

From Facts to Forecasts

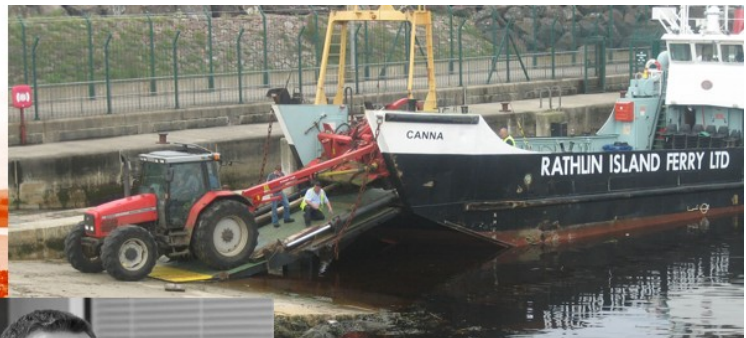
Small Ferries Project: Travel Demand Analysis Final Report

Report for:

Department for Regional Development (Northern Ireland),
Department of Community, Rural and Gaeltacht Affairs and
Caledonian Maritime Assets Limited

In Association With Saltire Management

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European Union

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Development Fund
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Small Ferries Project

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Executive Summary

The aim of this study was to forecast the future passenger, vehicle and freight demand for a set of eight 'lifeline ferry' services, in order to design suitably sized vessels to meet the needs of eight isolated communities.

There are a number of factors which can affect demand over time and which therefore were taken into account in the demand forecasting. These demand drivers included: vessel capacity, vessel quality, prices, crossing time, population changes and tourism levels.

In order to identify the likely future transport requirements of the eight communities, consultations were carried out with stakeholders, such as Community Councils and Councillors, for the relevant areas. A range of issues were discussed including travel patterns, vessel capacity, peak periods of demand and service timetables, as well as other factors such as tourism and changes in population.

Data collected for the Scottish Lifeline Ferries Review was also used to ascertain 'typical' travel patterns for each community, with patronage data and relevant census data being used to consider recent or likely future changes which may affect these travel patterns.

A demand forecasting model was built and used to forecast passenger, car and commercial vehicle demand for each route over the next 25 years, based on current demand and the various growth assumptions. Current demand was split into three seasons – low (mid-October to mid-April), shoulder peak (mid-April to June; September to mid-October) and peak (July and August) – and an average weekly demand by season calculated for each route. Two growth assumptions were used – current trend growth and high growth.

Forecast demand data was then allocated across each sailing based on current timetables, giving the highest passenger demand, and longest combined vehicle length on a single sailing, for each route by season. The results for combined vehicle length showed that the routes fell into two categories – busier routes and quieter routes. Due to this, a vessel size for each category was recommended based upon the forecast demand. These are shown in the following table.

Boat	Passenger Capacity	Vehicle Capacity (metres)	Vehicle Capacity (cars)
Small	25 – 52	36 – 48	8 – 11
Large	60 – 104	93 – 104	21 – 23

The following tables summarise the demand forecasting results, capacity analysis and subsequent vessel recommendations for each of the eight 'lifeline ferry' routes.

Arranmore Demand Forecasting Results

Arranmore	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	779	649	909	1123	963	1351	1580	1381	1940
Cars (weekly)	211	175	244	268	229	321	409	356	497
Commercial Vehicles (weekly)	23	22	28	30	28	36	22	21	27
Maximum Passenger Demand per Sailing			26			25			36
Longest Combined Vehicle Length per Sailing (metres & cars)			42m or 9 cars			36m or 8 cars			48m or 11 cars
Vessel Capacity Recommendations	Small Vessel: 25-52 Passengers; 36-48 lane metres (or 8-11 cars)								

Tory Demand Forecasting Results

Tory	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	78	64	90	369	356	499	1296	1295	1818
Cars (weekly)									
Commercial Vehicles (weekly)									
Maximum Passenger Demand per Sailing			4			20			52
Longest Combined Vehicle Length per Sailing (metres & cars)									
Vessel Capacity Recommendations	Small Vessel: 25-52 Passengers; 36-48 lane metres (or 8-11 cars)								

Rathlin Demand Forecasting Results

Rathlin	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	300	385	540	1361	1746	2454	2681	3438	4834
Cars (weekly)	47	61	85	65	93	130	66	85	118
Commercial Vehicles (weekly)	7	9	12	13	17	21	8	10	13
Maximum Passenger Demand per Sailing			12			53			104
Longest Combined Vehicle Length per Sailing (metres & cars)			12m or 3 cars			19m or 5 cars			15m or 4 cars
Vessel Capacity Recommendations	Large Vessel [†] : 60-104 Passengers; 93-104 lane metres (or 21-23 cars)*								

[†] Default 'small vessel' insufficient to meet foot passenger demand

* Vehicular capacity of the default 'large vessel' exceeds requirement and may need to be restricted to reflect the policy to limit vehicular access to the island

Portavadie Demand Forecasting Results

Portavadie	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	609	698	1387	1455	1770	3519	2101	2589	5071
Cars (weekly)	240	275	554	512	619	1275	736	901	1786
Commercial Vehicles (weekly)	8	9	11	11	13	17	9	11	14
Maximum Passenger Demand per Sailing			34			55			64
Longest Combined Vehicle Length per Sailing (metres & cars)			64m or 14 cars			93m or 21 cars			104m or 23 cars
Vessel Capacity Recommendations	Large Vessel: 60-104 Passengers; 93-104 lane metres (or 21-23 cars)								

Gigha Demand Forecasting Results

Gigha	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	665	878	1506	1403	1634	2812	1848	2095	3576
Cars (weekly)	187	266	450	319	398	690	382	468	800
Commercial Vehicles (weekly)	25	27	35	31	34	44	25	28	35
Maximum Passenger Demand per Sailing			40			60			77
Longest Combined Vehicle Length per Sailing (metres & cars)			66m or 15 cars			79m or 18 cars			88m or 20 cars
Vessel Capacity Recommendations	Large Vessel: 60-104 Passengers; 93-104 lane metres (or 21-23 cars)								

Lismore Demand Forecasting Results

Lismore	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	770	867	1290	1197	1298	1944	1662	1761	2660
Cars (weekly)	38	43	64	44	49	78	56	63	96
Commercial Vehicles (weekly)	10	10	13	13	13	17	15	16	20
Maximum Passenger Demand per Sailing			13			18			22
Longest Combined Vehicle Length per Sailing (metres & cars)			15m or 4 cars			19m or 5 cars			23m or 6 cars
Vessel Capacity Recommendations	Small Vessel: 25-52 Passengers; 36-48 lane metres (or 8-11 cars)								

Kilchoan Demand Forecasting Results

Kilchoan	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	239	307	540	925	1006	2347	1792	1890	3716
Cars (weekly)	25	35	55	147	163	434	277	296	653
Commercial Vehicles (weekly)	0	0	0	0	0	1	0	0	0
Maximum Passenger Demand per Sailing			28			47			74
Longest Combined Vehicle Length per Sailing (metres & cars)			13m or 3 cars			39m or 9 cars			59m or 13 cars
Vessel Capacity Recommendations	Large Vessel: 60-104 Passengers; 93-104 lane metres (or 21-23 cars)								

Raasay Demand Forecasting Results

Raasay	LOW SEASON			SHOULDER PEAK SEASON			PEAK SEASON		
	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth	Current Demand	Trend Growth	High Growth
Passengers (weekly)	940	1103	2020	1494	1716	3141	1632	1874	3420
Cars (weekly)	354	415	783	507	586	1108	608	702	1285
Commercial Vehicles (weekly)	26	28	36	28	30	38	29	32	41
Maximum Passenger Demand per Sailing			54			50			55
Longest Combined Vehicle Length per Sailing (metres & cars)			106m or 24 cars			88m or 20 cars			103m or 23 cars
Vessel Capacity Recommendations	Large Vessel: 60-104 Passengers; 93-104 lane metres (or 21-23 cars)								

1 Introduction

1.1 Background to the Study

Background

- 1.1.1 The Department for Regional Development in the North of Ireland, the Irish Department of Community, Rural and Gaeltacht Affairs and Caledonian Maritime Assets Limited (CMAL) are collaborating on a Small Ferries Project which aims to develop a programme to design and procure a new fleet of small ferry vessels to serve remote communities off the Scottish and Irish coasts. The Project is supported by INTERREG IVA.
- 1.1.2 The Small Ferries Project is sponsored by the INTERREG IVA Programme which is a Cross-Border Territorial Cooperation Programme for Northern Ireland, the Border Region and Western Scotland. The overall aim of the INTERREG IVA Programme is to: 'Support strategic cross-border co-operation for a more prosperous and sustainable region.'
- 1.1.3 One of the early tasks of the project is to forecast the future passenger, vehicle and freight demand for 'lifeline ferry' services in order to design suitably sized vessels to meet the needs of eight isolated communities in the Programme Area. These eight routes are described later in this chapter. The Small Ferries Project requires projections of their likely needs over the next 25 years.
- 1.1.4 This project allows the three jurisdictions to work together in a collaborative manner in planning for a new generation of 'lifeline ferries', developing best practice in this field and providing opportunities to deliver economies of scale in the procurement of a new generation of small ferries. The client is the **Small Ferries Project Team**, which comprises a consortium of relevant authorities and organisations from the three jurisdictions.
- 1.1.5 The requirements for the Study were set out in the Study Brief, a copy of which is attached in Appendix A.
- 1.1.6 MVA Consultancy tendered for this work and was awarded the contract on 1 June 2009.

1.2 Summary of the Requirements of the Study

- 1.2.1 The aim of the study is to forecast the future passenger, vehicle and freight demand for a set of eight 'lifeline ferry' services, in order to design suitably-sized vessels to meet the needs of eight isolated communities in the programme area.
- 1.2.2 The relevant 'lifeline' ferry routes to be considered in this study include:

Ireland (South)

- 1.2.3 **Leab Gharbh to Ailt an Chorráin** – connecting Árainn Mhór to the Donegal mainland.
- 1.2.4 Árainn Mhór is currently served by two competing services, one commercially operated and the other subsidised. Both services operate between the same two ports. The commercial service has been in operation approximately two years. Our demand forecasting exercise



considers the total demand for travel between the island and the mainland, not just that carried by the subsidised lifeline service.

- 1.2.5 **Toraigh to the Donegal mainland** – the Brief suggested Toraigh to Ailt an Chorráin, implying that the study should focus on the demand for the infrequent (typically fortnightly) subsidised lifeline freight service, rather than the more-frequent (several times per day) commercial foot passenger-only services which operate between Toraigh and Bunbeg/An Bun Beag and Magheroarty/Machaire Uí Rabhartaigh.
- 1.2.6 We have provided demand forecasts for the regular passenger-only service only.

Routes in Northern Ireland

- 1.2.7 **Ballycastle to Church Bay, Rathlin**, connecting Rathlin to the Northern Ireland mainland.
- 1.2.8 This service is currently operated by Rathlin Island Ferry Ltd and offers nine return daily sailings in summer and five return sailings in winter. The journey time is 45 minutes by the vehicle ferry (provided by MV Canna, which is being leased from CMAL) and 20 minutes by the faster passenger-only vessel (MV St Sorney).
- 1.2.9 The faster passenger-only MV St Sorney vessel was brought on to the route in July 2008 to supplement the service previously offered by the MV Canna alone. The MV St Sorney has recently been replaced by a new, larger vessel, the Rathlin Express, with a capacity of 100 seated passengers and wheelchair facilities.

Routes in Scotland

- 1.2.10 **Tarbert to Portavadie** (improving accessibility for the Cowal Peninsula (improved links to Lochgilphead and Oban) and the Mull of Kintyre, Islay and Gigha (as part of multi-stage ferry route to Glasgow)).
- 1.2.11 **Gigha to Tayinloan** (connecting Gigha to the Scottish mainland).
- 1.2.12 **Oban to Lismore** (one of the two ferries connecting Lismore to the Scottish mainland – the other being a passenger-only service from Lismore to Port Appin).
- 1.2.13 We have recently completed a review of Lismore’s ferry services for CMAL and are aware that the existing two-ferry pattern may change at some point in the foreseeable future. We have therefore extended the scope of the Study to include the Port Appin passenger-only demand within the overall forecast demand for travel to/from Lismore.
- 1.2.14 **Tobermory to Kilchoan** (connecting Mull to the Scottish mainland, but its primarily role is providing the communities on the Ardnamurchan peninsula with a link to the schools and services in Tobermory).
- 1.2.15 **Sconser to Raasay** (linking Raasay to Skye and the Scottish mainland).
- 1.2.16 These routes are illustrated in Figure 1.1.

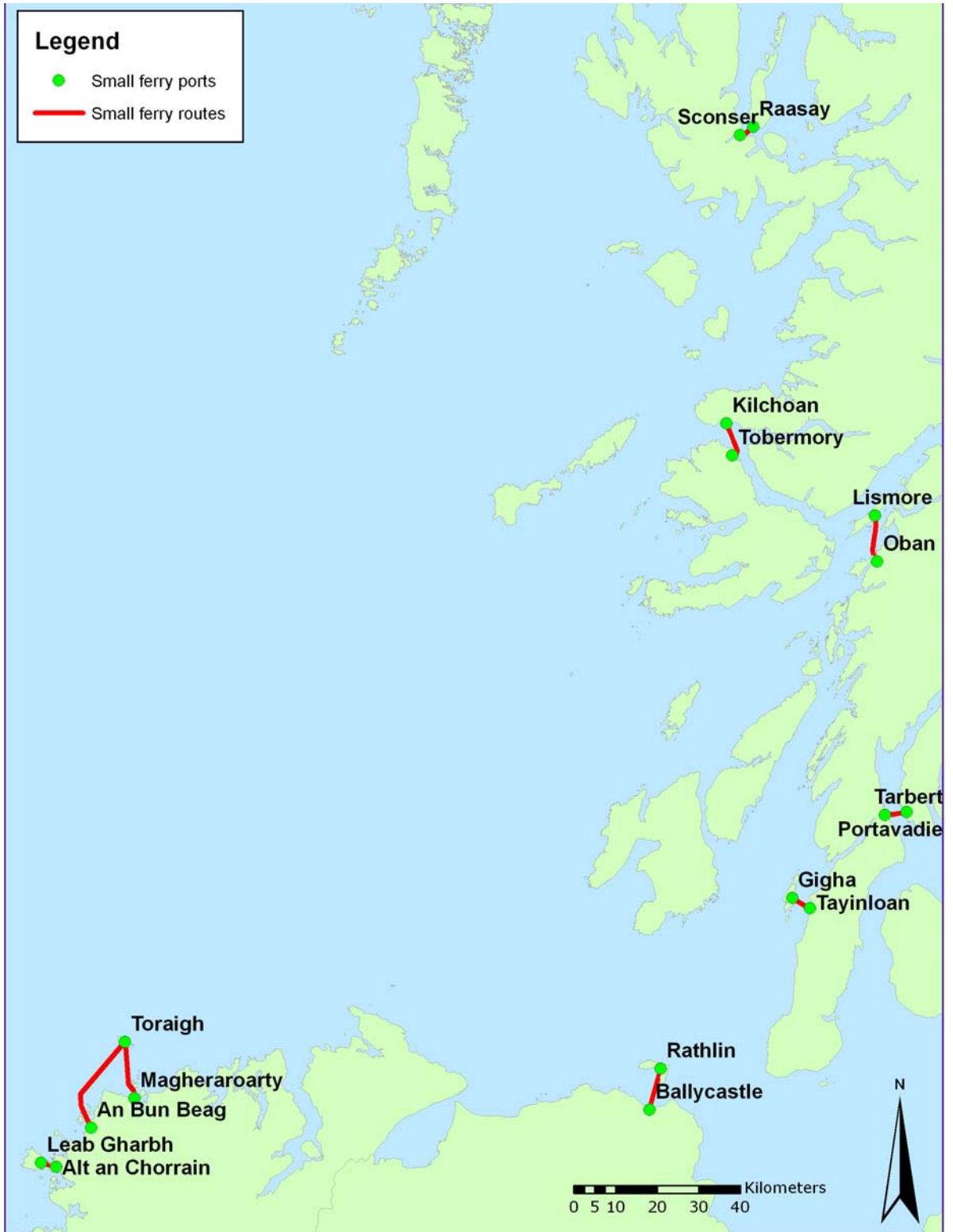


Figure 1.1 Location of the 8 Ferry Routes

1.3 Summary of the Structure of this Report

1.3.1 The remainder of this report is as follows:

- Chapter 2 provides an overview of our approach to the Study;
- Chapter 3 summarises the consultation with relevant stakeholders;
- Chapter 4 provides an overview of the demand forecasting methodology;
- Chapter 5 summarises the demand forecasts based on trend and/or 'no change' assumptions;
- Chapter 6 provides corresponding demand forecasts for a 'High Growth' scenario involving more increase in the relevant demand drivers; and
- Chapter 7 summarise the implications for vessel capacity required to meet the predicted demand for the eight routes.

1.3.2 Additional background material and supporting analysis is provided in a number of Appendices, as follows:

- Appendix A contains a copy of the Study Brief;
- Appendix B provides a list of the individuals and/or organisations consulted as part of this Study;
- Appendix C contains print-outs from the demand modelling spreadsheet model listing the main assumptions regarding the main demand drivers for the eight routes;
- Appendix D summarises the predicted weekly demand under two alternative scenarios (Trend_Growth and High_Growth) for the three seasons; and
- Appendix E provides details of the corresponding estimates of passenger and lane-length demand for the busiest sailing for each season and route.

2 Overview of Our Approach to the Study

2.1 Introduction

- 2.1.1 In this chapter we set out our approach to meeting the requirements of the study as a series of discrete tasks, each with a specific objective, key inputs, proposed approach and key outputs, followed by additional discursive text, where relevant.

2.2 Tasks Undertaken

Task 1	Project Inception
Objective	To get the project started smoothly and efficiently, to ensure our full understanding of your requirements and to clarify and confirm our proposed approach.
Inputs	MVA's Proposal and the Study Brief.
Processes	Inception Meeting, MVA Project Management and Quality Assurance procedures.
Outputs	An Inception Report incorporating minutes of the Inception meeting.
Completed By	23 June 2009

- 2.2.1 This Inception stage was particularly important for this project, given the very short timescales available to undertake the remainder of the project.
- 2.2.2 The Inception meeting held on 16 June in Department for Regional Development's offices in Belfast:
- allowed us to meet the key players from the Department of Regional Development Northern Ireland and the Irish Department of Community, Rural and Gaeltacht Affairs and to establish relevant lines of communication;
 - ensured that we had fully understood your requirements;
 - enabled us to 'tap into' your existing knowledge of the key issues, stakeholders, political commitments, operational constraints etc;
 - included discussion and agreement of the scope and timescale of any inputs from you and others;
 - enabled you to discuss/understand/amend and confirm our proposed approach (including dates for delivery of key deliverables, our proposed invoicing schedule, the scope of our consideration of alternatives etc); and
 - reviewed the key risks and proposed risk mitigation measures.
- 2.2.3 We produced the draft Inception Report on 23 June, a week after the Inception meeting.

Task 2	Identify Future Community Needs
Objective	To identify the likely future transport requirements of specific communities.
Inputs	Data collected for Scottish Lifeline Ferries Review, all available patronage data, relevant UK and Irish Census data (and demographic projections).
Processes	<p>Consultations with relevant stakeholder representatives and desk-top research to determine 'typical' travel patterns for each community – with an indication of volumes, seasonality, etc.</p> <p>Consider recent or likely future changes which may affect these travel patterns (as per the list in Section 4.4 of this proposal.</p> <p>Identify the important demand drivers for key user groups – focused on aspirations for quality, the impact of frequency <i>vis-à-vis</i> reliability, the needs of different user groups, etc.</p>
Outputs	A clear understanding of the key features and changes likely to affect future demand for the relevant ferry services.
Completed By	10 July 2009

2.2.4 The 17 July deadline specified for the final report for this project ruled out any significant consultation with residents of the relevant island and peninsular communities. We therefore limited our consultation to phone calls and exchanges of emails with appropriate (elected) representative and/or Local Authority officers responsible for transport-related provision in the relevant areas, supplemented by inputs from the Small Ferries Project team.

2.2.5 Chapter 3 of this report summarises the main issues affecting current and future demand for the eight routes.

Task 3	Agree Demand Forecasting Methodology
Objective	To define and agree the spreadsheet-based approach to predicting future demand for each route, including the ability to undertake relevant sensitivity tests.
Inputs	Outputs from Task 1.
Processes	Understanding and documentation of Excel-based demand forecasting.
Outputs	A technical note specifying the functionality of the demand forecasting spreadsheet.
Completed By	26 June 2009

2.2.6 The demand forecasting methodology is summarised in Chapter 4 of this report.

- 2.2.7 Task 2 allowed us to adapt, extend and calibrate this methodology for the eight routes, taking account of the key factors which are likely to affect the demand for each individual route.

Task 4 Creation of the Demand Forecasting Tool	
Objective	To create the relevant demand forecasting spreadsheet tool.
Inputs	Outputs from Tasks 2 and 3.
Processes	Excel spreadsheet modelling.
Outputs	An Excel spreadsheet demand forecasting tool capable of predicting demand for each of the eight routes under a range of relevant sensitivity test assumptions.
Completed By	10 July 2009

- 2.2.8 The resulting demand-forecasting spreadsheets allow the user to extrapolate forward from current patronage estimates for each of the eight routes, taking account of all input assumptions regarding how the key attributes (frequency, fare, etc.) might change over time.

- 2.2.9 It also predicts the allocation of the average daily demand to specific sailings, to help determine the vessel capacity required to cater for the predicted demand profile for each route and season.

Task 5 Vessel Capacity Recommendations	
Objective	To use the demand forecasting tool and our ferry operations knowledge to make recommendations about future vessel capacity for each of the eight routes.
Inputs	The demand forecasts from Task 4.
Processes	Ferry operations expertise and use of the spreadsheet demand model outputs.
Outputs	Recommendations regarding vessel capacity for each of the eight Routes.
Completed By	13 July 2009

- 2.2.10 The key output from this task is a consideration of the future vessel capacity needed for each route under the different sensitivity test scenarios, including consideration of the demand for specific 'peak' sailings.

- 2.2.11 The output from this task is summarised in Chapter 7 of this report.

Task 6	Reporting and Dissemination
Objective	To document and disseminate the analysis and recommendations.
Inputs	Outputs from Tasks 4 and 5.
Processes	Report writing, face-to-face presentation.
Outputs	This final report plus a PowerPoint presentation.
Completed By	Draft report submitted by 13 July, presentation delivered on 17 July

Task 7	Project Management and Client Communication
Objective	To ensure the project delivers a high quality 'product' on time and to budget, and to ensure each of the client organisations are kept informed of progress throughout the duration of the Study.
Inputs	None
Processes	MVA's standard Project Management and Quality Assurance processes (inc Risk Monitoring) – see Chapter 7 of this proposal document for further details. Regular contact with you (email, phone calls and progress meetings).
Outputs	Weekly written progress reports (in bullet point form) and three satisfied clients.
Completed By	Study Completion (end July)



3 Stakeholders Consultation

3.1 Introduction

- 3.1.1 In this chapter we summarise the conversations, emails and meetings held with relevant stakeholders for this project.
- 3.1.2 We undertook consultation with relevant stakeholders in order to obtain a first-hand account of the problems and issues associated with the existing transport links in the area and as experienced by ferry users. In particular, we sought to discuss any issues and factors which can affect demand for the ferry service over time and which therefore need to be taken into account in demand forecasting.
- 3.1.3 The 17 July deadline specified for the final report for this project ruled out any significant consultation with residents of the relevant island and peninsular communities. Our consultation was therefore limited to telephone discussions with representatives of Community Councils and Councillors for the relevant areas.
- 3.1.4 A range of issues and factors that currently affect and are likely to influence future demand for the relevant ferry services were discussed, including:
- the balance of demand flow and peak periods of demand;
 - the frequency of the sailings, the schedule of crossings and any gaps in sailing times;
 - the capacity of the vessel(s) providing the service;
 - the prices charged for the various types of ferry user;
 - the 'quality of vessel' (eg age, on-board comfort, etc.);
 - the reliability of the service; and
 - the crossing time.
- 3.1.5 In addition, we asked representatives about factors that might boost / hold demand for the relevant ferry service, which included:
- changes in the populations;
 - tourism initiatives;
 - changes in facilities and services provided on the relevant island or peninsula (shops, secondary schools, GP, etc); and
 - changes in employment opportunities (either on the island or in the vicinity of the mainland port).
- 3.1.6 The consultation responses for each route are summarised below. The list of consultees is shown in Appendix B.

3.2 Tarbert – Portavadie

- the existing ferry service is used for daily commuting to the secondary school in Tarbert and by some to commute to work. It was noted that currently workmen use the service to travel to Portavadie (where a new marina and a hotel are being developed), but that council employees may also use the service to travel to offices in Lochgilphead. In addition, the service is used for shopping, travel to health (dentist in Tarbert), and day trips to Kintyre/Gigha. It is also used by passing holiday makers, tourists and freight (travelling to Tarbert and to Campbeltown);
- it was thought that in summer some sailings were running to capacity. It was noted that the operator was investigating scope for employing a new vessel on the route with a bigger car capacity;
- the frequency (10-12 sailings a day) and scheduling of the service was perceived as adequate;
- the service/vessel was perceived as reliable. Facilities on-board were considered basic but adequate for the length of crossing;
- there is proposed development of the marina in Portavadie. In addition, there is a proposal to build a new hotel and 270 houses next to the terminal in Portavadie and some housing development is also proposed for Tighnabruaich. These were identified as factors that should be taken into account when predicting demand;
- it was also thought that if the proposed Ballycastle - Campbeltown ferry service went ahead, the demand for the Tarbert – Portavadie service would increase significantly. However, when the route operated seasonably from 1997-1999 there was no appreciable impact on carryings; and
- overall, the current Tarbert - Portavadie service was considered by many as 'lifeline'. For instance, an accident on the accident prone road to Inverary (which may be closed for several hours) puts pressure on the ferry service as it becomes the only option to travel eastwards.

3.3 Raasay – Sconser

- the ferry service is currently used for commuting to work, for travel to health, education and shopping. However the scheduling/timetable of the services makes it difficult for the island residents to commute to work as the first service to depart Raasay is too late for people to be able to start their employment on Skye at 08:00 (NB this refers to manual jobs rather than office jobs). This issue has been addressed and is with the Scottish Government for consideration;
- it was noted that the Raasay community requested to extend the sailing day. However this has implications for the operator's 'Hours of Work' regulations and two additional crewmen would need to be employed on the route;
- it was noted that there were car capacity constraints during 2008 due to large construction projects being undertaken simultaneously. Whilst these have eased in 2009, ideally a larger vessel capable of carrying at least 18 vehicles may be needed;
- the service/vessel was perceived as reliable. It was noted that the current issues with docking in Raasay in high south/south-west winds would be overcome once the

refurbishment of the slipway was complete. It was highlighted that there was a need to also improve facilities in Sconser. If works could be done simultaneously/in the near future, further benefits/demand could be achieved; and

- it is expected that the new outdoor centre ('Raasay House') that is currently being rebuilt in Raasay and due to open in April 2010 will also boost the demand for the ferry service.

3.4 Kilchoan – Tobermory

- the ferry service was considered as 'lifeline' for Kilchoan/the Ardnamurchan peninsula and as a socially important service for Tobermory. However, it is not a 'lifeline' service in the context of the CHFS contract as Kilchoan and surrounding communities can be reached by road;
- the existing ferry service is mainly used for commuting to the secondary school in Tobermory (currently this travel is provided free as fares are paid for by Highland Council, but there is uncertainty about this when this arrangement expires in three years time). It was suggested that is also used by some to commute to work. In addition, the service is used for shopping (Tobermory), for travel to health (dentist in Tobermory) and for weekend daily family trips to Ardnamurchan;
- while for the Mull residents the number amount of sailings and times seemed appropriate, the winter timetable makes it difficult for people from Ardnamurchan to commute to Mull;
- the Ardnamurchan community noted car capacity constraints especially in the peak season (July/August) although CalMac suggest sufficient capacity is available and the demand is not constrained. With regards to the Mull community, it was thought that if no booking system is in place that it might have a negative impact on the demand (there was a feeling that people/tourists may choose the Lochaline – Fishnish crossing due to a larger vessel employed on the route, hence having a better chance to get a space on board when required);
- it was thought that in order to increase the sustainability/viability of the service that the hopscotch tickets should be more widely advertised (which could increase the demand). It was noted that currently the service was advertised together with the Mallaig—Armadale service which was no good for those who did not intend to travel to Skye, although CalMac indicate that wider marketing is undertaken. In addition, there was a feeling that if group tickets/packages (eg a car with four people) were introduced, the demand for the service would increase;
- the service/vessel was perceived as reliable. The vessel was thought to have basic facilities but sufficient for the length of crossing; and
- it was noted that the Gaelic Rings initiatives (introduced last year) could also possibly increase demand. No other major developments/proposals that would significantly change the demand for the ferry service were noted.

3.5 Gigha – Tayinloan

- the existing ferry service is a lifeline connection with the mainland and is mostly used for day trips - commuting to the secondary school and by some to commute to work and for shopping in Kintyre. It was highlighted that freight was solely dependent on the ferry service;
- frequency and schedules of the ferry service were perceived as adequate for the size of the island and the island's short tourist season. However, the community previously requested late Friday sailings to be provided from the mainland. An additional later sailing has been requested and approved for inclusion in the 2009/10 timetables;
- although there aren't any foot passenger capacity constraints on the sailings, some car capacity limits on certain sailings which are booked/used by freight were noted (generally island residents are aware which sailings are used by freight, but for those who are not aware this could have implications/cause problems especially for pre-arranged health appointments, etc.);
- the costs for freight (which is solely dependent on the ferry service) were perceived as very expensive given the short crossing time (20 minutes);
- the service/vessel employed on the route was perceived as reliable;
- on board facilities were perceived as more than adequate for the short sailing time;
- it was noted that a lack of work possibilities/opportunities drove people to move away from the island. However, the island population is increasing; and
- no new businesses/opportunities that would considerably change the demand were noted.

3.6 Lismore – Oban

3.6.1 Although the Lismore Community Council was contacted, we have suggested to primarily use the findings from the major consultation with all Lismore residents that took place in October 2008 as part of the Oban – Lismore STAG undertaken by MVA on behalf of CMAL. However, it is important to note that this was largely undertaken prior to the implementation of the revised timetable in October 2008. The findings from this consultation are shown below:

- the consultation responses suggested that around 60% of people primarily use the Port Appin ferry, 25% primarily use the Oban ferry, with the remainder using both ferries about equally. In terms of frequency of use, 70% used the ferries between 0- two times per typical week (return trips). Only 10% of respondents said they typically used the ferries frequently, ie five-10 times per week. This suggests that regular commuting from the island is not currently commonplace, in line with the Census evidence and local perceptions. Recent data have shown an increase in demand which could be indicative of additional travel being facilitated through the timetable revision;
- it was noted that characteristics of the ferry service perceived most often as 'less than adequate' were: Cost of fares for cars; on-board quality of service; quality of service at the terminal; and timetable and running hours;

- *Timetables – hours of operation, frequency etc:* It was noted that the new (October 08) timetable was of benefit to most, but less convenient for some; there is a lack of late and early services on both services, especially in winter. This impacts upon evening activities and can require an overnight stay in Oban if the last sailing is missed – particularly when travelling back from the central belt, etc. Even with the new timetable, the last sailing from Oban is at 1700, limiting the scope for daily commuting. However, agreement has now been reached to delay this to 1715 to increase flexibility for commuters. Schoolchildren living on Lismore who attend Oban High School can commute daily and there are also now regular commuters who live on Lismore and work in Oban;
- *Reliability / Punctuality of service operating:* there was some concern over weather-related and mechanical breakdowns, but both services were generally seen as reliable. One issue with reliability was that at Port Appin, information relating to cancellations is not disseminated as effectively as it might be;
- *Cost of fare:* the cost of car fares on the Oban route was routinely seen as too high to make regular commuting or indeed general use by car feasible. In contrast, passenger fares were generally seen as reasonable. ‘Out of hours’ fares at Port Appin (£52 before midnight and £67 after midnight) were seen as too high and restricted peoples’ ability to attend events such as parents’ evenings, farmers’ meetings, evening classes and social events on the mainland. The cost of taking a goods vehicle on the ferry was also seen as a significant issue in terms of moving livestock and this affected the competitiveness of these businesses;
- *Quality of service – onboard the ferry, physical access etc:* the main concern here related to the lack of any disabled or medical emergency access on both routes. Neither vessel is capable of accommodating a wheelchair, and with the high average age on Lismore, this is of concern. The Lismore GP is based in Port Appin and, in the case of emergencies, patients are collected at Point by the Port Appin ferry. The Port Appin ferry is unable to fit wheelchairs or stretchers into the cabin, therefore stretchers are placed on the open deck, exposed to the elements. To a lesser extent the design of the Appin boat also makes it difficult to access when travelling with young children, prams, shopping and luggage - any baggage has to be relayed from parked cars down the open and exposed pier prior to boarding, a process which is repeated at the other side, and the cabin itself is quite confined. 60% felt that the on-board quality of service on the Oban route was inadequate. This reflects the age of the MV Eigg, its poor levels of accessibility, and its rudimentary and uncomfortable on-board passenger accommodation. Around one third also felt the MV Lismore was inadequate in this regard;
- *Quality of service – at the ferry terminals (e.g. parking, waiting environment):* 71% indicated that terminal facilities on the Port Appin route were inadequate. Waiting facilities at all terminals except Oban are very basic indeed and of poor quality, but of greater concern is the issue of parking at both Point and Port Appin. As previously mentioned, many households keep at least one vehicle on the island and another vehicle at Port Appin, resulting in a high number of parked cars at Port Appin. This problem was partly relieved by the recent construction of a car park at Port Appin, but there are still capacity issues and the lack of parking spaces, especially in the summer, was frequently cited as an issue that needs to be addressed. Although the terminal at Oban is recognised to be of a high quality, it was described as being a long walk from the Lismore slip, especially for the elderly. The Lismore slip itself was also described

as being too small with not enough space for waiting ferry traffic. A further issue raised was the standard of the road link between Appin and Port Appin. The lack of (free) overnight parking in Oban was also cited as an issue;

- *Ease of changing to onward travel (i.e. public transport):* 80% stated that the opportunities for onward travel were poor at Port Appin. This means that to use the Port Appin ferry, a car on the mainland is required for any onward travel. This has a significant impact on the elderly or children who don't or can't drive and the Oban ferry is seen as an essential service which gives this section of the community direct access to shops, banks, post office, schools and the hospital. Conversely, only 24% thought the public transport available from Oban was poor, and this concerned links between the ferry times and specific trains. However, improved connectivity with other modes of transport was one of the objectives of the new timetable, with opportunities for onward travel to Glasgow provided twice a day by either First ScotRail or Scottish Citylink services;
- *Convenience of location of ferry terminals:* there were no significant issues raised, with current locations seen as convenient;
- *Ferry capacity – can you always get on the ferry?:* the vehicle capacity of the MV Eigg was cited as impacting directly on islanders' lives and a restriction to businesses on Lismore – this applied mainly to the movement of agricultural material and livestock, and can be a particular problem at certain times of year when (eg when livestock is being taken off the island to market in Stirling). It was commented that cars require to be booked in advance which can prove difficult, especially during the summer months, when there are block bookings or when there is a market on. General issues and difficulties with the booking system were also raised. This problem can have serious impacts on the island businesses because islanders are unable to get livestock or goods to the mainland as and when required. CalMac have highlighted that these problems have now been largely overcome by introduction of the new timetable. Others referred to the limited capacity of the Port Appin ferry and specifically that the boat is often full in the summer months. As suggested above, the Port Appin ferrymen will do additional runs to clear any backlogs, but occasionally this results in delays which can mean islanders miss doctors' appointments or business meetings; and
- *Overall assessment of service:* in overview, of greatest concern here was the age and condition of the vessels on both routes.

3.6.2 Other issues included:

- the cost associated with vehicular access **to** the island. The costly and infrequent nature of the current Oban vehicular service means that islanders have to pay a high cost for tradesman or others visiting the island to provide services;
- the parking issue at Port Appin is exacerbated by other users of the pier there. In particular, the Glensanda quarry workers, along with local fish farm workers also park at Port Appin adding to the problem;
- there is a community minibus facility available on Lismore. This provides local transport and can be used for organised trips on the mainland; and
- there is a feeling on the island that the local roads in particular and infrastructure more generally would be inadequate to deal with significant additional traffic, or indeed visitors.

3.7 Arranmore Island

- balance of flow leans more towards islanders and people working on the island using mainland services and island jobs than tourist and leisure trips;
- arrival of a rival ferry company has been positive for the Island. Services have greatly improved;
- generally Islanders are satisfied with ferry service although a later and earlier service would be of benefit and improve the ability for islanders to commute;
- there is a backup ferry available as well as charter services;
- ferries generally run well below capacity;
- the existing timetable makes logistics difficult for those wishing to work on the mainland. The ferry timetable has, however, been agreed with the island community; and
- a very small number of people currently commute to the mainland. Large numbers of island staff commute to the island daily including all teachers, most carers and some ferry staff.

3.8 Tory Island

- Islanders are largely unhappy with existing service:
 - complaints include peak capacity stands at 12 passengers for early and late crossings;
 - quality of vessel unacceptable. Consensus is that the design of the ferries is not appropriate for the crossing and demands required. It should be noted that this vessel is the best the market has offered despite the Department having gone to tender twice over the past two years;
 - the service has been enhanced by increasing the number of subsidised sailings since the beginning of 2009;
 - journey time is two hours in winter not the quoted 45 minutes;
 - ferry very unreliable due to inappropriate vessel and challenging waters to be crossed;
 - frequencies do not meet the needs of the islanders; and
 - overall dissatisfaction with the ferry provider (Turasmara Teo).
- small ferry “always” runs at full capacity;
- according to the report “Review of Certain Subsidised Ferry Services to the Islands” carried out by Department of Community, Rural and Gaeltacht Affairs in 2004:
 - 7,000-8,000 annual tourists to travel annually; and
 - 75% tend to be day trippers.
- the island has no daily commuters to the mainland due to proximity, timetabling and reliability of ferries;
- there are also no commuters to the island for the above reasons. Commuting tends to be seasonal; and

- balance of flow tends to lean heavily towards tourist trips throughout the year with islanders using ferry services for personal trips and business but not work.

3.9 Rathlin Island

- there are thought to be approx 30 people working on the island at present in the shop, accommodation, transport services, bar, tearoom, crafts workshop and visitor centre;
- the primary economy on the island is tourism. A detailed study entitled "Rathlin Island Sustainable Tourism Strategy" was published in 2005 with a view to putting in place a sustainable strategy to allow the development of Rathlin as a tourist destination;
- rathlin currently receives funding from the Rural Development Council and the Royal Society for the Protection of Birds;
- rathlin has a number of natural and man made attractions. Bird life is a popular attraction on the island;
- the arrival of the new ferry (July 2009) is expected to increase tourist trips significantly;
- the speed of the ferry will also make commuting to/from the island a possibility. Presently only two people commute although it was mentioned that there are not many jobs to be had at Ballycastle (the mainland destination of the route);
- rathlin has four places providing overnight accommodation as well as a bar/restaurant. The Sustainability report states that there is not significant capacity to host major events on the island;
- rathlin has one primary school. Secondary pupils board on the mainland;
- a new catamaran ferry came into service in mid-July 2009. The six mile crossing takes 20 minutes;
- islanders' main reasons for leaving the island are for education, health and work opportunities;
- the majority of ferry trips are tourist trips with islanders making up only 2% of trips in the summer;
- of the tourist trips roughly 70% are day trips and 30% are overnight. The ferry will develop Rathlin as a day trip destination further;
- the consensus on the Island is that the arrival of the new ferry will improve inland connectivity significantly; and
- there is a tourist bus service on the island which operates in the summer.

4 Overview of the Demand Forecasting

4.1 Overview

- 4.1.1 In this chapter we outline the approach to predicting future demand for each of the eight 'lifeline ferry' services outlined in the Study Brief.
- 4.1.2 The demand forecasting model is an Excel spreadsheet which predicts future demand for each service, distinguishing between passengers, cars and freight vehicles.
- 4.1.3 The forecasting tools are designed to predict demand for 2033 (ie 25 years from the 2008 data used to calibrate the demand forecasts). The majority of input growth assumptions are expressed as per annum factors in the model, so it is straightforward to use the model to estimate demand in interim years. However, given the relatively simple nature of the underlying growth assumptions, the models' forecast demand in any interim year can be predicted fairly closely by simple linear interpolation between the 2008 and 2033 estimates.
- 4.1.4 The models are based on three 'seasons', as follows:
- Low Season – mid-October to mid-April;
 - High Season Shoulders – mid-April to mid-October excluding July and August; and
 - High Season Summer Peak – July and August.
- 4.1.5 The forecasting has been calibrated using observed recent patronage data, adjusted to take account of predicted/assumed changes in the local demographics, economy, tourism/marketing and 'level of service'. The future 'level of service' assumptions include fares, journey times, service frequency and timetable and may vary between the three 'seasons'.
- 4.1.6 The spreadsheet models provide estimates of the level of unconstrained demand (total passengers and vehicle lane lengths) for each service within the assumed future timetable and under different sensitivity test assumptions. In particular, the models can be used to predict demand for a 'trend growth' and a 'high demand growth' scenario. The latter will be based on 'upside' estimates of the various key drivers of travel demand for the relevant services.

4.2 Current Demand

- 4.2.1 The models start from estimates of current monthly demand in each of the three 'seasons' described above and details of the level of service which generated/supported this demand. Where possible this current demand has been split into foot passengers, cars and commercial vehicles. The models are not able to robustly predict demand for any category of user for which no base demand is available.
- 4.2.2 Average vehicle occupancy levels by journey purpose have been assumed for cars and goods vehicles, to feed into the calculation of total ferry passengers.
- 4.2.3 Average vehicle lengths have been assumed for cars and goods vehicles, to enable estimates of vehicle numbers to be combined into a single lane length measure of total demand.

- 4.2.4 Consultation with operators of the relevant ferry services and the relevant island/peninsular communities (see Chapter 3 above) has been used to determine the approximate level of any 'capacity-capping' in the base-year demand (ie the extent to which the observed total month demand is constrained by vessel capacity/frequency in any of the three seasons).

4.3 Demand Segments

- 4.3.1 In order to enable accurate forecasting of future ferry trips, current demand has been divided into a number of segments. This segmentation is based on:

- type of trip:
 - day-trips to island;
 - longer return trips to island;
 - day-trips to mainland; and
 - longer return trips to mainland.
- journey purpose:
 - travel to/from place of work;
 - travel to/from place of education;
 - in-work/business trips; and
 - Other (social/leisure/personal business, health, shopping etc)
- Mode:
 - foot passenger;
 - car driver/passenger; and
 - commercial vehicle driver/passenger.

- 4.3.2 The demand model uses a total of 21 demand segments, although not all segments are applicable for all eight routes. Passenger demand was divided amongst these segments using information obtained from the Scottish Ferries Review carried out earlier this year, along with details from the individual consultations and the Scottish Household Survey. The proportions associated with each of the 21 segments for each route were assumed to remain constant across the forecast period.

4.4 Predicting Future Demand

- 4.4.1 Future demand in each segment will be influenced by a number of economic and demographic demand drivers, including:

- the relevant island/peninsula population:
 - Total;
 - Economically active; and
 - Young people (in education).
- the relevant local economy; and

- changes in future tourism levels (eg as a result of additional marketing).
- 4.4.2 The majority of routes will primarily be influenced by the demographics of the relevant island. However, the demand drivers for the Tobermory to Kilchoan service are assumed to be based on the demographics for a relevant area of the Ardnamurchan peninsula, while the Tarbert to Portavadie model use changes in appropriate sub-areas of Argyll (Kintyre, Islay and Jura who can use this service as part of a route to the Central Belt) and the Cowal peninsula (whose residents can use the route to access Lochgilphead and beyond).
- 4.4.3 In addition, the future demand may vary from the demographic trend due to changes in the assumed level of service on the relevant routes. These Level of Service influences include:
- 'real' fare changes (ie changes above or below changes in the future Retail Price Index (RPI));
 - changes in the relevant journey time (including check-in times);
 - vessel quality; and
 - service frequency and timetable.
- 4.4.4 The impacts of changes in these Level of Service attributes are predicted using an elasticity-based approach, with each demand segment assigned a different level of sensitivity to changes in these influencing factors.
- 4.4.5 The majority of elasticity factors are based on the assumptions used in recent studies, as well as best practice. These apply equally well to the Irish routes. The relevant elasticity assumptions could be refined further when the analysis of the Stated Preference survey of users of Scottish ferry services (which MVA is currently undertaking for the Ferries Division of the Scottish Government) has been completed although this would necessitate additional work beyond the initial scope of the study.
- 4.4.6 The impact on demand of changing the frequency and/or timetable can be predicted using a similar method to that in MVA's recent Ballycastle-Campbeltown study. Each departure time within the assumed timetable for each season is allocated an 'attractiveness' score for each demand segment. These are combined to provide a measure of the overall attractiveness of a timetable (by demand segment) and the resulting change from the Base Level of Service used to inflate or deflate total future demand for that demand segment and season.
- 4.4.7 Detailed travel diary data collected by MVA during the recent Lismore ferry study for CMAL has been used to calibrate relevant aspects of this 'Departure Time Attractiveness' mechanism.

4.5 Allocation of Demand to Specific Services

- 4.5.1 Once the weekly demand for each segment and season has been estimated using the overarching demand drivers and level-of-service changes described above, the corresponding average daily demand (calculated as 20% of the weekly demand, to allow for some variation between week-days) is allocated to the various assumed sailings, using our understanding of desired travel times by journey purpose, including the Lismore Travel Diary data mentioned in the preceding section.

Overview of the Demand Forecasting

- 4.5.2 This allocation excludes any capacity constraint and so provides an estimate of the unconstrained demand for each sailing.
- 4.5.3 The results from these demand forecasts are then used to inform subsequent consideration of the specification of the vessels which might deliver the future lifeline services on these routes.

5 Demand Forecasting – Trend Assumptions

5.1 Introduction

- 5.1.1 In this chapter we describe the key assumptions for each route, provide a brief justification for these assumptions and provide graphs summarising the corresponding estimates of weekly demand in 2033 by season.
- 5.1.2 Throughout this chapter the relevant assumptions have been based on our understanding of the current trend growth in the relevant demand drivers. For drivers where no data are available and for assumptions regarding level of service variables (fare, journey time, vessel quality etc), the default assumption in this chapter is one of 'No Change' from the current service provision and demographic profile. Table 5.1 shows the assumptions made regarding the average number of sailings for each route in the high and low seasons. The majority are based on sailings between Monday and Saturday.

Table 5.1 Number of Sailings Assumptions

Route	Average Number of Sailings: High Season	Average Number of Sailings: Low Season
Arranmore	10	6
Tory	5	3
Rathlin	9	9
Portavadie	12	8
Gigha	10	9
Lismore - Oban	4	4
- Port Appin	12	11
Kilchoan	7	3
Raasay	10	6

- 5.1.3 In Chapter 6 we provide corresponding estimates for a 'High Growth' scenario, where more growth in the various demand drivers and improved service levels are assumed on the various routes.
- 5.1.4 Table 5.2 shows base levels of seasonal weekly demand for each route, for passengers (Pax), cars and commercial vehicles (CV). Additional details of the relevant assumptions are provided in Appendix C, while additional details of the demand forecasts are provided in Appendix D.

Table 5.2 Average 2008 Weekly Demand by Route and Season

Average 2008 Weekly Demand									
	Low Season			Shoulder Season			High Season		
Route	Pax	Car	CV	Pax	Car	CV	Pax	Car	CV
Arranmore	779	211	23	1,123	268	30	1,580	409	22
Tory	78	-	-	369	-	-	1,296	-	-
Rathlin	300	47	7	1,361	65	12	2,681	66	7
Portavadie	609	240	8	1,455	512	11	2,101	736	9
Gigha	665	187	25	1,403	319	31	1,848	382	25
Lismore	770	38	10	1,197	44	13	1,662	56	15
Kilchoan	239	25	0	925	147	0	1,792	277	0
Raasay	940	354	26	1,494	507	28	1,632	608	29

5.2 Route 1 – Árainn Mhór

5.2.1 Following a review of census data for the Arranmore area, it was estimated that the population of the island will fall by 1% per annum across the 25 year forecast period. This figure was applied to each population category – Total, Economically active and Young. The default assumption of ‘No Change’ was applied to tourism levels and the local economy.

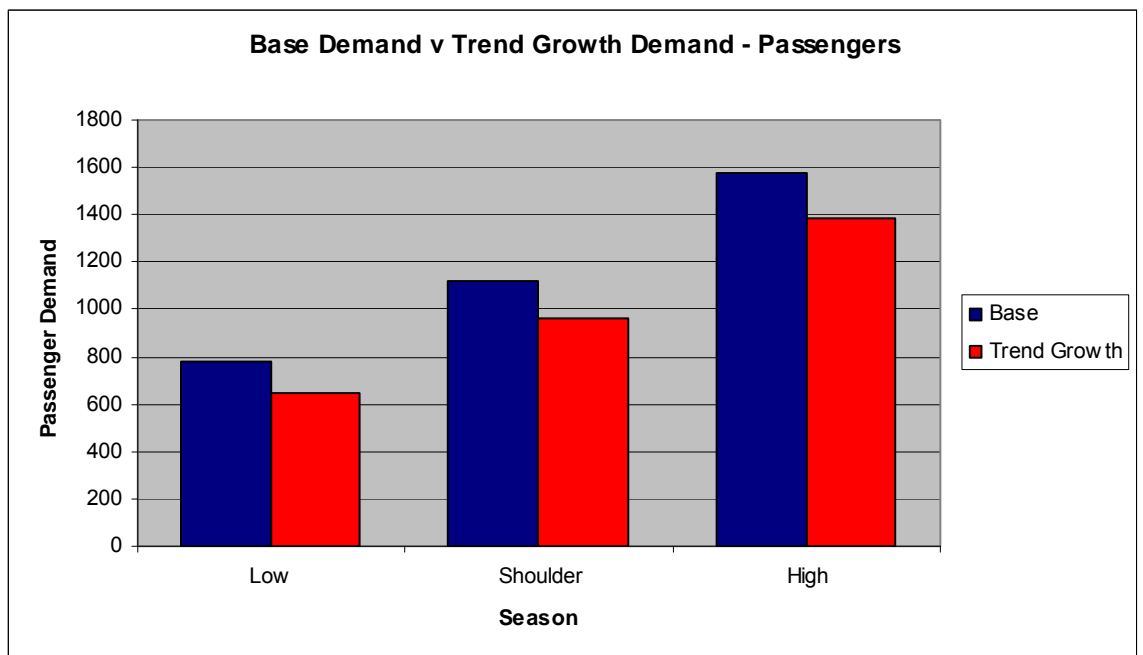


Figure 5.1 Route 1 Trend Growth in Passengers

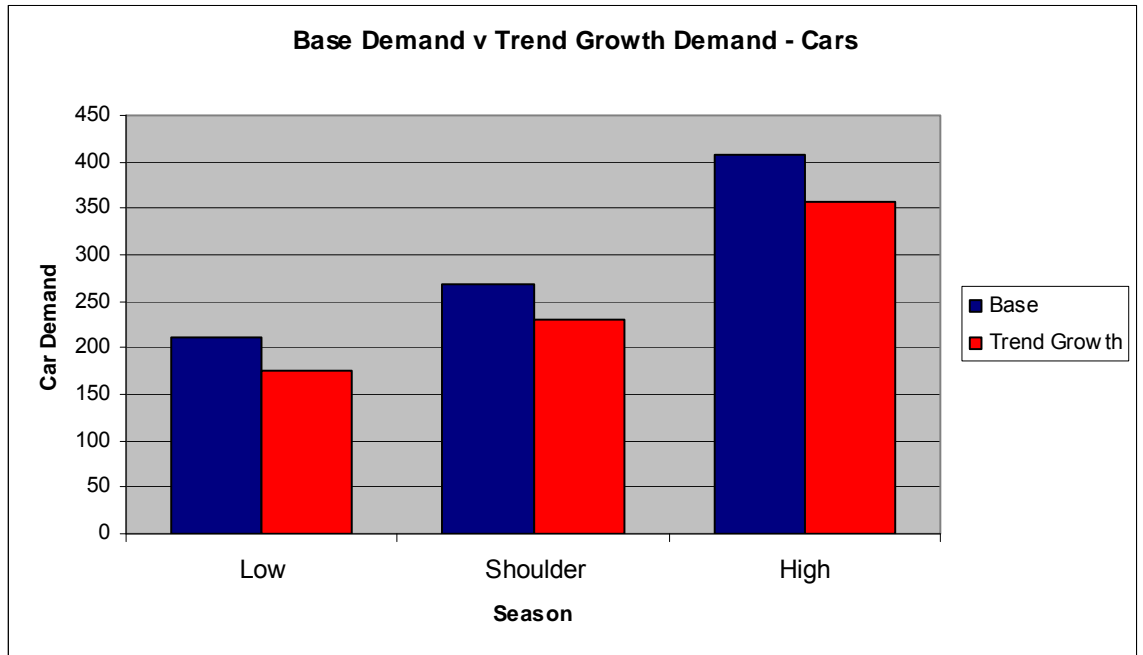


Figure 5.2 Route 1 Trend Growth in Cars

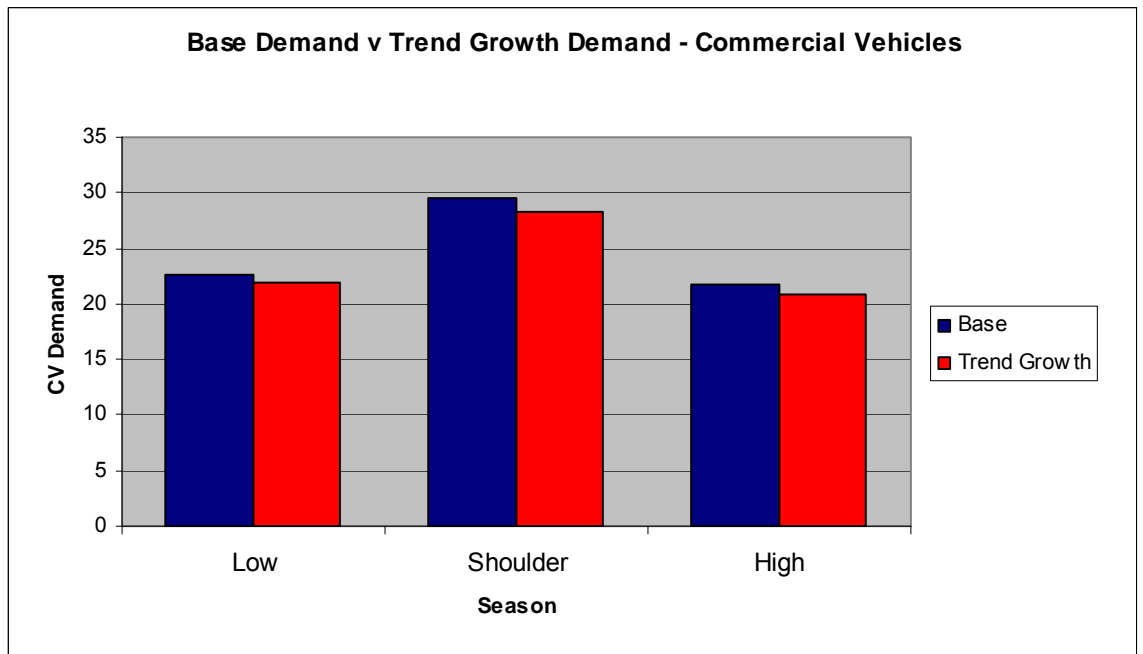


Figure 5.3 Route 1 Trend Growth in Commercial Vehicles

5.2.2 The above graphs suggest that passenger, car and commercial vehicle demand will fall, based on the trend assumptions. This is a reflection of the estimated fall in island population.

5.3 Route 2 – Toraih

5.3.1 The Tory island ferry is a passenger-only service so only forecast growth in passenger numbers are presented in this section. Consultation with representatives on the island noted that there were some capacity constraints on the service in the summer period. In order to

achieve a more accurate representation of unrestricted demand, passenger numbers were uplifted by 10% in the High season.

5.3.2 The consultation also suggested that tourism remained strong on the island, with numbers in 2009 up on 2008. It has been assumed that tourism will continue to grow at 0.5% per annum. However, it is estimated that there will be 'No Change' in the island economy. Census data for the Tory area illustrates a slowly rising population, however consultation with island representatives suggests this is misleading and that the population level is fragile. Based on this advice, it was assumed the island population will fall by 1% per annum.

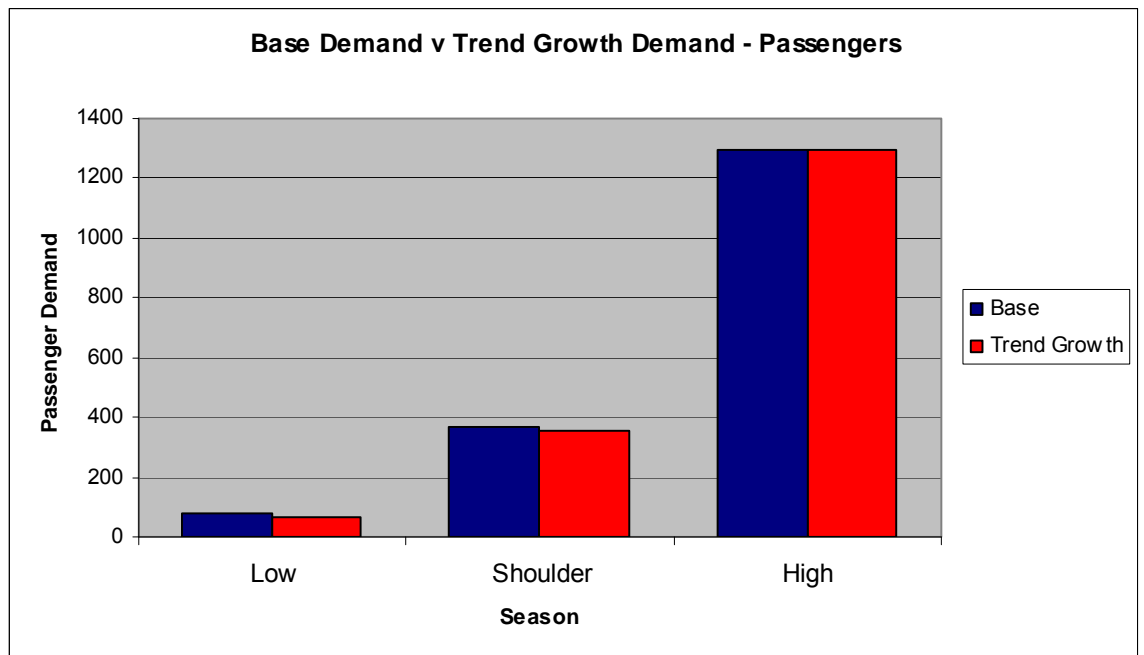


Figure 5.4 Route 2 Trend Growth in Passengers

5.4 Route 3 – Rathlin

5.4.1 Due to the recent addition of the Rathlin passenger-only ferry, and replacement of this with a larger catamaran, it has been assumed that tourism and the Rathlin economy will grow by 1% per annum over the forecast period.

5.4.2 Limited data was available on the Rathlin population so forecast growth in each category was based on an average of the 5 Scottish routes. This resulted in estimated annual growth in total population of 1%, economically active population of 1% and young population of 2%.

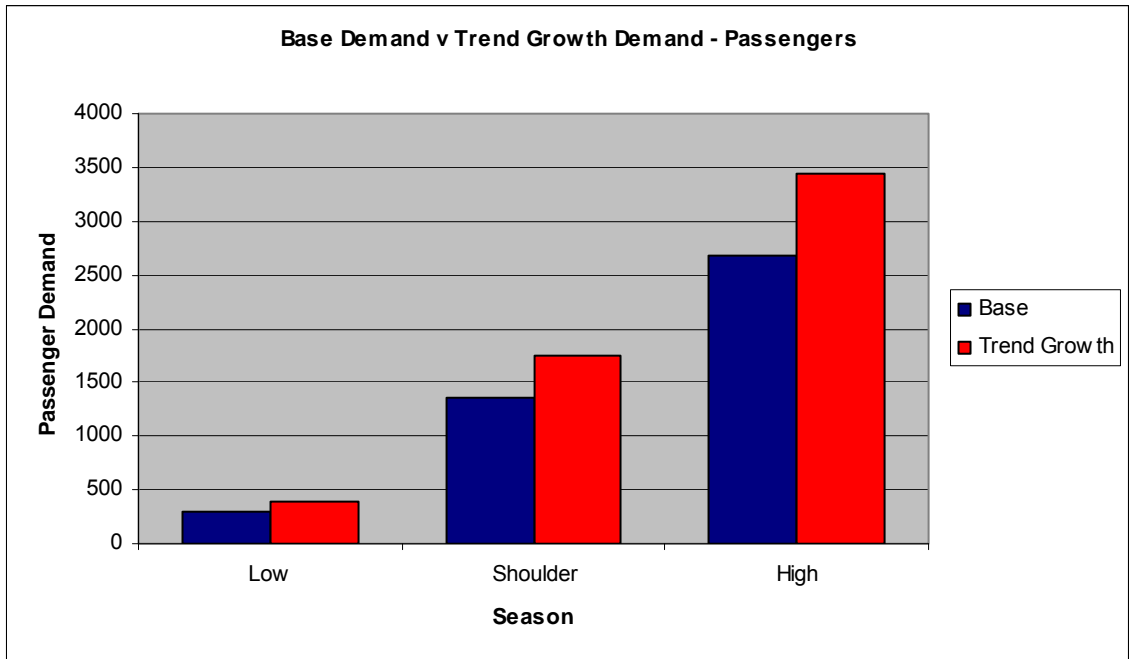


Figure 5.5 Route 3 Trend Growth in Passengers

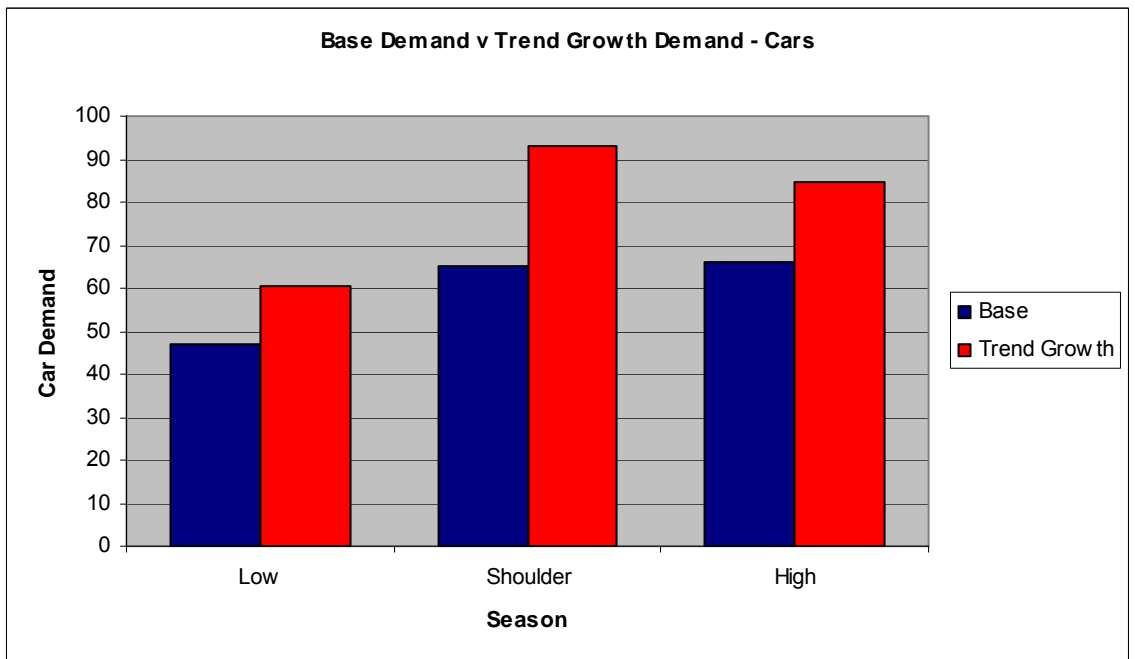


Figure 5.6 Route 3 Trend Growth in Cars

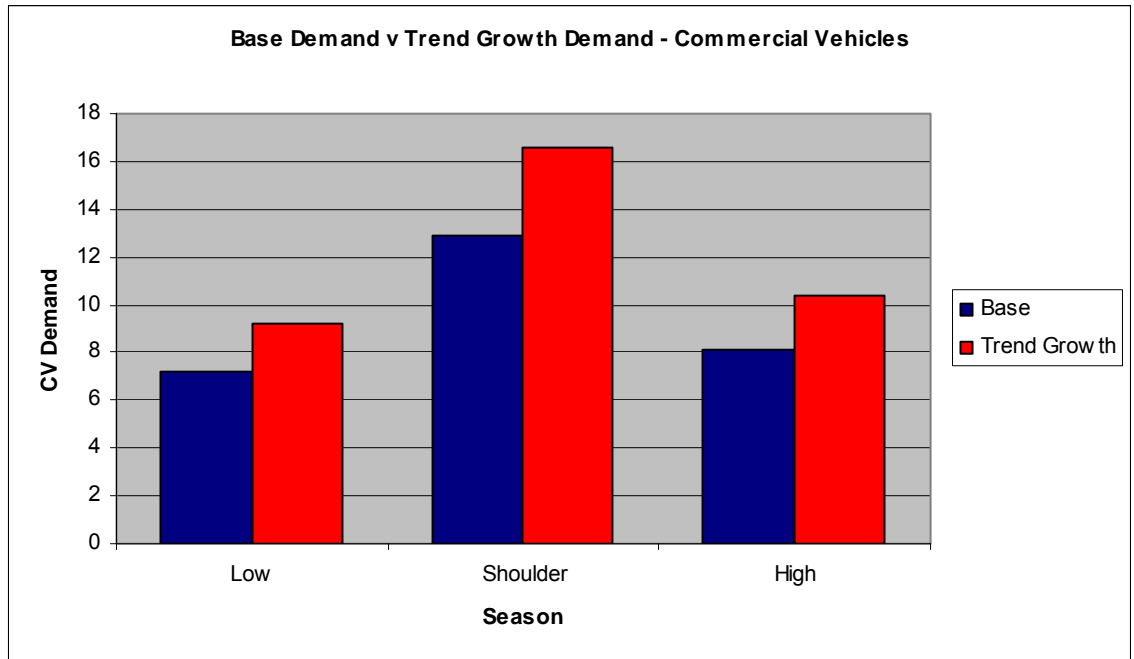


Figure 5.7 Route 3 Trend Growth in Commercial Vehicles

5.5 Route 4 – Tarbert to Portavadie

- 5.5.1 2001 Census data and Scottish Neighbourhood Statistics (SNS) for the Cowal peninsula were used to estimate the change in population. SNS data provides population statistics from 2001 to 2007, split by age group. This allowed a more accurate estimate of forecast change in each population category. The resulting annual growth assumptions were 0.5% in total population, 0.5% in young people and no change in economically active population.
- 5.5.2 As a result of local consultation it was discovered that there is proposed development of the marina in Portavadie, as well as plans to build a number of new houses in the area. Based on these developments, a 0.5% per annum growth in the local economy was assumed, along with a 1% annual growth in tourism.
- 5.5.3 The consultation also raised the issue that there were some capacity constraints on the ferry service in the summer months. As a result, base car demand was uplifted by 10% in order to achieve a more accurate estimate of unconstrained demand for the service. No uplift was applied to passenger demand as it was assumed that vehicle capacity was restricted rather than passenger capacity. Thus, if a passenger wished to travel by car but the ferry was full to vehicles, it was assumed they would board as a foot passenger. This would have no overall impact on passenger demand. Similarly, no uplift was applied to commercial vehicles as it was assumed they would wait and get on the next available boat.

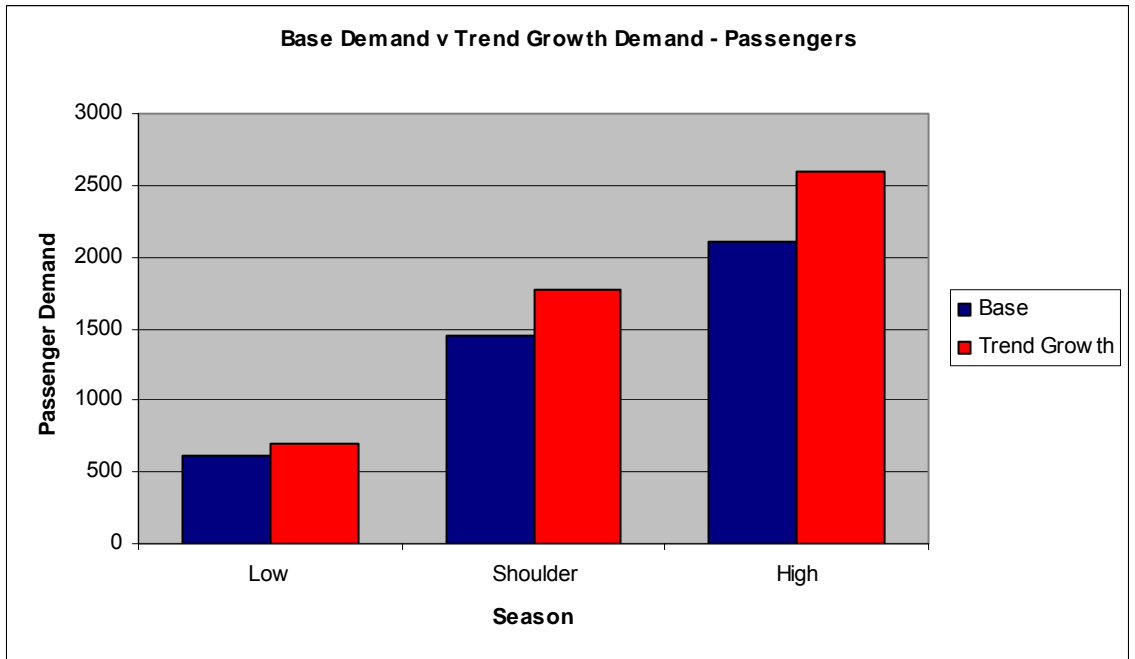


Figure 5.8 Route 4 Trend Growth in Passengers

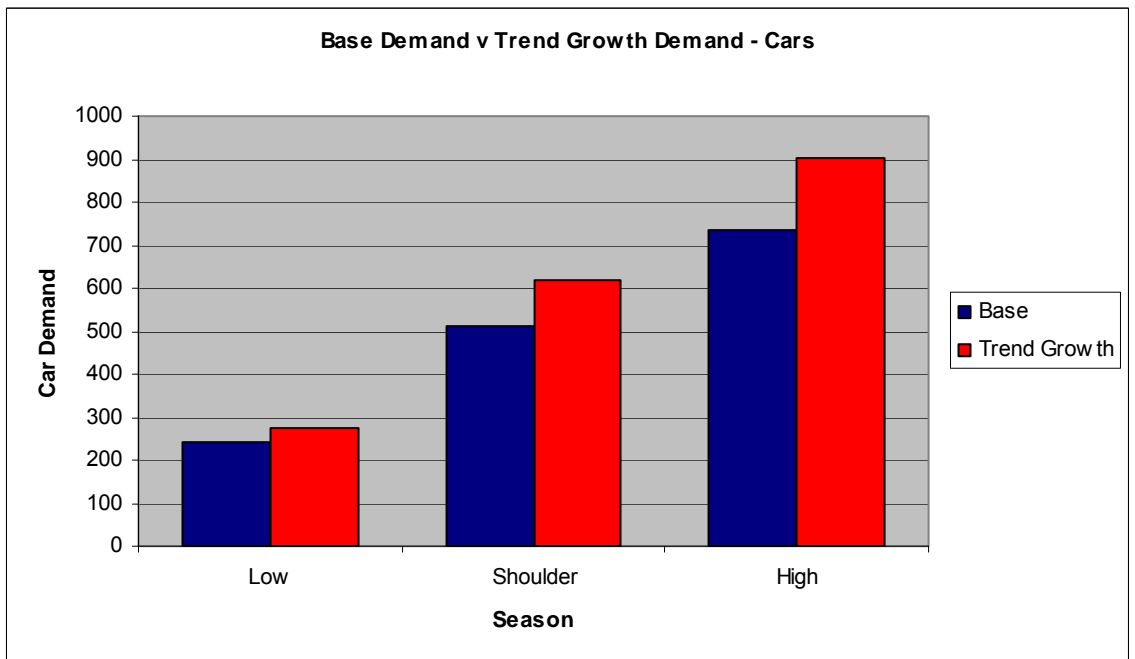


Figure 5.9 Route 4 Trend Growth in Cars

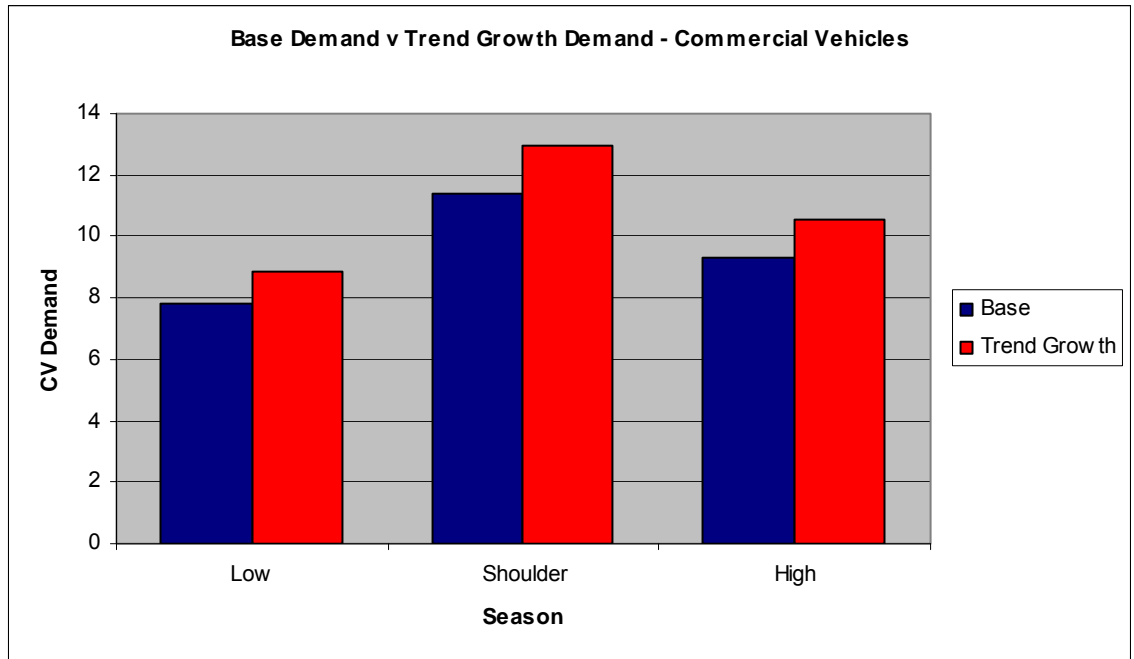


Figure 5.10 Route 4 Trend Growth in Commercial Vehicles

5.6 Route 5 – Gigha

5.6.1 Gigha’s predicted population change over the forecast period was based on 2001 Census data for the island, and SNS data for Gigha and the surrounding area. These statistics suggested a 1% per annum increase in total population and annual growth of 2% and 5% for economically active and young population’s respectively. Consultation with islanders suggested little expected change in tourism and the local economy, resulting in a ‘No Change’ assumption for both.

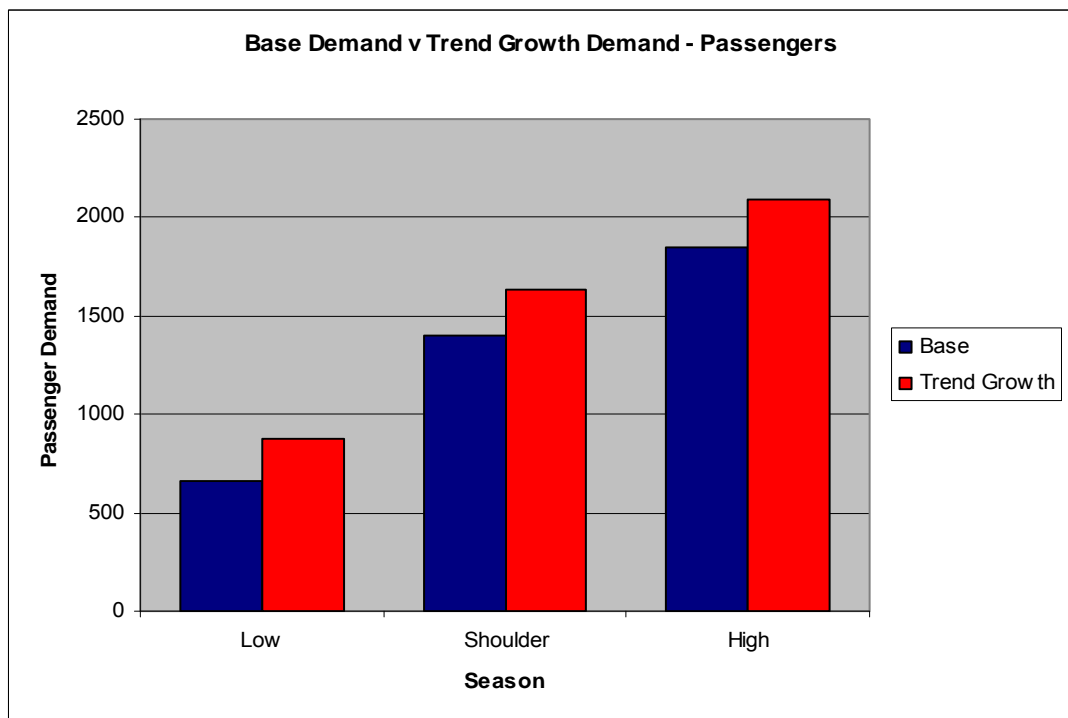


Figure 5.11 Route 5 Trend Growth in Passengers

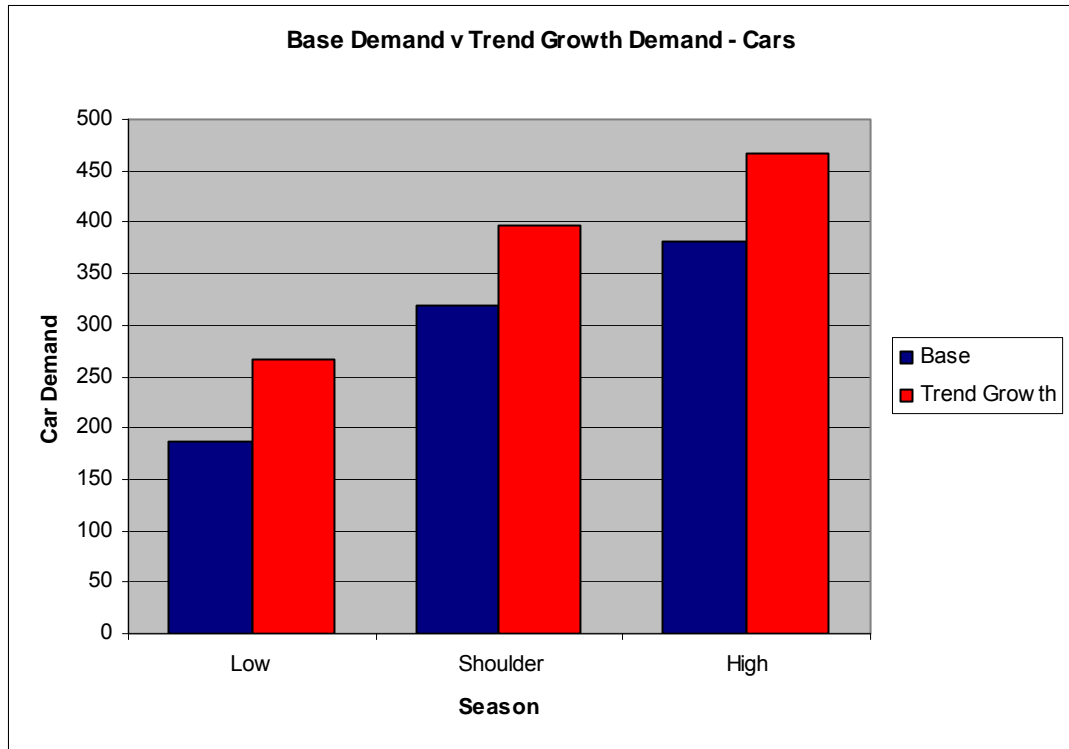


Figure 5.12 Route 5 Trend Growth in Cars

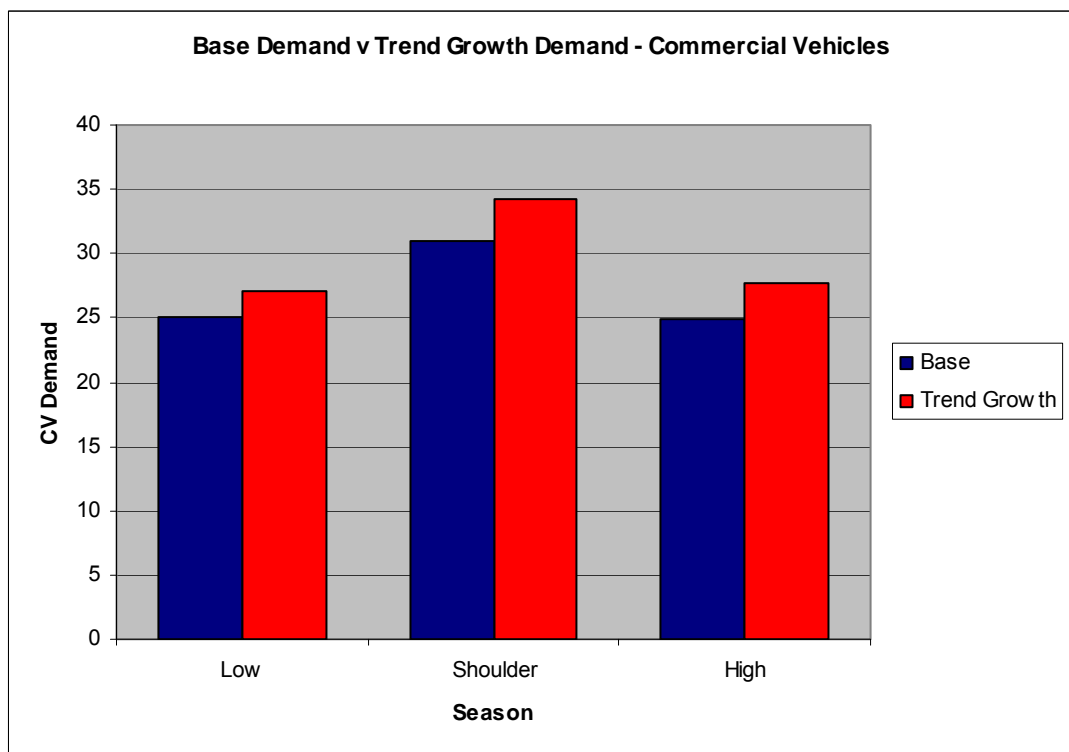


Figure 5.13 Route 5 Trend Growth in Commercial Vehicles

5.7 Route 6 – Lismore

5.7.1 Census and SNS data for the Lismore area imply only small growth in population. Annual growth of 0.5% was estimated for total and young populations, along with 1.0% for

economically active. Consultation suggested that tourism and the local economy were expected to remain fairly constant into the future.

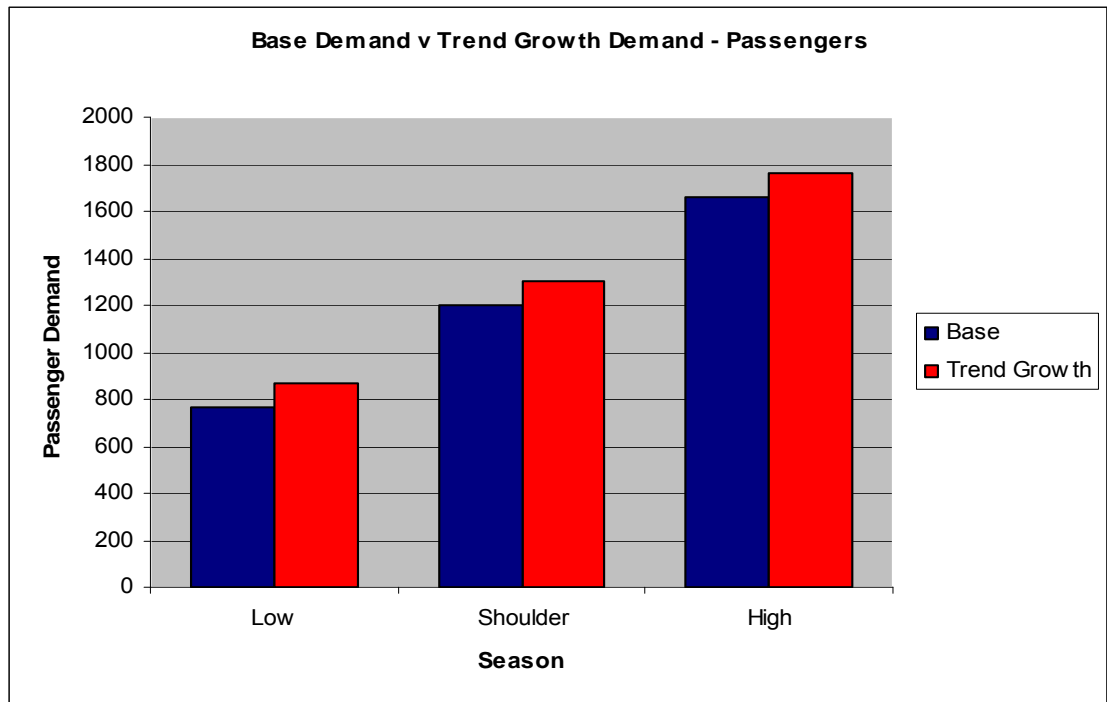


Figure 5.14 Route 6 Trend Growth in Passengers

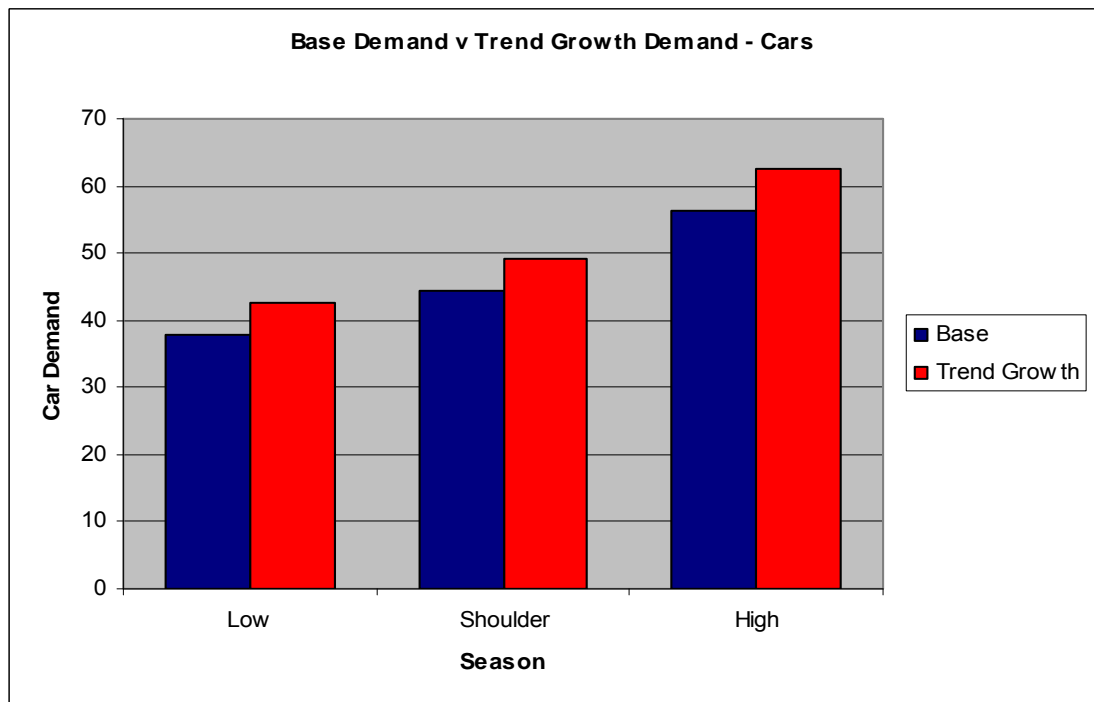


Figure 5.15 Route 6 Trend Growth in Cars

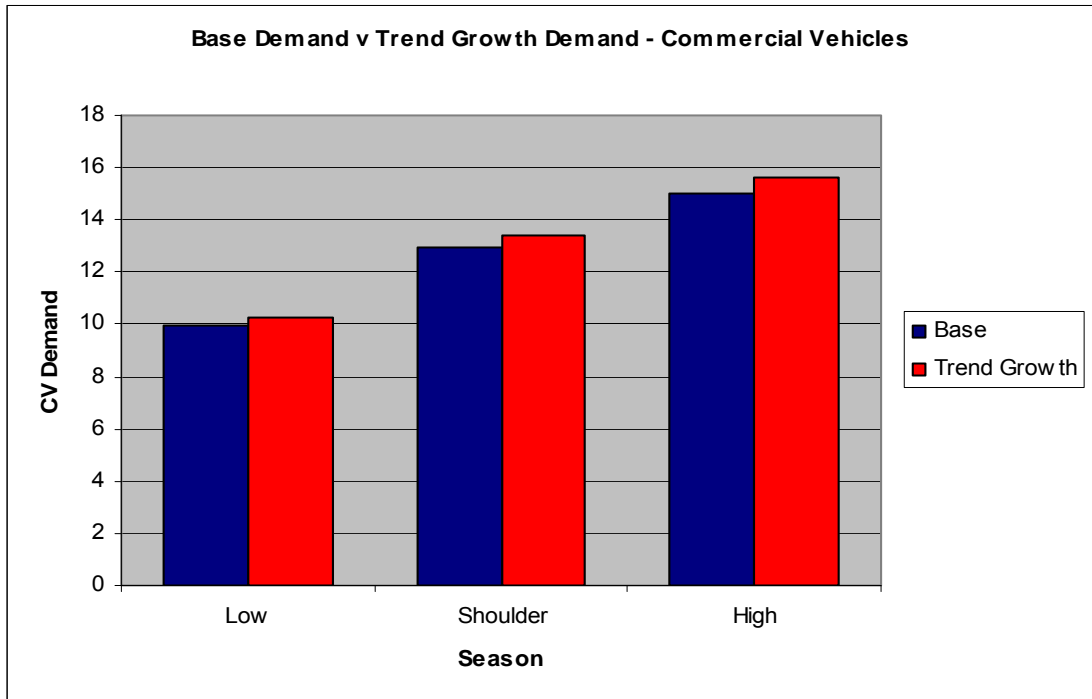


Figure 5.16 Route 6 Trend Growth in Commercial Vehicles

5.8 Route 7 – Tobermory to Kilchoan (Ardnamurchan)

- 5.8.1 Consultation in the Kilchoan area raised the issue of capacity constraints on the service in the summer season. As for the Portavadie service, car demand was uplifted by 10% to achieve a more realistic representation of unconstrained demand. It was assumed that tourism and the local economy would remain unchanged over the forecast period.
- 5.8.2 Population growth of 1.0% per annum in total and economically active populations, and 0.5% in young people, was assumed based on census and SNS data.

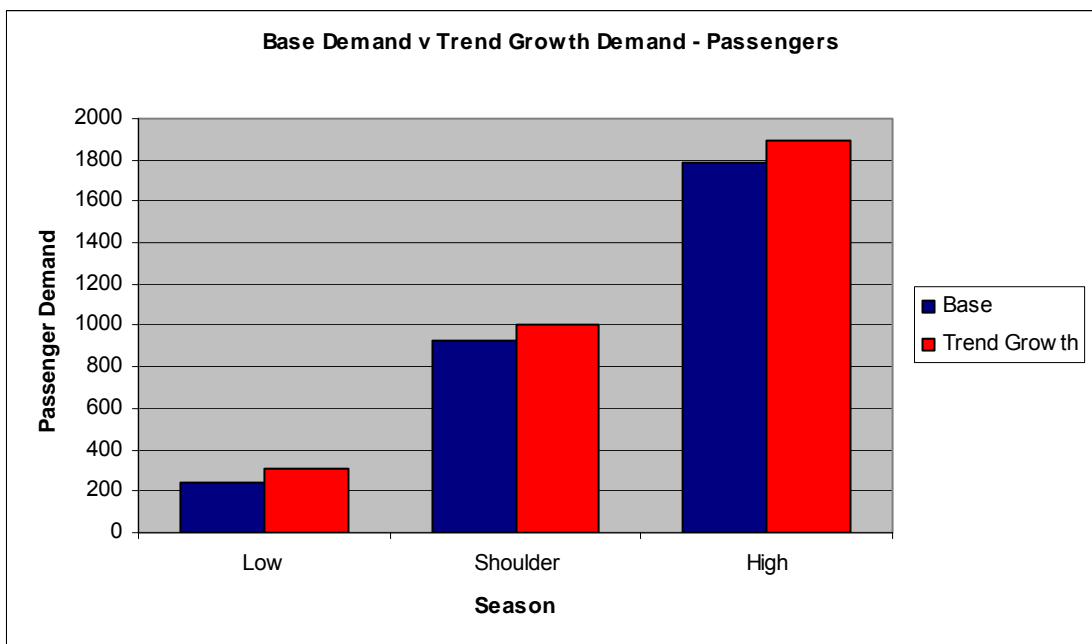


Figure 5.17 Route 7 Trend Growth in Cars

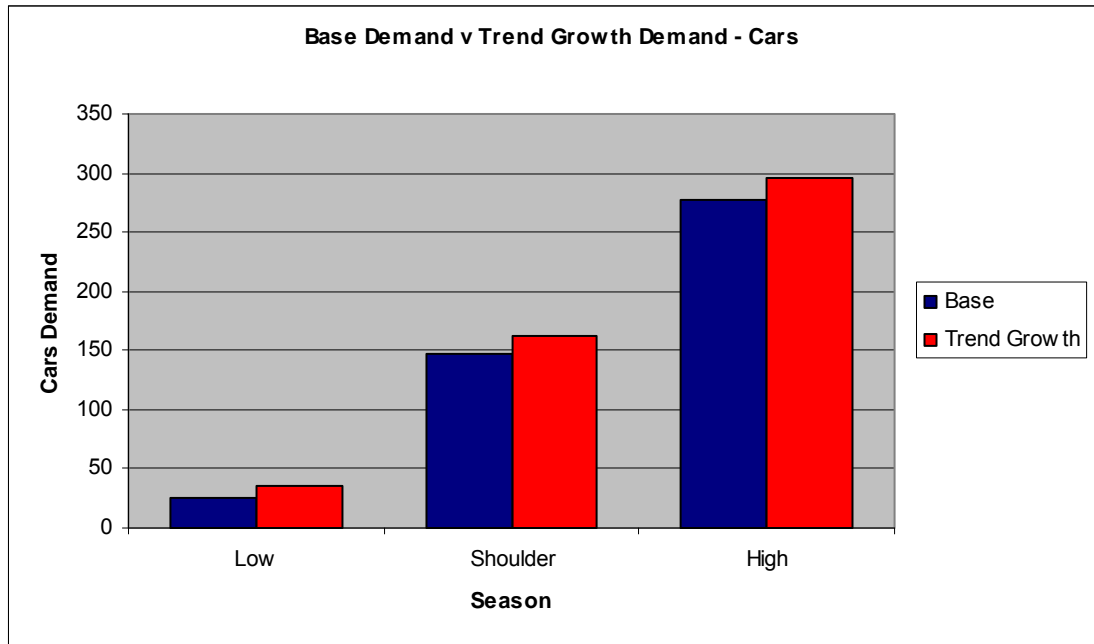


Figure 5.18 Route 7 Trend Growth in Passengers

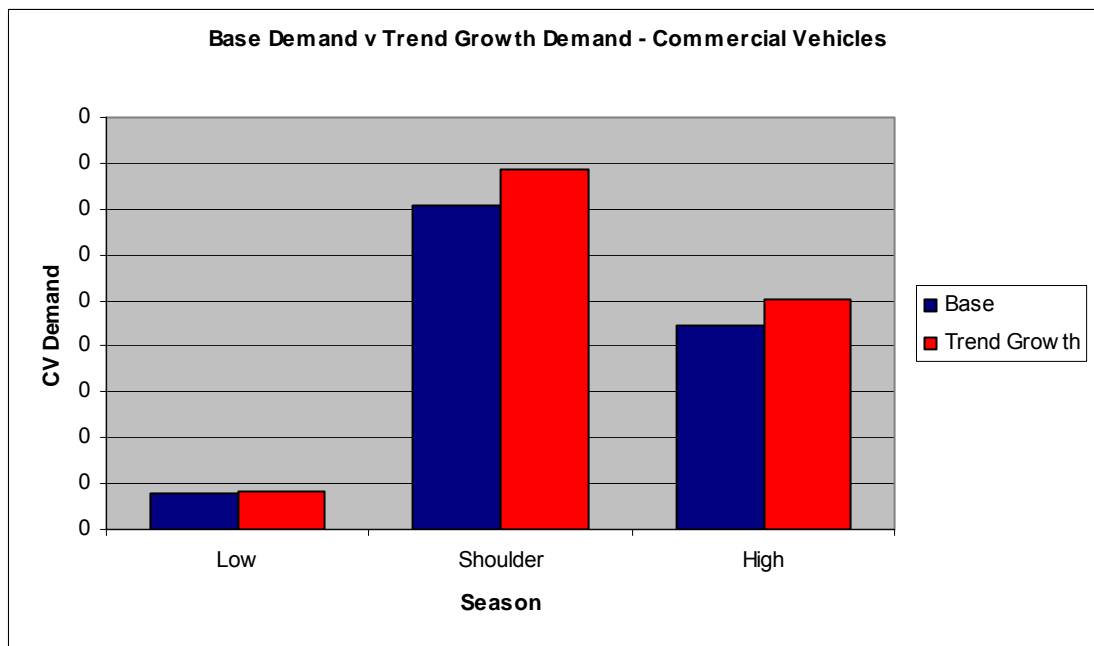


Figure 5.19 Route 7 Trend Growth in Commercial Vehicles

5.9 Route 8 – Raasay

5.9.1 The Raasay consultation raised the issue that a new outdoor centre with hotel was being built on the island, which is expected to boost demand in tourism and the economy. Annual growth assumptions of 0.2% in the local economy and 0.4% in tourism were applied. The issue of capacity constraints in summer was also raised and subsequently incorporated into the model as for Kilchoan and Portavadie. Annual growth assumptions of 0.5%, 1.0% and 2.5% in total, economically active and young population respectively, were applied based on Census and SNS data.

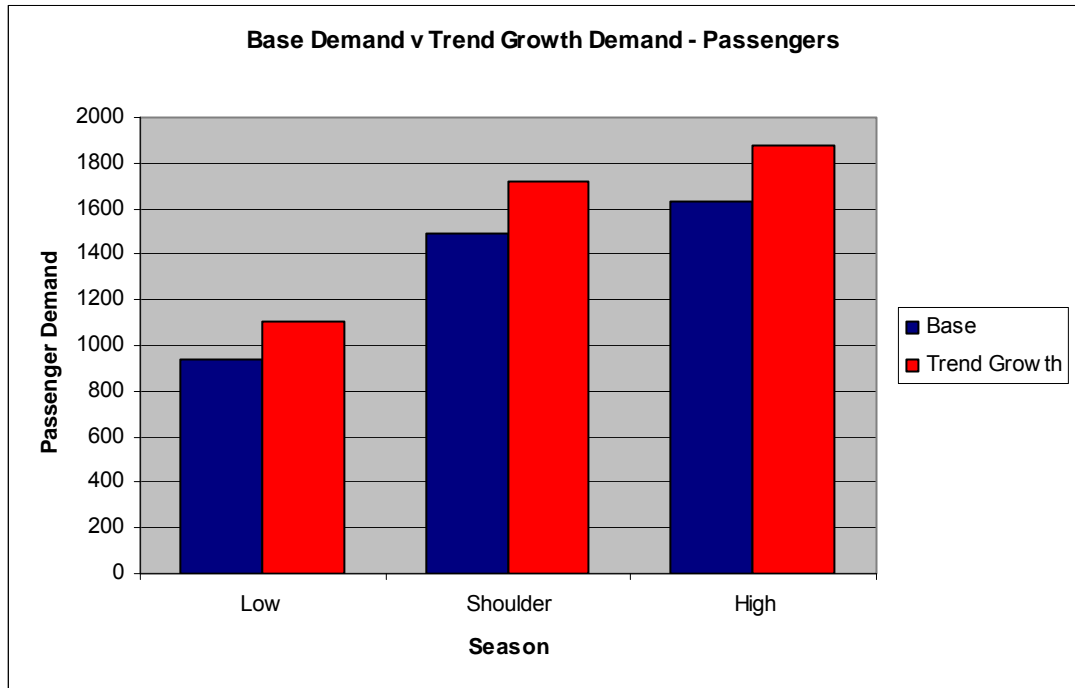


Figure 5.20 Route 8 Trend Growth in Passengers

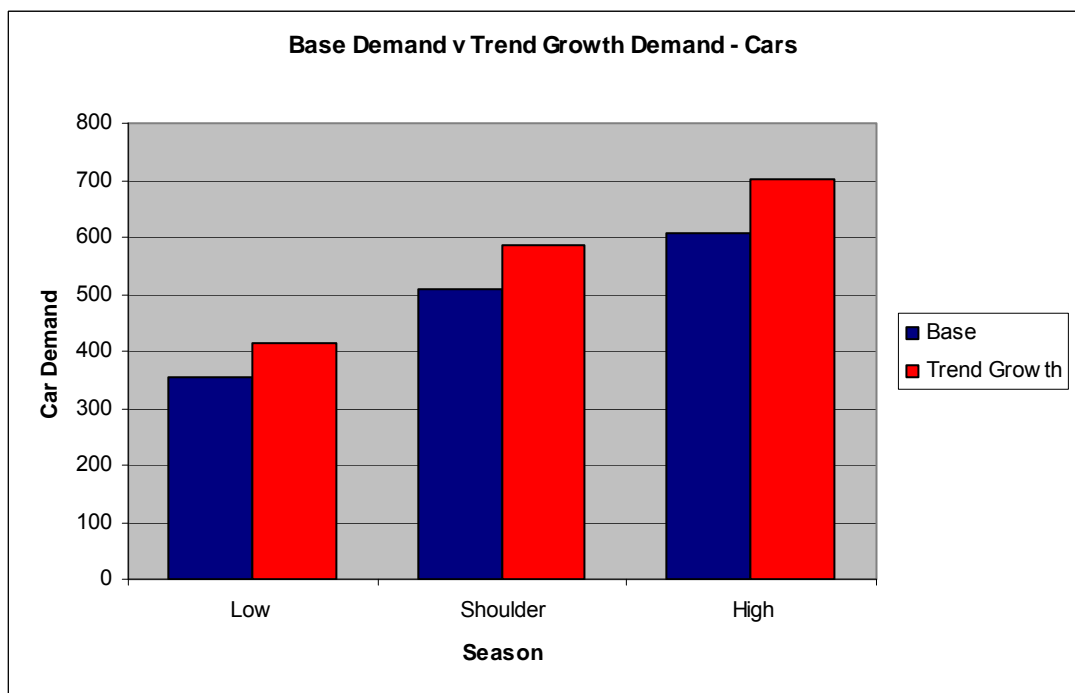


Figure 5.21 Route 8 Trend Growth in Cars

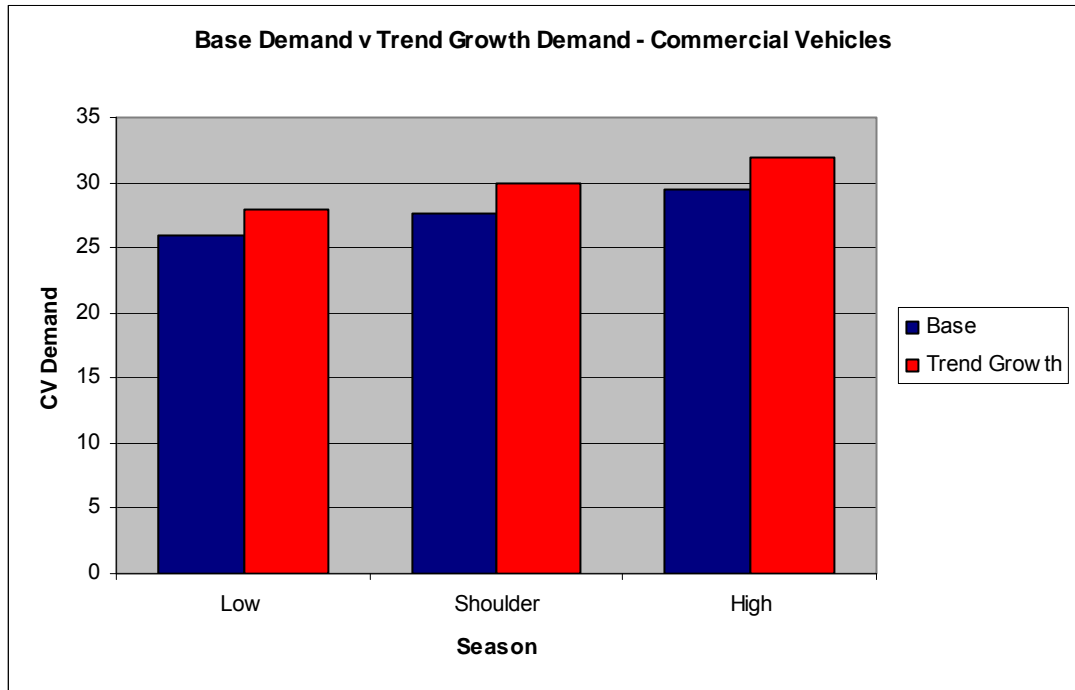


Figure 5.22 Route 8 Trend Growth in Commercial Vehicles

6 Demand Forecasting – High Growth Scenario

6.1 Introduction

- 6.1.1 In this chapter we present corresponding demand forecasts based on a set of additional 'high growth' and improved service level assumptions.
- 6.1.2 Additional details of the relevant assumptions are provided in Appendix C, while additional details of the demand forecasts are provided in Appendix D.
- 6.1.3 Note that throughout this chapter, the assumed timetable for each route remains as per the existing service.

6.2 High Growth Assumptions

- 6.2.1 Generic high growth assumptions were applied to each of the eight routes. An additional 1% annual growth on top of trend assumptions was applied to each demand driver ie each population category, tourism and the local economy.
- 6.2.2 Service levels were assumed to remain unchanged in the trend growth scenario. However, the high growth scenario assumes a 10% reduction in journey time for each route, along with a 50% improvement in vessel quality.
- 6.2.3 This scenario also assumes a change to Road Equivalent Tariff (RET) fares for the Scottish routes, which are consistently lower than the current fares in place. Although RET fares have been piloted on a number of Scottish routes there is currently no long-term commitment to introducing these fares across all routes, however it was deemed a consistent method of forecasting potential fare changes in a high growth scenario.
- 6.2.4 Consultation with representatives of the Irish routes stated that there are no plans to introduce RET or any other form of lower fares on these routes. For this reason, it was assumed that fares on the Arranmore, Tory and Rathlin routes would remain unchanged in the high growth scenario.

6.3 Overview of Results

- 6.3.1 The following graphs represent the forecast demand under the high growth scenario. All routes display high growth, particularly in passenger and car demand. This is due to the impact of specific demand drivers and service level improvements.
- 6.3.2 The main impacts on growth are total population, tourism (particularly in the High season), and passenger and car fares. When compounded over the 25 year forecast period, the growth in tourism and population becomes significant, however average annual growth of around 1.5% is not deemed unreasonable, particularly when based on SNS data. Similarly, the impact on demand of changing to RET fares on the Scottish routes can be substantial as the change can result in a significant drop in fare.

6.4 Route 1 – Árainn Mhór

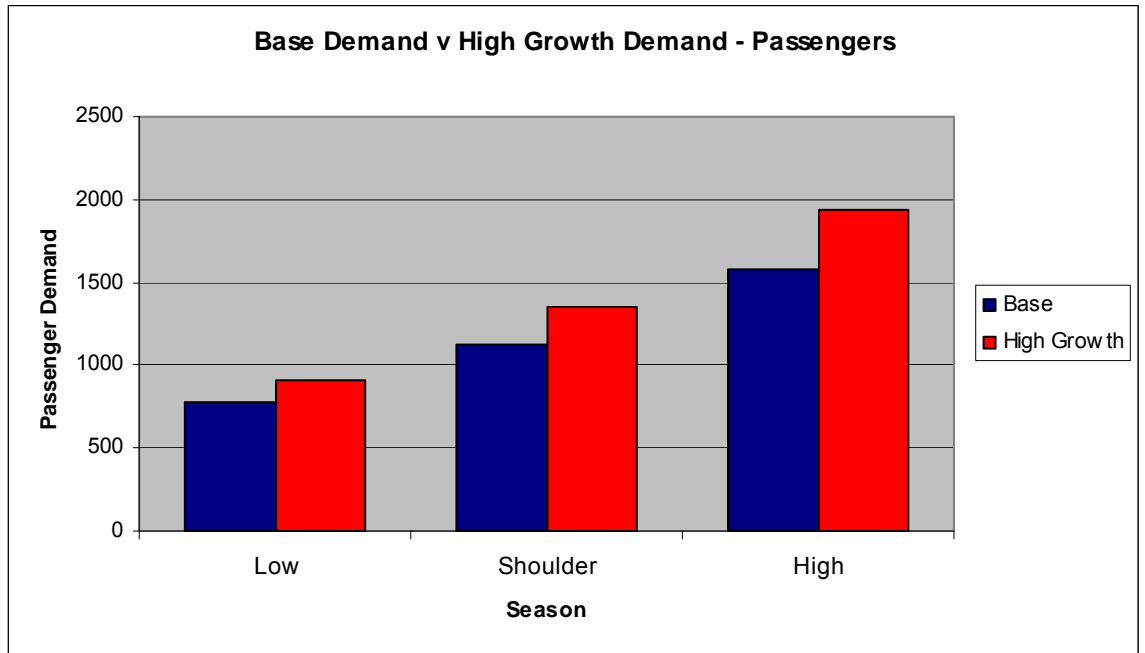


Figure 6.1 Route 1 High Growth in Passengers

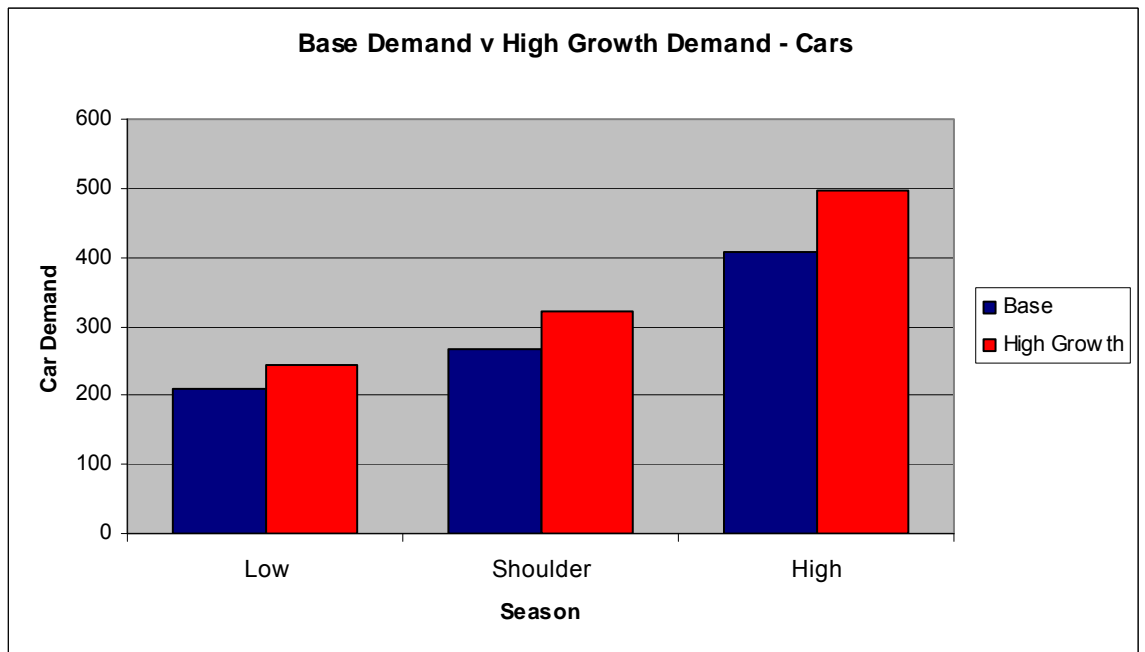


Figure 6.2 Route 1 High Growth in Cars

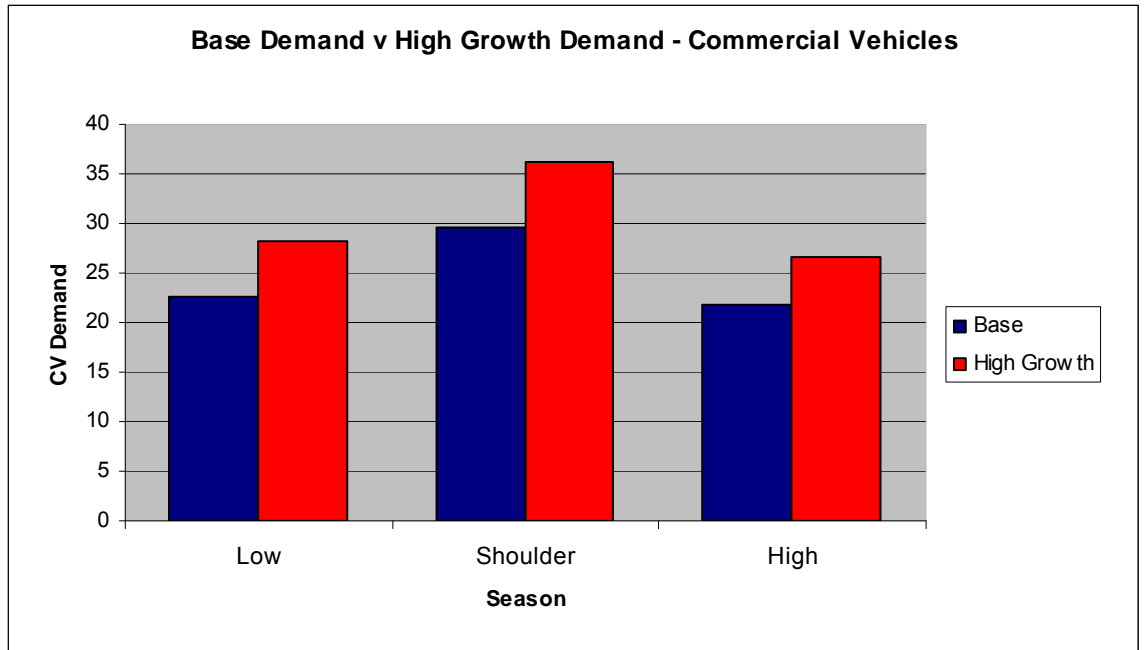


Figure 6.3 Route 1 High Growth in Commercial Vehicles

6.5 Route 2 – Toraigh

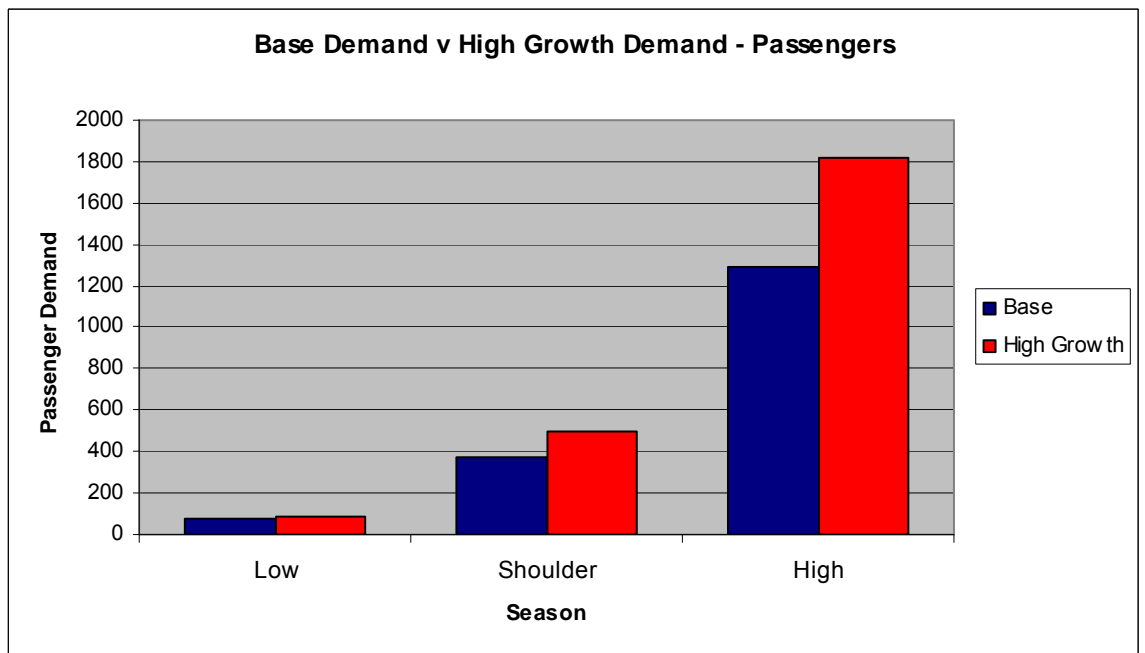


Figure 6.4 Route 2 High Growth in Passengers

6.6 Route 3 – Rathlin

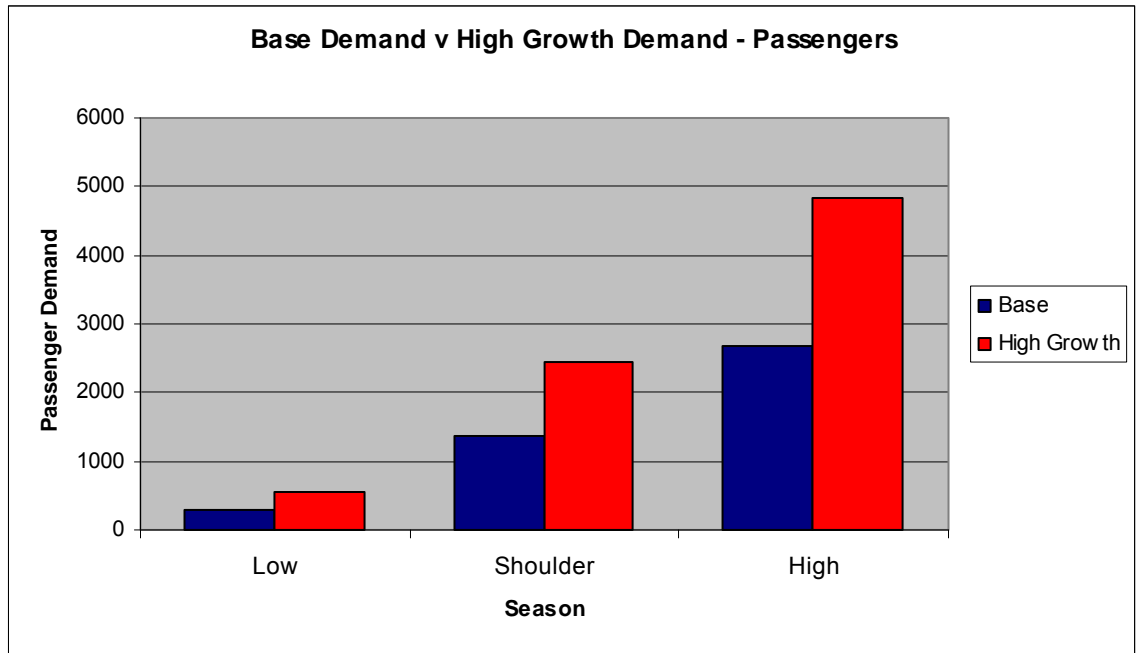


Figure 6.5 Route 3 High Growth in Passengers

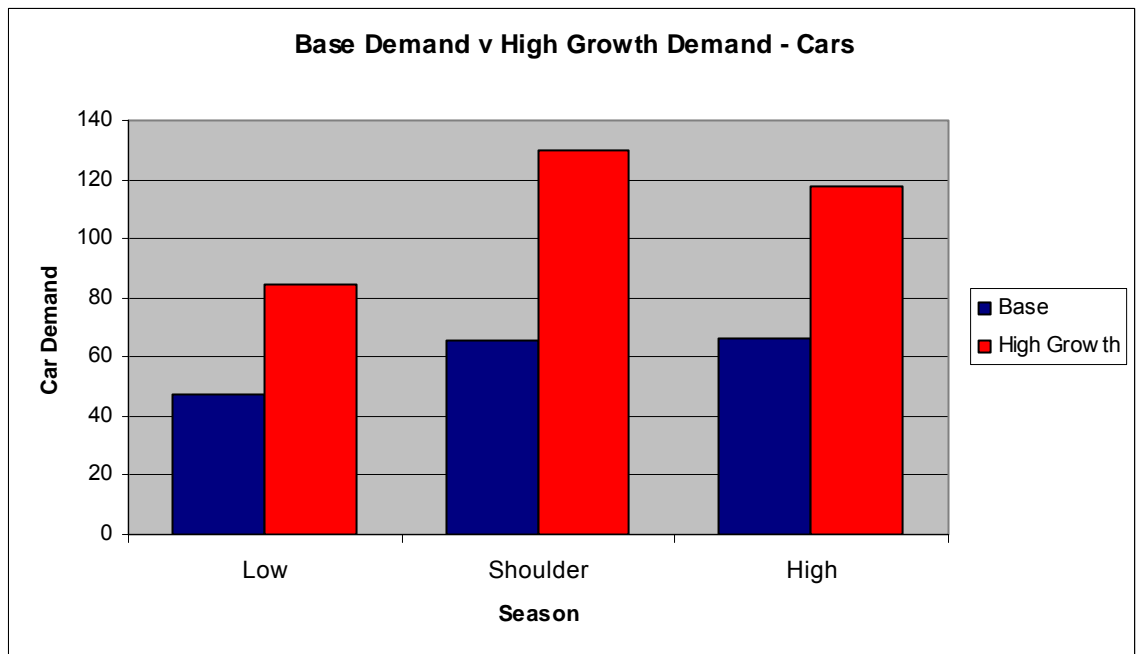


Figure 6.6 Route 3 High Growth in Cars

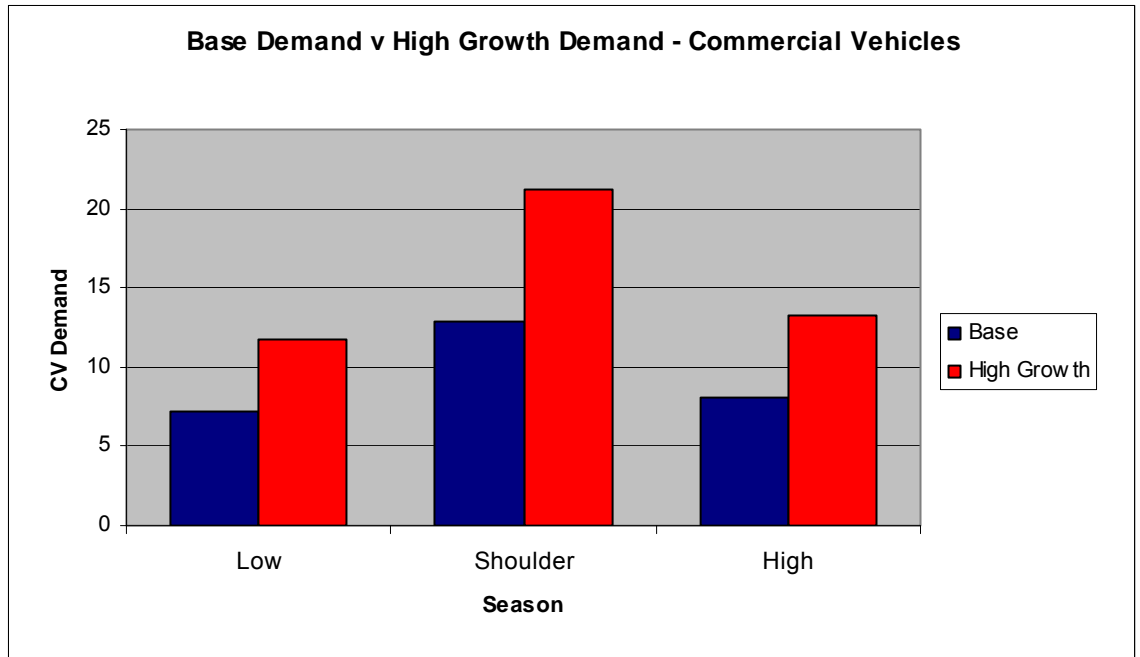


Figure 6.7 Route 3 High Growth in Commercial Vehicles

6.7 Route 4 – Tarbert to Portavadie

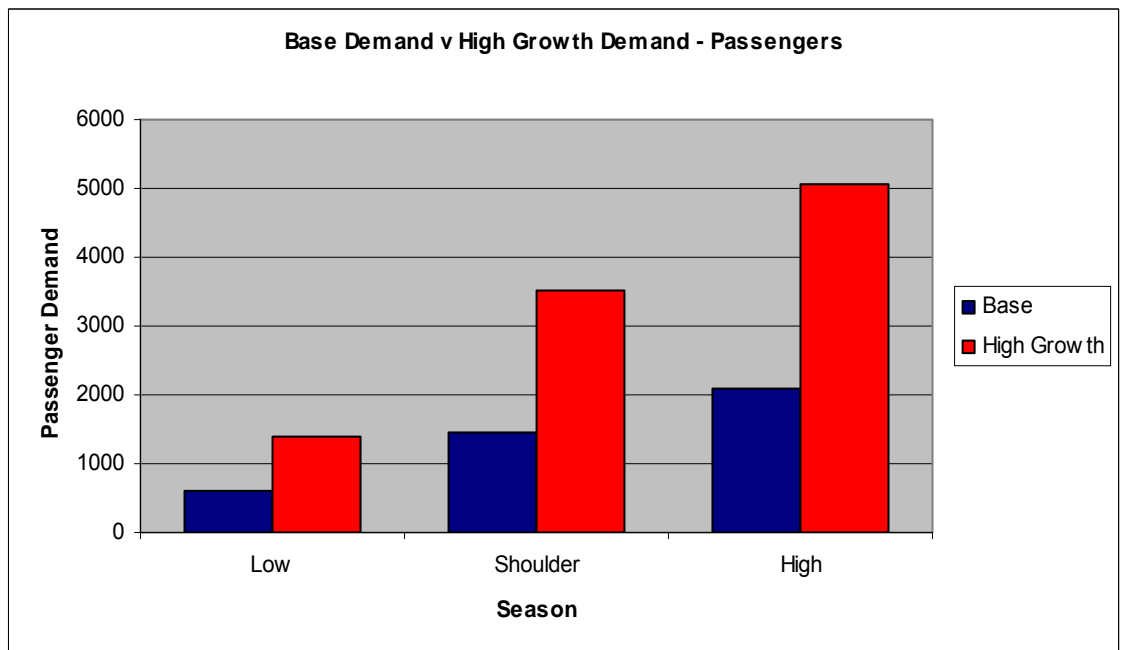


Figure 6.8 Route 4 High Growth in Passengers

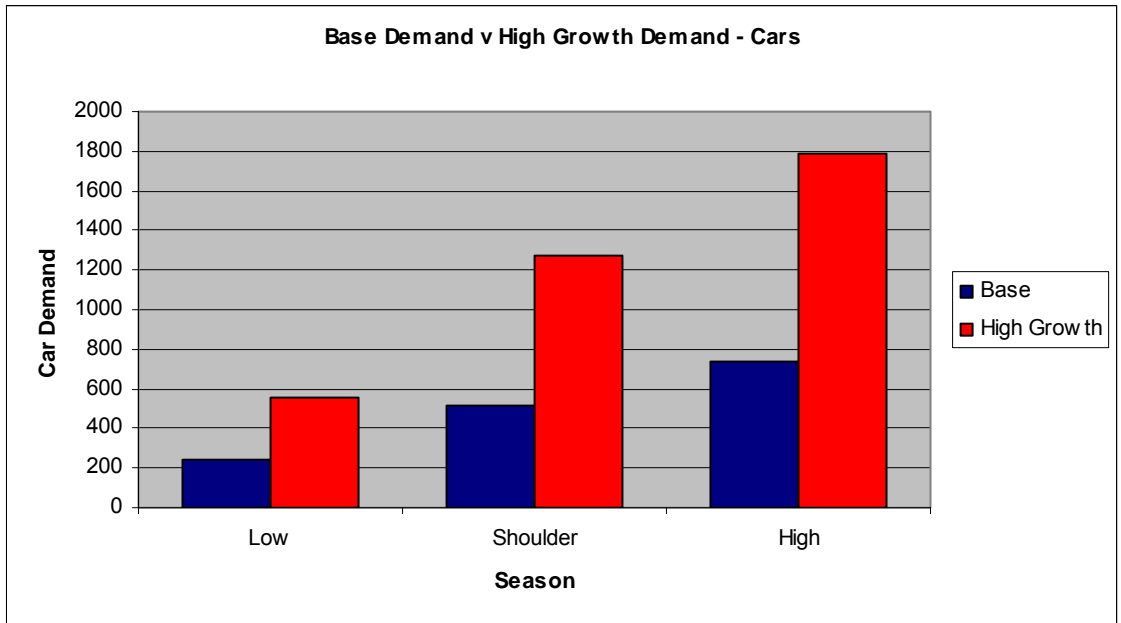


Figure 6.9 Route 4 High Growth in Cars

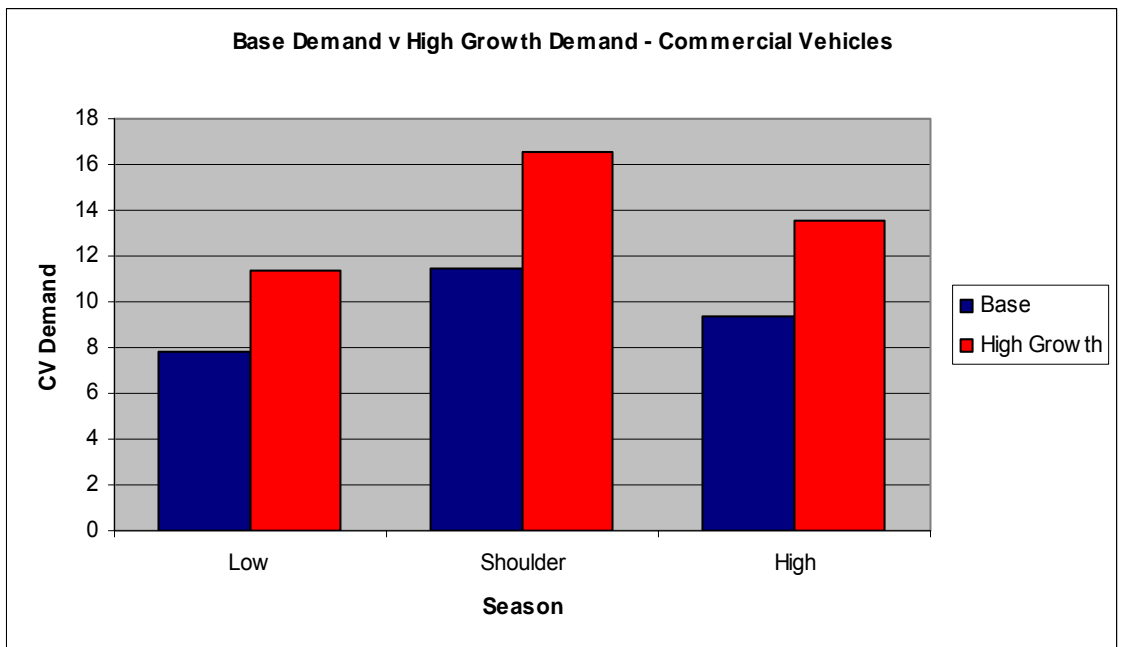


Figure 6.10 Route 4 High Growth in Commercial Vehicles

6.8 Route 5 – Gigha

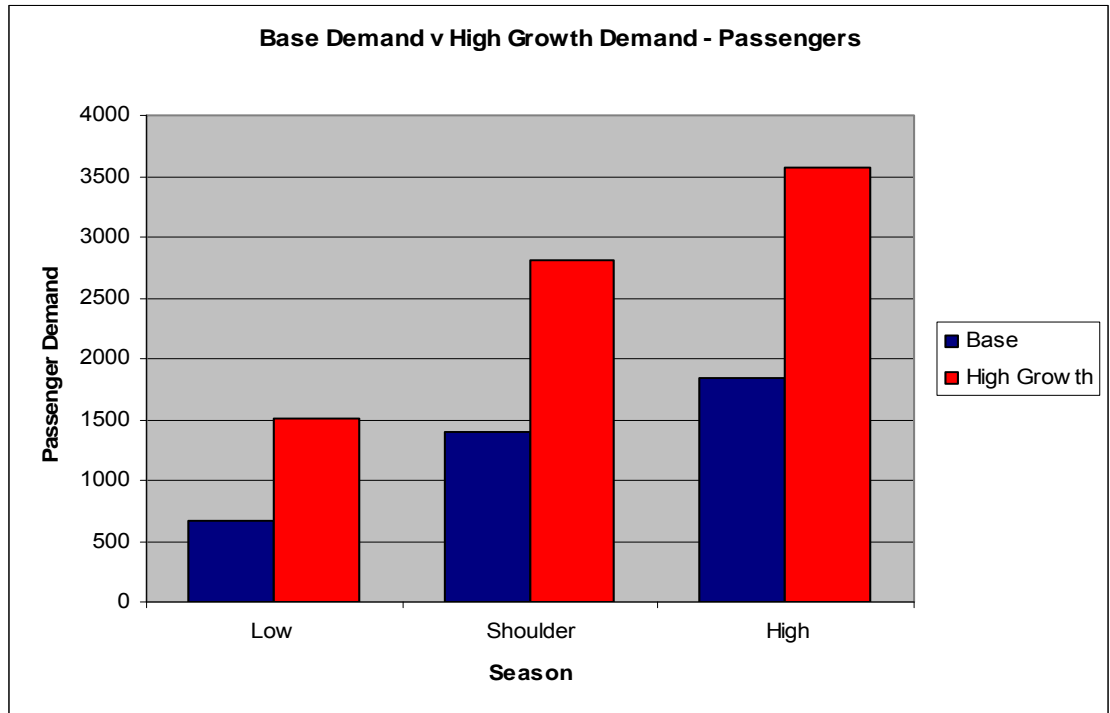


Figure 6.11 Route 5 High Growth in Passengers

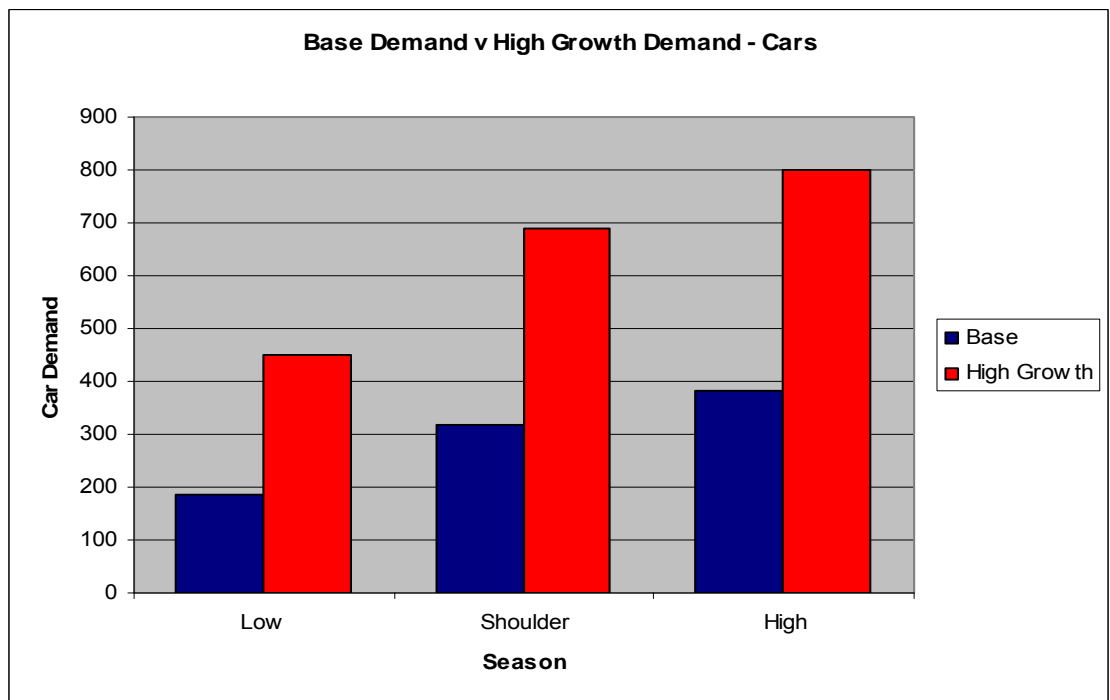


Figure 6.12 Route 5 High Growth in Cars

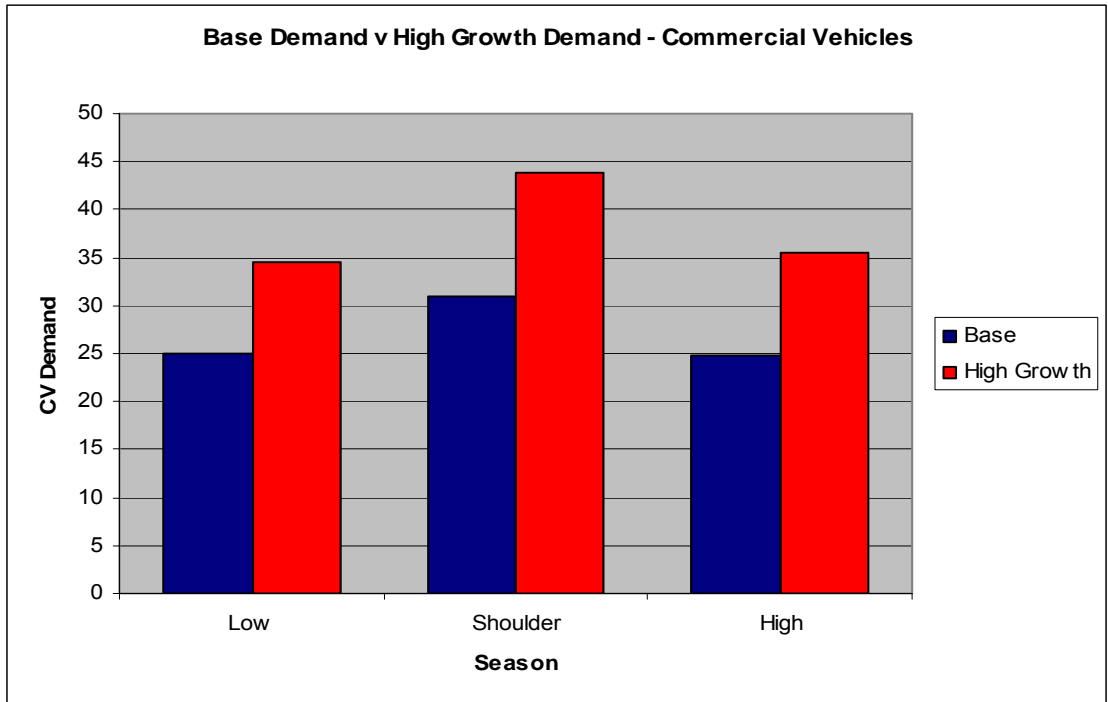


Figure 6.13 Route 5 High Growth in Commercial Vehicles

6.9 Route 6 – Lismore

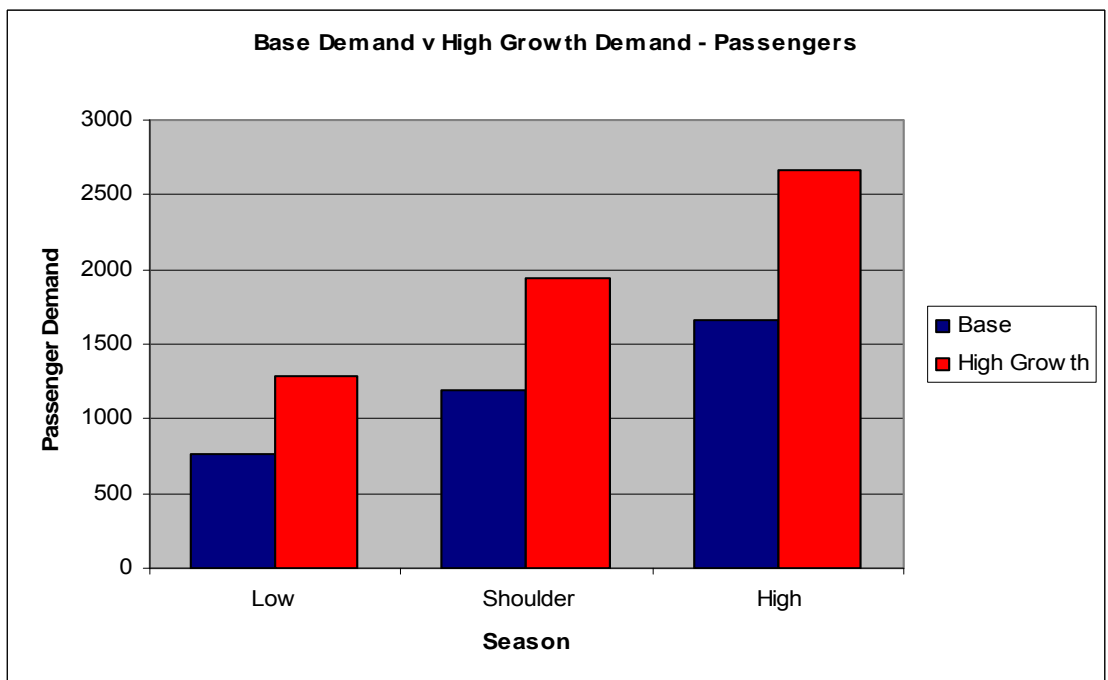


Figure 6.14 Route 6 High Growth in Passengers

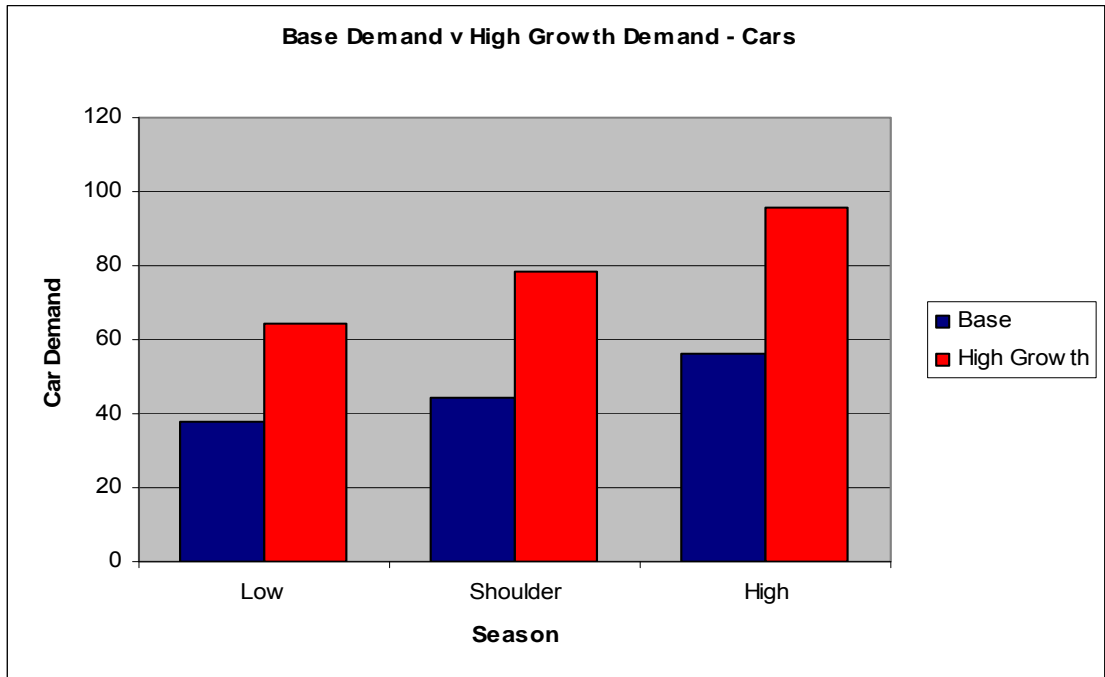


Figure 6.15 Route 6 High Growth in Cars

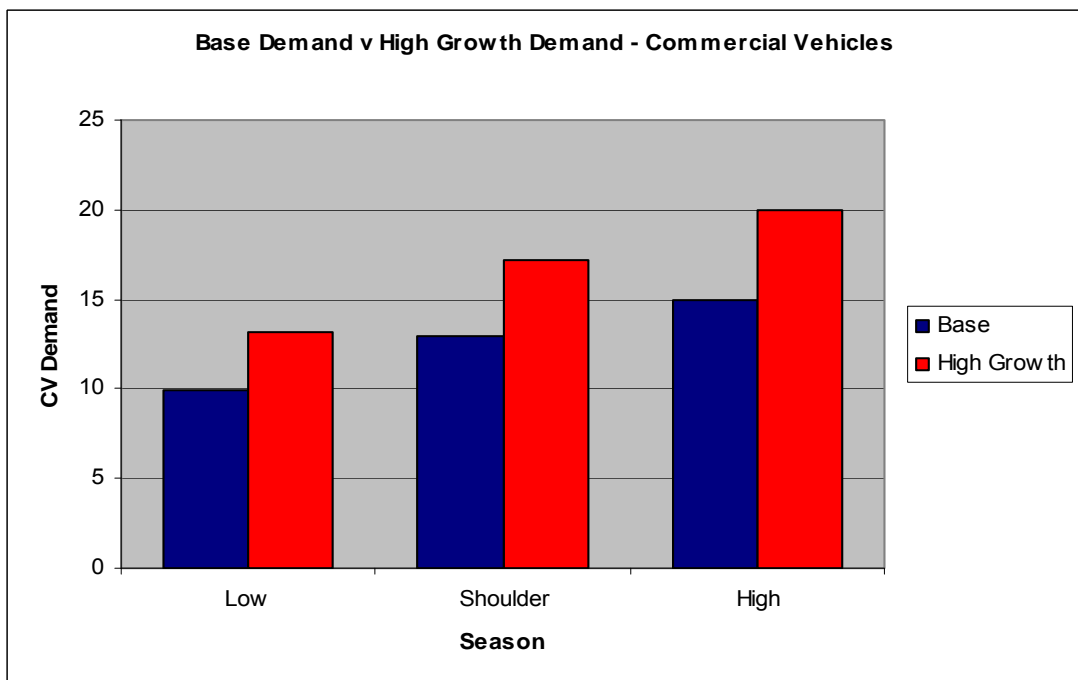


Figure 6.16 Route 6 High Growth in Commercial Vehicles

6.10 Route 7 – Tobermory to Kilchoan (Ardnamurchan)

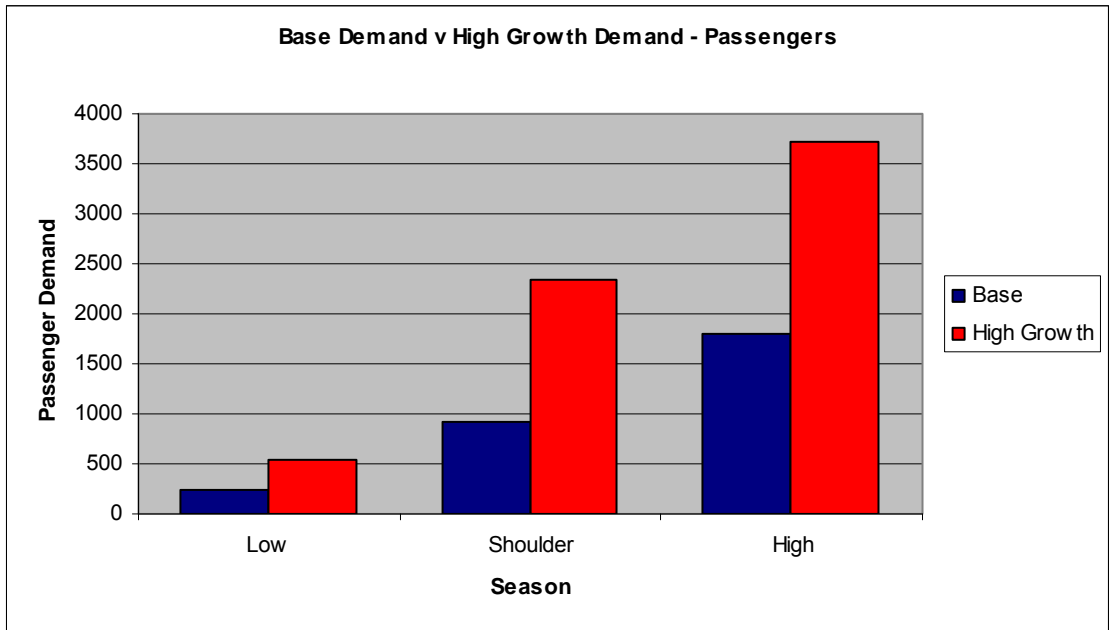


Figure 6.17 Route 7 High Growth in Passengers

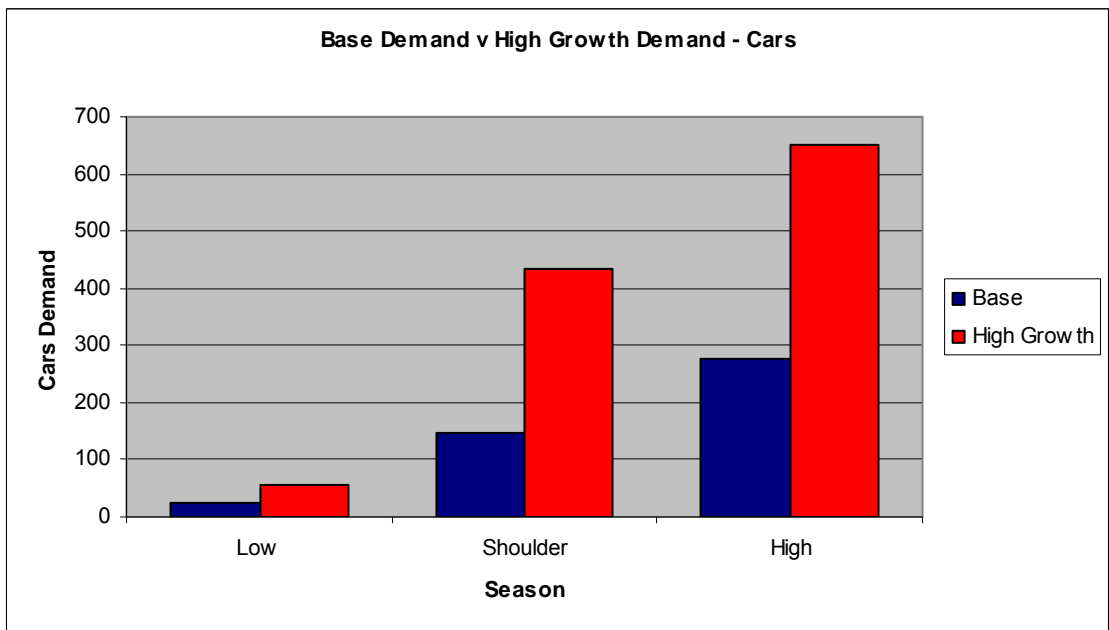


Figure 6.18 Route 7 High Growth in Cars

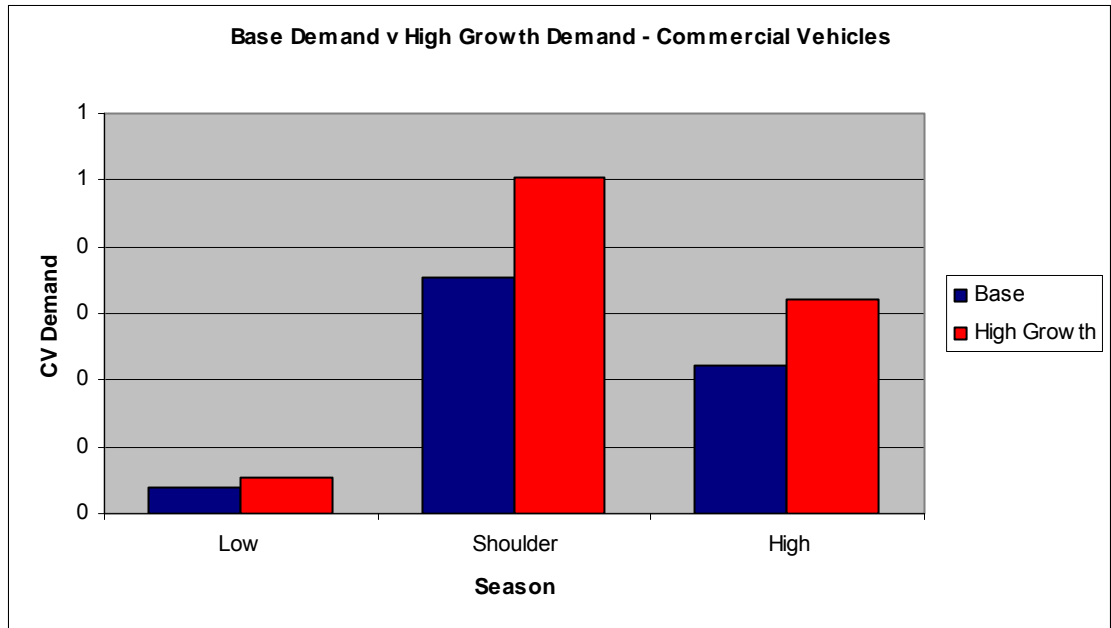


Figure 6.19 Route 7 High Growth in Commercial Vehicles

6.11 Route 8 – Raasay

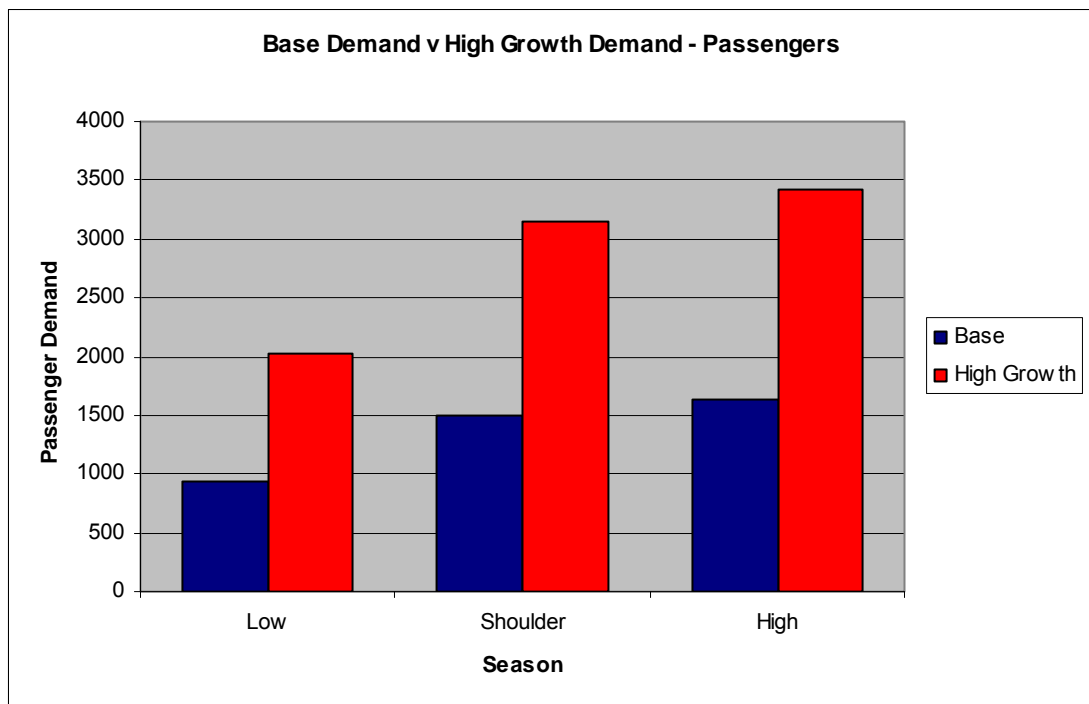


Figure 6.20 Route 8 High Growth in Passengers

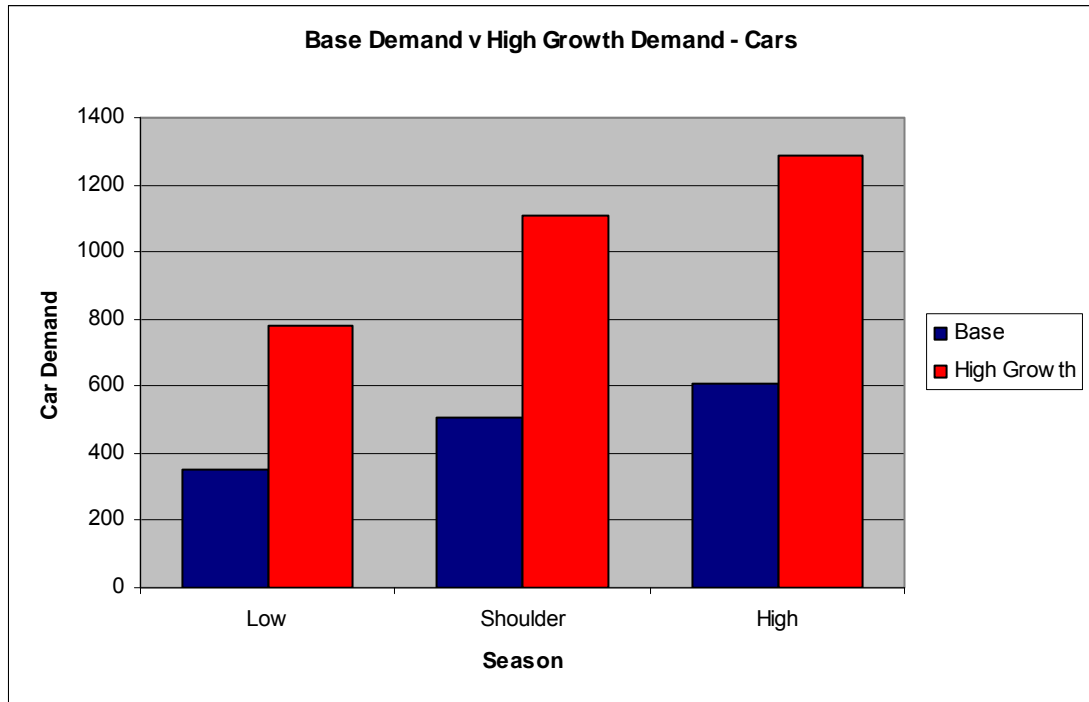


Figure 6.21 Route 8 High Growth in Cars

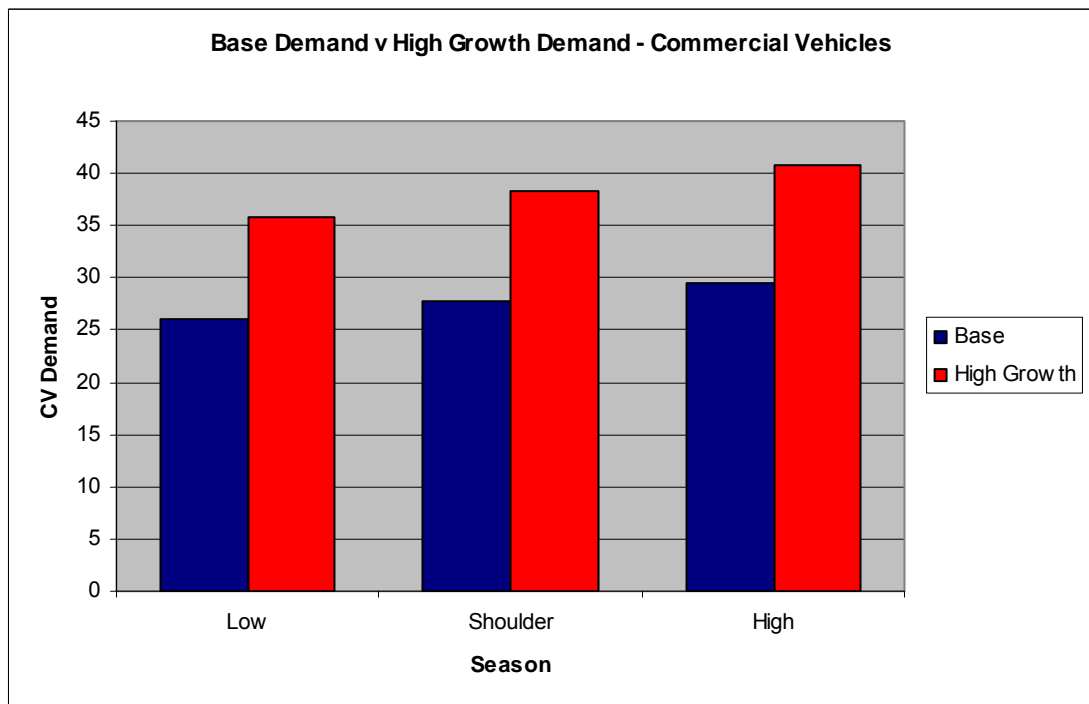


Figure 6.22 Route 8 High Growth in Commercial Vehicles

7 Implications for Vessel Capacity

7.1 Introduction

- 7.1.1 In this chapter we predict the peak demand (lane length and total passengers) for a typical day in each of the three seasons. This analysis assumes that the busiest daily demand is, on average, 20% of the corresponding weekly average demand. We then use our 'sailing choice' methodology of the demand model to allocate this daily demand to the available sailings. It should be noted that this is an estimate of the loading on an 'average busy sailing' within the relevant season and NOT the maximum demand which might be encountered for any sailing, for example due to special events taking place on the relevant islands.
- 7.1.2 The resulting graphs illustrate the maximum capacity needed to meet the predicted high growth average demand profile in each of the three seasons, based on the current service patterns. This reflects the anticipated maximum average demand which would need to be accommodated on each of the routes. In the event that a decision is taken to procure a vessel based upon the prevailing circumstances then the trend growth demand should be used for this purpose.
- 7.1.3 Additional details of the estimates of average maximum required capacity for each season and route are provided in Appendix E.
- 7.1.4 We conclude the chapter with some consideration of the implications for the selection of vessels to service some or all of these eight routes.

7.2 Low Season Peak Sailing Demand

- 7.2.1 The highest passenger demand and longest combined vehicle length in the low season are both associated with Raasay. The vehicle length is the longest across all seasons; however, Raasay services are restricted in the Low season so by increasing sailings (eg equivalent to the High season) this would no longer be the case.

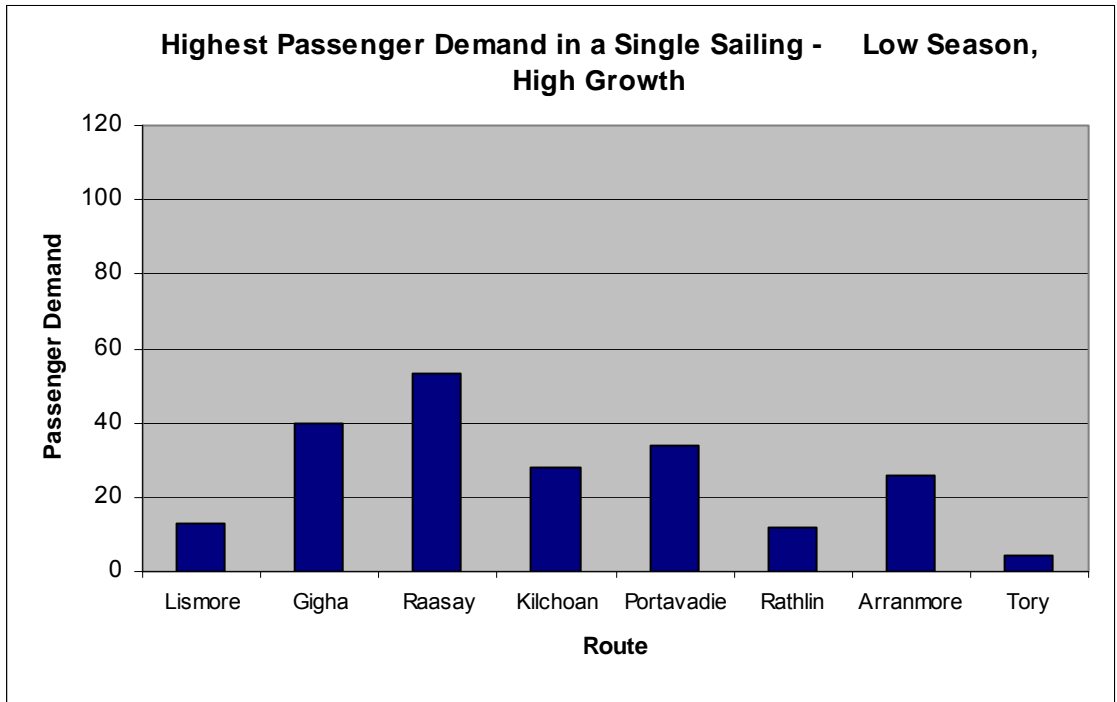


Figure 7.1 Highest Passenger Demand in Low Season – High Growth

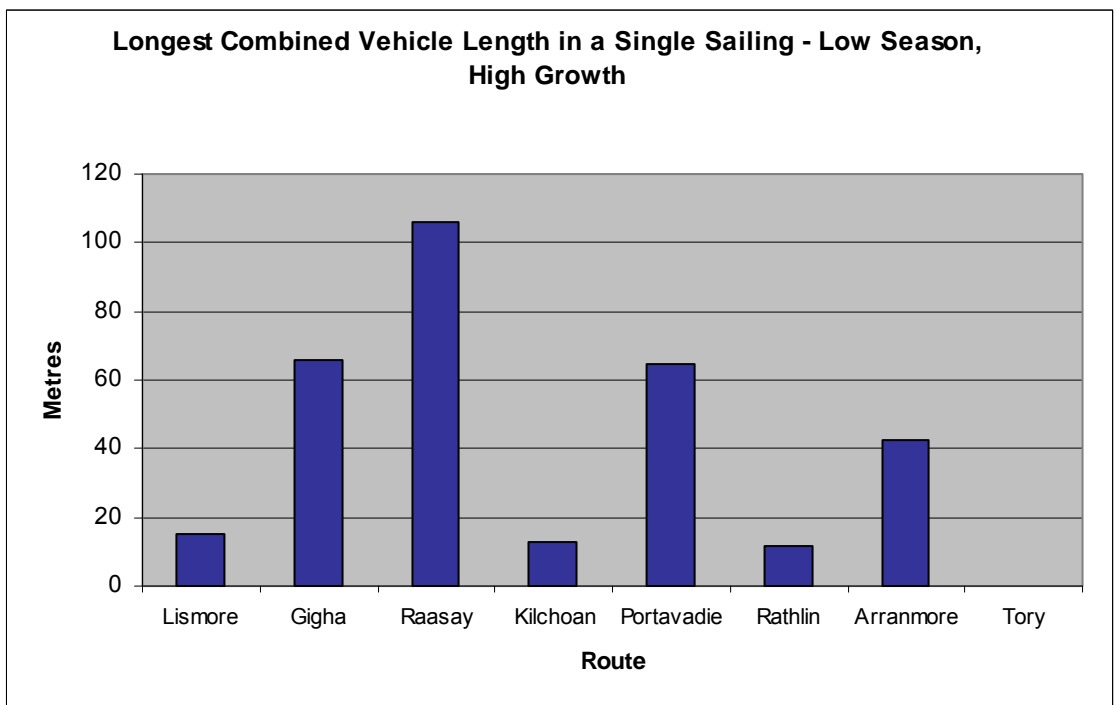


Figure 7.2 Longest Vehicle Length in Low Season – High Growth

7.3 Shoulder Season Peak Sailing Demand

- 7.3.1 Passenger demand in the Shoulder season peaks on the Gigha service at 60.
- 7.3.2 The Portavadie service has the longest combined vehicle distance at 93 metres, which is equivalent to 21 cars assuming a car length of 4.5m.

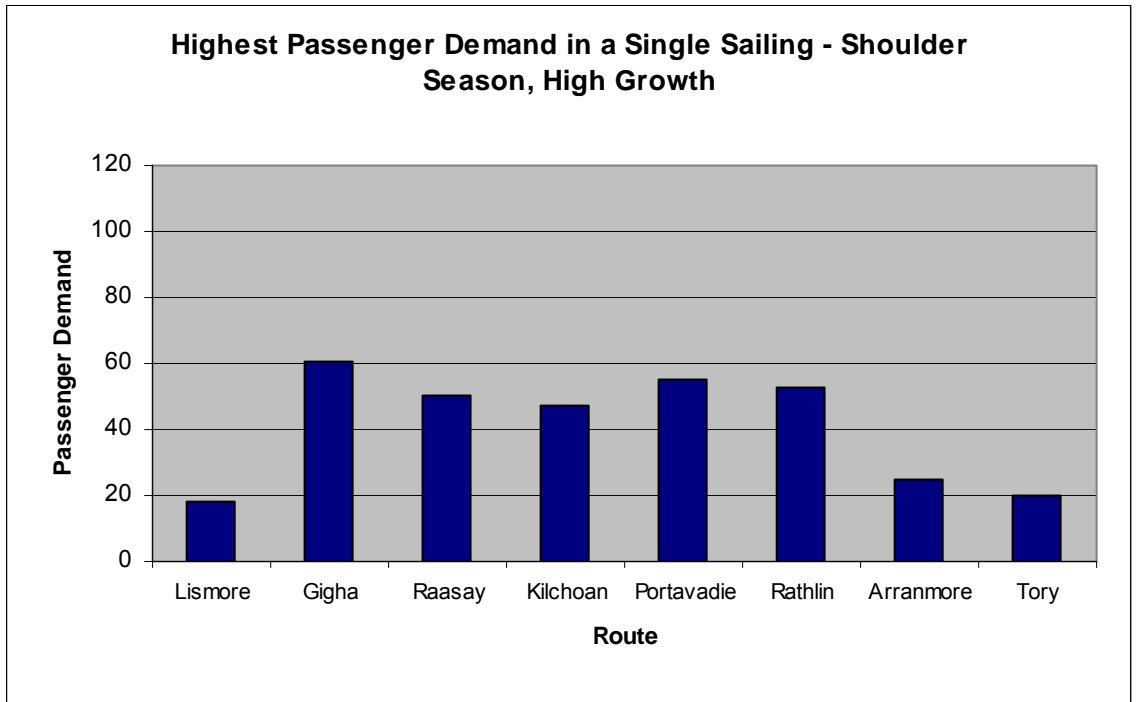


Figure 7.3 Highest Passenger Demand in Shoulder Season – High Growth

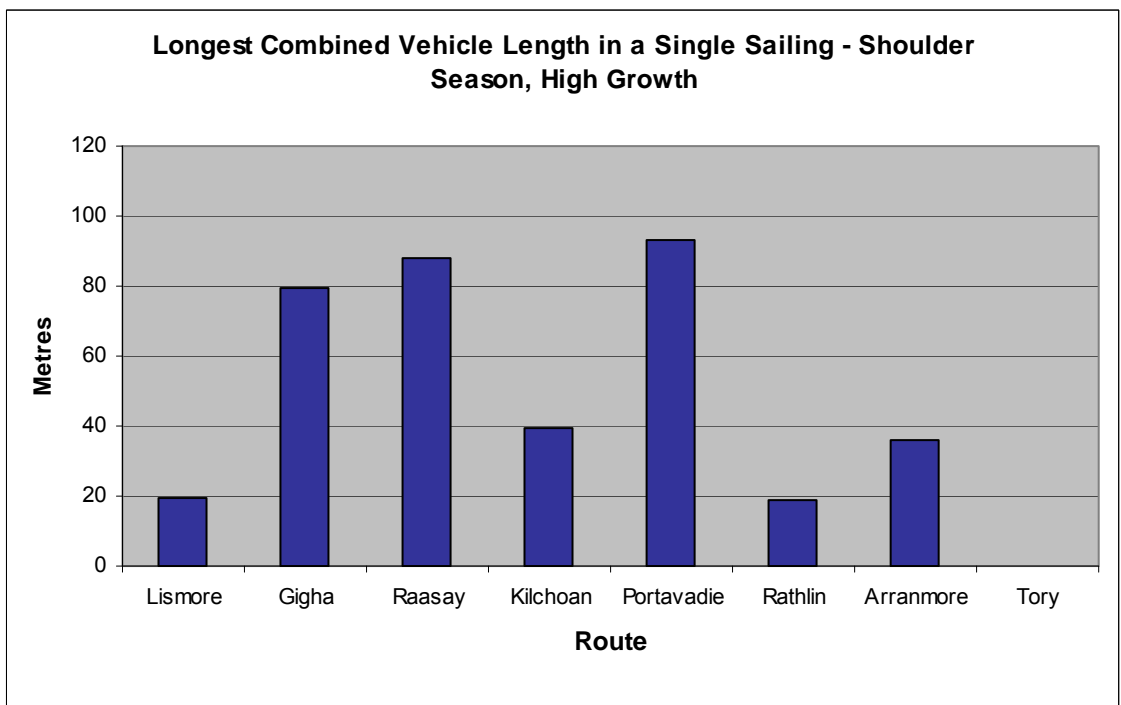


Figure 7.4 Longest Vehicle Length in Shoulder Season – High Growth

7.4 Summer Season Peak Sailing Demand

7.4.1 Rathlin has the highest passenger demand per sailing at 104. The passenger numbers on this route are higher because it includes the provision of both a car ferry and a passenger-only ferry. It should be noted that the six year contract for the Rathlin route was awarded in 2008 to an operator offering a two vessel service. This has boosted passenger demand. However, there is no guarantee that the same operator (with two vessels) will win

the contract again in 2014. The replacement vessel, to be provided by the contracting authority, should therefore plan to accommodate the full passenger forecast for the route.

- 7.4.2 Portavadie has the longest combined vehicle length, with a value of 104 metres, or 23 cars. This is slightly less than that required on the Raasay route in the low season, however, due to the option of increasing sailings on this route in the low season which would significantly reduce the combined length; this value will be taken as the longest overall.

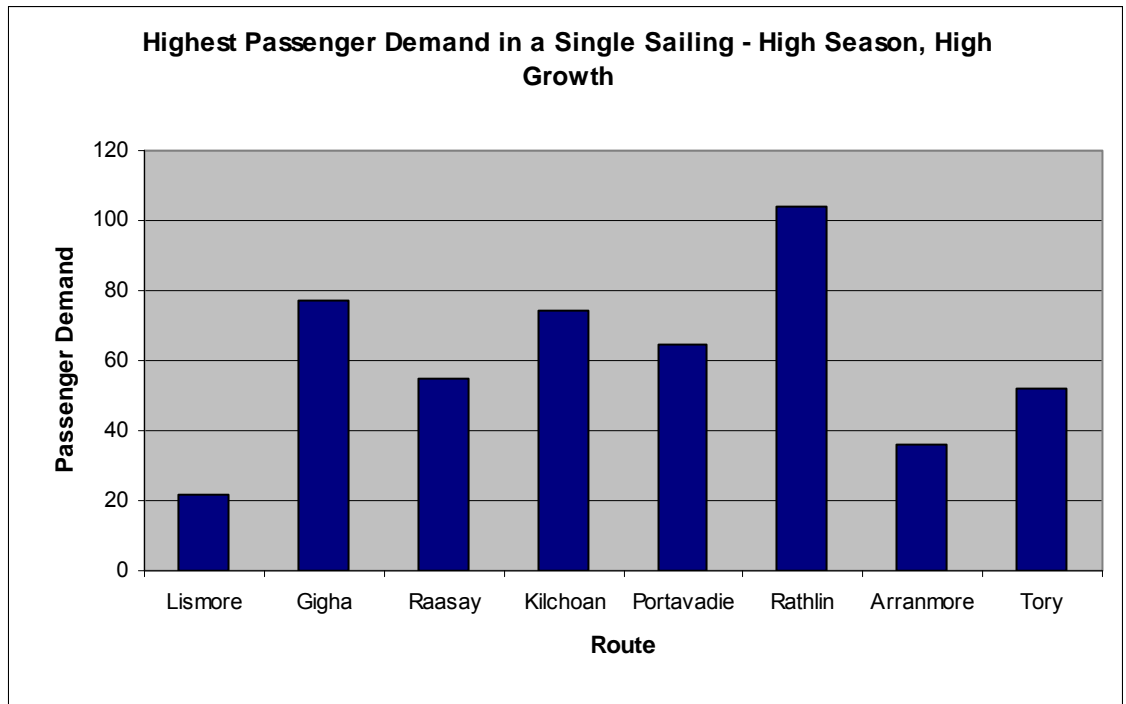


Figure 7.5 Highest Passenger Demand in High Season – High Growth

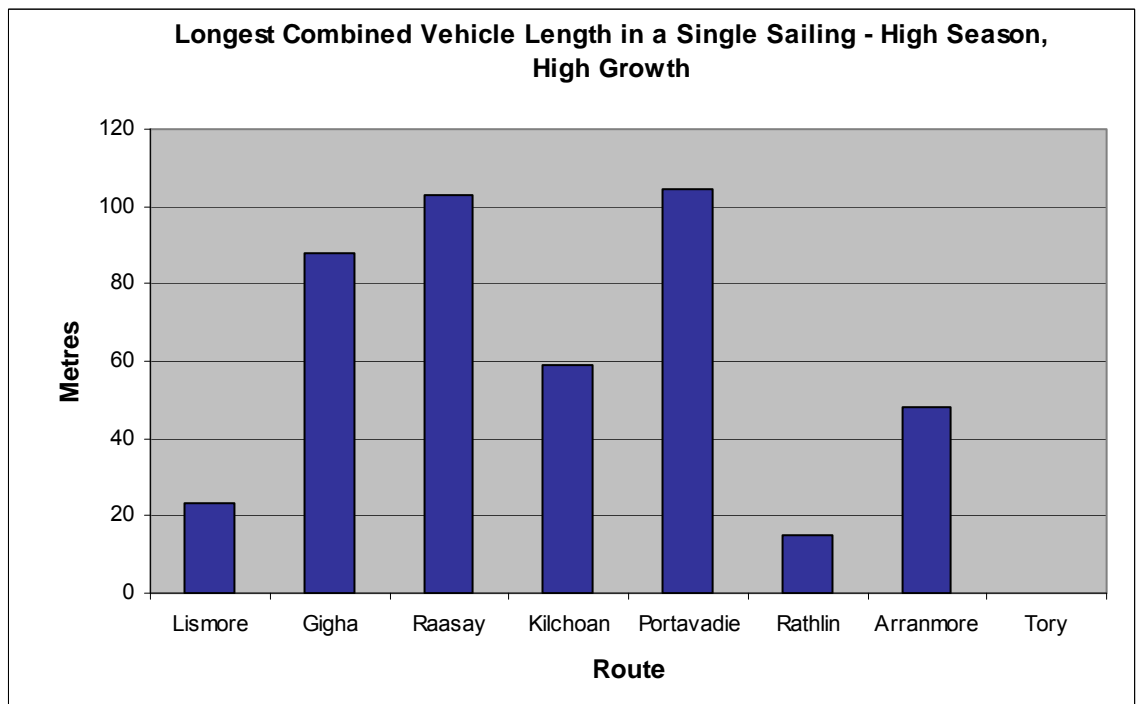


Figure 7.6 Longest Vehicle Length in High Season – High Growth

Implications for Vessel Capacity

- 7.4.3 Although maximum passenger demand by route shows no obvious pattern across seasons, analysis of the combined vehicle length graphs shows that the seven vehicle-carrying routes fall into two groups, with Gigha, Raasay and Portavadie requiring significantly longer vehicle length capacity than the other four routes.
- 7.4.4 Three routes exhibit a significant seasonal influence upon their passenger demand with Rathlin, Kilchoan and Tory all increasing considerably between the shoulder and high seasons.
- 7.4.5 Lismore and Arranmore display lower overall demand in terms of both passengers and vehicles with a less pronounced seasonal influence on this demand as well.
- 7.4.6 This suggests that a two vessel solution, one large and one small, may be more appropriate to meet the needs of these routes. This is illustrated in Table 7.1.

Table 7.1 Division of Routes

Route	Vessel	Comments
Lismore	Small	Small demand and limited seasonal influence
Gigha	Large	High vehicular demand
Raasay	Large	High vehicular demand
Kilchoan	Large	High seasonal passenger demand
Portavadie	Large	High vehicular demand
Rathlin	Large	High seasonal passenger demand
Arranmore	Small	Small demand and limited seasonal influence
Tory	Small	Small demand but subject to seasonal increase

- 7.4.7 We anticipate that there may need to be a trade off between meeting the absolute peak demand relative to the demand throughout the rest of the year. Therefore, we have identified the vessel sizes by using a range based upon the peak demand in the shoulder and high seasons across the routes which would use that particular vessel. This is set out in Table 7.2.
- 7.4.8 It will consequently be necessary to make a decision on whether the absolute peak demand should be catered for on the routes or whether it would be preferable to procure smaller vessels capable of accommodating the majority of demand throughout the year, but not the absolute peak demand. In the latter option is chosen then peak demand could be catered for through additional sailings, where possible, or by a pricing strategy which would reduce demand to a level which can be accommodated on the vessel.
- 7.4.9 When considering these vessel specifications, it is important to bear in mind a number of related issues. Firstly, provision of a small boat which meets the seasonal passenger

demand for Tory could lead to overprovision on the Lismore and Arranmore routes as well as the Tory route throughout the rest of the year.

- 7.4.10 In addition, a boat which caters for the peak passenger demand on the Rathlin route would lead to overprovision on the other routes. Rathlin and Kilchoan will also have overprovision for passengers during the rest of the year as they are both heavily influenced by seasonal demand. The vehicle capacity on the Rathlin and Kilchoan routes would also significantly exceed demand as it would be based upon the demand for the Gigha, Raasay and Portavadie routes.
- 7.4.11 In the case of Rathlin a policy stance has been taken with regards to restricting vehicular access to the island. On this basis there may be a requirement to restrict the vehicular capacity on the vessel at a level lower than that indicated in Table 7.2. This could potentially be overcome by reallocating capacity from vehicles to passengers which would require a variant of the 'base boat design' to be created.

Table 7.2 Vessel Specifications

Boat	Passenger Capacity	Vehicle Capacity (metres)	Vehicle Capacity (cars)
Small	25 – 52 (Arranmore / Tory)	36 – 48 (Arranmore)	8 – 11
Large	60 – 104 (Gigha / Rathlin)	93 – 104 (Portavadie)	21 – 23

7.5 Implications for Vessel Specification

Issues Underpinning Vessel Specifications

- 7.5.1 The routes being considered can be split into those carrying passengers only (Tory Island – Magheraroarty/Bunbeg) and those carrying passengers and vehicles (the other seven routes). It should be noted that there is also a cargo-only service between Alt an Chorrain and Toraigh but it is believed that the current vessel is adequate as it is only required once a fortnight. It is therefore assumed that the capacity of the vessel recommended for the Arranmore route will also satisfy requirements for the Tory cargo route.
- 7.5.2 In the case of this study we have been asked to identify a suitable vessel size which can be used to operate all eight services. Demand analysis highlighted the fact that two vessel sizes would be more appropriate than a 'one size fits all' vessel due to the natural grouping of routes into 'lower' and 'higher' demand clusters.
- 7.5.3 Whilst the existing vessel on the Tory Island service does not carry vehicles the creation of a standard vessel for these lower demand routes would allow this provision although it is understood that there may be some local resistance to it. Nonetheless, we have **not** sought to predict vehicular demand on this route if such a provision is made.
- 7.5.4 In addition, it is worth noting that a passenger only service operates alongside the passenger and vehicle service between Ballycastle and Rathlin as highlighted earlier in the chapter.



- 7.5.5 Currently, other than vessels using Lift-On/Lift-Off, vehicles are driven on and off the ferries operating on these routes. In the case of the small ferries being used on the majority of routes, such as the Island Class, it is necessary to drive on and reverse off or reverse on and drive off, since the vessels are not drive through and not currently fitted with turntables. Although some of the early Island class vessels did have turntables, they have been immobilised, or removed altogether.
- 7.5.6 Existing vessels working from fixed ramps are generally Island Class, Loch Class or derivatives of these vessels. By far the most versatile in terms of size and ability to get into small ramps are the Island Class.
- 7.5.7 Whilst the Island Class are outstanding workhorses, and can access the smallest of fixed ramps (such as the one at Rathlin), their passenger carrying capacity is low, particularly in winter where the small capacity of sheltered accommodation greatly reduces passenger capacity. In addition, passenger capacity in summer is further reduced by each vehicle carried.
- 7.5.8 The Island Class vessels in use are all over thirty years old, and it has been appreciated for some time that a new alternative has to be found. In looking for such an alternative, the difference between winter and summer demand has to be taken into account.
- 7.5.9 Fixed ramps, usually constructed of concrete, have been in use on Scottish and Irish routes for many years and they have many advantages, particularly in the case of remote locations. They are virtually maintenance free, require no operational manning, and provide a useful community benefit when not in use by the vessels for which they were designed.
- 7.5.10 The ramps in use in Scotland are generally built with a declivity of 1:8, and this allows for a relatively short ramp, depending on the rise and fall of tide. Uniform design also allows vessels to be interchangeable between routes. However, the concrete ramp has one major drawback in that it imposes design constraints and consequently limits the capacity of the vessels which can use it. This arises because the vessels are required to land their ramps on the slip which constrains the forward draft of the vessel.
- 7.5.11 Therefore, an increase in single voyage capacity on any of the routes will be influenced by the potential vessel size relative to the characteristics of the ports. However, consideration of these impacts is beyond the scope of this study and we have consequently provided recommendations on vessel specifications based purely upon forecasted demand. The ability to realise this demand in relation to port capacity and constraints on vessel specifications will subsequently require more detailed investigation.

Vessel Specifications Based Upon Forecasted Demand

- 7.5.12 As discussed earlier in the chapter, the peak demand for both passengers and vehicles falls within the high season. This accounts for only two months of the year where peaks are expected due to tourist travel. It could be argued that a more 'normal' level of demand can be found within the shoulder season where passenger demand peaks at 60, and vehicle capacity peaks at 93 metres (or 21 cars) for the busier routes and 39 metres (or 10 cars) for the quieter routes.

7.5.13 Based upon these findings, the key aspects that need to be taken into account from a capacity perspective in vessel specifications are:

- the need for a **large vessel** to accommodate a predicted peak passenger demand of **between 60 and 104 people** based upon the demand for the Gigha service in the shoulder season and the Rathlin service in the high season;
- a predicted peak vehicle capacity of **between 93 and 104 lane metres for the larger vessel** based upon the demand on the Portavadie service in both the shoulder and high seasons;
- a **small vessel** capable of accommodating **between 25 and 52 passengers** based upon the demand on the Arranmore service in the shoulder season and Tory service in the high season; and
- a predicted peak vehicle capacity of **between 36 and 48 lane metres for the smaller vessel** based upon the demand on the Arranmore service in the shoulder and high seasons.

7.5.14 Table 7.3 below shows the current capacity of the route vessels against the recommended capacity. Recommended vehicle capacity is shown in metres, equivalent car numbers and equivalent commercial vehicle numbers, where car length is assumed to be 4.5 metres and commercial vehicle numbers 13.5 metres.

Table 7.3 Current and Recommended Vessel Capacities

Route	Vessel	Current Passenger Capacity	Current Vehicle Capacity (Cars)	Forecast Passenger Capacity	Forecast Vehicle Capacity (Metres)	Forecast Vehicle Capacity (Cars)	Forecast Vehicle Capacity (CVs)																																																								
Lismore	Eigg	75	5	25 - 52	36-48	8 - 11	2 - 3																																																								
	Lismore	20	-					Gigha	Loch Ranza	200	12	60 - 104	93-104	21 - 23	6 - 7	Raasay	Loch Striven	200	12	60 - 104	93-104	21 - 23	6 - 7	Kilchoan	Loch Linnhe	200	12	60 - 104	93-104	21 - 23	6 - 7	Portavadie	Isle of Cumbrae	139	18	60 - 104	93-104	21 - 23	6 - 7	Rathlin	Canna	164	6	60 - 104	93-104*	21 - 23*	6 - 7*	St Sorney	100	0	Arranmore	Rhum	96 - Summer	6	25 - 52	36-48	8 - 11	2 - 3	48 - Winter	Tory	Tormore	72 - Summer	0
Gigha	Loch Ranza	200	12	60 - 104	93-104	21 - 23	6 - 7																																																								
Raasay	Loch Striven	200	12	60 - 104	93-104	21 - 23	6 - 7																																																								
Kilchoan	Loch Linnhe	200	12	60 - 104	93-104	21 - 23	6 - 7																																																								
Portavadie	Isle of Cumbrae	139	18	60 - 104	93-104	21 - 23	6 - 7																																																								
Rathlin	Canna	164	6	60 - 104	93-104*	21 - 23*	6 - 7*																																																								
	St Sorney	100	0					Arranmore	Rhum	96 - Summer	6	25 - 52	36-48	8 - 11	2 - 3	48 - Winter	Tory	Tormore	72 - Summer	0	25 - 52	36-48	8 - 11	2 - 3	58 - Winter																																						
Arranmore	Rhum	96 - Summer	6	25 - 52	36-48	8 - 11	2 - 3																																																								
		48 - Winter																																																													
Tory	Tormore	72 - Summer	0	25 - 52	36-48	8 - 11	2 - 3																																																								
		58 - Winter																																																													

* Vehicular capacity may need to be restricted on the Rathlin boat to reflect the policy position to limit vehicular access to the island

- 7.5.15 Two vessels – one to accommodate the demands of the busier routes, and another for the quieter services - would provide a suitable solution for the routes under consideration. However, there may be a requirement to restrict the vehicular capacity on the Rathlin boat which could necessitate a 'hybrid' design potentially reallocating space from vehicles to passengers.
- 7.5.16 In addition, the Rathlin forecast (and possibly forecasts for other routes with a high seasonal foot passenger demand) could be met either by a single multi-purpose ferry (where the vessel is provided by the contracting authority) or by a two-vessel solution (if the contractor provides the vessels).

Appendix A Study Brief



SERVICES

**DRD Small Ferries
Project: Travel Demand
Analysis**

Small Ferries Project: Travel Demand Analysis

TENDER REFERENCE NO: 901

Contents		Page
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3.	Pricing Schedule	Part 3 13
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Part I

Instructions to Tenderers

INSTRUCTIONS TO TENDERERS

1. Completion and Submission of Tender Documentation

The documents completed as directed should be returned via the e-Sourcing Platform.

- i. The closing date for receipt of tenders is **3pm on Thursday 4th June 2009**. Responses can be uploaded any time until then. These responses can be retracted and re-submitted any time before this closing date.
- ii. Please note that documents must be formally published prior to the final submission date, in order to be considered for evaluation. Documentation which has been uploaded onto our electronic sourcing system but not published will not be considered.
- iii. When uploading your response, please be aware of the speed of your Internet connection, your system configuration and general web traffic may impact on the time taken to complete the transaction. Uploading of proposals must be completed by 3pm on the closing date.
- iv. Please upload as early as possible particularly if responding on the day of closing.
- v. Late Tenders will not be considered.
- vi. All submissions must be in the English language.
- vii. Tenders must be fully compliant with the requirements detailed in the tender documentation.
- viii. All prices entered in the pricing schedule or other documents must be exclusive of VAT and in pounds sterling.
- ix. Tenders may be rejected if the required information is not given at the time of tendering.

2. Economic and Financial Standing

Tenderers may be required to furnish information as to economic and financial standing for assessment by Central Procurement Directorate prior to the acceptance of any tender.

3. **Costs and Expenses**

Tenderers will not be entitled to claim from either Central Procurement Directorate or the Department any costs or expenses which may be incurred in preparing their tender whether or not it is successful.

4. **Period of Validity**

Tenderers are required to keep their tenders valid for acceptance for a period of ninety days from the closing date.

5. **Confidentiality**

Tenderers should treat the tender documents as private and confidential between the tenderer, the Central Procurement Directorate and the client (Department for Regional Development). Tenderers should note that the Central Procurement Directorate and the Department shall use the tender documents for the purposes of evaluation and that the tender documents will be destroyed in line with the Central Procurement Directorate's disposal schedule.

6. **Official Amendments**

Should it be necessary for Central Procurement Directorate to amend the tender documentation in any way, prior to receipt of tenders, all tenderers in receipt of documents will be notified simultaneously. If deemed appropriate, the deadline for receipt of tenders will be extended.

7. **Environmental Benefits**

The Government is committed to sustainable procurement and would wish to see tenderers adopt a positive environmental approach. Information and guidance about how to pursue a more sustainable future for Northern Ireland is available from:-

www.ofmdfmni.gov.uk/index/economic-policy/economic-policy-sustainable-development.htm

8. **Canvassing**

Any tenderer who directly or indirectly canvasses any official of Central Procurement Directorate or the Department concerning the award of contract or who directly or indirectly obtains or attempts to obtain information from such official concerning the proposed or any other tender will be disqualified. This should not, however deter any supplier seeking clarification in relation to the tender.

9. Assumptions

Tenderers must not make assumptions that either CPD or the Departments have experience of their organisation or their service provision even if on a current or previous contract. Tenderers will only be evaluated on the information provided in their response. Embedded documents or hyperlinks must not be used.

10. Compliance

Tenders must be submitted in accordance with these instructions. Failure to comply may result in a Tender being rejected by Central Procurement Directorate.

11. Transfer of Undertaking and Protection of Employment (TUPE)

Where appropriate, tenderers are advised to seek their own legal advice with regard to the application of TUPE and state clearly when returning their tender documentation whether or not they have done so.

12. Freedom of Information Act (FOIA)

The tenderer should treat the Tender documents as private and confidential between themselves and Central Procurement Directorate. Tenderers are advised that with effect from 1 January 2005 Central Procurement Directorate has incorporated a clause in its terms and conditions of contract to ensure full compliance with the Freedom of Information Act. Please note that the clause states that unless an exemption provided for under the Act is applicable in relation to any particular information, a public authority will be obliged to disclose that information in response to a request regardless of the terms of any contract.

Tenderers are asked to consider if any of the information supplied in the course of this tender competition should not be disclosed because of its sensitivity. Tenderers must complete the "Freedom of Information Statement contained at Part 4 (e) "Forms and Certificates: Freedom of Information Statement" identifying which information is considered commercially sensitive, specify the reasons for its sensitivity and specify the period for which the information will remain sensitive. Central Procurement Directorate will consult with you about sensitive information before making a decision on any Freedom of Information requests received.

13. Evaluation Criteria

The evaluation process will take place in two stages. Tenders that meet the selection criteria in *Stage A* Mandatory Requirements will go forward to the tender evaluation *stage B*.

Failure to meet the mandatory requirements below (Stage A) will lead to disqualification from this tender competition. Tenders will not, therefore, progress to the evaluation stage listed at (Stage B) below.

(A) Mandatory Requirements**Relevant Experience of Personnel**

Tenderers **must** demonstrate in their submission that persons proposed meet the following requirements:

- Relevant experience in the past two years of working on projects similar to the requirements of this contract. *This must include demand modelling experience.*

CV's for all staff nominated for the provision of this contract must be included.

Relevant Experience of Service Provider

Tenderers should demonstrate in their submission, relevant experience in the past two years, of projects similar to this contract, listing relevant contracts of similar complexity as examples.

Compliance with EC/ UK Procurement Legislation

It is a mandatory requirement that Tenderers provide a written declaration when submitting their submission confirming that they have not been convicted of any offences referred to in regulation 23 (1) of The Public Contracts Regulations 2006.

<http://www.opsi.gov.uk/si/si2006/20060005.htm>

The Department reserves the right to validate any information provided to meet these mandatory requirements.

Demonstration of compliance to the specified mandatory requirements will be assessed by the evaluation panel and documented using the attached table (Appendix B)

(B) Evaluation Criteria

Tenders that have met the mandatory requirements will be evaluated using the following criteria and associated weightings:

Criteria	Weighting
Methodology <ul style="list-style-type: none"> • The tenderer's understanding of the requirement, including the proposed methodology and project plan to meet the timescales. 	50%
Cost	50%

14. Format of Response

Organisations should submit plans detailing how and where they will deliver the requirement taking account of the criteria and requirements specified below. To be considered, each prospective tender must address the following key areas:

Methodology 50%

An understanding of the requirement, including the proposed methodology and project plan to meet the timescales. An indication of the number of man days required to complete the assignment.

Cost 50%

Tenderers will be evaluated on the total cost of personnel inputs in completing the assignment. Cost scores will be calculated on the percentage detailed above: the lowest cost will be awarded the full 50% and all others will be pro-rata to it. Additional costs and expenses will be agreed with the Department and paid at NICS rates but will not be used in the tender evaluation.

Tender submissions will be evaluated by the evaluation panel using the attached table (Appendix B)

15. Conflict of Interest

Tenderers must confirm in their proposals that there would be no conflict or perceived conflict of interest in relation to their servicing this contract. Tenderers

must complete the “Conflict of Interest Statement” contained at Part 4 (f) Forms and Certificates.

16. Security Vetting Procedure

Vetting will only be carried out on instruction by a Department. In most cases this will have to meet the base line personal security standard and will be asked for only as required. Tenderers will be required to pay a fee for clearance documentation direct to Access NI. For further detail please visit the Access NI website. www.accessni.gov.uk

17. Complaints Procedure

Tenderers are advised that details of the Central Procurement Directorate “Complaints Procedure” can be found on the Central Procurement Directorate website at www.cpdni.gov.uk/index/cpd-complaints-procedure.htm under the Central Procurement Directorate/Publications section. Tenderers should consult this document if they have concerns regarding any aspect of the procurement process.

18. Contact Details

The person to contact for further information is: **Keith Taylor**.

Any questions or clarifications relating to this procurement should be communicated using the secure messaging function on the portal. This will give you an audit trail of all discussions/clarifications.

BravoSolution is the eSourcing managed service provider for the CPD portal; should you have any queries, or if you are having any problems registering on the portal, please contact BravoSolution’s dedicated supplier helpdesk by calling 0800 011 2470 or emailing help@bravosolution.co.uk

Part 2

Terms of Reference

Terms of reference for an analysis of the current and future demand for small ferry services over the next 25 years to small communities off the Scottish and Irish coasts. The Small Ferries Project is sponsored by the INTERREG IVA Programme which is a Cross-Border Territorial Cooperation Programme for Northern Ireland, the Border Region and Western Scotland. The overall aim of the INTERREG IVA Programme is to: 'Support strategic cross-border co-operation for a more prosperous and sustainable region.'

Background

The Department for Regional Development in the North of Ireland along with the Irish Department of Community, Rural and Gaeltacht Affairs and Caledonian Maritime Assets Limited (CMAL) are collaborating on a Small Ferries Project which aims to develop a programme to design and procure a new fleet of small ferry vessels to serve remote communities off the Scottish and Irish coasts. The Project is supported by INTERREG IVA.

One of the early tasks of the project is to forecast the future passenger, vehicle and freight demand for "lifeline ferry" services in order to design suitably sized vessels to meet the needs of 8 isolated communities in the Programme Area. The ferry routes in question are listed in Appendix A and the Small Ferries Project requires projections of their likely needs over the next 25 years.

This project allows the three jurisdictions to work together in a collaborative manner in planning for a new generation of "lifeline ferries", developing best practice in this field and providing opportunities to deliver economies of scale in the procurement of a new generation of small ferries. The client is the Small Ferries Project Team, which comprises a consortium of authorities from the three jurisdictions.

Consultancy Assignment

The Department for Regional Development (DRD), on behalf of the Small Ferries Project, now wishes to appoint a service provider for the following:

- To provide a forecast of future passenger\freight demand for the routes within the Programme Area based on a study of the future needs of islanders, visitors and business over the next 25 years. Assumptions and calculations underpinning the demand projections must be clearly set out;
- To provide advice on the size and capacity of vessels to deal with forecasted demand over the next 25 years for the routes within the Programme Area. This should include advice on the required vehicle capacity per trip (in terms of numbers of metres of total vehicle length) and the passenger carrying capacity of the vessels during both the summer and winter seasons.

-
- To provide weekly written progress briefs (in bullet point form)
 - To supply to the project Team 5 copies of the consultant's report an electronic copy of the report and to make a presentation of the findings to the Team and to interested parties, at a venue in Belfast (week commencing 27 July 2009). The consultants can introduce to the analysis any additional information to enhance the exercise and DRD can provide the selected service provider with a range of historical data for some of the routes within the Programme Area.

Additional Information Required:

- Confirmation that you are able to submit the final report by **17 July 2009**
- Details of Expense management.

Appendix A

Routes in Ireland (South)

- Alt an Chorrain to Leab Gharbh, Árainn Mhór
- Alt an Chorráin to Toraigh

Routes in Ireland (North)

- Ballycastle to Rathlin

Routes in Scotland

- Tarbert to Portavadie
- Gigha to Tayinloan
- Oban to Lismore
- Tobermory to Kilchoan
- Sconser to Raasay

Part 3

Pricing Schedule

Please see attachment (P901 Part 3 Pricing Schedule)

Part 4

Services

Forms and Certificates

Instructions

The following forms are contained in this section and must be completed in full to ensure your tender is valid;

- a. [Form of Tender](#) (Sign and return)
- b. [Certificate relating to Bona fide Tender](#) (Sign and return)
- c. [VAT Registration](#) (Sign and return)
- d. [Fair Employment and treatment
\(Northern Ireland\) Order 1998](#) (Sign and return)
- e. [Freedom of Information Statement](#) (Sign and return)
- f. [Conflict of Interest Statement](#) (Sign and return)

DEPARTMENT OF FINANCE AND PERSONNEL
CENTRAL PROCUREMENT DIRECTORATE
SUPPLIES AND SERVICES DIVISION

A. FORM OF TENDER

CONTRACT FOR: - Small Ferries Project: Travel Demand Analysis

1. I/We the undersigned hereby tender for the above contract in accordance with the Services Conditions of Contract and Specification at the prices quoted in the Schedule forming part of my/our tender response.
2. I/We agree that this Tender together with your written acceptance thereof shall constitute a binding contract between us and the Department in relation to the whole or such part of the Tender as may be specified in your written acceptance.
3. I/We have read, accept and agree to abide by the attached Conditions of Contract which take precedence over any terms, conditions, stipulations or provisos which may appear on or be annexed to any correspondence submitted by me/us in connection with this Contract.
4. I/We understand that Central Procurement Directorate, Supplies and Services Division, does not bind itself to accept the lowest or any tender submitted in response to this enquiry and may accept the whole or part of any tender.
5. I/We understand Central Procurement Directorate Supplies and Services Division reserves the right to discontinue the award procedure in the event of irregular tenders or in the absence of appropriate tenders and in such circumstances may use the negotiated procedure without a further call for competition.
6. I/We warrant that I/we have all the requisite corporate authority to sign this tender.

Dated this _____ day of _____ 20_____

Signed by or on behalf of the Tenderer: _____

Printed _____

*Name of Tenderer: _____ (Block Capitals)

Registered Address: _____

* Please insert here the FULL NAME of the Tenderer, or in the case of a partnership the FULL NAMES of ALL the partners.

DEPARTMENT OF FINANCE AND PERSONNEL

CENTRAL PROCUREMENT DIRECTORATE

SUPPLIES AND SERVICES DIVISION

B. CERTIFICATE RELATING TO BONA FIDE TENDER

1. The essence of tendering is that the client shall receive bona fide competitive tenders from all firms tendering. In recognition of this principle, we certify that this is a bona fide tender intended to be competitive and that we have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangements with any other person.
2. We also certify that we have not:
 - a. communicated to a person other than the person calling for these tenders the amount or approximate amount of the proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of this tender;
 - b. entered into any agreement or arrangement with any other person that he shall refrain from tendering or as to the amount of any tender to be submitted;
 - c. offered or paid or given or agreed to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other tender or proposed tender for the said work any act or thing of the sort described above.
3. We undertake that we will not do any of the acts mentioned in paragraphs 2a, 2b or 2c above at any time before the acceptance or rejection of this tender.
4. In this certificate the word "person" includes any persons and any body or association, corporate or unincorporated and "any agreement or arrangement" includes any such transaction, formal or informal and whether legally binding or not.

Signed:

Block Capitals:

for and on behalf of:

Date:

DEPARTMENT OF FINANCE AND PERSONNEL

CENTRAL PROCUREMENT DIRECTORATE

SUPPLIES AND SERVICES DIVISION

C. VAT REGISTRATION

Part 1 or Part 2 and Part 3 to be completed as appropriate by the Tenderer and returned with Tender Documents:-

1. My/Our VAT Registration Number is: _____

Signed by: _____

for and on behalf of: _____

Date: _____

2. /We are “**EXEMPT**” from VAT under the terms of the Value Added Tax Act 1994.

Signed by: _____

for and on behalf of: _____

Date: _____

3. Please indicate which of the following best describes the economic status of your company/organisation:-

Small and Medium Sized Enterprise Yes No

Social Economy Enterprise Yes No

Voluntary and Community Organisation Yes No

If other please specify: _____

DEPARTMENT OF FINANCE AND PERSONNEL

CENTRAL PROCUREMENT DIRECTORATE

SUPPLIES AND SERVICES DIVISION

D. FAIR EMPLOYMENT AND TREATMENT (NORTHERN IRELAND) ORDER 1998

1. Article 64 of the Fair Employment and Treatment (Northern Ireland) Order 1998 provides inter alia that a public authority shall not accept an offer to execute any work or supply any goods or services where the offer is made by an unqualified person in response to an invitation by the public authority to submit offers. Article 64(4) also provides that the public authority shall take all such steps as are reasonable to secure that no work is executed or supplies or services supplied for the purposes of such contracts as are mentioned above by an unqualified person.
2. For the purposes of Articles 64-66 of the Order, an unqualified person is a person on whom a notice has been served under Article 62(2) or Article 63(1) of the Order and which has not been cancelled.
3. Mindful of its obligations under the Order, Central Procurement Directorate, Supplies and Services Division has decided that it shall be a condition of tendering that a contractor shall not be an unqualified person for the purpose of Articles 64-66 of the Order.
4. Contractors are therefore asked to complete and return the form endorsed hereon, with their tender, to confirm that they are not unqualified persons and to undertake that no work shall be executed or supplies or services supplied by an unqualified person for the purposes of any contract with Central Procurement Directorate, Supplies and Services Division to which Article 64 of the Order applies.

FAIR EMPLOYMENT AND TREATMENT (NORTHERN IRELAND) ORDER 1998

I/We hereby declare that I am/we are not unqualified for the purposes of the Fair Employment and Treatment (Northern Ireland) Order 1998.

I/We undertake that no work shall be executed or supplies or services supplied by any unqualified person for the purposes of any contract with the Central Procurement Directorate, Supplies and Services Division, to which Article 64 of the Order applies.

Signed by:

Duly authorised to sign
for and on behalf of:

Date

DEPARTMENT OF FINANCE AND PERSONNEL

CENTRAL PROCUREMENT DIRECTORATE

SUPPLIES AND SERVICES DIVISION

E. FREEDOM OF INFORMATION STATEMENT

With reference to Section 12 of the Instructions to Tenderers, please complete where appropriate.

I/We consider that:-

- 1. The information in this tender is sensitive*. Sensitive
- 2. The information in this tender is not sensitive*. Not Sensitive

***Delete as appropriate**

- 3. If the information supplied in this tender is considered sensitive, please state which information should not be disclosed and provide reasons.

- 4. Period for which information should remain commercially sensitive. Please state.

Signed:

Block Capitals:

for and on behalf of

Date:

DEPARTMENT OF FINANCE AND PERSONNEL

CENTRAL PROCUREMENT DIRECTORATE

SUPPLIES AND SERVICES DIVISION

F. CONFLICT OF INTEREST DECLARATION

With reference to Section 15 of the Instructions to Tenderers, please complete where appropriate.

I/We warrant that:-

- 1. There **would be no** conflict or perceived conflict of interest in relation to the personnel or type of work involved in this contract. No Conflict
- 2. There **could be** a possible conflict or perceived conflict of interest in relation to [*] and their involvement in this contract. Possible Conflict
- 3. Please explain what the possible conflict or perceived conflict of interest may be and who it relates to and how it could have an adverse effect on this contract.

***Enter name**

Signed: _____

Block Capitals: _____

for and on behalf of: _____

Date: _____

Part 5

Terms and Conditions of Contract

CONDITIONS OF CONTRACT

FOR

SERVICES

FOR

Small Ferries Project: Travel Demand Analysis

Department for Regional Development

CONTENTS OF CONDITIONS OF CONTRACT

Introduction

1. Interpretation
2. Entire Agreement
3. Period of Contract
4. Services

Provision of Services

5. Conditions affecting provision of services
6. Contractor Status
7. Department's Property
8. Equipment
9. Staff
10. Co-ordination
11. Use of Departments Premises
12. Right of Access
13. Manner of providing the Services
14. Standards
15. Overtime Working
16. Progress Reports

Payments

17. Payment
18. Value Added Tax
19. Recovery of Sums Due
20. Price Adjustments

Protection of Information

21. Intellectual Property Rights - assignment and indemnity
22. Security
23. Confidentiality
24. Freedom of Information
25. Publicity
26. Right of Audit
27. Data Protection Act 1998

Liabilities

28. Indemnity and Insurance

Compliance with Legal and Other Obligations

29. Corrupt Gifts and Payments of Commission
30. Statutory and Other Regulations
31. Equality of Opportunity
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35. Official Secrets Act

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36. Transfer, Sub-Contracting and Assignment
37. Severability
38. Waiver
39. Variations
40. Performance Monitoring

Default and Termination

41. Force Majeure
42. Bankruptcy
43. Termination on Default
44. Break
45. Consequences of Termination

Transfer of Undertaking and Protection of Employment (TUPE)

46. TUPE

Disputes

47. Arbitration
48. Law

Appendix A Variation to Contract FormAppendix B Authorised Representative

1. INTERPRETATION

1.1 In this Contract the following words shall have the following meanings except where the context otherwise requires:

- | | | |
|----|---------------------------|---|
| a. | Acceptance | Confirmation in writing by the Department that a Service has been accepted by the Department. |
| b. | Amendments | The amendments (if any) to the Contract which may be agreed by the Contractor and the Department. |
| c. | Authorised Representative | The nominated representative of the Department and the Contractor. |
| d. | Contract | The Tender completed by the accepted Tenderer, the Conditions of Contract; the Specification, Terms of Reference or Operational Requirement; the Drawings, if any, the Schedule of Prices or Rates or Lump Sum as submitted by the accepted Tenderer, the Letter of Acceptance issued by Central Procurement Directorate, Supplies and Services Division, to the accepted Tenderer together with such correspondence, if any, between the accepted Tenderer and Central Procurement Directorate, Supplies and Services Division, as may be agreed by both parties to form part of the Contract. |
| e. | Contractor | The person, firm or corporate body whose tender shall have been accepted by the Department and shall include the Contractor's personal representatives, successors, and permitted assigns. |
| f. | Contractors Staff | Employees, sub-contractors employees and agents or representatives of both contractor and sub-contractor. |
| g. | Department | Department for Regional Development |
| h. | Equipment | All materials, plant, equipment, and consumables other than the Department's property to be used by the Contractor in the provision of the Services. |
| i. | Premises | Land or buildings where the services are performed. |
| j. | Services | The provision of the Services defined herein. |

-
- | | | |
|----|------|---|
| k. | Site | The area within the Premises in which the Services are performed. |
| l. | Days | Calendar Days |

1.2 Words importing the singular shall also include the plural, and importing the masculine shall also include the feminine and vice versa where the context requires.

1.3 For the purpose of the Contract Central Procurement Directorate, Supplies and Services Division is authorised to act on behalf of the Department.

1.4 A reference to any statute, enactment, order, regulations or other similar instrument shall be construed as a reference to the statute, enactment, order, regulation or instrument as subsequently amended or re-enacted.

2. ENTIRE AGREEMENT

2.1 The Contract constitutes the entire agreement between the parties relating to the subject matter of the Contract. The Contract supersedes all prior negotiations, representations and undertakings, whether written or oral, except that this Condition shall not exclude liability in respect of any fraudulent misrepresentation.

3. PERIOD OF CONTRACT

3.1 This Contract shall take effect on the commencement date and shall remain in force **until successful completion of the assignment**, unless it is otherwise terminated in accordance with the provisions of these Conditions.

4. SERVICES

4.1 The Contract is for work to be undertaken by the Contractor in accordance with the provisions of the Contract.

4.2 Requests to provide the contracted service may be transmitted in writing by post, fax or other electronic means as may be agreed by both parties. In cases of urgency verbal instructions may be given pending written confirmation.

5. CONDITIONS AFFECTING PROVISION OF SERVICES

5.1 The Contractor shall be deemed to have satisfied himself as regards the nature and extent of the services, the means of communication with and access to the site, the supply of and conditions affecting labour, the suitability of the Department's property and the equipment necessary for the performance of the services, subject to all such matters being discoverable by the Contractor.

6. CONTRACTOR STATUS

- 6.1 Nothing in the Contract shall be construed as creating a partnership, a contract of employment or a relationship of principal and agent between the Department and the Contractor.

7. DEPARTMENT'S PROPERTY

- 7.1 All Departments' property shall remain the property of the Department and shall be used in the performance of the Contract and for no other purpose without prior approval.
- 7.2 On receipt of Department's property the Contractor shall subject it to a visual inspection and such additional inspection and testing as may be necessary to check that it is not defective; within 14 days of receipt of any item of Department's property, or such other period as may be approved the Contractor shall notify the Department's in writing of any defects discovered; within 14 days after receiving such notification, the Department shall inform the Contractor of the action to be taken
- 7.3 The Department shall be responsible for the repair or replacement of Department's property unless the need for repair or replacement is caused by the Contractor's failure to comply with Condition 7.5, or by the negligence or default of the Contractor.
- 7.4 The Contractor shall be responsible for his own costs resulting from any failure of Department's property, unless he can demonstrate that the Department had caused undue delay in its replacement or repair.
- 7.5 The Contractor shall maintain all items of Department's property in good and serviceable condition, fair wear and tear excepted, and in accordance with the manufacturer's recommendations.
- 7.6 The Contractor shall be liable for any loss of or damage to any Department's property unless the Contractor is able to demonstrate that such loss or damage was caused or contributed to by the negligence or default of the Department.
- 7.7 The Contractor shall not in any circumstances have a lien on any Department's property and shall take all steps necessary to ensure that the title of the Department and the exclusion of any lien are brought to the attention of any third party dealing with any Department's property.
- 7.8 The Contractor undertakes the due return of all re-useable property and will be responsible for all loss thereof or damage thereto from whatever cause. Deterioration in such property resulting from its normal and proper use in the

execution of the Contract shall not be deemed to be loss or damage, except in so far as the deterioration is contributed to by any want of maintenance and repair by the Contractor.

8. EQUIPMENT

- 8.1 The Contractor shall provide all the equipment necessary for the provision of the Services.
- 8.2 The Contractor shall maintain all items of equipment in good and serviceable condition.
- 8.3 All equipment shall be at the risk of the Contractor and the Department shall have no liability for any loss of or damage to any equipment unless the Contractor is able to demonstrate that such loss or damage was caused or contributed to by the negligence or default of the Department.
- 8.4 The Contractor shall provide for the haulage or carriage of equipment to the premises and its off-loading and removal when no longer required.
- 8.5 The Department may at its option purchase any item of equipment from the Contractor at any time, if the Department considers that the item is likely to be required in the provision of the Services following the expiry or termination of the Contract. The purchase price to be paid by the Department shall be the fair market value.

9. STAFF

- 9.1 The Contractor warrants and represents that all staff assigned to the performance of the Contract shall possess such skill and experience as is necessary for the proper performance of the Contract.
- 9.2 Where the Contract provides that the work shall be done by named staff the Contractor undertakes to take all reasonable steps to ensure that his staff remain for the full period of this Contract. Unavoidable changes in the Contractor's staff proposed by the Contractor and agreed by the Authorised Representative shall be subject to not less than one month's written notice.
- 9.3 If for any other reasons changes in the Contractor's staff become necessary in the opinion of the Authorised Representative such changes shall be subject to 1 weeks written notice by the Authorised Representative to the Contractor.
- 9.4 In the event that the Contractor is unable to provide replacement staff acceptable to the Authorised Representative within sufficient time to enable the Contractor to complete the work on time than the Department may obtain replacement staff from other sources or terminate the Contract at its discretion.

10. CO-ORDINATION

- 10.1 The Contractor shall co-ordinate his activities in the provision of the Services with those of Departmental personnel and other contractors engaged by the Department.

11. USE OF DEPARTMENT'S PREMISES

- 11.1 Where the Services are performed on the Department's premises the Contractor shall have use of the Department's premises without charge as a licensee and shall vacate those premises on completion or earlier termination of the Contract.
- 11.2 The Contractor shall not use the Department's premises for any purpose or activity other than the provision of the Services unless given prior approval.
- 11.3 Should the Contractor require modifications to the Department's premises, such modifications shall be subject to prior approval and shall be carried out by the Department at the Contractor's expense. The Department shall undertake approved modification work without undue delay. Ownership of such modifications shall rest with the Department.
- 11.4 The Contractor shall not deliver any equipment to the Department's premises outside normal working hours without prior approval.
- 11.5 The Contractor shall maintain all equipment and its place of storage within the Department's premises in a safe, serviceable and clean condition.
- 11.6 On the completion or earlier termination of the Contract, the Contractor shall, subject to the provisions of Condition 8.5 remove all equipment and shall clear away from the Department's premises all waste arising from the performance of the Services and shall leave the Department's premises in clean and tidy condition.
- 11.7 Whilst on the Department's premises, all staff shall comply with such rules, regulations and other requirements as may be in force in respect of the conduct of persons attending and working on the Department's premises.

12. RIGHT OF ACCESS

- 12.1 The Department reserves the right to refuse to admit to any premises occupied by or on behalf of the Crown any person employed by the Contractor, or by a sub-contractor, whose admission would be, in the opinion of the Department undesirable.

- 12.2 The Contractor shall comply with the requirements of the Department in regard to ensuring the identity and bonafides of all workers and other persons requiring to be admitted to any officially occupied premises in connection with the Contract.
- 12.3 If the Contractor shall fail to comply with paragraph 12.2 and if the Department shall decide that such failure is prejudicial to the interests of the State, then the Department may terminate the Contract if the Contractor does not comply with such provisions of paragraph 12.2 within a reasonable time of written notice to do so provided always that such termination shall not prejudice or affect any right of action or remedy which shall have accrued thereafter to the Department.
- 12.4 The decision of the Department as to whether any person is to be refused admission to any premises occupied by or on behalf of the Crown and as to whether the Contractor has failed to comply with paragraph 12.2 shall be final and conclusive.

13. MANNER OF PROVIDING THE SERVICES

- 13.1 The Contractor shall perform the Services with all due care, skill and diligence, and in accordance with good industry practice. Timely provision of the Services is of the essence of the Contract.
- 13.2 The Services shall be performed only on approved sites.
- 13.3 The Contractor shall, upon the instruction of the Authorised Representative:
- a. remove from the Department's premises any materials which are not in accordance with those contained in the Specification and substitute proper and suitable materials;
 - b. remove and properly re-execute any work which is not in accordance with the Contract, irrespective of any previous testing or payment by the Department. The Contractor shall at his own expense complete the re-executed work correctly in accordance with the Contract within such reasonable time as the Department may specify.
- 13.4 The signing by the Authorised Representative of time sheets or other similar documents shall not be construed as implying the Contractor's compliance with the Contract.

14. STANDARDS

- 14.1 Materials and processes used in connection with the provision of the services shall be in accordance with the standards and quality specified.
- 14.2 At the request of the Authorised Representative, the Contractor shall provide proof to the Department's satisfaction that the materials and processes used or proposed to be used, conform to those standards.
- 14.3 The introduction of new methods or systems which impinge on the provision of the services shall be subject to prior approval.

15. OVERTIME WORKING

- 15.1 The Contractor shall not normally be prevented from working reasonable overtime hours on the Department's premises if he so desires, provided that he obtains prior approval and it is at no additional cost to the Department.

16. PROGRESS REPORTS

- 16.1 Where progress reports are required to be submitted under the Contract, the Contractor shall render those reports at such time and in such form as may be specified or an otherwise agreed between the parties.
- 16.2 The submission and receipt of progress reports shall not prejudice the rights of either party under the Contract.

17. PAYMENT

- 17.1 The Department shall pay the Contractor for work completed at the rates or prices contained in the pricing schedule or other interest documentation. Where payment is based upon daily rates the Contractor and his staff will be expected to work 7½ hours per day, exclusive of meal breaks, unless alternative arrangements are agreed with the Department.
- 17.2 In cases where payment is via the Government Purchasing Card, all payments shall be made to Service Providers by the nominated Bank in accordance with the provisions of the scheme.
- 17.3 In all other cases payment shall be due within thirty (30) days of receipt by the Department of a correct application for payment or invoice or as otherwise specified in the Contract.
- 17.4 The Department reserves the right to withhold payment against any invoice which is not submitted in accordance with the Contract or which covers or purports to relate

to services which have not been provided in accordance with the Contract and shall forthwith notify the Contractor accordingly in writing.

18. VALUE ADDED TAX

- 18.1 The Department shall pay to the Contractor, in addition to the charges due for the work performed under the Contract, a sum equal to the value added tax as may be properly chargeable on the value of the supply of goods and services provided in accordance with the contract.
- 18.2 Any invoice or other request for payment of monies due to the Contractor under the Contract shall, if he is a taxable person, be in the form and contain the same information as if the same were a tax invoice for the purposes of Regulations made under the Valued Added Tax Act 1994.
- 18.3 The Contractor shall, if so requested by the Department, furnish such information as may reasonably be required by the Department as to the amount of value added tax chargeable on the value of goods and services supplied in accordance with the Contract and payable by the Department to the Contractor in addition to the charges for work. Any over payment by the Department to the Contractor shall be a sum of money recoverable from the Contractor.
- 18.4 If the costs of the Contract are increased or decreased any monies thereby payable shall have added to them a sum equal to any appropriate adjustment in respect of value added tax due on the final value of the work.

19. RECOVERY OF SUMS DUE

- 19.1 Whenever under the Contract any sum of money is recoverable from or payable by the Contractor (including any sum which the Contractor is liable to pay to the Department in respect of any breach of this Contract), the Department may unilaterally deduct that sum from any sum then due or which at any later time becomes due to the Contractor under this Contract or under any other contract with the Department or with any other Department, office or agency of the Crown.
- 19.2 The Department shall give at least 21 days' notice to the Contractor of its intention to make a deduction under Condition 19.1 giving particulars of the sum to be recovered and the contract under which the payment arises from which the deduction is to be made.
- 19.3 Any overpayment by the Department to the Contractor, whether of the contract price or of value added tax, shall be a sum of money recoverable by the Department from the Contractor.

20. PRICE ADJUSTMENTS

- 20.1 The Contract Price shall remain firm for the initial Contract Period set out in Condition 3.1. In the event of an extension being considered beyond the Contract Period the Client would wish to review the charges with the Contractor in the three months prior to the expiry of the Contract.
- 20.2 During this three month period, the Contractor may, following agreement with the Client and by giving the Client 3 Months' notice in writing to take effect at the end of the Contract Period increase or reduce the Contract Price subject to Clause 20.3 below.
- 20.3 Any claim for an increase in the Contract Price will only be considered if the increase does not exceed the percentage change in the Office of National Statistics' Consumer Prices Index (CPI) (<http://www.statistics.gov.uk/instantfigures.asp>) (or another such index specified) between the Commencement Date and the date of any notice given under Clause 20.2.

21 INTELLECTUAL PROPERTY RIGHTS - ASSIGNMENT AND INDEMNITY

- 21.1 The Contractor hereby assigns to the Department all Intellectual Property Rights owned by the Contractor in any material which is generated by the Contractor and delivered to the Department in the performance of the Services and shall waive all moral rights relating to such material. The Contractor shall not reproduce, publish or supply any such material to any person other than the Department without prior approval.
- 21.2 In performing the Services the Contractor shall obtain approval before utilising any material which is or may be subject to any Intellectual Property Rights other than those referred to in Condition 21.1.
- 21.3 Subject to Condition 21.4, the Contractor shall indemnify the Department against all claims, proceedings, actions, damages, legal costs (including but not limited to legal costs and disbursements on a solicitor and client basis), expenses and any other liabilities arising from or incurred by the use by the Contractor, in the performance of the Services, or the use by the Department following delivery by the Contractor, of any material which involves any infringement or alleged infringement of the Intellectual Property Rights of any third party.
- 21.4 The provisions of Condition 21.3 shall not apply in respect of any material which the Department has supplied to the Contractor or which the Department has specified for use by the Contractor or for delivery to the Department.
- 21.5 The Department shall indemnify the Contractor against all claims, proceedings, actions, damages, legal costs (including but not limited to legal costs and disbursements on a solicitor and client basis), expenses and any other liabilities

arising from or incurred by the use by the Contractor, in the performance of the Services, of any material referred to in Condition 21.4 which involves any infringement or alleged infringement of the Intellectual Property Rights of any third party.

21.6 Where any claim is made by a third party in respect of any material referred to in Condition 21.3 or 21.5, the party which is required to provide an indemnity under those provisions shall have the right to conduct, or take over the conduct of, the defence to the claim and to any proceedings or action brought by the third party.

22. SECURITY

22.1 The Contractor shall take all measures necessary to comply with the provisions of any enactment relating to security which may be applicable to the Contractor in the performance of the Services.

22.2 The Contractor shall take all reasonable measures, by the display of notices or other appropriate means, to ensure that staff have notice that all provisions referred to in Condition 22.1 will apply to them and will continue to apply to them, if so applicable, after the expiry or earlier termination of the Contract.

22.3 Whilst on the Department's premises, staff shall comply with all security measures implemented by the Department in respect of personnel and other persons attending those premises. The Department shall provide copies of its written security procedures to the Contractor on request.

22.4 The Department shall have the right to carry out any search of staff or of vehicles used by the Contractor at the Department's premises.

22.5 The Contractor shall co-operate with any investigation relating to security which is carried out by the Department or by any person who is responsible to the Department for security matters and when required by the Authorised Representative:

a. shall use his best endeavours to make any staff identified by the Authorised Representative available to be interviewed by the Authorised Representative, or by a person who is responsible to the Department for security matters, for the purposes of the investigation. Staff shall have the right to be accompanied by the Contractor's Representative and to be advised or represented by any other person whose attendance at the interview is acceptable to both the Authorised Representative and the Contractor's Representative; and

b. shall, subject to any legal restriction on their disclosure, provide all documents, records or other material of any kind which may reasonably be required by the Department or by a person who is responsible to the

Department for security matters, for the purposes of the investigation, so long as the provision of that material does not prevent the Contractor from performing the Services. The Department shall have the right to retain any such material for use in connection with the investigation and, so far as possible, shall provide the Contractor with a copy of any material retained.

23. CONFIDENTIALITY

23.1 Each Party: -

- a. shall treat all Confidential Information belonging to the other Party as confidential and safeguard it accordingly; and
- b. shall not disclose any Confidential Information belonging to the other Party to any other person without the prior written consent of the other Party, except to such persons and to such extent as may be necessary for the performance of the Contract or except where disclosure is otherwise expressly permitted by the provisions of this Contract.

23.2 The Contractor shall take all necessary precautions to ensure that all Confidential Information obtained from the Department under or in connection with the Contract:-

- a. is given only to such of the Staff and professional advisors or consultants engaged to advise it in connection with the Contract as is strictly necessary for the performance of the Contract and only to the extent necessary for the performance of the Contract;
- b. is treated as confidential and not disclosed (without prior Approval) or used by any Staff or such professional advisors or consultants otherwise than for the purposes of the Contract.

23.3 The Contractor shall ensure that Staff or its professional advisors or consultants are aware of the Contractor's Confidentiality obligations under this Contract.

23.4 The Contractor shall not use any Confidential Information it receives from the Department otherwise than for the purposes of the Contract.

23.5 The provisions of Clauses 23.1 to 23.4 shall not apply to any Confidential Information received by one Party from the other:-

- a. which is or becomes public knowledge (otherwise than by breach of this Condition);
- b. which was in the possession of the receiving Party, without restriction as to its disclosure, before receiving it from the disclosing Party;

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- c. which is received from a third party who lawfully acquired it and who is under no obligation restricting its disclosure;
 - d. is independently developed without access to the Confidential Information; or
 - e. which must be disclosed pursuant to a statutory, legal or parliamentary obligation placed upon the Party making the disclosure, including any requirements for disclosure under the FOIA, or the Environmental Information Regulations pursuant to Condition 24.3 (Freedom of Information).

23.6 Nothing in this Condition shall prevent the Department: -

- a. disclosing any Confidential Information for the purpose of:-
 - i. the examination and certification of the Client's accounts; or
 - ii. any examination pursuant to Section 6(1) of the National Audit Act 1983 of the economy, efficiency and effectiveness with which the Department has used its resources; or
- b. disclosing any Confidential Information obtained from the Contractor:-
 - i. to any government department or any other Contracting Authority. All government departments or Contracting Authorities receiving such Confidential Information shall be entitled to further disclose the Confidential Information to other government departments or other Contracting Authorities on the basis that the information is confidential and is not to be disclosed to a third party which is not part of any government department or any Contracting Authority; or
 - ii. to any person engaged in providing any services to the Department for any purpose relating to or ancillary to the Contract;

provided that in disclosing information under sub-paragraph (b) the Department discloses only the information which is necessary for the purpose concerned and requires that the information is treated in confidence and that a confidentiality undertaking is given where appropriate.

23.7 Nothing in this Condition shall prevent either Party from using any techniques, ideas or know-how gained during the performance of the Contract in the course of its normal business, to the extent that this does not result in a disclosure of Confidential Information or an infringement of Intellectual Property Rights.

23.8 In the event that the Contractor fails to comply with this Condition 23, the Department reserves the right to terminate the Contract by notice in writing with immediate effect.

23.9 The provisions under this Condition are without prejudice to the application of the Official Secrets Acts 1911 to 1989 to any Confidential Information.

24. FREEDOM OF INFORMATION

24.1 The Contractor acknowledges that the Department is subject to the requirements of the FOIA and the Environmental Information Regulations and shall assist and cooperate with the Department (at the Contractor's expense) to enable the Client to comply with these Information disclosure requirements.

24.2 The Contractor shall and shall procure that its sub-contractors shall:

- a. transfer the Request for Information to the Department as soon as practicable after receipt and in any event within [two] Working Days of receiving a Request for Information;
- b. provide the Department with a copy of all Information in its possession or power in the form that the Client requires within [five] Working Days (or such other period as the Department may specify) of the Department requesting that Information; and
- c. provide all necessary assistance as reasonably requested by the Department to enable the Department to respond to a Request for Information within the time for compliance set out in section 10 of the FOIA [or regulation 5 of the Environmental Information Regulations].

24.3 The Department shall be responsible for determining at its absolute discretion whether the Commercially Sensitive Information and/or any other Information: -

- a. is exempt from disclosure in accordance with the provisions of the FOIA or the Environmental Information Regulations;
- b. is to be disclosed in response to a Request for Information, and in no event shall the Contractor respond directly to a Request for Information unless expressly authorised to do so by the Department.

24.4 The Contractor acknowledges that the Department may, acting in accordance with the Department for Constitutional Affairs' Code of Practice on the Discharge of Functions of Public Authorities under Part I of the Freedom of Information Act 2000, be obliged under the FOIA, or the Environmental Information Regulations to disclose Information:-

- a. without consulting with the Contractor, or
- b. following consultation with the Contractor and having taken its views into account.

24.5 The Contractor shall ensure that all information produced in the course of the Contract or relating to the Contract is retained for disclosure and shall permit the Department to inspect such records as requested from time to time.

24.6 The Contractor acknowledges that any lists or schedules provided by it outlining Confidential Information are of indicative value only and that the Department may nevertheless be obliged to disclose Confidential Information in accordance with Clause 24.4.

25. PUBLICITY

25.1 The Contractor shall not make any public statement relating to the existence or performance of the Contract without prior approval, which shall not be unreasonably withheld.

26. RIGHT OF AUDIT

26.1 The Contractor shall keep secure and maintain until two years after the final payment of all sums due under the Contract, or such longer period as may be agreed between the parties, full and accurate records of the Services, all expenditure reimbursed by the Department and all payments made by the Department.

26.2 The Contractor shall grant to the Department or its authorised agents, such access to those records as they may reasonably require in compliance with the Contract.

27 DATA PROTECTION ACT 1998

27.1 The Contractor shall not disclose or allow access to any personal data provided by the Department or acquired by the Contractor during the course of tendering for or executing the contract, other than to a person employed or engaged by the Contractor or any sub-contractor, agent or other person concerned with the same.

27.2 Any disclosure of or access to personal data allowed under Condition 26.1 shall be made in confidence and shall extend only so far as that which is specifically necessary for the purpose of the Contract.

27.3 The Contractor shall store or process such personal data only at sites specifically agreed in writing, in advance, with the Department.

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- 27.4 If the Contractor fails to comply with any provision of this Condition then the Department may summarily determine the Contract by notice in writing to the Contractor provided always that such determination shall not prejudice or affect any right of action or remedy which shall have accrued or shall accrue thereafter to the Department.
- 27.5 If the Contractor or any employee, servant agent or sub contractor of the Contractor, having obtained without the consent of the Department personal data within the meaning of the Data Protection Act, directly or indirectly discloses or publishes the data to any other person or allows improper access to the data, or in any event directly or indirectly causes the loss, damage, or destruction of such data, he shall indemnify the Department against all claims, proceedings, costs and expenses in respect of any damage or distress suffered whereby by any person.
- 27.6 The decision of the Department upon matters arising under this clause shall be final and conclusive.

28. INDEMNITY AND INSURANCE

- 28.1 The Contractor shall indemnify the Department to a limit of **£1,000,000** (one million pounds) in respect of any one incident or series of incidents arising out of his performance of the Contract against all claims, proceedings, actions, damages, legal costs, expenses and any other liabilities in respect of any loss of or damage to property which is caused directly or indirectly by any act or omission of the Contractor. Indemnity in respect of death or personal injury shall be unlimited. This condition 28.1 shall not apply to the extent that the Contractor is able to demonstrate that such death or personal injury, or loss or damage, was not caused or contributed to by his negligence or default, or the negligence or default of his Staff or sub-contractors, or by any circumstances within his or their control.
- 28.2 The Contractor shall effect and maintain with a reputable insurance company a policy or policies of insurance providing an adequate level of cover in respect of all risks which may be incurred by the Contractor, arising out of the Contractor's performance of the Contract, in respect of death or personal injury, or loss of or damage to property. Such policies shall include cover in respect of any financial loss arising from any advice given or omitted to be given by the Contractor.
- 28.3 The Contractor shall hold employer's liability insurance in respect of Staff in accordance with any legal requirement for the time being in force.
- 28.4 The Contractor shall produce to the Authorised Representative, on request, copies of all insurance policies referred to in this Condition or other evidence confirming the existence and extent of the cover given by those policies, together with receipts or other evidence of payment of the latest premiums due under those policies.

28.5 The terms of any insurance or the amount of cover shall not relieve the Contractor of any liabilities under the Contract. It shall be the responsibility of the Contractor to determine the amount of insurance cover that will be adequate to enable the Contractor to satisfy any liability referred to in this Condition.

29. CORRUPT GIFTS AND PAYMENTS OF COMMISSION

29.1 The Contractor shall not:

29.1.1 offer or give or agree to give any person in Her Majesty's Service any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this Contract or any other contract for Her Majesty's Service and/or for showing or forbearing to show favour or disfavour to any person in relation to this contract or any other contract for Her Majesty's Service;

29.1.2 enter into this Contract or any other contract with any Government Department in connection with which commission has been paid or agreed to be paid by him, or on his behalf, or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment thereof have been disclosed in writing to the Department.

29.2 Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) or the commission of any offence by the Contractor or by anyone employed by him or acting on his behalf, (either with or without the knowledge of the Contractor) under the Prevention of Corruption Acts, 1889 to 1916, in relation to this Contract or any other contracts for Her Majesty's Service, shall entitle the Department to determine the Contract and recover from the Contractor the amount of any loss resulting from such determination and/or to recover from the Contractor the amount or value of any such gift, consideration or commission.

29.3 Any dispute, difference or question arising in respect of either the effect or the interpretation of this clause or the amount recoverable hereunder by the Department from the Contractor or the right of the Department to determine the Contract, or the amount or value of any such gift, consideration or commission shall be decided by the Department whose decision shall be final and conclusive.

30. STATUTORY AND OTHER REGULATIONS

30.1 The Contractor shall be deemed to have acquainted himself with any and all Acts of Parliament, Statutory Regulations, or other such laws, recommendations, guidance or practices as may affect the provision of the service(s) specified under the Contract.

30.2 The Contractor shall be deemed to have acquainted himself with British/European Standards, Codes of Practice as may be relevant to this Contract.

30.3 The Contractor shall adequately train, instruct and supervise staff to ensure that so far as is reasonably practical the standards and codes of practice are observed.

31. EQUALITY OF OPPORTUNITY

31.1 The Contractor shall comply with all applicable fair employment, equality of treatment and anti-discrimination legislation, including, in particular: -

Equal Pay Act (Northern Ireland) 1970;

Sex Discrimination (Northern Ireland) Order 1976;

Health and Safety at Work (Northern Ireland) Order 1978;

Disability Discrimination Act 1995 and the Disability Discrimination (Northern Ireland) Order 2006;

Employment Rights (NI) Order 1996;

Race Relations (Northern Ireland) Order 1997;

Fair Employment and Treatment (NI) Order 1998;

Part Time Workers (Prevention of Less Favourable Treatment) Regulations 2000;

Fixed Term Employees (Prevention of Less Favourable Treatment) Regulations 2002;

Employment Equality (Sexual Orientation) Regulations (Northern Ireland) 2003;

The Employment Relations (Northern Ireland) Order 2004;

Equality Act (Sexual Orientation) Regulations (Northern Ireland) 2006;

Employment Equality (Age) Regulations (Northern Ireland) 2006;

The Work and Families (Northern Ireland) Order 2006.

and shall use his best endeavours to ensure that in his employment policies and practices and in the delivery of the services required of the Contractor under this agreement he has due regard to the need to promote equality of treatment and opportunity between: -

a. Persons of different religious beliefs or political opinions.

b. Men and women or married and unmarried persons.

Persons with and without dependants (including women who are pregnant or on maternity leave and men on paternity leave).

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- d. Persons of different racial groups (within the meaning of the Race Relations (Northern Ireland) Order 1997).
 - e. Persons with and without a disability (within the meaning of the Disability Discrimination Act 1995).
 - f. Persons of different ages; and
 - g. Persons of differing sexual orientation.

31.2 The Contractor shall take all reasonable steps to ensure the observance of the provisions of the above clause (25.1) by all servants, agents, employees, consultants and sub-contractors of the Contractor.

32. HEALTH AND SAFETY

The Contractor's attention is drawn to the provision of the Health and Safety at Work (Amendment) (Northern Ireland) Order 1998 and in particular to Article 4 "General Duties of Employers to their Employees".

33. SOCIAL SECURITY SYSTEM

- 33.1 The Contractor shall not employ any person whom he knows or ought to know is by reason of his employment engaged in any unlawful procurement of social security benefits or tax exemptions and the Contractor shall not make, facilitate or participate in the procurement of, any unlawful payments whatsoever, whether in the nature of social security fraud, or evasion of tax, or otherwise.
- 33.2 The Contractor shall prepare and maintain such records of his staff and all other persons engaged in the performance of this Contract by the Contractor as the Department may from time to time require.
- 33.3 Without prejudice to Condition 32.2 the Contractor shall forthwith on demand by the Department furnish the Department with the names, addresses and national insurance numbers of all persons employed by him under the contracts of service and shall forthwith on demand furnish the Department with the names, addresses, periods of employment and exemption certificates of all persons employed by him under contracts for services.
- 33.4 The Contractor shall permit the Department, its servants or agents at all reasonable times to enter on any premises of the Contractor for the purpose of inspection and investigation of the employment, social security and tax records of any person employed by the Contractor or engaged by him to carry out any works under the contract.

34. CONFLICT OF INTEREST

- 34.1 Provided that there shall be no conflict of interest and the Contractor shall fulfil his obligations to the Department the Contractor shall be at liberty to enter into agreement with other public sector organisations elsewhere in the United Kingdom for the provision of services.
- 34.2 The Contractor warrants that he is not at the date hereof retained by any interest that could be in conflict with the work of the Department and that for the duration of this Contract he will not accept instructions from any such interest either directly or indirectly nor do any other act which may give rise to conflict of interest.

35. OFFICIAL SECRETS ACT

- 35.1 The provisions of the Official Secrets Act 1911 - 1989 in general and the provisions of the Official Secrets Act 1989 in particular shall apply to the Contractor, the staff and all persons engaged whether as agents or sub-contractors by the Contractor on any work under the Contract, and shall continue to apply without limitation of time after the expiry or termination of the Contract, and the Contractor shall bring to the notice of each and every such person the provisions of the said Acts.
- 35.2 If the Department shall at any time so direct, a declaration of knowledge of these provisions in such terms as the Department shall require shall be signed by every such person as the Department shall direct and be delivered to the Department by the Contractor.

36. TRANSFER, SUB-CONTRACTING AND ASSIGNMENT

- 36.1 The Contractor shall not transfer or assign this Contract or a part thereof and shall not sub-contract any part of the provision of the services without the prior written consent of the Department.
- 36.2 It is a condition of such consent that the sub-contractor must undertake directly to perform the terms of the Contract in respect of the sub-contracted services as if he were the contractor.
- 36.3 Any consent to sub-contract will not release the Contractor from any liability to the Department in respect of the sub-contracted section and the contractors shall be responsible for the acts, defaults or neglect of any sub-contractor or their agents or employees in all respects as they were the acts, defaults or neglect of the contractor or their agents, or employees.
- 36.4 Where the Contractor enters a sub-contract with a contractor for the purpose of performing the Contract, he shall cause a term to be included in such sub-contract which requires payment to be made to the contractor within a specified period not

exceeding 30 days from receipt of a valid invoice as defined by the sub-contract requirements.

- 36.5 The Department may assign or in any other way dispose of its rights and obligations under this Contract or any part of it to any Department, Office or Agency of the Crown or any other body provided that any such assignment or other disposal shall not increase the burden of the Contractors obligations under this Contract.

37. SEVERABILITY

- 37.1 If any provision of the Contract is held invalid, illegal or unenforceable for any reason by any court of competent jurisdiction, such provision shall be severed and the remainder of the provisions of the Contract shall continue in full force and effect as if the Contract had been executed with the invalid, illegal or unenforceable provision eliminated. In the event of a holding of invalidity so fundamental as to prevent the accomplishment of the purpose of the Contract, the parties shall immediately commence negotiations in good faith to remedy the invalidity.

38. WAIVER

- 38.1 The failure of either party to exercise any right or remedy shall not constitute a waiver of that right or remedy.
- 38.2 No waiver shall be effective unless it is communicated to the other party in writing.
- 38.3 A waiver of any right or remedy arising from a breach of contract shall not constitute a waiver of any right or remedy arising from any other breach of the Contract.

39. VARIATIONS

- 39.1 The Contract shall not be varied unless such variation is made in writing by means of a Variation to Contract Form as set out at Appendix A.
- 39.2 In the event of an emergency the Department shall have the right to vary the Contract by oral instructions given by the Departments' Authorised Representative, which shall be confirmed by the issue of a Variation to Contract Form within 7 days.
- 39.3 The Department shall have the right to vary the Services at any time, subject to the Variation being related in nature to the Services being provided, and no such Variation shall vitiate the Contract.
- 39.4 The Contractor may request a Variation provided that:
- a. the Contractor shall notify the Department's Authorised Representative in writing of any additional or changed requirement which it considers should

give rise to a Variation within 7 days of such occurrence first becoming known to the Contractor;

- b. any proposed Variation shall be fully supported by a quotation as detailed in Condition 39.5

39.5 The Contractor, within 14 days of being requested by the Department's Authorised Representative or where requesting a Variation pursuant to Condition 39.4, shall submit a quotation to the Department, such quotation to contain at least the following information:

- a. a description of the work together with the reason for the propose Variation;
- b. the price, where applicable;
- c. details of the impact, if any, on other aspects of the Contract.

39.6 The price for any Variation shall, unless otherwise agreed between the Parties, be calculated in the following order of precedence:

- a. using the Prices or Rates;
- b. prices pro-rata to the Prices or Rates;
- c. prices based on the Prices or Rates.

39.7 The Department shall either approve or reject any Variation proposed by the Contractor.

39.8 In the event that the Contractor disputes any decision by the Department to reject a proposed Variation or contends that a proposed Variation is outstanding or continues to be required, the Contractor shall update the information contained in his quotation for the proposed Variation every Month and shall send the updated information to the Department.

40. PERFORMANCE MONITORING

40.1 The performance of the Contractor will be subject to monitoring and review against agreed quality aspects.

40.2 Where applicable performance and or price indices may be applied by the Department to measure the performance of the Contractor.

40.3 The Contractor shall ensure that information, records, and documentation necessary to monitor effectively the performance of the Contract are maintained and are available at all times to the Authorised Representative.

41. FORCE MAJEURE

- 41.1 Neither party shall be liable to the other party by reason of any failure or delay in performing its obligations under the Contract which is due to Force Majeure, where there is no practicable means available to the party concerned to avoid such failure or delay.
- 41.2 If either party becomes aware of any circumstances of Force Majeure which give rise to any such failure or delay, or which appear likely to do so, that party shall promptly give notice of those circumstances as soon as practicable after becoming aware of them and shall inform the other party of the period for which it estimates that the failure or delay will continue.
- 41.3 For the purposes of this Condition, "Force Majeure" means any event or occurrence which is outside the control of the party concerned and which is not attributable to any act or failure to take preventive action by the party concerned, but shall not include any industrial action occurring within the Contractor's organisation or within any sub-contractor's organisation.
- 41.4 Any failure or delay by the Contractor in performing his obligations under the Contract which results from any failure or delay by an agent, sub-contractor or supplier shall be regarded as due to Force Majeure only if that agent, sub-contractor or supplier is itself impeded in complying with an obligation to the Contractor by Force Majeure.

42. BANKRUPTCY

- 42.1 In the event of the Contractor becoming bankrupt or making a composition or arrangement with his creditors or having a winding up order made or (except for the purpose of reconstruction) a resolution for voluntary winding up passed or a receiver or manager of his business or undertaking duly appointed, or possession taken, by or on behalf of the holders or any debentures secured by a floating charge of any property comprised in or subject to the floating charge, the Department may at its discretion forthwith determine the employment of the Contractor under this Contract. The said employment may be reinstated and continued by the Department and the Contractor, if his trustee in bankruptcy, liquidator, receiver or manager, as the case may be, so agree.

43. TERMINATION ON DEFAULT

- 43.1 The Department may terminate the Contract, or terminate the provision of any part of the Services, by written notice to the Contractor with immediate effect if the Contractor is in default of any obligation under the Contract and:

-
- a. the Contractor has not remedied the default to the satisfaction of the Department within 30 days, or such other period as may be specified by the Department, after service of written notice specifying the default and requiring it to be remedied; or
 - b. the default is not capable of remedy; or
 - c. the default is a fundamental breach of the Contract.

44. BREAK

- 44.1 The Department shall have the right to terminate the Contract, or to terminate the provision of any part of the Services, at any time by giving 3 Months' written notice to the Contractor. The Department may extend the period of notice at any time before it expires, subject to agreement on the level of Services to be provided by the Contractor during the period of extension.

45. CONSEQUENCES OF TERMINATION

- 45.1 If the Department terminates the Contract under Condition 43, or terminates the provision of any part of the Services under that Condition, and then makes other arrangements for the provision of the Services, the Department shall be entitled to recover from the Contractor the cost of making those other arrangements and any additional expenditure incurred by the Department throughout the remainder of the Contract Period. Where the Contract is terminated under Condition 43, no further payments shall be payable by the Department until the Department has established the final cost of making those other arrangements.
- 45.2 If the Department terminates the Contract, or terminates the provision of any part of the Services, under Condition 44, the Department shall reimburse the Contractor in respect of any loss, not including loss of profit, actually and reasonably incurred by the Contractor as a result of the termination, provided that the Contractor takes immediate and reasonable steps, consistent with the obligation to provide the Services during the period of notice, to terminate all contracts with sub-contractors on the best available terms, to cancel all capital and recurring cost commitments, and to reduce equipment and labour costs as appropriate.
- 45.3 For the purposes of Condition 45.2 the Contractor shall submit to the Authorised Representative, within 14 working days after service of the notice, a fully itemised and costed list, with supporting evidence, of all losses incurred by the Contractor as a result of the termination of the Contract, or the termination of any part of the Services, to be updated only in respect of ongoing costs each week until the Contract is terminated.
- 45.4 The Department shall not be liable under Condition 45.2 to pay any sum which, when added to any sums paid or due to the Contractor under the Contract, exceeds

the total sum that would have been payable to the Contractor if the provision of the Services had been completed in accordance with the Contract.

46. TRANSFER OF UNDERTAKING AND PROTECTION OF EMPLOYMENT (TUPE)

- 46.1 Tenderers are advised to seek their own legal advice with regard to the application of TUPE and state clearly when returning their tender documentation whether or not they have done so.

47. ARBITRATION

- 47.1 All disputes, differences or questions between the parties to the Contract with respect to any matter arising out of or relating to the Contract, other than a matter of things as to which the decision of the Department is under the Contract to be final and conclusive, shall after written notice by either party to the Contract to the other be referred to a single arbitrator agreed for that purpose or in default of such agreement within twenty-one (21) days, appointed at the request of either party by the President of the Law Society of Northern Ireland. The decision of such arbiter shall be final and binding on the parties of the Contract.
- 47.2 The provision of the Arbitration Act 1996 shall apply to any arbitration under this contract and such arbitration shall be conducted solely within Northern Ireland.

48. LAW

- 48.1 This Contract shall in all respects be governed by and construed in accordance with the laws of Northern Ireland and the parties hereby agree that the Courts of Northern Ireland shall have exclusive jurisdiction to hear and determine any dispute arising out of or in connection with this Contract.

Appendix A

(see Condition 39.1)

VARIATION TO CONTRACT FORM

CONTRACT TITLE:
FOR THE PROVISION OF:
CONTRACT REF: VARIATION NO: DATE: / /

BETWEEN:

1. The Contract is varied as follows:

- 2. Words and expressions in this Variation shall have the meaning/s given to them in the Contract.
- 3. The Contract, including any previous Variation(s), shall remain effective and unaltered except as amended by this Variation.

SIGNED:

For: The Department

For: The Contractor

By:
Full Name:
Grade:
Date:

By:
Full Name:
Title:
Date:

Appendix B
(see Condition 1.1C)

AUTHORISED REPRESENTATIVES

The Authorised Representative of the Department for the purposes of the Contract is:

Sean Coulter, DRD Ports and Public Transport Division

The Authorised Representative of the Contractor for the purpose of the Contract is:

Appendix B List of Consultees

Consultees

- Lismore Community Council;
- Gigha Community Council;
- Tarbert and Skipness Community Council;
- Kilfinan Community Council;
- Raasay Community Council;
- West Ardnamurchan Community Council;
- Councillor for Cowal (Bruce Marshall JP);
- Councillor for Oban South and the Isles (Gordon Chalmers);
- Councillor for Eilean a' Cheò (John Laing);
- Tory Island Co-Op (Bríd Nic Gharbhaith)
- Arranmore Co-Op (Nóirín Ní Mhaoldomhnaigh)
- Arranmore Ferries (Dominic Sweeney)
- Moyle District Council (Una Hamill)
- Rathlin Community Development Association (Jonathan Mitchell)

The following representatives were contacted but we were unable to get a response:

- Mull Community Council;
- West Kintyre Community Council;
- Sconser Community Council;
- Councillor(s) for Fort William and Ardnamurchan; and
- Councillor(s) for Kintyre and the Islands.

Appendix C Main Modelling Assumptions

Appendix C
Demand Modelling Assumptions

Route	Assumption	Trend Growth	High Growth
Leab Gharbn to Ailt an Chorráin	Total Population	-1.0%	0.0%
	Working-Age Population	-1.0%	0.0%
	Young Population	-1.0%	0.0%
	Economy	0.0%	1.0%
	Tourism	0.0%	1.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	0.0%
Toraigh to the Donegal mainland	Total Population	-1.0%	0.0%
	Working-Age Population	-1.0%	0.0%
	Young Population	-1.0%	0.0%
	Economy	0.0%	1.0%
	Tourism	0.5%	1.5%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	0.0%
Ballycastle to Rathlin	Total Population	1.0%	2.0%
	Working-Age Population	1.0%	2.0%
	Young Population	2.0%	3.0%
	Economy	1.0%	2.0%
	Tourism	1.0%	2.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	0.0%
Tarbert LF to Portavadie	Total Population	0.5%	1.5%
	Working-Age Population	1.0%	2.0%
	Young Population	0.5%	1.5%
	Economy	0.0%	1.0%
	Tourism	0.0%	1.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	RET
Tayinloan to Gigha	Total Population	1.0%	2.0%
	Working-Age Population	1.0%	2.0%
	Young Population	2.0%	3.0%
	Economy	0.0%	1.0%
	Tourism	0.0%	1.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	RET
Oban to Lismore	Total Population	0.5%	1.5%
	Working-Age Population	1.0%	2.0%
	Young Population	2.5%	3.5%
	Economy	0.2%	1.2%
	Tourism	0.4%	1.4%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	RET
Tobermory to Kilchoan	Total Population	1.0%	2.0%
	Working-Age Population	2.0%	3.0%
	Young Population	5.0%	6.0%
	Economy	0.0%	1.0%
	Tourism	0.0%	1.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	RET
Sconser to Raasay	Total Population	0.5%	1.5%
	Working-Age Population	0.0%	1.0%
	Young Population	0.5%	1.5%
	Economy	0.5%	1.5%
	Tourism	1.0%	2.0%
	Journey Time	0.0%	-10.0%
	Vessel Quality	0.0%	50.0%
	Fare	0.0%	RET

Appendix D Demand Modal Outputs by Route

Appendix D

Predicted Weekly Demand by Route

Route: Arranmore

Passengers	Demand		
	Base	Trend Growth	Difference
Low	779	649	-17%
Shoulder	1123	963	-14%
High	1580	1381	-13%
Cars	Demand		
	Base	Trend Growth	Difference
Low	211	175	-17%
Shoulder	268	229	-14%
High	409	356	-13%
Goods	Demand		
	Base	Trend Growth	Difference
Low	23	22	-3%
Shoulder	30	28	-5%
High	22	21	-5%

Passengers	Demand		
	Base	High Growth	Difference
Low	779	909	17%
Shoulder	1123	1351	20%
High	1580	1940	23%
Cars	Demand		
	Base	High Growth	Difference
Low	211	244	16%
Shoulder	268	321	20%
High	409	497	22%
Goods	Demand		
	Base	High Growth	Difference
Low	23	28	24%
Shoulder	30	36	22%
High	22	27	23%

Route: Rathlin

Passengers	Demand		
	Base	Trend Growth	Difference
Low	300	385	28%
Shoulder	1361	1746	28%
High	2681	3438	28%
Cars	Demand		
	Base	Trend Growth	Difference
Low	47	61	28%
Shoulder	65	93	42%
High	66	85	28%
Goods	Demand		
	Base	Trend Growth	Difference
Low	7	9	28%
Shoulder	13	17	28%
High	8	10	28%

Passengers	Demand		
	Base	High Growth	Difference
Low	300	540	80%
Shoulder	1361	2454	80%
High	2681	4834	80%
Cars	Demand		
	Base	High Growth	Difference
Low	47	85	79%
Shoulder	65	130	98%
High	66	118	78%
Goods	Demand		
	Base	High Growth	Difference
Low	7	12	64%
Shoulder	13	21	64%
High	8	13	64%

Route: Tory

Passengers	Demand		
	Base	Trend Growth	Difference
Low	78	64	-17%
Shoulder	369	356	-4%
High	1296	1295	0%
Cars	Demand		
	Base	Trend Growth	Difference
Low			
Shoulder			
High			
Goods	Demand		
	Base	Trend Growth	Difference
Low			
Shoulder			
High			

Passengers	Demand		
	Base	High Growth	Difference
Low	78	90	15%
Shoulder	369	499	35%
High	1296	1818	40%
Cars	Demand		
	Base	High Growth	Difference
Low			
Shoulder			
High			
Goods	Demand		
	Base	High Growth	Difference
Low			
Shoulder			
High			

Route: Portavadie

Passengers	Demand		
	Base	Trend Growth	Difference
Low	609	698	15%
Shoulder	1455	1770	22%
High	2101	2589	23%
Cars	Demand		
	Base	Trend Growth	Difference
Low	240	275	15%
Shoulder	512	619	21%
High	736	901	22%
Goods	Demand		
	Base	Trend Growth	Difference
Low	8	9	13%
Shoulder	11	13	13%
High	9	11	13%

Passengers	Demand		
	Base	High Growth	Difference
Low	609	1387	128%
Shoulder	1455	3519	142%
High	2101	5071	141%
Cars	Demand		
	Base	High Growth	Difference
Low	240	554	130%
Shoulder	512	1275	149%
High	736	1786	143%
Goods	Demand		
	Base	High Growth	Difference
Low	8	11	45%
Shoulder	11	17	45%
High	9	14	45%

Route: Gigha

Passengers	Demand		
	Base	Trend Growth	Difference
Low	665	878	32%
Shoulder	1403	1634	16%
High	1848	2095	13%
Cars	Demand		
	Base	Trend Growth	Difference
Low	187	266	42%
Shoulder	319	398	25%
High	382	468	22%
Goods	Demand		
	Base	Trend Growth	Difference
Low	25	27	8%
Shoulder	31	34	10%
High	25	28	11%

Passengers	Demand		
	Base	High Growth	Difference
Low	665	1506	127%
Shoulder	1403	2812	100%
High	1848	3576	94%
Cars	Demand		
	Base	High Growth	Difference
Low	187	450	141%
Shoulder	319	690	117%
High	382	800	110%
Goods	Demand		
	Base	High Growth	Difference
Low	25	35	38%
Shoulder	31	44	42%
High	25	35	43%

Route: Kilchoan

Passengers	Demand		
	Base	Trend Growth	Difference
Low	239	307	28%
Shoulder	925	1006	9%
High	1792	1890	5%
Cars	Demand		
	Base	Trend Growth	Difference
Low	25	35	42%
Shoulder	147	163	11%
High	277	296	7%
Goods	Demand		
	Base	Trend Growth	Difference
Low	0	0	7%
Shoulder	0	0	11%
High	0	0	13%

Passengers	Demand		
	Base	High Growth	Difference
Low	239	540	126%
Shoulder	925	2347	154%
High	1792	3716	107%
Cars	Demand		
	Base	High Growth	Difference
Low	25	55	121%
Shoulder	147	434	195%
High	277	653	136%
Goods	Demand		
	Base	High Growth	Difference
Low	0	0	37%
Shoulder	0	1	43%
High	0	0	45%

Route: Lismore

Passengers	Demand		
	Base	Trend Growth	Difference
Low	770	867	13%
Shoulder	1197	1298	8%
High	1662	1761	6%
Cars	Demand		
	Base	Trend Growth	Difference
Low	38	43	12%
Shoulder	44	49	11%
High	56	63	11%
Goods	Demand		
	Base	Trend Growth	Difference
Low	10	10	3%
Shoulder	13	13	4%
High	15	16	4%

Passengers	Demand		
	Base	High Growth	Difference
Low	770	1290	68%
Shoulder	1197	1944	62%
High	1662	2660	60%
Cars	Demand		
	Base	High Growth	Difference
Low	38	64	69%
Shoulder	44	78	76%
High	56	96	70%
Goods	Demand		
	Base	High Growth	Difference
Low	10	13	32%
Shoulder	13	17	33%
High	15	20	33%

Route: Raasay

Passengers	Demand		
	Base	Trend Growth	Difference
Low	940	1103	17%
Shoulder	1494	1716	15%
High	1632	1874	15%
Cars	Demand		
	Base	Trend Growth	Difference
Low	354	415	17%
Shoulder	507	586	16%
High	608	702	16%
Goods	Demand		
	Base	Trend Growth	Difference
Low	26	28	8%
Shoulder	28	30	8%
High	29	32	8%

Passengers	Demand		
	Base	High Growth	Difference
Low	940	2020	115%
Shoulder	1494	3141	110%
High	1632	3420	110%
Cars	Demand		
	Base	High Growth	Difference
Low	354	783	121%
Shoulder	507	1108	118%
High	608	1285	111%
Goods	Demand		
	Base	High Growth	Difference
Low	26	36	38%
Shoulder	28	38	39%
High	29	41	39%

Appendix E Vessel Demand Profiles by Season and Route

Appendix E

Estimates of Passenger and Lane-Length Demand for the Busiest Sailing for each Season and Route

	Low	
Route	Passengers	Length (m)
Lismore	13	15
Gigha	40	66
Raasay	54	106
Kilchoan	28	13
Portavadie	34	64
Rathlin	12	12
Arranmore	26	42
Tory	4	0
Maximum	54	106

	Shoulder	
Route	Passengers	Length (m)
Lismore	18	19
Gigha	60	79
Raasay	50	88
Kilchoan	47	39
Portavadie	55	93
Rathlin	53	19
Arranmore	25	36
Tory	20	0
Maximum	60	93

	High	
Route	Passengers	Length (m)
Lismore	22	23
Gigha	77	88
Raasay	55	103
Kilchoan	74	59
Portavadie	64	104
Rathlin	104	15
Arranmore	36	48
Tory	52	0
Maximum	104	104

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