Hokitika to Greymouth track rebuild	withheld under section 9(2)(b)(i)			
Hokitika Platofrm	withheld under section 9(2)(b)(i)			
Formation and drainage on Hokitika - Greymouth line	withheld under section 9(2)(b)(i)			
Culvert maintenance and renewal priority	withheld under section 9(2)(b)(i)			
Culvert maintenance additional works	withheld under section 9(2)(b)(i)			
Bridge 13 renewal	withheld under section 9(2)(b)(i)			
Capex total	\$45,620,000	100%	\$91,570,000	100%

8.2. Revenue & Expenditure

Table 15: Revenue Items

Item	Description
Ticket revenue - return	<ul style="list-style-type: none"> Set at \$240 return and increased by inflation annually. As identified in Section 4.1.1, the ticket price has been set based on average rates per kilometre of similar services globally and aligned with the TranzAlpine service as well.
Ticket revenue - one way	<ul style="list-style-type: none"> Set at \$120 one way and increased by inflation annually. As identified in Section 4.1.1, the ticket price has been set based on average rates per kilometre of similar services globally and aligned with the TranzAlpine service as well.
Catering revenue	<ul style="list-style-type: none"> A net rate provided by KiwiRail based on catering average net revenue on the CP. Provided by KiwiRail.
Other internal revenue	<ul style="list-style-type: none"> [REDACTED]
Other trading	<ul style="list-style-type: none"> [REDACTED]
Commission fee for tours	<ul style="list-style-type: none"> [REDACTED] [REDACTED] It is anticipated that 1/5 of all rail passengers will travel as part of a packaged tour with ground operators (nature, heritage and adventure-based)

All expenditure line items have been provided directly by KiwiRail. These are listed in Table 16 below.

Table 16: Expenditure Items

Item
Consultancy
Corporate Recharge Expense
External Services
Fuel & Traction Electricity
Incidents / Casualties & Insurance
Labour & Related Costs - Gross
Lease and Rentals
Maintenance
Marketing
Materials & Supplies
Other Expenses

Item
Hook & Tow
Hook & Tow Calculated
Track Access
Other Internal Expenses (net)
Settlements and Recoveries
Training
Travel & Entertainment
Other
Engineering OPEX Servicing and stabling at Westport
Engineering OPEX Stillwater to Nga line annual maintenance
Carriage refurbishment

8.3. Cost Benefit Assessment

8.3.1. Model 1 (Greymouth to Westport)

Table 17 provides the findings of the cost benefit assessment completed for Model 1, including the various scenarios modelled. The full findings of the cost benefit assessment are included in Attachment 1.

Table 17: Model 1 Cost Benefit Assessment Summary

Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k
Revenue		\$4.7m	\$5.5m	\$6.6m	\$8.0m	\$9.7m
Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m
EBITDA		-\$509k	-\$962k	-\$452k	\$148k	-\$2.6m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	-\$509k	-\$962k	-\$452k	\$148k	-\$2.6m
NPV		-\$50.7m				
BCR		0.56				
Rev per seat sold		\$130.95	\$141.4	\$155.6	\$171.3	\$188.7
EBITDA per seat sold		-\$14.04	-\$24.73	-\$10.61	\$3.16	-\$50.42

Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		46.5k	50.0k	54.9k	60.4k	66.7k
Revenue		\$6.1m	\$7.1m	\$8.5m	\$10.4m	\$12.6m
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m
EBITDA		\$576k	\$321k	\$1.2m	\$2.2m	-\$5.2k
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$576k	\$321k	\$1.2m	\$2.2m	-\$5.2k
NPV		-\$31.6m				
BCR		0.70				
Rev per seat sold		\$131.03	\$141.5	\$155.7	\$171.4	\$188.8
EBITDA per seat sold		\$12.39	\$6.43	\$21.48	\$36.55	-\$0.08

Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		50.5k	53.1k	58.3k	64.1k	70.7k
Revenue		\$6.6m	\$7.5m	\$9.1m	\$11.0m	\$13.3m
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m
EBITDA		-\$336k	-\$915k	-\$85k	\$924k	-\$1.3m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	-\$336k	-\$915k	-\$85k	\$924k	-\$1.3m
NPV		-\$45.2m				
BCR		0.65				
Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80
EBITDA per seat sold		-\$6.65	-\$17.23	-\$1.45	\$14.41	-\$18.44

Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		60.7k	64.2k	70.6k	77.7k	85.9k
Revenue		\$8.0m	\$9.1m	\$11.0m	\$13.3m	\$16.2m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$482k	\$39k	\$1.2m	\$2.6m	\$819k
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$482k	\$39k	\$1.2m	\$2.6m	\$819k
NPV		-\$30.2m				
BCR		0.75				
Rev per seat sold		\$131.10	\$141.52	\$155.76	\$171.49	\$188.85
EBITDA per seat sold		\$7.94	\$0.61	\$16.66	\$33.01	\$9.53

8.3.2. Model 2 (Hokitika to Westport)

Table 18 provides the findings of the cost benefit assessment completed for Model 2, including the various scenarios modelled. The full findings of the cost benefit assessment are included in Attachment 2.

Table 18: Model 2 Cost Benefit Assessment Summary

Model 2, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k
Revenue		\$4.7m	\$5.5m	\$6.6m	\$8.0m	\$9.7m
Expenses		\$5.4m	\$6.6m	\$7.2m	\$8.0m	\$12.5m
EBITDA		-\$691k	-\$1.1m	-\$565k	\$29k	-\$2.7m
Capex	\$91.6m	-	-	-	-	-
CF	-\$91.6m	-\$691k	-\$1.1m	-\$565k	\$29k	-\$2.7m
NPV		-\$94.5m				
BCR		0.39				
Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7
EBITDA per seat sold		-\$19.06	-\$27.51	-\$13.26	\$0.62	-\$52.85

Model 2, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		46.5k	50.0k	54.9k	60.4k	66.7k
Revenue		\$6.1m	\$7.1m	\$8.5m	\$10.4m	\$12.6m
Expenses		\$5.7m	\$6.9m	\$7.5m	\$8.3m	\$12.7m
EBITDA		\$363k	\$195k	\$1.0m	\$2.1m	-\$151k
Capex	\$91.6m	-	-	-	-	-
CF	-\$91.6m	\$363k	\$195k	\$1.0m	\$2.1m	-\$151k
NPV		-\$75.6m				
BCR		0.50				
Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8
EBITDA per seat sold		\$7.82	\$3.91	\$19.08	\$34.26	-\$2.27

Model 2, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		50.5k	53.1k	58.3k	64.1k	70.7k
Revenue		\$6.6m	\$7.5m	\$9.1m	\$11.0m	\$13.3m
Expenses		\$7.3m	\$8.6m	\$9.4m	\$10.3m	\$14.9m
EBITDA		-\$700k	-\$1.1m	-\$311k	\$686k	-\$1.6m
Capex	\$91.6m	-	-	-	-	-
CF	-\$91.6m	-\$700k	-\$1.1m	-\$311k	\$686k	-\$1.6m
NPV		-\$90.4m				
BCR		0.47				
Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80
EBITDA per seat sold		-\$13.85	-\$21.30	-\$5.33	\$10.70	-\$21.98

Model 2, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		60.7k	64.2k	70.6k	77.7k	85.9k
Revenue		\$8.0m	\$9.1m	\$11.0m	\$13.3m	\$16.2m
Expenses		\$7.9m	\$9.3m	\$10.1m	\$11.0m	\$15.7m
EBITDA		\$58k	-\$213k	\$911k	\$2.3m	\$527k
Capex	\$91.6m	-	-	-	-	-
CF	-\$91.6m	\$58k	-\$213k	\$911k	\$2.3m	\$527k
NPV		-\$75.9m				
BCR		0.55				
Rev per seat sold		\$131.10	\$141.52	\$155.76	\$171.49	\$188.85
EBITDA per seat sold		\$0.95	-\$3.31	\$12.91	\$29.44	\$6.13

8.4. Sensitivity Analysis

Sensitivity analysis was performed assessing the financial implications if:

- the number of seats sold was to increase and decrease by 5%, 10% and 30% under each scenario; or
- the ticket price was to increase from \$240 return (\$120 one way) to: \$300 return (\$150 one way); \$320 return (\$160 one way), \$340 return (\$170 one way); and \$360 return (\$180 one way). A decrease in ticket price has not been modelled as this only results in an even greater negative NPV result being generated than what the base scenarios currently show.

Importantly, the sensitivity analysis has only been performed on Model 1 because the CAPEX is so high under Model 2 (\$92m compared with \$46m) that all sensitivities noted above produce negative results. In order to generate a positive result under Model 2 would require either:

- growing the number of seats sold by an additional 60% (equating to 97k seats sold in year 1 under Scenario 5); or
- increasing the ticket price to \$400 return (up from \$240) and \$200 one way (up from \$120) under Scenario 5.

Both of these sensitivity results are not considered realistic and, therefore, have not been outlined in detail.

The full findings of the sensitivity analysis are included in Attachment 3.

8.4.1. Seats Sold

8.4.1.1. Scenario 2

Under this Scenario (6 months per annum, 6 days per week), despite growing total seats sold by up to 30%, a negative NPV and BCR continues to be generated. As expected, decreasing total seats sold by up to 30% only generates a greater negative result

Table 19: Sensitivity Analysis Summary – Model 1, Scenario 2

+5% Seats Sold							+10% Seats Sold							+30% Seats Sold								
Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	38.1k	40.9k	44.8k	49.1k	54.1k		Total Seats Sold - Economy	39.9k	42.8k	46.9k	51.5k	56.7k		Total Seats Sold - Economy	47.1k	50.6k	55.4k	60.8k	67.0k			
Revenue		\$5.0m	\$5.8m	\$7.0m	\$8.4m	\$10.2m	Revenue		\$5.2m	\$6.1m	\$7.3m	\$8.8m	\$10.7m	Revenue		\$6.2m	\$7.2m	\$8.6m	\$10.4m	\$12.6m		
Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m		
EBITDA		-\$272k	-\$687k	-\$120k	\$549k	-\$2.1m	EBITDA		-\$34k	-\$412k	\$211k	\$950k	-\$1.6m	EBITDA		\$915k	\$688k	\$1.5m	\$2.6m	\$319k		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	-\$272k	-\$687k	-\$120k	\$549k	-\$2.1m	CF	-\$45.6m	-\$34k	-\$412k	\$211k	\$950k	-\$1.6m	CF	-\$45.6m	\$915k	\$688k	\$1.5m	\$2.6m	\$319k		
NPV						-\$46.8m	NPV						-\$43.0m	NPV							-\$27.7m	
BCR						0.59	BCR						0.61	BCR								0.72
Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7	Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7	Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7		
EBITDA per seat sold		-\$7.14	-\$16.82	-\$2.69	\$11.17	-\$39.03	EBITDA per seat sold		-\$0.86	-\$9.63	\$4.51	\$18.45	-\$28.68	EBITDA per seat sold		\$19.42	\$13.60	\$27.75	\$41.97	\$4.76		

-5% Seats Sold							-10% Seats Sold							-30% Seats Sold								
Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	34.4k	37.0k	40.5k	44.5k	49.0k		Total Seats Sold - Economy	32.6k	35.0k	38.4k	42.1k	46.4k		Total Seats Sold - Economy	25k	27k	30k	33k	36k			
Revenue		\$4.5m	\$5.2m	\$6.3m	\$7.6m	\$9.2m	Revenue		\$4.3m	\$5.0m	\$6.0m	\$7.2m	\$8.8m	Revenue		\$3.3m	\$3.9m	\$4.6m	\$5.6m	\$6.8m		
Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses		\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m		
EBITDA		-\$746k	-\$1.2m	-\$784k	-\$253k	-\$3.1m	EBITDA		-\$984k	-\$1.5m	-\$1.1m	-\$654k	-\$3.6m	EBITDA		-\$1.9m	-\$2.6m	-\$2.4m	-\$2.3m	-\$5.5m		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	-\$746k	-\$1.2m	-\$784k	-\$253k	-\$3.1m	CF	-\$45.6m	-\$984k	-\$1.5m	-\$1.1m	-\$654k	-\$3.6m	CF	-\$45.6m	-\$1.9m	-\$2.6m	-\$2.4m	-\$2.3m	-\$5.5m		
NPV						-\$54.5m	NPV						-\$58.3m	NPV							-\$73.7m	
BCR						0.53	BCR						0.50	BCR								0.39
Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7	Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7	Rev per seat sold		\$130.9	\$141.4	\$155.6	\$171.3	\$188.7		
EBITDA per seat sold		-\$21.67	-\$33.47	-\$19.35	-\$5.69	-\$63.01	EBITDA per seat sold		-\$30.15	-\$43.19	-\$29.08	-\$15.53	-\$76.99	EBITDA per seat sold		-\$76.18	-\$95.92	-\$81.84	-\$68.92	-\$152.91		

8.4.1.2. Scenario 3

As with Scenario 2, this Scenario (6 months per annum, 7 days per week), despite growing total seats sold by up to 30%, a negative NPV and BCR continues to be generated. As expected, decreasing total seats sold by up to 30% only generates a greater negative result

Table 20: Sensitivity Analysis Summary – Model 1, Scenario 3

+5% Seats Sold							+10% Seats Sold							+30% Seats Sold								
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	48.8k	52.5k	57.6k	63.5k	70.1k		Total Seats Sold - Economy	51.1k	55.0k	60.4k	66.5k	73.4k		Total Seats Sold - Economy	60.4k	65.0k	71.4k	78.6k	86.7k			
Revenue		\$6.4m	\$7.4m	\$9.0m	\$10.9m	\$13.2m	Revenue		\$6.7m	\$7.8m	\$9.4m	\$11.4m	\$13.9m	Revenue		\$7.9m	\$9.2m	\$11.1m	\$13.5m	\$16.4m		
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m	Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m	Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m		
EBITDA		\$880k	\$675k	\$1.6m	\$2.7m	\$625k	EBITDA		\$1.2m	\$1.0m	\$2.0m	\$3.2m	\$1.3m	EBITDA		\$2.4m	\$2.4m	\$3.7m	\$5.3m	\$3.8m		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	\$880k	\$675k	\$1.6m	\$2.7m	\$625k	CF	-\$45.6m	\$1.2m	\$1.0m	\$2.0m	\$3.2m	\$1.3m	CF	-\$45.6m	\$2.4m	\$2.4m	\$3.7m	\$5.3m	\$3.8m		
NPV						-\$26.6m	NPV						-\$21.7m	NPV							-\$1.9m	
BCR						0.74	BCR						0.77	BCR								0.91
Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8	Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8	Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8		
EBITDA per seat sold		\$18.04	\$12.86	\$27.88	\$42.97	\$8.92	EBITDA per seat sold		\$23.17	\$18.70	\$33.69	\$48.81	\$17.09	EBITDA per seat sold		\$39.77	\$37.59	\$52.46	\$67.68	\$43.51		

-5% Seats Sold							-10% Seats Sold							-30% Seats Sold								
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	44.2k	47.5k	52.2k	57.4k	63.4k		Total Seats Sold - Economy	41.8k	45.0k	49.4k	54.4k	60.0k		Total Seats Sold - Economy	32.5k	35.0k	38.4k	42.3k	46.7k			
Revenue		\$5.8m	\$6.7m	\$8.1m	\$9.8m	\$12.0m	Revenue		\$5.5m	\$6.4m	\$7.7m	\$9.3m	\$11.3m	Revenue		\$4.3m	\$5.0m	\$6.0m	\$7.3m	\$8.8m		
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m	Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m	Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m		
EBITDA		\$271k	-\$32k	\$752k	\$1.7m	-\$635k	EBITDA		-\$33k	-\$386k	\$325k	\$1.2m	-\$1.3m	EBITDA		-\$1.3m	-\$1.8m	-\$1.4m	-\$899k	-\$3.8m		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	\$271k	-\$32k	\$752k	\$1.7m	-\$635k	CF	-\$45.6m	-\$33k	-\$386k	\$325k	\$1.2m	-\$1.3m	CF	-\$45.6m	-\$1.3m	-\$1.8m	-\$1.4m	-\$899k	-\$3.8m		
NPV						-\$36.5m	NPV						-\$41.4m	NPV							-\$61.2m	
BCR						0.67	BCR						0.63	BCR								0.49
Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8	Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8	Rev per seat sold		\$131.0	\$141.5	\$155.7	\$171.4	\$188.8		
EBITDA per seat sold		\$6.14	-\$0.68	\$14.42	\$29.45	-\$10.02	EBITDA per seat sold		-\$0.80	-\$8.58	\$6.57	\$21.57	-\$21.06	EBITDA per seat sold		-\$38.46	-\$51.44	-\$36.04	-\$21.25	-\$81.02		

8.4.1.3. Scenario 4

As with Scenario 2 and 3, this Scenario (12 months per annum, 6 days per week), despite growing total seats sold by up to 30%, a negative NPV and BCR continues to be generated. As expected, decreasing total seats sold by up to 30% only generates a greater negative result.

Table 21: Sensitivity Analysis Summary – Model 1, Scenario 4

+5% Seats Sold							+10% Seats Sold							+30% Seats Sold								
Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	53.0k	55.8k	61.2k	67.3k	74.2k		Total Seats Sold - Economy	55.6k	58.4k	64.1k	70.5k	77.8k		Total Seats Sold - Economy	65.7k	69.1k	75.8k	83.3k	91.9k			
Revenue		\$7.0m	\$7.9m	\$9.5m	\$11.5m	\$14.0m	Revenue		\$7.3m	\$8.3m	\$10.0m	\$12.1m	\$14.7m	Revenue		\$8.6m	\$9.8m	\$11.8m	\$14.3m	\$17.4m		
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m	Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m	Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m		
EBITDA		-\$4.8k	-\$540k	\$369k	\$1.5m	-\$636k	EBITDA		\$326k	-\$164k	\$823k	\$2.0m	\$31k	EBITDA		\$1.6m	\$1.3m	\$2.6m	\$4.2m	\$2.7m		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	-\$4.8k	-\$540k	\$369k	\$1.5m	-\$636k	CF	-\$45.6m	\$326k	-\$164k	\$823k	\$2.0m	\$31k	CF	-\$45.6m	\$1.6m	\$1.3m	\$2.6m	\$4.2m	\$2.7m		
NPV						-\$40.0m	NPV						-\$34.7m	NPV							-\$13.7m	
BCR						0.68	BCR						0.71	BCR								0.84
Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80	Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80	Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80		
EBITDA per seat sold		-\$0.09	-\$9.68	\$6.03	\$21.89	-\$8.57	EBITDA per seat sold		\$5.87	-\$2.81	\$12.84	\$28.68	\$0.40	EBITDA per seat sold		\$25.13	\$19.39	\$34.82	\$50.65	\$29.39		

-5% Seats Sold							-10% Seats Sold							-30% Seats Sold								
Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy	48.0k	50.5k	55.4k	60.9k	67.2k		Total Seats Sold - Economy	45.5k	47.8k	52.4k	57.7k	63.6k		Total Seats Sold - Economy	35.4k	37.2k	40.8k	44.9k	49.5k			
Revenue		\$6.3m	\$7.1m	\$8.6m	\$10.4m	\$12.7m	Revenue		\$6.0m	\$6.8m	\$8.2m	\$9.9m	\$12.0m	Revenue		\$4.6m	\$5.3m	\$6.4m	\$7.7m	\$9.3m		
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m	Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m	Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m		
EBITDA		-\$667k	-\$1.3m	-\$538k	\$374k	-\$2.0m	EBITDA		-\$998k	-\$1.7m	-\$992k	-\$175k	-\$2.6m	EBITDA		-\$2.3m	-\$3.2m	-\$2.8m	-\$2.4m	-\$5.3m		
Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-	Capex	\$45.6m	-	-	-	-	-		
CF	-\$45.6m	-\$667k	-\$1.3m	-\$538k	\$374k	-\$2.0m	CF	-\$45.6m	-\$998k	-\$1.7m	-\$992k	-\$175k	-\$2.6m	CF	-\$45.6m	-\$2.3m	-\$3.2m	-\$2.8m	-\$2.4m	-\$5.3m		
NPV						-\$50.5m	NPV						-\$55.7m	NPV							-\$76.7m	
BCR						0.62	BCR						0.58	BCR								0.45
Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80	Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80	Rev per seat sold		\$131.05	\$141.47	\$155.72	\$171.44	\$188.80		
EBITDA per seat sold		-\$13.90	-\$25.59	-\$9.72	\$6.14	-\$29.34	EBITDA per seat sold		-\$21.95	-\$34.87	-\$18.91	-\$3.04	-\$41.46	EBITDA per seat sold		-\$65.66	-\$85.25	-\$68.81	-\$52.89	-\$107.25		

8.4.1.4. Scenario 5

This Scenario (12 months per annum, 7 days per week) demonstrates that a positive NPV of \$7.9m is able to be generated if the number of tickets sold was to be 30% more than projected (79k in year 1 compared with 61k in the base model for Scenario 5). As expected, decreasing total seats sold by up to 30% only generates a greater negative result.

Table 22: Sensitivity Analysis Summary – Model 1, Scenario 5

+5% Seats Sold							+10% Seats Sold							+30% Seats Sold								
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy		64k	67k	74k	82k	90k	Total Seats Sold - Economy		67k	71k	78k	86k	94k	Total Seats Sold - Economy		79k	83k	92k	101k	112k		
Revenue		\$8.4m	\$9.5m	\$11.5m	\$14.0m	\$17.0m	Revenue		\$8.8m	\$10.0m	\$12.1m	\$14.7m	\$17.8m	Revenue		\$10.4m	\$11.8m	\$14.3m	\$17.3m	\$21.1m		
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m	Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m	Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m		
EBITDA		\$880k	\$494k	\$1.7m	\$3.2m	\$1.6m	EBITDA		\$1.3m	\$948k	\$2.3m	\$3.9m	\$2.4m	EBITDA		\$2.9m	\$2.8m	\$4.5m	\$6.6m	\$5.7m		
Capex		\$45.6m	-	-	-	-	Capex		\$45.6m	-	-	-	-	Capex		\$45.6m	-	-	-	-		
CF		-\$45.6m	\$880k	\$494k	\$1.7m	\$3.2m	CF		-\$45.6m	\$1.3m	\$948k	\$2.3m	\$3.9m	CF		-\$45.6m	\$2.9m	\$2.8m	\$4.5m	\$6.6m	\$5.7m	
NPV						-\$23.9m	NPV						-\$17.5m	NPV							\$7.9m	
BCR						0.79	BCR						0.82	BCR								0.97
Rev per seat sold			\$131.10	\$141.52	\$155.76	\$171.49	\$188.85	Rev per seat sold			\$131.10	\$141.52	\$155.76	\$171.49	\$188.85	Rev per seat sold		\$131.10	\$141.52	\$155.76	\$171.49	\$188.85
EBITDA per seat sold			\$13.81	\$7.32	\$23.28	\$39.60	\$18.07	EBITDA per seat sold			\$19.14	\$13.42	\$29.30	\$45.60	\$25.84	EBITDA per seat sold		\$36.36	\$33.13	\$48.76	\$64.96	\$50.91

-5% Seats Sold							-10% Seats Sold							-30% Seats Sold								
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20		
Total Seats Sold - Economy		58k	61k	67k	74k	82k	Total Seats Sold - Economy		55k	58k	63k	70k	77k	Total Seats Sold - Economy		43k	45k	49k	54k	60k		
Revenue		\$7.6m	\$8.6m	\$10.4m	\$12.7m	\$15.4m	Revenue		\$7.2m	\$8.2m	\$9.9m	\$12.0m	\$14.6m	Revenue		\$5.6m	\$6.4m	\$7.7m	\$9.3m	\$11.4m		
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m	Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m	Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m		
EBITDA		\$84k	-\$415k	\$626k	\$1.9m	\$7.9k	EBITDA		-\$314k	-\$869k	\$76k	\$1.2m	-\$803k	EBITDA		-\$1.9m	-\$2.7m	-\$2.1m	-\$1.4m	-\$4.0m		
Capex		\$45.6m	-	-	-	-	Capex		\$45.6m	-	-	-	-	Capex		\$45.6m	-	-	-	-		
CF		-\$45.6m	\$84k	-\$415k	\$626k	\$1.9m	CF		-\$45.6m	-\$314k	-\$869k	\$76k	\$1.2m	-\$803k	CF		-\$45.6m	-\$1.9m	-\$2.7m	-\$2.1m	-\$1.4m	-\$4.0m
NPV						-\$36.6m	NPV						-\$43.0m	NPV								-\$68.4m
BCR						0.71	BCR						0.67	BCR								0.52
Rev per seat sold			\$131.10	\$141.52	\$155.76	\$171.49	\$188.85	Rev per seat sold			\$131.10	\$141.52	\$155.76	\$171.49	\$188.85	Rev per seat sold		\$131.10	\$141.52	\$155.76	\$171.49	\$188.85
EBITDA per seat sold			\$1.46	-\$6.80	\$9.33	\$25.72	\$0.10	EBITDA per seat sold			-\$5.74	-\$15.04	\$1.20	\$17.62	-\$10.39	EBITDA per seat sold		-\$44.84	-\$59.78	-\$42.96	-\$26.34	-\$67.31

8.4.2. Ticket Price Sensitivity

8.4.2.1. Scenario 2

Under Scenario 2 (6 months per annum, 6 days per week), despite increasing the ticket price to \$360 return and \$180 one way, a negative NPV and BCR continue to be generated.

Table 23: Ticket Price Sensitivity Analysis Summary – Model 1, Scenario 2

\$300 Ticket Price							\$320 Ticket Price										
Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20				
Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k	Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k				
Revenue			\$5.8m	\$6.8m	\$8.2m	\$9.9m	\$12.0m	Revenue			\$6.2m	\$7.2m	\$8.7m	\$10.5m	\$12.8m		
Expenses			\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses			\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m		
EBITDA			\$592k	\$317k	\$1.1m	\$2.0m	-\$319k	EBITDA			\$959k	\$743k	\$1.6m	\$2.6m	\$441k		
Capex			\$45.6m	-	-	-	-	Capex			\$45.6m	-	-	-	-		
CF			-\$45.6m	\$592k	\$317k	\$1.1m	\$2.0m	-\$319k	CF			-\$45.6m	\$959k	\$743k	\$1.6m	\$2.6m	\$441k
NPV						-\$32.8m	NPV						-\$26.8m				
BCR						0.69	BCR						0.73				
Rev per seat sold				\$161.3	\$174.2	\$191.9	\$211.4	\$232.9	Rev per seat sold			\$171.4	\$185.2	\$204.0	\$224.8	\$247.7	
EBITDA per seat sold				\$16.32	\$8.13	\$25.68	\$43.22	-\$6.19	EBITDA per seat sold			\$26.44	\$19.09	\$37.78	\$56.58	\$8.56	

\$340 Ticket Price							\$360 Ticket Price										
Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20	Model 1, Scenario 2	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20				
Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k	Total Seats Sold - Economy		36.3k	38.9k	42.6k	46.8k	51.5k				
Revenue			\$6.6m	\$7.6m	\$9.2m	\$11.1m	\$13.5m	Revenue			\$6.9m	\$8.1m	\$9.7m	\$11.8m	\$14.3m		
Expenses			\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m	Expenses			\$5.3m	\$6.5m	\$7.1m	\$7.9m	\$12.3m		
EBITDA			\$1.3m	\$1.2m	\$2.1m	\$3.3m	\$1.2m	EBITDA			\$1.7m	\$1.6m	\$2.6m	\$3.9m	\$2.0m		
Capex			\$45.6m	-	-	-	-	Capex			\$45.6m	-	-	-	-		
CF			-\$45.6m	\$1.3m	\$1.2m	\$2.1m	\$3.3m	\$1.2m	CF			-\$45.6m	\$1.7m	\$1.6m	\$2.6m	\$3.9m	\$2.0m
NPV						-\$20.9m	NPV						-\$14.9m				
BCR						0.77	BCR						0.82				
Rev per seat sold				\$181.5	\$196.1	\$216.1	\$238.1	\$262.4	Rev per seat sold			\$191.7	\$207.1	\$228.2	\$251.5	\$277.2	
EBITDA per seat sold				\$36.56	\$30.04	\$49.87	\$69.93	\$23.30	EBITDA per seat sold			\$46.68	\$41.00	\$61.97	\$83.28	\$38.04	

8.4.2.2. Scenario 3

The ticket price sensitivity on Scenario 3 (6 months per annum, 7 days per week) demonstrates that:

- increasing the ticket price to \$340 return and \$170 one way produces a positive NPV of \$6.9m; and
- increasing the ticket price to \$360 return and \$180 one way generates both a positive NPV (\$14.6m) and BCR (1.03).

Table 24: Ticket Price Sensitivity Analysis Summary – Model 1, Scenario 3

\$300 Ticket Price						
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$46k	\$50k	\$55k	\$60k	\$67k
Revenue		\$7.5m	\$8.7m	\$10.5m	\$12.8m	\$15.5m
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m
EBITDA		\$2.0m	\$2.0m	\$3.2m	\$4.6m	\$2.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.0m	\$2.0m	\$3.2m	\$4.6m	\$2.9m
NPV		-\$8.5m				
BCR		0.86				
Rev per seat sold		\$161.4	\$174.3	\$192.0	\$211.5	\$233.0
EBITDA per seat sold		\$42.75	\$39.29	\$57.77	\$76.61	\$44.15

\$320 Ticket Price						
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$46k	\$50k	\$55k	\$60k	\$67k
Revenue		\$8.0m	\$9.3m	\$11.2m	\$13.6m	\$16.5m
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m
EBITDA		\$2.5m	\$2.5m	\$3.8m	\$5.4m	\$3.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.5m	\$2.5m	\$3.8m	\$5.4m	\$3.9m
NPV		-\$800k				
BCR		0.92				
Rev per seat sold		\$171.5	\$185.3	\$204.1	\$224.8	\$247.8
EBITDA per seat sold		\$52.87	\$50.25	\$69.87	\$89.97	\$58.90

\$340 Ticket Price						
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$46k	\$50k	\$55k	\$60k	\$67k
Revenue		\$8.4m	\$9.8m	\$11.9m	\$14.4m	\$17.5m
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m
EBITDA		\$2.9m	\$3.1m	\$4.5m	\$6.2m	\$4.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.9m	\$3.1m	\$4.5m	\$6.2m	\$4.9m
NPV		\$6.9m				
BCR		0.97				
Rev per seat sold		\$181.6	\$196.2	\$216.2	\$238.2	\$262.5
EBITDA per seat sold		\$62.99	\$61.20	\$81.96	\$103.32	\$73.64

\$360 Ticket Price						
Model 1, Scenario 3	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$46k	\$50k	\$55k	\$60k	\$67k
Revenue		\$8.9m	\$10.4m	\$12.5m	\$15.2m	\$18.5m
Expenses		\$5.5m	\$6.8m	\$7.4m	\$8.2m	\$12.6m
EBITDA		\$3.4m	\$3.6m	\$5.2m	\$7.1m	\$5.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$3.4m	\$3.6m	\$5.2m	\$7.1m	\$5.9m
NPV		\$14.6m				
BCR		1.03				
Rev per seat sold		\$191.8	\$207.2	\$228.3	\$251.6	\$277.3
EBITDA per seat sold		\$73.11	\$72.16	\$94.06	\$116.68	\$88.39

8.4.2.3. Scenario 4

Under Scenario 4 (12 months per annum, 6 days per week), growing the ticket price to \$360 return and \$180 one way produces a positive NPV of \$3.8m, however, a negative BCR (less than 1) is still produced.

Table 25: Ticket Price Sensitivity Analysis Summary – Model 1, Scenario 4

Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$51k	\$53k	\$58k	\$64k	\$71k
Revenue		\$8.2m	\$9.3m	\$11.2m	\$13.6m	\$16.5m
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m
EBITDA		\$1.2m	\$830k	\$2.0m	\$3.5m	\$1.8m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$1.2m	\$830k	\$2.0m	\$3.5m	\$1.8m
NPV		-\$20.7m				
BCR		0.80				
Rev per seat sold		\$161.4	\$174.3	\$192.0	\$211.5	\$233.0
EBITDA per seat sold		\$23.71	\$15.63	\$34.84	\$54.47	\$25.79

Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$51k	\$53k	\$58k	\$64k	\$71k
Revenue		\$8.7m	\$9.8m	\$11.9m	\$14.4m	\$17.5m
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m
EBITDA		\$1.7m	\$1.4m	\$2.7m	\$4.3m	\$2.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$1.7m	\$1.4m	\$2.7m	\$4.3m	\$2.9m
NPV		-\$12.5m				
BCR		0.85				
Rev per seat sold		\$171.5	\$185.3	\$204.1	\$224.9	\$247.8
EBITDA per seat sold		\$33.84	\$26.59	\$46.93	\$67.83	\$40.54

\$340 Ticket Price						
Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$51k	\$53k	\$58k	\$64k	\$71k
Revenue		\$9.2m	\$10.4m	\$12.6m	\$15.3m	\$18.6m
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m
EBITDA		\$2.2m	\$2.0m	\$3.4m	\$5.2m	\$3.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.2m	\$2.0m	\$3.4m	\$5.2m	\$3.9m
NPV		-\$4.4m				
BCR		0.90				
Rev per seat sold		\$181.65	\$196.25	\$216.19	\$238.21	\$262.52
EBITDA per seat sold		\$43.96	\$37.54	\$59.03	\$81.18	\$55.28

\$360 Ticket Price						
Model 1, Scenario 4	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$51k	\$53k	\$58k	\$64k	\$71k
Revenue		\$9.7m	\$11.0m	\$13.3m	\$16.1m	\$19.6m
Expenses		\$7.0m	\$8.4m	\$9.2m	\$10.1m	\$14.7m
EBITDA		\$2.7m	\$2.6m	\$4.1m	\$6.1m	\$5.0m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.7m	\$2.6m	\$4.1m	\$6.1m	\$5.0m
NPV		\$3.8m				
BCR		0.95				
Rev per seat sold		\$191.77	\$207.20	\$228.29	\$251.57	\$277.27
EBITDA per seat sold		\$54.08	\$48.50	\$71.12	\$94.53	\$70.03

8.4.2.4. Scenario 5

Under Scenario 5 (12 months per annum, 7 days per week), a positive NPV is produced if the ticket price is raised to \$320 return (and \$160 one way), however, a positive NPV and BCR is produced if the return ticket price is raised to \$340 (\$170 one way).

Table 26: Ticket Price Sensitivity Analysis Summary – Model 1, Scenario 5

\$300 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$9.8m	\$11.2m	\$13.5m	\$16.4m	\$20.0m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$2.3m	\$2.1m	\$3.7m	\$5.7m	\$4.6m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.3m	\$2.1m	\$3.7m	\$5.7m	\$4.6m
NPV		-\$560k				
BCR		0.92				
Rev per seat sold		\$161.46	\$174.39	\$192.05	\$211.55	\$233.08
EBITDA per seat sold		\$38.30	\$33.48	\$52.94	\$73.07	\$53.77

\$320 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$10.4m	\$11.9m	\$14.4m	\$17.5m	\$21.3m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$2.9m	\$2.9m	\$4.6m	\$6.7m	\$5.9m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$2.9m	\$2.9m	\$4.6m	\$6.7m	\$5.9m
NPV		\$9.3m				
BCR		0.98				
Rev per seat sold		\$171.58	\$185.34	\$204.14	\$224.90	\$247.82
EBITDA per seat sold		\$48.42	\$44.43	\$65.04	\$86.42	\$68.51

\$340 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$11.0m	\$12.6m	\$15.3m	\$18.5m	\$22.5m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$3.6m	\$3.6m	\$5.4m	\$7.8m	\$7.2m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$3.6m	\$3.6m	\$5.4m	\$7.8m	\$7.2m
NPV		\$19.2m				
BCR		1.04				
Rev per seat sold		\$181.7	\$196.3	\$216.2	\$238.3	\$262.6
EBITDA per seat sold		\$58.54	\$55.39	\$77.13	\$99.78	\$83.26

\$360 Ticket Price						
Model 1, Scenario 5	Year 0	Year 1	Year 5	Year 10	Year 15	Year 20
Total Seats Sold - Economy		\$61k	\$64k	\$71k	\$78k	\$86k
Revenue		\$11.7m	\$13.3m	\$16.1m	\$19.6m	\$23.8m
Expenses		\$7.5m	\$9.0m	\$9.8m	\$10.8m	\$15.4m
EBITDA		\$4.2m	\$4.3m	\$6.3m	\$8.8m	\$8.4m
Capex	\$45.6m	-	-	-	-	-
CF	-\$45.6m	\$4.2m	\$4.3m	\$6.3m	\$8.8m	\$8.4m
NPV		\$29.1m				
BCR		1.10				
Rev per seat sold		\$191.8	\$207.3	\$228.3	\$251.6	\$277.3
EBITDA per seat sold		\$68.67	\$66.34	\$89.23	\$113.13	\$98.00

9. Marketing Considerations

The following reflects some of the key marketing considerations which have determined which of the niche visitor markets to focus on.

9.1. Adventure and Nature Tourism Operators on West Coast

We have visited the West Coast twice for this project and have met with various industry operators on both occasions. We have been provided with commercially sensitive data reflecting:

- numbers of visitors purchasing various products;
- which products are effectively packaged together;
- what trends operating are seeing; and
- what expansion in product services and products is already planned and/or underway.

The visitor forecasts we have therefore applied for a tourist rail service reflect an assessment of likely visitation by various niche markets based on data mining from various sources, and structured interviews with industry operators including follow up calls and emails.

Operator feedback indicates that the season runs from mid-September to mid-May, with June, July and August being the low season. The shoulder seasons of May and September have continued to grow.

There are various nature and adventure products in the region from Reefton across to the coast and then north to Karamea, though the vast majority of product is centred around the Buller Gorge. Adventure and nature tourism product include:

- swing bridge experience;
- jet boating;
- scenic narrow-gauge railway;
- rafting;
- caving;
- flying comet harnessed experience; and
- coal and gold mine heritage tours

Our estimates are that approximately 52k unique visitors currently undertake one or more of these experiences per annum, with visitor growth of 4-5% being experienced year on year. It needs to be noted that this number of visitors is a subset of those also coming to undertake nature and adventure product around Hokitika and of course the 850k estimated to be undertaking nature and adventure product experiences on the Fox and Franz Josef Glaciers.

All up, we would estimate the size of the adventure and nature tourism sector on the West Coast as close to 660k fee-paying visitors. This excludes the vast majority (Punakaiki, glaciers, DOC tracks and mount biking trails) of the estimated 850k undertaking free nature, adventure and heritage experiences.

If we exclude the glacier fee-paying visitors, approximately 60k are thought to be paying for a nature, heritage or adventure experience. We have conservatively estimated that between 5.7k – 9.7k adventure and related packaged product visitors would partner with KiwiRail as part of a composite rail and adventure product experience. This represents 9.5%-16% of current adventure customers and excludes the current likely growth in this fee-paying product sector of 4-5% per annum.

This estimate of market penetration also does not take into consideration the numerous numbers of walkers and mountain bikers who will use the Paparoa Great Walk Track and the numbers now undertaking the Ghost Road which has proven to be highly successful.

Anecdotal industry feedback indicates that the markets undertaking nature, adventure and heritage fee-paying tours and experiences comprise approximately 65% international and 35% domestic visitors.

9.2. Train Enthusiasts Niche

There is very limited empirical data to indicate actual train enthusiasts, so we have applied a subset of heritage specific visitors. Based on this, we have estimated a low penetration level for various generating markets as outlined in Table 27.

The percentage of the train enthusiasts market sector captured by the WCA is only set at 4% market penetration, which we consider is conservative.

The rail experience on the WCA will be unique and very different from the TranzAlpine, Coastal Pacific or Northern Explorer. a trip through the Buller Gorge especially offers dramatic scenery, fascinating infrastructure including historic tunnels, and a slower travel experience because of the tightness of the curves etc.

Table 27: Niche markets

	Ex-Queenstown				Ex-Christchurch				Ex-Tasman			
	% of Total Trips	# of Trips	WCA Penetration Peak/Low %	WCA Utilisation Yr 1 Peak/Low	% of Total Trips	# of Trips	WCA Penetration Peak/Low %	WCA Utilisation Yr 1 Peak/Low	% of Total Trips	# of Trips	WCA Penetration Peak/Low %	WCA Utilisation Yr 1 Peak/Low
Adventure Market	25%	813k	0.4% / 0.1%	3.4k / 1138	25%	870k	0.7% / 0.2%	5.7k / 1.9k	25%	220k	3.0% / 0.00%	659 / 220
Train Enthusiasts Market	4%	127k	2.3% / 0.8%	2.9k / 976	4%	136k	3.2% / 1.1%	4.3k / 1432	4%	34k	0.4% / 0.1%	344 / 115
General Leisure	100%	3.3m	0.1% / 0.04%	3.9k / 1301	100%	3.5m	0.2% / 0.1%	6.4k / 2.1k	100%	879k	2.3% / 0.8%	791 / 264
Nature Market	37%	1.2m	0.2% / 0.1%	2.6k / 882	37%	1.3m	0.3% / 0.1%	3.5k / 1159	37%	325k	0.1% / 0.04%	651 / 217
Total	-	-	-	17.2k	-	-	-	26.5k	-	-	-	3.3k

9.3. General Leisure Visitor

The strength of both Christchurch and Queenstown as the major two gateways into the South Island offers a large leisure market for the WCA to tap into. The leisure – holiday market into these two major generating hubs totals 6.8m and in addition, there are nearly 900k leisure holiday visitors coming into Tasman, with many international visitors using national parks and supporting adventure and nature tourism product.

As previously indicated, these general holiday/leisure visitors are accessing the West Coast via Christchurch, Queenstown and Tasman and are characterised by the following:

- Those travelling on a 4-7-day circuit from Christchurch across to the West Coast and down to Queenstown and representing an estimated 60% of travel on the West Coast. The international visitors are mostly self-drive in camper vans/motor homes or rental cars, while domestic visitors tend to be a mix of self-drive owner vehicles or camper vans. International tour groups are either in larger (45-seater) coaches or smaller (12-20-seater) minivans.
- Those travelling on a 4-7-day circuit from Queenstown up to the West Coast and across to Christchurch and representing an estimated 40% of travel on the West Coast;
- The market penetration rates applied are very low as can be seen in the table above with market penetration ex Queenstown set at 0.1% as a peak and 0.2% for Christchurch and with only Tasman market penetration getting to 2.3% of leisure visitors as a peak penetration rate;
- The existing visitor trail across Arthurs Pass to Greymouth is well worn, though gradually the percentage of visitors travelling this route on their way mostly south to Queenstown, is slowly reducing as more start to travel up the West Coast from Queenstown;
- The big West Coast visitor attraction until now has been the Fox and Franz Josef Glaciers; both, however, are getting harder to access due to major climatic events which continue to destroy access roads and on top of this, is the reducing size of the glaciers due to global warming and which has resulted in more safety and security issued for those walking on the glaciers;
- The importance of new major visitor attractions and experiences is recognised by local, regional and central government, with new visitor experiences such as the Papamoa Great Walk, expansion of visitor services at Punakaiki and new Iwi driven all-weather visitor experiences in locations north of Hokitika, all being part of a move to retain sustainable visitor growth on the West Coast, whatever happens to the glacier experiences.

- The focus by DOC, especially on the Paparoa Great Walk and the ongoing growth of visitation to many other West Coast walks and mountain biking trails such as the Ghost Road, all, support a much stronger visitation focus for the West Coast, especially in the area from Hokitika north to Westport and Karamea.
- In year 1 of the WCA operation, it is estimated that 11k general leisure visitors at best, will undertake a journey.

9.4. Marketing Considerations Summary

In summary, we have taken a more conservative approach on the numbers of visitors from these various niche sectors. This helps illustrate that with clever marketing to various niche sectors, market demand should be able to achieve these suggested penetration rates and ideally, exceed them.

To achieve this there will also be a need for careful product packaging with export-ready nature, adventure and heritage product operators on the West Coast. It is the cumulative rail + experiences which is likely to be well supported by both industry and consumers. This also supports the direction which DOC and other government and Iwi landowners are taking to strengthen the visitor economy and breadth of visitor experiences on the West Coast.

Importantly, this also reduces the heavy current reliance on the glacier experiences to carry the bulk of visitation for the West Coast.

Overall, it is important to also recognise the growing shift especially in international travel patterns in the South Island, with less longer broad touring circuits covering numerous TLAs, and a significant move to Christchurch and Queenstown being major destination hubs which act as hubs for day and overnight spokes to various locations, including the West Coast.

The other major trend is the point to point travel between Queenstown and Christchurch, with visitors either travelling the West Coast or the Tekapo/Mount Cook route to go between them.

All of this plays strategically into the hands of those wanting to further develop West Coast visitor experiences and the opportunity for a major stakeholder/operator to provide the “anchor” which can link many of the existing West Coast smaller operator experiences together.

10. Benefits Assessment

A WCA rail experience on the West Coast is likely to be a major tourist product and would act as a major product anchor to support many of the smaller visitor experiences on the West Coast.

There are a variety of benefits which will be assessed and where possible quantified if this project moves past the stop/go point. These benefits include:

- Economic benefits including financial benefit to KiwiRail through product partnerships;
- Wider economic benefit for the West Coast as seen through new investment into tourism and retail products especially;
- Social benefits and uplift through the creation of new part-time and full-time employment on the West Coast;
- Environmental benefits through facilities improvement (railway stations, facilities upgrades) access to new walking tracks, mountain biking trails etc;
- Cultural benefits through linking to Maori tourism products, new and existing including improved visitor awareness and related sale of products and experiences.

These will be expanded on if the project moves beyond this stop/go point, as determined by KiwiRail.