



# Effect of air traffic associated with Milford aerodrome on visitors to Fiordland National Park

Summer 2008/09 and 2009/10



Department of  
Conservation  
*Te Papa Atawhai*



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SUMMER 2008/09 and 2009/10

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View from Gertrude Saddle overlooking Milford Sound/Piopiotahi. Photo - Sally Chesterfield

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# Executive Summary

This report summarises the third and fourth seasons of monitoring that occurred between December 2008 – April 2009, and December 2009 – April 2010. The monitoring aimed to assess the effects of fixed wing and helicopter aircraft overflights on visitors in Fiordland National Park.

The monitoring consisted of self-administered questionnaires and was part of an ongoing programme to fulfil the monitoring requirements of section 5.5.2 of the Fiordland National Park Management Plan 2007. The monitoring provides information to the Department and aircraft operators to assist them in managing the effects of aircraft activities. Monitoring sites consisted of The Milford track, Hollyford track, Routeburn track, and Gertrude Valley in 2008/09, and Lake Gunn and the Gertrude Valley in 2009/10.

Levels of annoyance varied by site, but overall results from the monitoring have indicated that the impacts from aircraft activity around the Milford area have decreased since the 2007/08 season. The Milford, Hollyford, and Gertrude Valley tracks still have annoyance levels that are close to the threshold which could easily be breached with only a slight increase in annoyance.

The decrease in annoyance is likely to be associated with the decrease in aircraft activity, which is likely due to the global financial crisis affecting visitor flows and available expenditure. A strong correlation was identified and demonstrated between the visitor group spectrum the Department manages sites for and the level of annoyance at aircraft activity.

The report recommends that irrespective of the Minister's decision regarding concession allocation at Milford Aerodrome, the Department should continue to work with operators to develop voluntary solutions as well as form a code of conduct for operators in Milford which concessionaires are to operate under. Operators should continue to be encouraged to look for technological advances to decrease sounds emitted from aircraft, as well as to avoid overflying sensitive areas. The report also provides a number of recommendations for future monitoring.



## TABLE OF CONTENTS

Executive Summary	3
Introduction	5
Management of aircraft impacts to date	5
Previous monitoring	6
Methodology	8
Results	10
Aircraft activity	10
2008/09 monitoring	11
Survey characteristics	11
Visitor responses	12
Visitor comments	13
2009/10 monitoring	14
Survey characteristics	14
Visitor responses	14
Visitor comments	15
Discussion	16
Aircraft activity	16
Annoyance at fixed-wing aircraft activity	17
Annoyance at helicopter activity	18
Discussion of trends and likely contributors	19
Conclusions and recommendations for future monitoring and management	21
Acknowledgements	22
References	22
Appendices	23
Appendix 1: Visitor groups explained	23
Appendix 2: Gertrude Valley Visitor Survey 2008/09	26
Appendix 3: Gertrude Valley Visitor Survey 2009/10	29
Appendix 4: Hollyford Track Visitor Survey 2008/09	32
Appendix 5: Lake Gunn Nature Walk Survey 2009/10	36
Appendix 6: Milford Track Visitor Survey 2008/09	39
Appendix 7: Routeburn Track Day Walker Survey 2008/09	43
Appendix 7: Routeburn Track Visitor Survey 2008/09	46

# Introduction

This report summarises results from the 2008/09 and 2009/10 seasons of monitoring of the effects of aircraft activity on visitors to sites on the Milford Aerodrome flight paths.

Located within Fiordland National Park, Milford Aerodrome is a busy airport which recorded more than 14,000 aircraft movements (7000 landings) in 2009 (Airways Corporation 2010). Aircraft activity from the Milford aerodrome is thought to predominantly consist of scenic flights, with a smaller portion of flights coming from management of facilities from the Department and concessionaires. International tourists are the main users of scenic flights around Milford Sound, with only approximately 15% being from New Zealand (Booth, 2010). The total number of passengers who fly into Milford Sound / Piopiotahi each year is estimated at almost 30,000 (Cooney 2007).

Scenic flights are a legitimate means of enjoying conservation lands and waters and visitors to Milford Sound / Piopiotahi in particular, should expect to encounter aircraft during their visit. It is also important to recognise however, that the area is within a national park and that national park values require protection from adverse effects such as noise. Aircraft activity impacting on visitor experience at sites around Milford has been a longstanding issue in Fiordland National Park. As a result, the Fiordland National Park Management Plan 2007 (hereafter FNPMP 2007) identifies a number of sites including; Milford Sound; the Milford Track; the Routeburn Track; the Hollyford Track; and Gertrude Valley that should be included in an ongoing programme of monitoring. The full rationale and background to the monitoring programme is detailed in the 2006/07 monitoring report (see Harbrow, 2007).

## Management of aircraft impacts to date

In drafting the FNPMP 2007, it was identified that air access needed to be managed so that the values of Milford Sound / Piopiotahi and the surrounding area were maintained and enhanced. Under the plan all landings and take-offs at Milford Aerodrome would require authorisation by way of a concession and concessions for regular aircraft operators would be limited to 53 fixed wing and 37 helicopters carrying out a total of no more than 9496 landings. A similar process would operate for irregular and one-off landings. A limited supply concession allocation process for regular aircraft operators was run in mid 2008 with each applicant assessed on their experience, operation history, the visitor experience they offered, and a plan of how they would reduce adverse effects from their flights.

The process resulted in more demand than supply with 36 applicants applying for 23 different packets of landings. Thirteen applicants (seven of whom were existing operators at Milford Aerodrome) missed out and sought reconsideration (a statutory review decided by another decision maker). Subsequently, the Minister has sought the opinions of representatives of the aircraft industry and other parties, in order to better understand the industry's requirements for ongoing access and to hear concerns over the concession allocation process. The Minister had not released her decision on Milford Aerodrome at the time of writing this report but two potential outcomes have been indicated. One is that the decision from the original process will be upheld; the other is that all operators who applied are granted the number of landings that they applied for and that this will establish the upper limit for landings at Milford Aerodrome. The Ministerial Review of the concession allocation process is expected to be concluded and implemented by the 1 May 2011.

Recent developments have seen the Aircraft Industry Association advocating greater industry self regulation and encouraging operators to engage in a National Noise Code of Practice. The draft code focuses on how pilots can modify their inflight procedures to minimise the impact of noise, as 'current technology is not available to make an immediate impact on noise reduction in existing aircraft' (Aircraft Industry Association, 2010: 4).

## Previous monitoring

The findings of the 2006/07 and 2007/08 seasons of monitoring are reported in Harbrow, 2007 and 2008 respectively. A summary of visitor annoyance levels with aircraft activity from these two reports is displayed in Table 1 below and shows that aircraft activity caused significant annoyance at a number of sites. Sites which exceeded the 25% annoyance threshold set in the FNPMP 2007 are highlighted in orange. In 2006/07 these sites included Gertrude Valley, the Hollyford Track, Homer Hut, the Milford Sound foreshore, and the Mintaro Hut – Dumppling Hut section of the Milford track. Similar results were found in 2007/08 (minus the Milford foreshore track as it was not monitored that season). There was a trend in both seasons for visitors to have a higher level of annoyance with helicopters compared to fixed-wing aircraft despite their being higher levels of fixed-wing activity. Some effects were noted from the Departments own management flights around the Milford Track in 2006/07 but further analysis of management flights in 2007/08 showed that the scale of this activity was likely to be insignificant compared to the overall frequency of flights into and out of Milford Aerodrome.

TABLE 1: SUMMARY OF RESULTS FROM THE 2006/07 AND 2007/08 SEASONS (SITES EXCEEDING THE ANNOYANCE THRESHOLD ARE HIGHLIGHTED)

SEASON	SITE		# OF RESPONDENTS	% ANNOYED WITH FIXED-WING AIRCRAFT	% ANNOYED WITH HELICOPTERS	MARGIN OF ERROR1
2006/07	Gertrude Valley		199	30.2%	36.7%	±6.9%
	Hollyford Track		153	28.1%	30.1%	±7.9%
	Homer Hut		59	69.5%	67.8%	±12.8%
	Key Summit		463	14.0%	14.7%	±4.6%
	Milford Foreshore		671	26.8%	28.0%	±3.8%
	Milford track	Glade wharf – Mintaro Hut	389	15.4%	23.4%	±5.0%
Mintaro Hut – Dumppling Hut		19.5%		25.4%		
Dumpling Hut – Sandfly Point		17.2%		22.4%		
2007/08	Gertrude Valley		142	35.2%	45.1%	±8.2%
	Hollyford Track		70	37.1%	35.7%	±11.8%
	Homer Hut		43	55.8%	55.8%	±14.9%
	Lake Marian		178	16.3%	21.3%	±7.3%
	Lake Marian Falls		438	4.1%	3.7%	±4.7%
	Milford track	Glade wharf – Mintaro Hut	411	11.9%	19.0%	±4.8%
Mintaro Hut – Dumppling Hut		22.9%		26.5%		
Dumpling Hut – Sandfly Point		23.8%		27.0%		

In early 2010 a separate survey was undertaken at Milford Sound / Piopiotahi for the Department of Conservation, Environment Southland and the Fiordland Integrated Coastal Management Programme (FICOMP) group (a reference group of predominantly local stakeholders). The collaborative approach of this project allowed a wider range of visitors to be surveyed than was the case in 2006/07. The largest user group at Milford Sound / Piopiotahi, the boat cruise passengers, showed only a moderate level of concern with aircraft. 14.5% reported a negative effect from planes and 14.4% from helicopters. This was within the tolerance thresholds agreed to by

stakeholders. For some other user groups present at Milford Sound / Piopiotahi including commercial kayakers and divers, hunters, climbers and trampers, workers and private boaties a higher percentage of respondents indicated that aircraft had had a negative effect on their experience (Booth 2010). The results from this survey are summarised in Table 2 below.

TABLE 2: SUMMARY OF AIRCRAFT RESULTS FROM THE MILFORD SOUND / PIOPIOTAHU USER MONITOR 2010

USER GROUP	# RESPONDENTS	% WHO INDICATED NEGATIVE EFFECT FROM PLANES	% WHO INDICATED NEGATIVE EFFECT FROM HELICOPTERS	MARGIN OF ERROR
Boat cruise passengers	388	14.5%	14.4%	±5.0%
Cruise liner passengers	37	0.0%	0.0%	±16.1%
Commercial kayakers and divers	123	44.8%	44.8%	±8.8%
Private boaties	38	45.9%	40.5%	±15.9%
Scenic flight passengers	72	3.4%	3.2%	±11.5%
Hunters, climbers and trampers	65	32.8%	33.3%	±12.2%
Workers	234	31.1%	22.9%	±6.4%

# Methodology

Three methods of data collection were employed for the purposes of this study. These methods were visitor surveys; counting aircraft overflights in the field; and obtaining information on aircraft activity from the Airways Corporation, Ministry of Transport and from the Department's own records.

Questionnaire-based surveys have been administered over the past four years at a number of sites (see Table 1) with the intended purpose of monitoring effects of aircraft on visitors. Visitor sites were chosen based on known aircraft flight paths and from sites listed in Section 5.16 of the FNPMP 2007. Figure 1 displays the location of the survey locations for the 2008/09 and 2009/10 season.

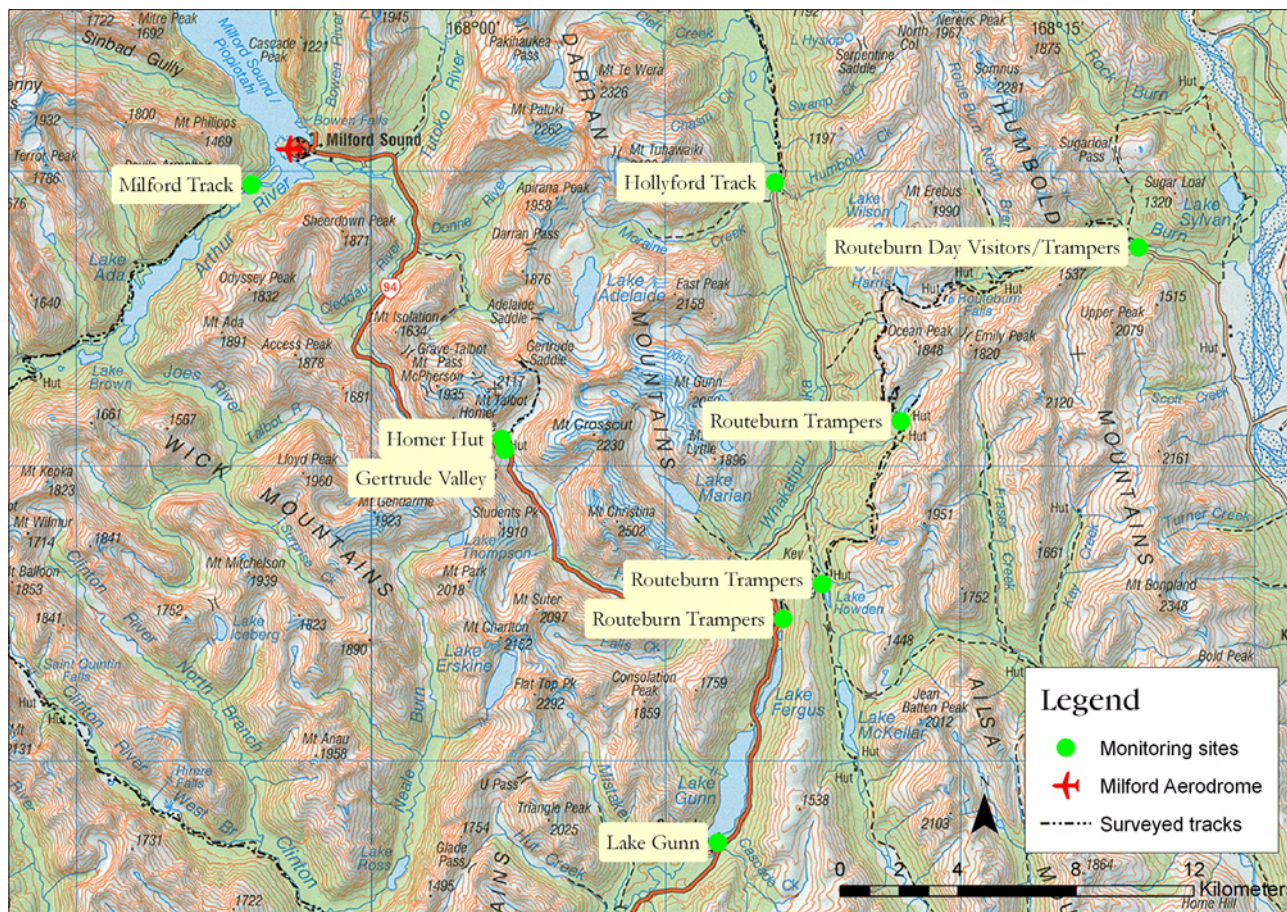


FIGURE 1: MAP OF SURVEY LOCATIONS FOR AIRCRAFT MONITORING

The sites that were monitored had a range of target visitor groups (see Appendix 1 for an explanation of visitor groups) and a range of spatial locations relative to known flight paths. In the 2008/09 season four sites were surveyed; these were the Routeburn track, the Hollyford track, the Milford Track, and Gertrude Valley. In 2009/10 two sites were surveyed; these were Gertrude Valley and Lake Gunn. Details regarding the times and location of the surveys can be found in Table 3 below.

TABLE 3: SITES MONITORED USING QUESTIONNAIRE BASED SURVEYS (2008/09 – 2009/10)

SITE	YEAR	TARGET VISITOR GROUP/ ABILITY	TIME PERIOD	# OF SURVEY DAYS	LOCATION OF ADMINISTRATION	QUESTIONNAIRE
Gertrude Valley	2008/09	Backcountry adventurers	January - March	14	Gertrude Valley carpark	Appendix 2
Gertrude Valley	2009/10	Backcountry adventurers	January - March	11	Gertrude Valley carpark	Appendix 3
Hollyford track	2008/09	Backcountry comfort seekers and Backcountry adventurers	January - April	17	Hollyford road end	Appendix 4
Lake Gunn Nature Walk	2009/10	Short stop travellers	January - March	11	Lake Gunn carpark	Appendix 5
Milford track	2008/09	Backcountry comfort seekers	December - April	16	Sandfly Point	Appendix 6
Routeburn track (Day visitors)	2008/09	Day visitors	February - April	9	Glenorchy road-end	Appendix 7
Routeburn track (Overnight trampers)	2008/09	Backcountry comfort seekers	February – April	9	Glenorchy road end Divide car park Lake McKenzie & Howden Huts	Appendix 8

The survey procedure involved DOC staff approaching all visitors over the age of fifteen to complete a written questionnaire onsite. Alternatively visitors could return their completed surveys in a prepaid postal envelope. If, for example, they did not have time to complete the questionnaire onsite questionnaires and prepaid postal envelopes were also left on vehicle windscreens if the visitors had not returned from their trip by the end of the day.

The questionnaires were designed and administered in a consistent manner to the previous 2006/07 and 2007/08 visitor monitoring programmes. The questionnaires predominantly contained closed response questions that allowed the collection of quantitative data, as well as several open question/comment sections that provided a small amount of qualitative data. Data was analysed using Microsoft Excel and SPSS.

Unlike the previous two seasons of monitoring a time stamped log of individual landings at Milford Aerodrome was not available for the 2008/09-2009/10 seasons. However, monthly landing numbers for both fixed-wing aircraft and helicopters at the Milford Aerodrome were provided by the Ministry of Transport. Information on the frequency of the Department's own management flights was also collected and analysed.

# Results

## Aircraft activity

Monthly landing data for fixed wing and helicopters from the 2008/09 and 2009/10 seasons is displayed in Figures 2 and 3 respectively. The graphs have been projected on a similar scale to convey the predominance of fixed-wing activity relative to that of helicopters.

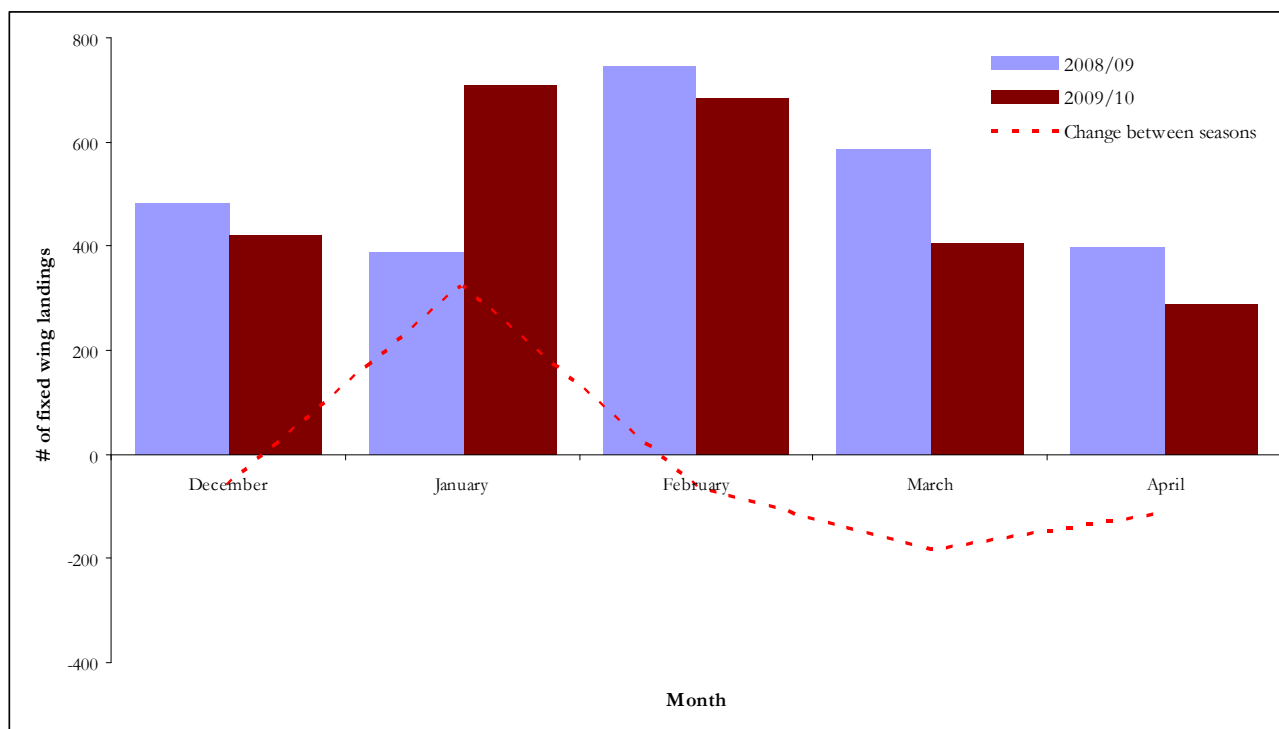


FIGURE 2: MONTHLY LANDINGS FOR FIXED WING AIRCRAFT AT THE MILFORD AERODROME (2008/09 - 2009/10 SEASONS). SOURCE: MINISTRY OF TRANSPORT, 2010

There was a 3.6% overall decrease in the number of landings for fixed wing aircraft between the 2008/09 and 2009/10 monitoring periods with a total of 2601 landings between December and April in the 2008/09 season, and 2507 in 2009/10. Figure 2 shows that fixed wing landings peaked in February in the 2008/09 season, whereas they peaked a month earlier in January in the 2009/10 season. The line indicating the change in landings between the 2008/09 and 2009/10 seasons shows that with the exception of January, there was a decrease in fixed wing activity for each month in the 2009/10 monitoring period relative to the previous season.

The number of helicopter landings (see Figure 3) increased by 8.4% between the 2008/09 and 2009/10 season, with a total number of 773 landings December 2008 and April 2009, and 838 for the same period in 2009/10. Helicopter landings peaked in February in both seasons. The line indicating the change in the number of landings between the two seasons shows that there was an increase in flights in the December - February period in 2009/10 relative to the previous season, and a similar number of flights in March and April.

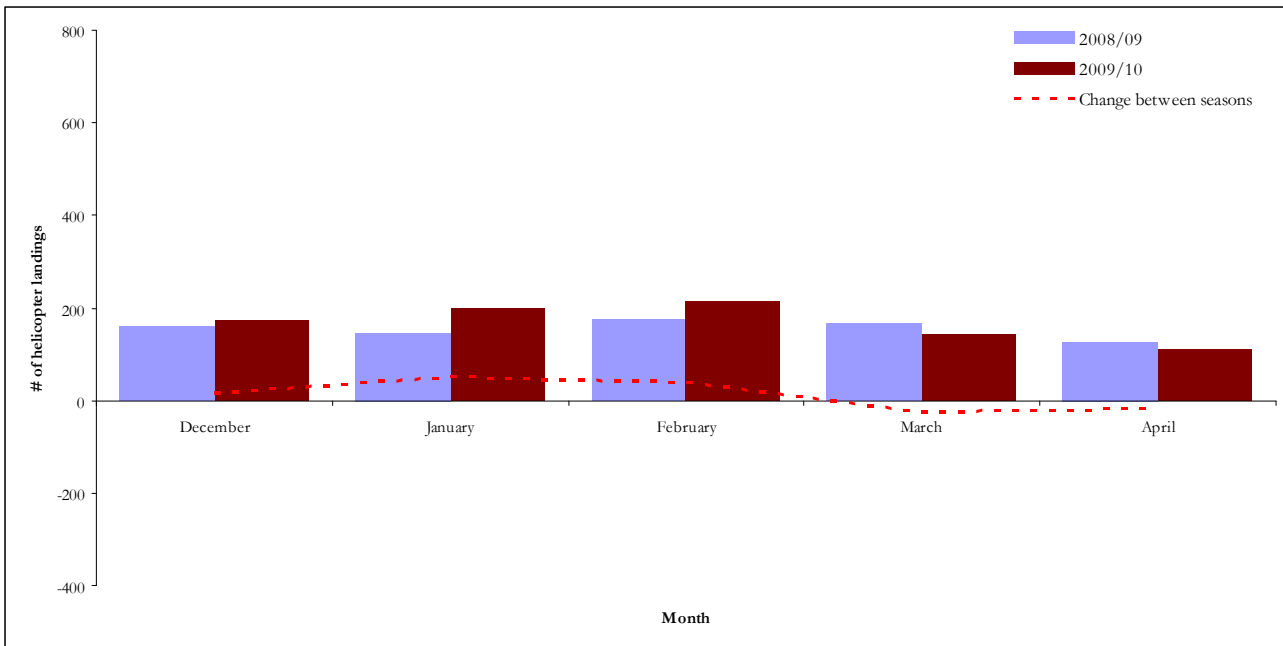


FIGURE 3: MONTHLY LANDINGS OF HELICOPTERS AT THE MILFORD AERODROME (2008/09-2009/10 SEASONS). SOURCE: MINISTRY OF TRANSPORT, 2010

The Department’s own management flight activity in Fiordland, north of the Milford Track, was estimated at 112 flight operations between December 2008 and April 2009. This figure increased in the 2009/10 monitoring period to 145 flight operations. In most cases a flight operation represented a single flight to a destination and a return flight back to the aircraft’s base. Some operations required a second flight later in the day to pick up staff. Huts on the Milford and Routeburn tracks were resupplied three times per season and usually required multiple flights (H Angus pers. Comm.). In both seasons, there were also several days where walkers were moved on the Milford and Routeburn Track due to weather and track conditions. During these operations there were multiple short flights to move walkers to safe parts of the track or to take them off the track. Overall however, the Department’s own operations are not significant in the context of the overall level of aircraft activity in and around Milford Sound / Piopiotahi.

## 2008/09 monitoring

### Survey characteristics

A total of 1407 visitors were surveyed over five sites in the 2008/09 season. Table 4 displays the survey characteristics for each site. The Hollyford Track and Routeburn day visitor surveys had relatively low sample sizes and therefore have a higher margin of error than the visitor surveys carried out at the other sites.

TABLE 4: SURVEY CHARACTERISTICS FOR THE 2008/09 SEASON

SITE	# OF RESPONDENTS	RESPONSE RATE	% POSTAL RETURNS	# OF SURVEY DAYS	MAXIMUM MARGIN OF ERROR
Gertrude Valley	210	78.9%	33.8%	14	±6.8%
Routeburn Track (trampers)	456	unknown	7.0%	9	±4.6%
Routeburn Track (day visitors)	119	29%	52.0%	9	±9.0%
Hollyford Track	88	45.1%	63.6%	17	±10.4%
Milford Track	534	84.4%	2.8%	16	±4.2%

## Visitor responses

A questionnaire-based survey assessed the effect of hearing or seeing aircraft alongside other activities (such as commercial guiding, day visitors, and motorboats). Respondents could choose from four responses that measured the effect on their visitor experience: 'did not notice the activity'; 'noticed the activity but were not annoyed by it'; 'noticed the activity and were annoyed a little'; and 'noticed the activity and was annoyed a lot'.

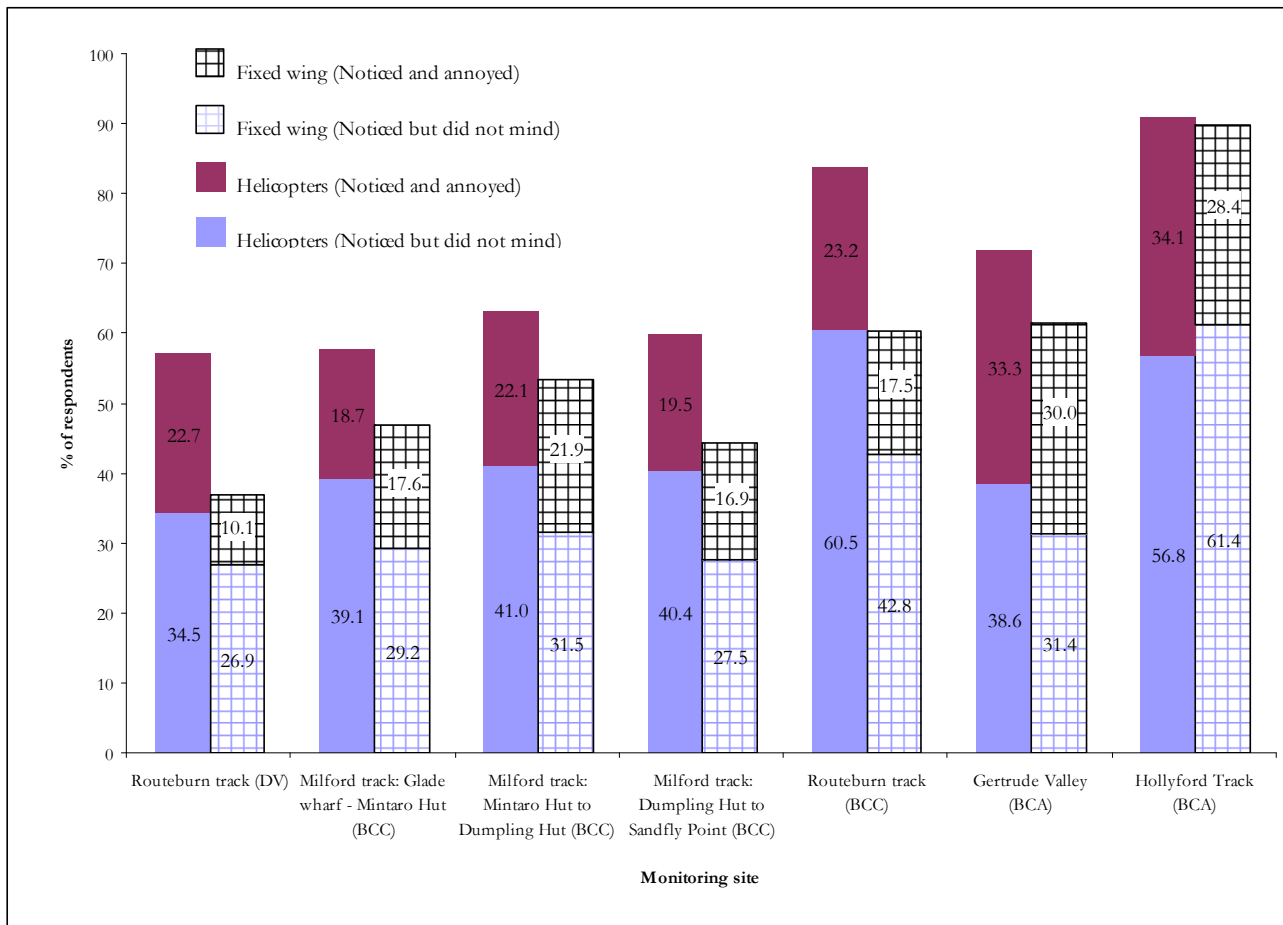


FIGURE 4: RESPONDENTS WHO NOTICED AIRCRAFT ACTIVITY IN THE 2008/09 SEASON

From the range of issues that were canvassed, aircraft were the most significant source of annoyance across all sites monitored in the 2008/09 season. Figure 4 shows the percentage of respondents who noticed aircraft activity on their visit. There was a consistent trend across all sites of respondents being more likely to have noticed helicopter activity than fixed wing activity. Respondents on the Hollyford Track were most likely to have noticed aircraft activity with approximately 90% of respondents noticing both helicopters and fixed wing aircraft (i.e. combined totals of those who noticed and those who noticed and were annoyed). Respondents on the Routeburn track were also highly likely to have noticed fixed wing aircraft (83%), as well as those at Gertrude Valley (71.9%). Respondents on the Milford Track and day visitors on the Routeburn Track were less likely to have noticed aircraft activity compared to respondents in the other three surveys.

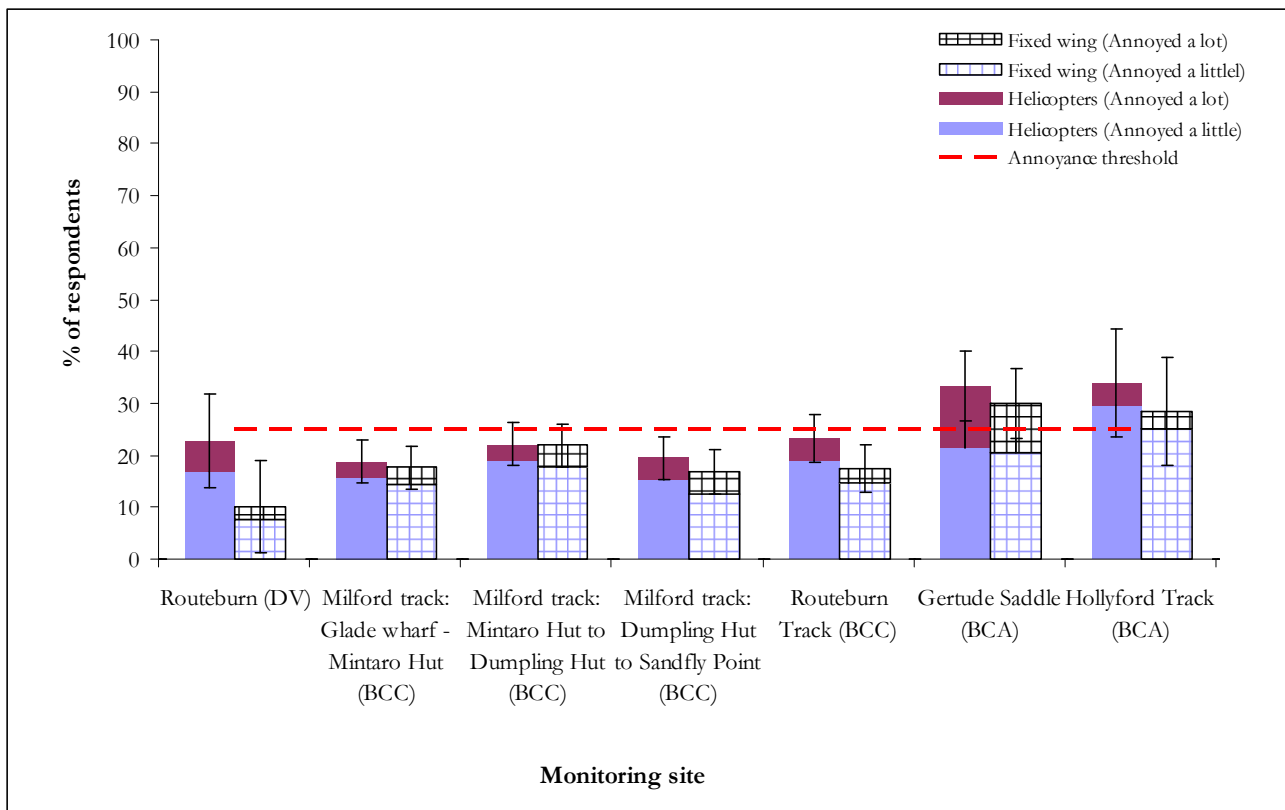


FIGURE 5: LEVELS OF ANNOYANCE WITH AIRCRAFT ACTIVITY IN THE 2008/09 MONITORING SITES

Figure 5 displays the levels of annoyance with aircraft activity at the 2008/09 monitoring sites. Helicopters consistently caused higher levels of visitor annoyance across all sites. There were particularly high levels of annoyance at Gertrude Valley and the Hollyford Track, with annoyance levels for both helicopters and fixed wing aircraft activity breaching the 25% management threshold. Annoyance levels for trampers on the Routeburn Track and for day three of the Milford track (Mintaro Hut to Dumpling Hut) were very close to the 25% annoyance threshold, particularly for helicopter activity.

### Visitor comments

Respondents at Gertrude Valley were the most likely to provide negative comments about aircraft activity, with 10% of respondents doing so in 2008/09:

*“The only thing I didn’t like was the number of helicopters”* – Respondent 110a

*“A really stunning area which people enjoy the remoteness of but I think if you can try and limit the number of flights going in - due to air and noise pollution...”* – Respondent 38b

*“A great asset, but important qualities are its remoteness and solitude; therefore helicopters and planes should be severely restricted. The helicopter taking off and landing just up the road from the hut is the main culprit”* – Respondent 23a

It was common for respondents at Gertrude Valley to comment that aircraft activity was the factor that would prevent them from rating their experience higher. Few additional comments regarding aircraft activity were recorded by respondents at other survey locations.

## 2009/10 monitoring

### Survey characteristics

During the 2009/10 monitoring season a total of 570 visitors were surveyed over 22 survey days two at sites. Table 5 lists the 2009/10 survey characteristics.

TABLE 5: SURVEY CHARACTERISTICS FOR THE 2009/10 SEASON

SITE	# OF RESPONDENTS	RESPONSE RATE	% POSTAL RETURNS	# OF SURVEY DAYS	MAXIMUM MARGIN OF ERROR
Gertrude Valley	176	74.3%	34.1%	11	±7.4%
Lake Gunn	394	Unknown	2.3%	11	±5.0%

### Visitor responses

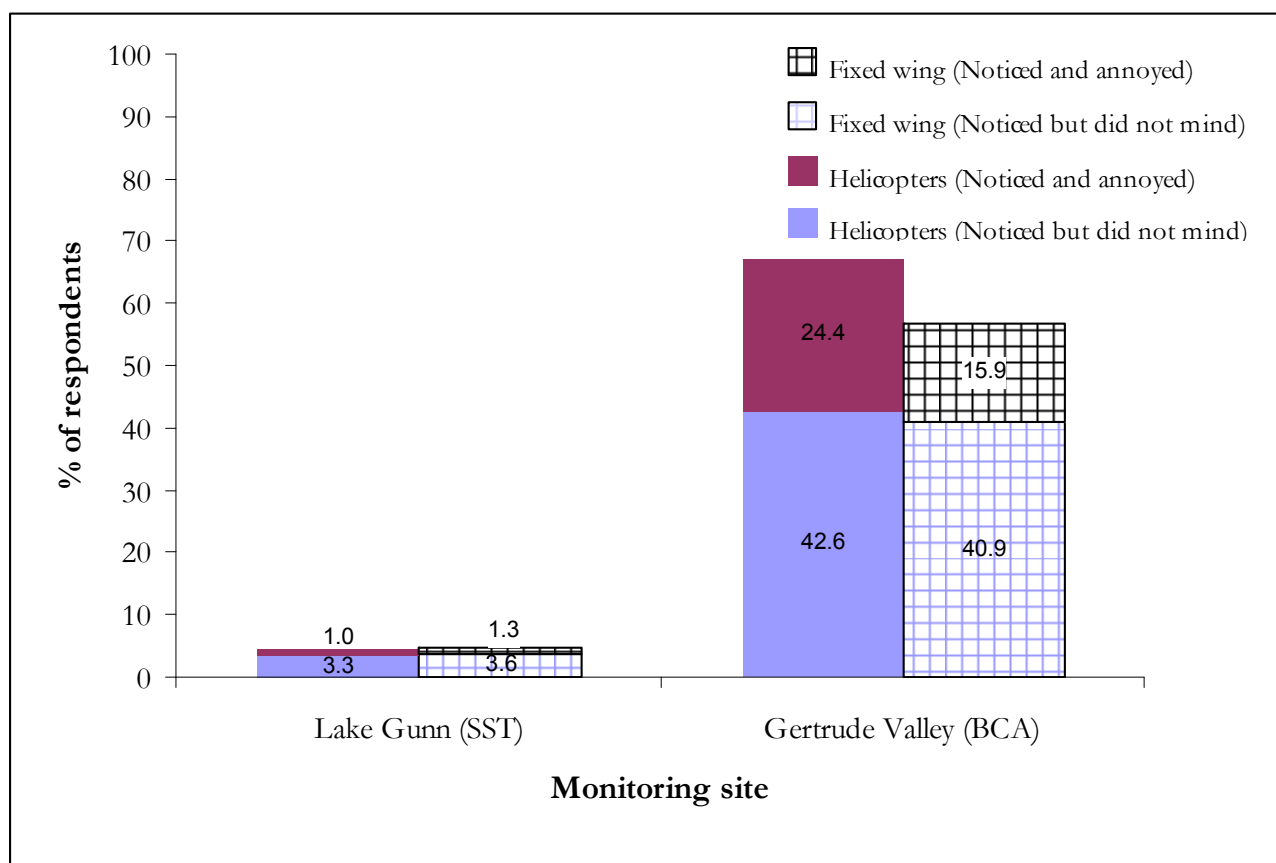


FIGURE 6: RESPONDENTS WHO NOTICED AIRCRAFT ACTIVITY IN THE 2009/10 SEASON

Figure 6 shows the percentage of respondents who noticed aircraft activity on their visit at the 2009/10 monitoring sites. Aircraft activity had the most effect on the visitor experience at Gertrude Valley, with approximately 67% of respondents noticing helicopters and 56.8% noticing fixed wing activity.

Aircraft activity was not the most noticeable influence on the visitor experience at Lake Gunn. Behaviour of other visitors, commercial/guided visitors, and other motorised vehicles were all noticed by more respondents, and only 7% of respondents at Lake Gunn noticed aircraft activity (planes, helicopters or both).

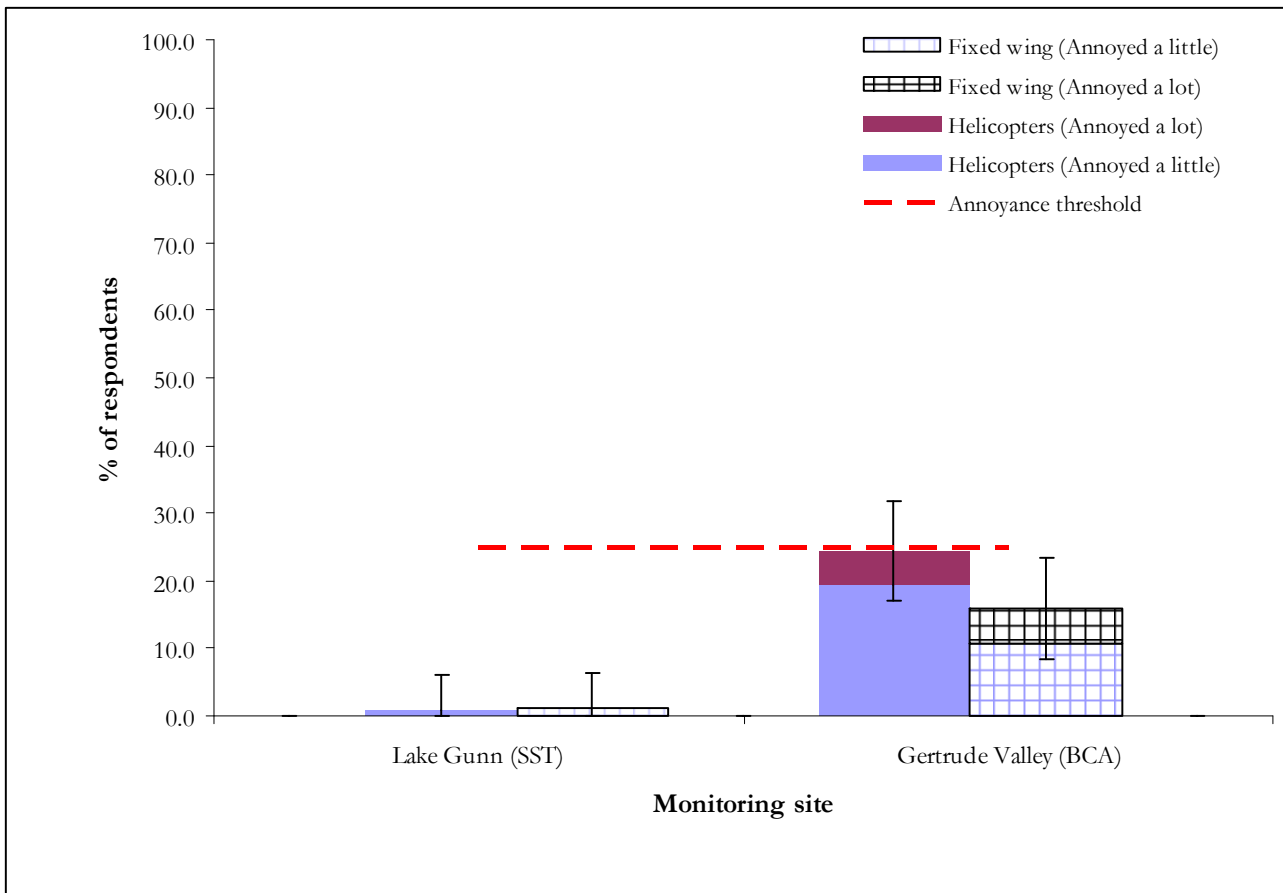


FIGURE 7: LEVELS OF ANNOYANCE AT AIRCRAFT ACTIVITY IN THE 2008/09 MONITORING SITES

Figure 7 displays the levels of visitor annoyance at aircraft activity at the 2009/10 monitoring sites. Both the Gertrude Valley and Lake Gunn sites were under the 25% annoyance threshold although helicopter activity at Gertrude Valley was close to crossing the threshold. Annoyance at fixed-wing aircraft at Gertrude Valley was substantially lower than with helicopters.

**Visitor comments**

Only one respondent (0.25% of respondents) commented on the presence of aircraft at Lake Gunn. Approximately 8% of respondents at Gertrude Valley commented negatively on the presence of aircraft in the area.

*“This route is almost perfect because it’s short and the scenery is one of the most beautiful I’ve ever seen, but the helicopters and planes have nothing to do in such a beautiful wilderness” – Respondent 56a*

*“Helicopters and planes shouldn’t be present in this wonderful nature” – Respondent 57b*

# Discussion

## Aircraft activity

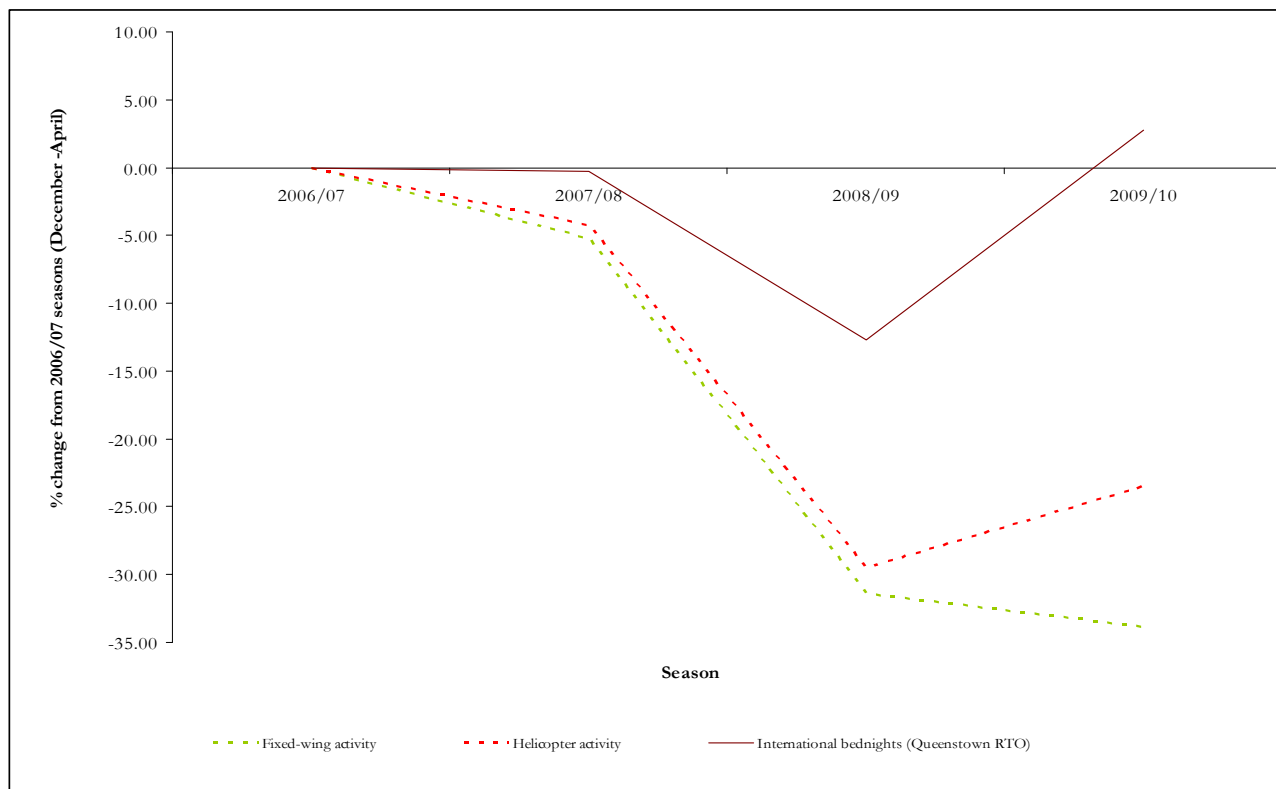


FIGURE 8: SEASONAL CHANGES IN AIRCRAFT ACTIVITY AND VISITOR BEDNIGHTS RELATIVE TO THE 2006/07 SEASON (DEC – APRIL)

Since 2006/07 there has been a significant decrease in aircraft activity at Milford Aerodrome during the peak season (see Figure 8). There were 33.8% fewer fixed wing flights between December 2009 and April 2010 compared to the same period three years earlier. There has also been substantial decrease in helicopter activity, however, the level of helicopter activity recovered slightly in 2009/10. Helicopter activity increased by 6% between 2008/09 and 2009/10 but still remained 23.50 percent below 2006/07 levels.

The large decrease in aircraft activity from the 2007/08 onwards could in part be explained by the global recession reducing the number of international visitors and restricting the expenditure of those who did visit, thereby decreasing demand for flights. A period of very high fuel prices in 2008 may also have contributed to the decline in the number of flights. Poor weather and flying conditions in the season could also potentially cause a decrease in the number of flights within a season, particularly if it occurred in a peak visitor month. The slight recovery in helicopter activity in the 2009/10 was likely caused by the recovery in tourist numbers to the area in this season (see Figure 8). Fixed-wing aircraft flights did not experience a similar recovery and flight numbers continued to decline in the 2009/10 season. The cause of the variance in the recovery of flights between fixed-wing aircraft and helicopter is unknown.

## Annoyance at fixed-wing aircraft activity

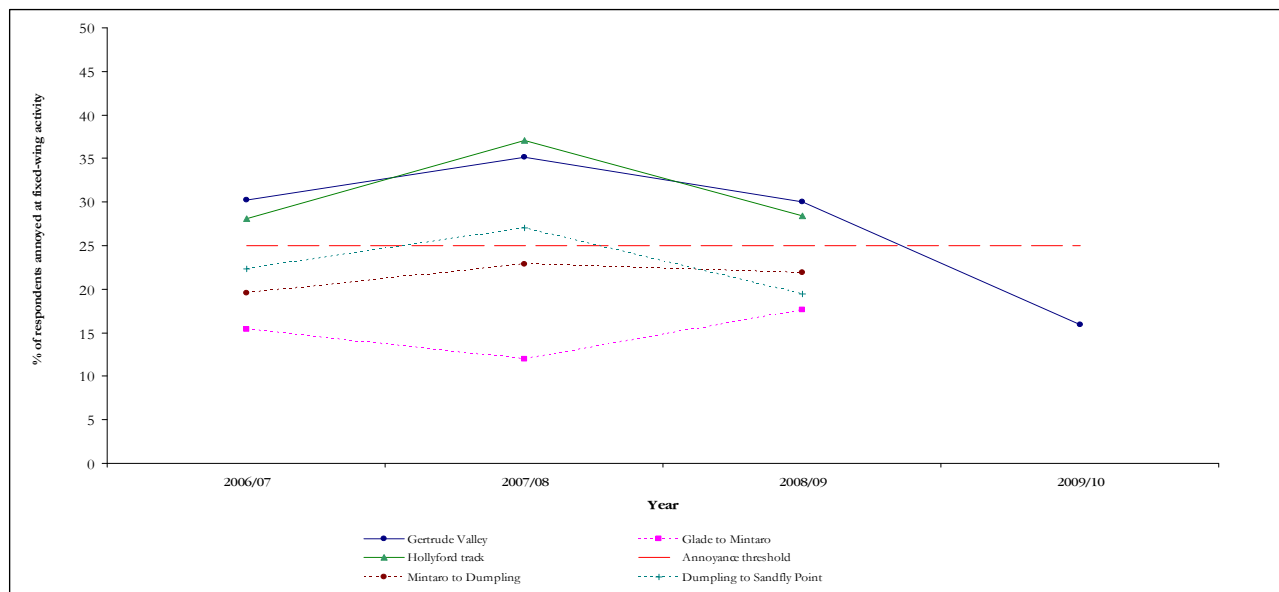


FIGURE 9: LONGITUDINAL MONITORING OF VISITOR SITES SHOWING THE % OF RESPONDENTS WHO WERE ANNOYED BY FIXED-WING AIRCRAFT ACTIVITY

Several sites have longitudinal datasets on visitor annoyance with aircraft for three or more years which can be used to assess trends in visitor annoyance in the Milford area. It is important to place emphasis on the analysis of long term trends, as year-to-year differences are often heavily influenced by seasonal events such as weather.

Figure 9 above displays the data series for levels of annoyance with fixed-wing aircraft activity from 2006/07 through to 2009/10. Gertrude Valley contains the longest dataset (four years) and it shows a consistent declining trend in annoyance levels since the 2007/08 season. For the first time since the monitoring programme began, annoyance at fixed-wing aircraft activity in the Gertrude Valley fell below the 25% management threshold (2009/10 season). The decrease of 14.1 percentage points between the 2008/09 and 2009/10 seasons has a high level of statistical significance<sup>1</sup>.

Annoyance with fixed-wing aircraft on the Hollyford track also experienced a statistically significant decrease of 8.7 percentage points between the 2007/08 and 2008/09 seasons<sup>2</sup>. As the Hollyford track was not monitored in the 2009/10 season, it is unclear whether annoyance levels with fixed-wing aircraft have fallen further and are now below the annoyance threshold. Judging by the trends shown at the Gertrude Valley and the continued decline in the number of landings by fixed wing aircraft at Milford Aerodrome, it is possible that visitor annoyance at aircraft activity on the Hollyford track may now be below the 25% threshold. In order to confirm this, it is recommended that the Hollyford track is made a priority for the next visitor monitoring season.

Annoyance at fixed-wing aircraft on day four on the Milford track (Dumpling Hut to Sandfly Point) reduced by 7 percentage points between the 2007/08 and 2008/09 seasons. This change was statistically significant<sup>3</sup>. The Glade to Mintaro section of the Milford track (days one and two) was the only monitored site that experienced an increase (5.7 percentage points) in annoyance with fixed-wing aircraft activity in the 2008/09 season. This change was not statistically significant. Although the Milford track was not monitored in the 2009/10 season, like the Hollyford Track, trends from the 2009/10 monitoring data suggest that it is likely that 2009/10 annoyance levels at fixed-wing aircraft activity would have remained below the 25% management threshold.

1  $(\chi^2(2, n=374)=11.396; p<0.01)$

2  $(\chi^2(2, n=155)=9.421; p<0.05)$

3  $(\chi^2(2, n=893)=14.266; p<0.01)$

## Annoyance at helicopter activity

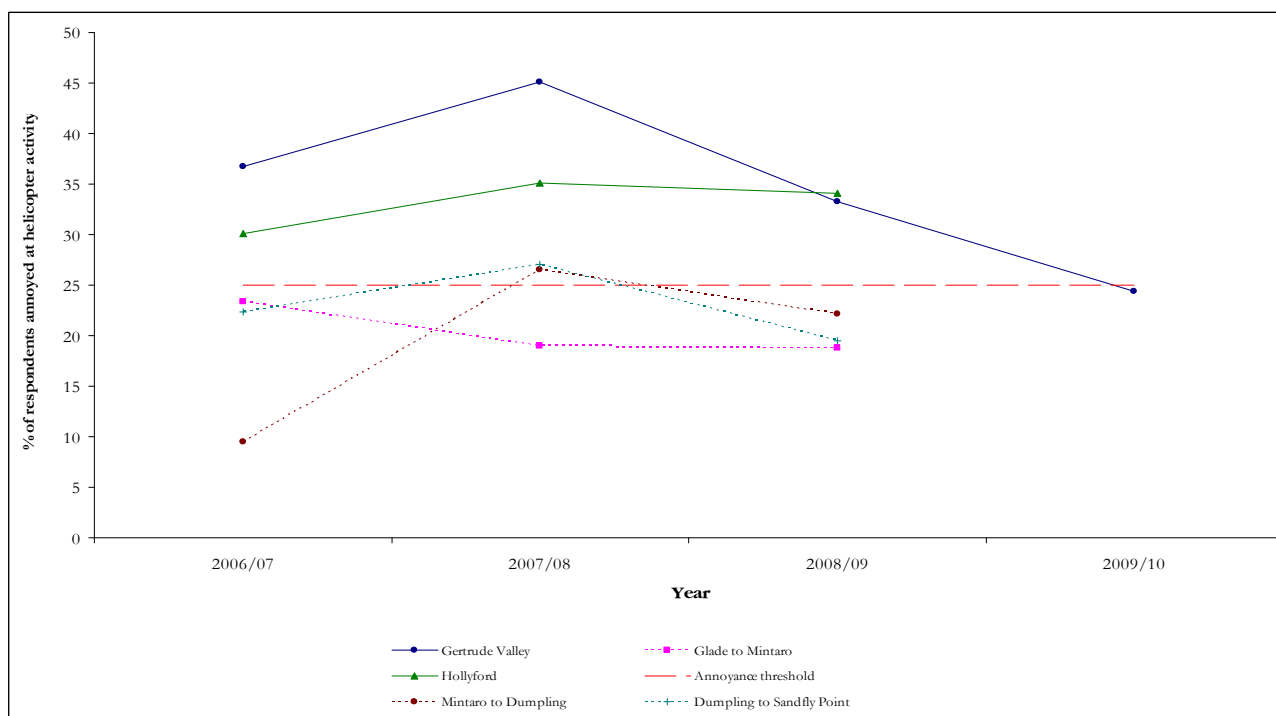


FIGURE 10: LONGITUDE MONITORING OF VISITOR SITES SHOWING THE % OF RESPONDENTS WHO WERE ANNOYED BY HELICOPTER ACTIVITY

Examining the long term trends based on the previous four seasons monitoring, annoyance at helicopter activity appears to be decreasing at all sites but to varying degrees (see Figure 9). In previous seasons respondents have reported a higher level of annoyance with helicopters than with fixed-wing aircraft (Harbrow 2006; 2007). This trend continued in 2008/09 and 2009/10. As the number of helicopter landings is considerably lower than the number of landings by fixed-wing aircraft but annoyance with helicopter activity is higher, it can be deduced that helicopters have a higher impact on visitors relative to fixed-wing aircraft. This may be due to helicopters exhibiting unique “impulsive” noise characteristics that are different from those produced by fixed-wing aircraft (Aircraft Industry Association, 2010).

The longitudinal dataset for Gertrude Valley shows there has been a continued decrease in annoyance with helicopter activity since the 2007/08 season (see Figure 9). In the 2008/09 season there was a decrease of 11.8 percentage points, which was a statistically significant change<sup>4</sup>. There was a further decrease of 8.9 percentage points in 2009/10 which was not statistically significant, which brought annoyance levels to 24.4% - marginally below the 25% management threshold. This is likely to be due to the substantial reduction in helicopter activity at Milford aerodrome (23.5% below 2006/07 the levels recorded in the 2006/07 monitoring period).

Annoyance with helicopters on the Hollyford Track decreased from 35.1% to 34.1%, this change had a high level of statistical significance<sup>5</sup>. The change in annoyance levels at the Hollyford track for both fixed-wing aircraft and helicopters show up as being statistically significant due to the large increases in the percentage of visitors who noticed aircraft.

Visitor annoyance with helicopters on the Milford Track was below the annoyance threshold in the 2008/09 season, but annoyance levels varied depending on the section of the track. In the 2008/09 season, annoyance with helicopters decreased on both the Mintaro to Dumpling and Dumpling to Sandfly Point sections of the track. Levels of annoyance decreased by 4.4 and 7.5 percentage points respectively. The reduction in annoyance on the last day of the track was statistically significant.<sup>6</sup>

Respondents at Lake Gunn showed very low levels of annoyance with aircraft activity when monitored during the 2009/10 season.

<sup>4</sup> ( $\chi^2(2, n=337)=7.040; p<0.05$ )

<sup>5</sup> ( $\chi^2(2, n=156)=12.415; p<0.01$ )

<sup>6</sup> ( $\chi^2(2, n=895)=11.262; p<0.01$ )

## Discussion of trends and likely contributors

Differences in annoyance levels with aircraft between monitoring sites are likely to be explained by four factors: the physical properties of the sound source (e.g. the frequency of overflights along with the intensity and other properties of the sounds emitted from aircraft); the characteristics of the physical environment; the ability of the listener to perceive the emitted sounds; and the listener's sensitivity to the activity (M. Harbrow, pers. comm).

People undertake recreational activities to achieve certain outcomes and goals. According to Goal Interference Theory (see Jacob and Shreyer, 1980) other visitor activities can impact and affect the ability of people to achieve their own desired outcomes and goals, resulting in a form of social conflict. Cultural values, social backgrounds, and past experiences all influence what outcomes and goals visitors pursue, as well as their tolerance towards other activities. The greater the degree of importance and specificity an activity and a place holds for an individual, the greater their susceptibility to annoyance by the interference (in this case, the sight and sounds of aircraft). For example, a visitor who has tramped in many remote places in the backcountry and is used to natural quiet will be more annoyed by the presence of aircraft than a first time tramp doing a beginner level tramp and who therefore does not have a level of expectation set from a previous experience.

Furthermore, visitors who commit time to a particular park experience are likely to be more sensitive to goal interference than visitors who invest less time visiting more accessible sites (Miller, 1999).

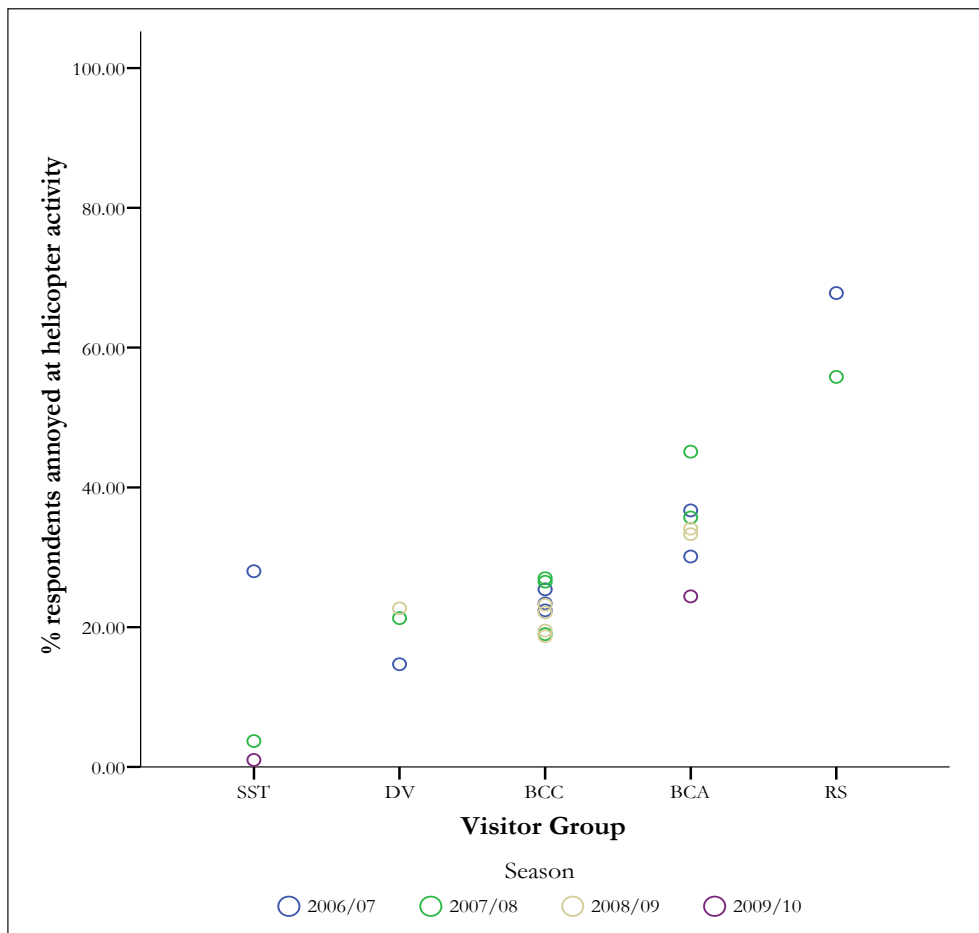
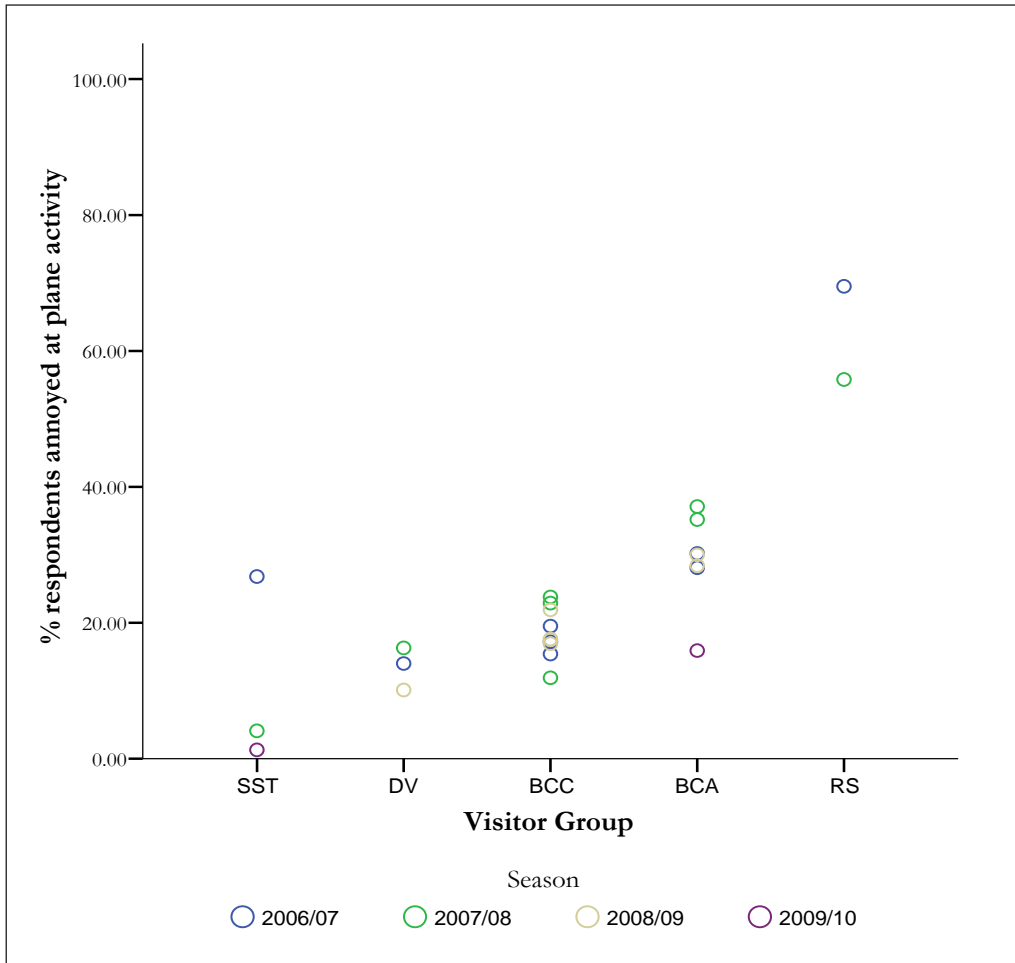


FIGURE 11: RESPONDENTS' ANNOYANCE WITH HELICOPTER ACTIVITY BY SITE VISITOR GROUP

Figures 11 and 12 below demonstrate Goal Interference Theory through displaying the relationship between site/visitor type and annoyance with aircraft activity. These graphs demonstrate a clear trend in that the more experienced the visitor group on the x axis, the higher the annoyance at aircraft activity. A high annoyance anomaly from an SST site in 2006/07 exists in both Figures 11 and 12. This is explained by this particular site (Milford foreshore walk) being located directly adjacent to Milford Aerodrome and is therefore subject to more intensive aircraft activity relative to other sites.

FIGURE 12: RESPONDENTS' ANNOYANCE WITH FIXED WING AIRCRAFT ACTIVITY BY SITE VISITOR GROUP



# Conclusions and recommendations for future monitoring and management

The 2008/09 and 2009/10 monitoring seasons have indicated that the impacts from aircraft activity around Milford have decreased. At the monitoring site with the longest dataset (Gertrude Valley), the 2009/10 season is the first season where visitor annoyance with aircraft has been under the 25% management threshold.

This is good news for the aircraft industry, the Department, and visitors; however, sites such as the Milford, Hollyford, and Gertrude Valley tracks still have annoyance levels that are close to the threshold which could easily be breached with only a slight increase in annoyance.

The decrease in annoyance seems primarily associated with the decrease in aircraft activity. As the annual numbers of aircraft flights is relatively volatile and is affected by factors such as the state of the economy, fuel prices and the domestic and international visitor flows to the region, it may only take one season of strong tourism growth in the region to see the annoyance threshold exceeded again.

For future monitoring programmes, the following recommendations are made:

- Gertrude Valley should continue to be monitored annually in order to maintain a longitudinal dataset.
- The Hollyford track should be monitored in the next season possible, as it is a more sensitive site due to the type of visitor it receives. The results of another season's monitoring would confirm whether aircraft annoyance is within acceptable levels.
- Guided walkers should be included in future monitoring on the Milford and Hollyford tracks.
- Lower priority should be given to monitoring day visitor and short stop traveller sites unless there is a specific trigger. This is due to general higher tolerance of aircraft activity from visitors at these sites.
- Irrespective of the Minister's decision on Milford Aerodrome the Department should continue to work with operators to develop voluntary solutions. Operators should continue to be encouraged to look for technological advances to decrease sounds emitted from aircraft, as well as to avoid overflying sensitive areas (e.g. BCA and RS sites).
- The Department should be aware of the potential for impacts from management flights, and where possible should avoid overflying sensitive visitor sites.
- The Department should support and have input into the Aircraft Industry Association code of conduct for operators in Milford and require concessionaires to operate under the code, as outlined in Implementation 23, section 5.5.2 of the Fiordland National Park Management Plan 2007.
- Respondents should be given the opportunity to identify particular locations where they were annoyed by aircraft over flights. This information could be mapped to indicate areas where visitors are most sensitive to aircraft activity. This would help inform the development of voluntary flight paths for operators.

# Acknowledgements

Thank you to Michael Harbrow for coordinating the visitor monitoring programme and analysing the results from previous visitor monitoring seasons.

Assistance with collecting, administering and interpreting the visitor surveys was gratefully received from Esther van Neuren and Susie Geh (Department of Conservation) Chris Visser and Ultimate Hikes.

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# Appendices

## Appendix 1: Visitor groups explained

The Recreational Opportunity Spectrum (ROS) describes and maps recreational opportunities and has been adopted nationally by the Department to aid in visitor and facility management. Using ROS, opportunities for outdoor recreation experiences are classified along a continuum of areas from urban to wilderness.

Based on the ROS assessment of recreational opportunities, seven distinct visitor groups can be identified –

- Short Stop Travellers (SST)
- Day Visitors (DV)
- Overnighters (ON)
- Backcountry Comfort Seekers (BCC)
- Backcountry Adventurers (BCA)
- Remoteness Seekers (RS)

Thrill Seekers (TS)

Although some visitors can belong to different groups at different times, at any one time visitors will be in one of these seven groups. There is not a perfect correlation between the visitor groups and the ROS classes, as all visitor groups (except backcountry comfort seekers) tend to use more than one ROS class.

The visitor groups applicable to this report are defined and described in the following tables.

### SHORT STOP TRAVELLERS (SST)

Setting and accessibility	This group uses the “natural edge” (for up to one hour’s duration) along main access routes as part of a stop along a journey to a destination. Sites are located beside – highways, including the main tourism highways local access roads which are used predominantly by domestic visitors.  High vehicle accessibility with visits of a short duration of up to one hour’s length or associated with lunch/cup of tea break/toilet stop/stretch of the legs or a visit to a natural attraction
Activities undertaken	Seeking activities of a passive to mildly active nature such as picnicking, photography, sightseeing, nature appreciation and short walks.
Experience sought/ degree of risk	Seeking an “instant immersion” in nature experience, associated with a high degree of scenic value or historical interest. Low risk experience associated with safe facilities.
Facilities/ services sought	Seeking a high standard of facilities and services, including car parks, toilets, easy tracks of short duration that cater for all ages and most abilities, picnic facilities and orientation/interpretation signs about the location.
Make-up of visitors and visitor numbers	Represented by both domestic and international visitors including free and independent visitors. Sites used by short stop travellers receive high use compared with sites used by the other visitor groups.
Projected use	Because of the expected large increase in international visitors there will be a corresponding increasing demand for this type of facility/service in this setting, particularly along main tourism highways.

## DAY VISITORS (DV)

Setting and accessibility	<p>This group uses a wide range of settings from urban fringe to backcountry walk-in. Day visits range from one hour up to a full day (see SST). This group often uses sites that are access points for the backcountry such as roadends, easy day walks or scenic attractions. They also visit the coast or islands.</p> <p>High vehicle accessibility associated with a range of road standards, from gravel through to tar seal, and can involve significant travelling time to get there. Tracks used by this group are of a standard that enable use by relatively inexperienced visitors with a low level of skill.</p>
Activities undertaken	<p>Visits are often associated with a family or group outing or a specific recreational activity. Two distinct types of activities may occur at these sites:</p> <p>a) those activities such as picnicking and swimming;</p> <p>b) activities such as walking along easy day tracks.</p> <p>Water is often a focus for the visit, be it at the coast, lakes or rivers.</p>
Experience sought/ degree of risk	<p>Seeking experiences in a natural (or rural) setting with a sense of space and freedom. This group seeks an outdoor experience with a low level of risk, and safe facilities.</p>
Facilities/ services sought	<p>Seeking a high standard of facilities and services, including carparks, wharves, boat ramps, toilets, tracks, picnic facilities, on-site orientation/ interpretation signs and also pre visit information about activities that are possible and features of the site.</p>
Make-up of visitors and visitor numbers	<p>Sites used by day visitors receive medium to high use compared with sites used by the other visitor groups. This group uses two major types of sites –</p> <ul style="list-style-type: none"> <li>• sites that are used predominantly by non-locals, both domestic and international visitors</li> <li>• sites used largely by visitors from local communities, many of whom make repeat visits.</li> </ul>
Projected use	<p>International visitor numbers are expected to increase greatly whereas domestic visitor numbers will increase more slowly.</p>

## BACKCOUNTRY COMFORT SEEKERS (BCC)

Setting and accessibility	<p>Natural setting (backcountry walk-in) with generally the only modification being the facilities provided. Largely foot access apart from where air and boat access is permitted. Often requires and has good links with transport infrastructure.</p>
Activities undertaken	<p>The major activity undertaken is tramping on the major tracks, with most trips taking 2 to 5 days.</p>
Experience sought/ degree of risk	<p>Seeking an outdoor experience in a backcountry environment that has low risk due to the provision of safe, comfortable facilities. To ensure a safe and comfortable experience this group sometimes uses guided or concessionaire operations. For many this may be their first introduction to the New Zealand backcountry.</p>
Facilities/ services sought	<p>Seeking a high standard of facilities and services, including carparks, wharves, boat ramps, toilets, tracks, picnic facilities, on-site orientation/ interpretation signs and also pre visit information about activities that are possible and features of the site.</p>
Make-up of visitors and visitor numbers	<p>Sites used by day visitors receive medium to high use compared with sites used by the other visitor groups. This group uses two major types of sites –</p> <ul style="list-style-type: none"> <li>• sites that are used predominantly by non-locals, both domestic and international visitors</li> <li>• sites used largely by visitors from local communities, many of whom make repeat visits.</li> </ul>
Projected use	<p>International visitor numbers are expected to increase greatly whereas domestic visitor numbers will increase more slowly.</p>

#### BACKCOUNTRY ADVENTURERS (BCA)

Setting and accessibility	Natural setting (backcountry walk-in or remote) with basic facilities. Access is largely on foot except where air or boat access is permitted. Foot access is on tramping tracks or routes.
Activities undertaken	Visits generally range from 2 to 7 days (sometimes longer), but also include some day visits. Backcountry adventurers undertaking day visits can range further into the backcountry but do not require the standard of facilities sought by the day visitor group. Activities include tramping, hunting, fishing, mountaineering, cross-country skiing, rafting, kayaking and mountain biking; activities with a high degree of self-reliance.
Experience sought/ degree of risk	The traditional New Zealand backcountry experience. This group has a higher level of backcountry skills and experience than backcountry comfort seekers. They seek an experience that has challenge and a sense of freedom and they accept a degree of risk and discomfort.
Facilities/ services sought	Require only basic facilities maintained to appropriate standards (for example, huts, tracks, tent sites, essential bridges, routemarkers, limited signs). Seek pre-visit information to help plan their trips, including maps, information on snow/ weather conditions, hut tickets and route guides. They are particularly interested in information about transport options and access restrictions.
Make-up of visitors and visitor numbers	Backcountry adventurers are generally young, male New Zealanders. It is difficult to estimate the numbers in this diverse and widely dispersed backcountry adventurer group.
Projected use	Because this group is made up mostly of New Zealanders, numbers are expected to increase only slowly. Potential growth in some areas may occur from international visitors and New Zealanders seeking alternatives to higher use tracks.

#### REMOTENESS SEEKERS (RS)

Setting and accessibility	Natural setting (remote or wilderness). Contains few or no facilities. Access is largely on foot except where air or boat access is permitted. Foot access to the edge of remote/wilderness areas is usually by tramping track or route.
Activities undertaken	Visits range from 3 to 7 days (or longer). The main activities are tramping, hunting, mountaineering, cross-country skiing, rafting, all require the highest degree of self reliance.
Experience sought/ degree of risk	Seeking a wilderness experience with limited interaction with other parties. Seek the challenge and complete sense of freedom that comes from prolonged contact with wild nature. Because of their high skill level and experience, this group accepts the higher level of risk associated with travelling through remote wilderness areas.
Facilities/ services sought	Seek no facilities once in remote country. Seek previsit information to help plan their trips, including maps, snow/weather conditions and route guides.
Make-up of visitors and visitor numbers	This group is made up of fit, experienced, predominantly male New Zealanders. Compared with other visitor groups, remoteness seekers numbers are very low.
Projected use	Numbers are expected to increase slowly. Although remote experience has international appeal, it is difficult to assess the growth of overseas visitors seeking remoteness.

## Appendix 2: Gertrude Valley Visitor Survey 2008/09

Start time: \_\_\_\_\_

Finish time: \_\_\_\_\_



Department of Conservation  
*Te Papa Atawhai*

Date

### Gertrude Valley Visitor Survey 2008/09

**This survey will help the Department of Conservation manage the Gertrude Valley Track. Your help in completing this form is greatly appreciated. All responses are anonymous**

**First please tell us a little about yourself and your group**

1. Age: 16-19   
20-29   
30-39   
40-49   
50-59   
60-69   
70+
2. Gender Male   
Female
3. Where do you normally live? \_\_\_\_\_
4. If you live in NZ, please tell us where \_\_\_\_\_

5. a) Who are you visiting the Gertrude Valley Track with today? (tick one box)

Independent  Club / organisation   
Commercial / guided group  School / educational group   
Other \_\_\_\_\_

- b) How many people are in this group (Including yourself and any guides)? \_\_\_\_\_

6. Have you visited the Gertrude Valley Track before today?

Yes  No

If YES, how many times? \_\_\_\_\_

**Now we'd like you to tell us about your experiences on the track**

7. What have you liked the **most** about your visit to the Gertrude Valley Track?

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8. What have you liked the **least** about your visit to the Gertrude Valley Track?

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9. Thinking about your visit to the Gertrude Valley Track today, how much do you <u>agree or disagree</u> that...?	Strongly disagree							Strongly agree
I felt safe walking the track	1	2	3	4	5	6	7	
I was able to enjoy nature and scenery	1	2	3	4	5	6	7	
I was able to experience natural peace and quiet	1	2	3	4	5	6	7	
I was able to experience solitude	1	2	3	4	5	6	7	
I was able to relax and reduce stress	1	2	3	4	5	6	7	
I experienced isolation and remoteness	1	2	3	4	5	6	7	
The area was natural and unmodified	1	2	3	4	5	6	7	
The track suited my level of experience and fitness	1	2	3	4	5	6	7	
The track was adequately marked	1	2	3	4	5	6	7	
The track was challenging	1	2	3	4	5	6	7	

10. How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial / guided groups				
• Meeting large groups				

11 a) Was the Gertrude Valley Track as busy as you expected? (tick one box)

- No, it was much busier     No, it was busier     Yes, it was as busy as I expected
- No, it was less busy     No, it was much less busy     I didn't know what to expect

b) Overall, what effect did the number of other visitors you encountered on the Gertrude Valley Track have on your experience? (tick one box)

- It had no effect
- It enhanced the experience
- It detracted from the experience
- It both enhanced and detracted from the experience
- I don't know

12 a) On a scale of 1 to 10, where 1 is "very disappointing" and 10 is "couldn't have been better", how would you rate your experience on this trip? (circle one number)

<b>Very disappointing</b>											<b>Couldn't have been better</b>
1	2	3	4	5	6	7	8	9	10		

b) If you did not rate your trip as 10 out of 10, what would have made it a 10?

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13. Is there anything else you would like to tell us about your visit to Fiordland National Park?

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*Thank you for your time!*  
*If you have any feedback about this survey please contact Michael Harbrow,  
Southland Conservancy, Department of Conservation, PO Box 743, Invercargill.  
Ph. 03-211-2400. Email: [mharbrow@doc.govt.nz](mailto:mharbrow@doc.govt.nz)*

# Appendix 3: Gertrude Valley Visitor Survey 2009/10

Start time: \_\_\_\_\_

Finish time: \_\_\_\_\_



Department of Conservation  
*Te Papa Atawhai*

Date

## Gertrude Valley Visitor Survey 2009/10

**This survey will help the Department of Conservation manage the Gertrude Valley Track. Your help in completing this form is greatly appreciated. All responses are anonymous**

### First please tell us a little about yourself and your group

1. Age: 16-19   
20-29   
30-39   
40-49   
50-59   
60-69   
70+
2. Gender Male   
Female
3. Where do you normally live? \_\_\_\_\_
4. If you live in NZ, please tell us where \_\_\_\_\_

5. a) Who are you visiting the Gertrude Valley Track with today? (Tick one box)

Independent  Club / organisation   
Commercial / guided group  School / educational group   
Other \_\_\_\_\_

- b) How many people are in this group (Including yourself and any guides)? \_\_\_\_\_

6. Have you visited the Gertrude Valley Track before today?

Yes  No

If YES, how many times? \_\_\_\_\_

### Now we'd like you to tell us about your experiences on the track

7. How long was your visit to the Gertrude Valley Track? (Tick one box)

Less than 1 hour  1-2 hours  3-5 hours  More than 5 hours

8. Thinking about your visit to the Gertrude Valley Track today, how much do you <u>agree or disagree</u> that...?	Strongly disagree						Strongly agree
I felt safe walking the track	1	2	3	4	5	6	7
I experienced isolation and remoteness	1	2	3	4	5	6	7
I was able to enjoy nature and scenery	1	2	3	4	5	6	7
I was able to experience natural peace and quiet	1	2	3	4	5	6	7
I was able to experience solitude	1	2	3	4	5	6	7
I was able to relax and reduce stress	1	2	3	4	5	6	7
The area was natural and unmodified	1	2	3	4	5	6	7
The information I read / heard about the track before my visit was accurate	1	2	3	4	5	6	7
The track suited my level of experience and fitness	1	2	3	4	5	6	7
The track was adequately marked	1	2	3	4	5	6	7
The track was challenging	1	2	3	4	5	6	7

9. How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting commercial / guided groups				
• Meeting large groups				

10. Did you feel crowded at all at during your visit to the Gertrude Valley Track?

(circle one number)

1	2	3	4	5	6	7	8	9
Not at all Crowded		Slightly Crowded			Moderately Crowded			Extremely Crowded

11. Apart from your own group, how many other visitors would it be okay to see in one hour on this walk before it reduced the enjoyment of your visit?

Please circle one number or choose one statement

0	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47	48	49	50	More than 50
I don't know				<input type="checkbox"/>	Meeting other visitors would not affect my visit							<input type="checkbox"/>

12 a) On a scale of 1 to 10, where 1 is “*very disappointing*” and 10 is “*couldn't have been better*”, how would you rate your experience on this trip? (circle one number)

	<b>Very disappointing</b>											<b>Couldn't have been better</b>
	1	2	3	4	5	6	7	8	9	10		

b) If you did not rate your trip as 10 out of 10, what would have made it a 10?

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*Thank you for your time!*

*If you have any feedback about this survey please contact Michael Harbrow, Southland Conservancy, Department of Conservation, PO Box 743, Invercargill. Ph. 03-211-2400. Email: [mharbrow@doc.govt.nz](mailto:mharbrow@doc.govt.nz)*

# Appendix 4: Hollyford Track Visitor Survey 2008/09



Department of Conservation  
Te Papa Atawhai

Date

## Hollyford Track Visitor Survey 2008/09

**This survey will help the Department of Conservation manage the Hollyford Track. Your help in completing this form is greatly appreciated. All responses are anonymous.**

### First please tell us a little about yourself and your group

1. Age: 16-19  20-29  30-39  40-49  50-59  60-69  70+
2. Gender Male  Female
3. Where do you normally live? \_\_\_\_\_
4. If you live in NZ, please tell us where \_\_\_\_\_

5. a) Who are you visiting the Hollyford Track with today? (Please tick (☑) ONE box)

- Independent  Club/ organisation   
 Commercial/ guided group  School / educational group   
 Other \_\_\_\_\_

- b) How many people are in this group (including yourself and any guides)? \_\_\_\_\_

- c) How many people in your group are aged less than 18 years? \_\_\_\_\_

6. a) Have you walked the Hollyford Track before this visit?

Yes  No

- b) If YES, how many times? \_\_\_\_\_

7. How many **overnight** tramping or hiking trips have you completed before this visit (including overseas)?

0	1-5	6-10	11-20	21-50	More than 50
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Now we'd like you to tell us about your experiences on the track**

<b>8. How much do you agree or disagree that...?</b>	<b>Strongly disagree</b>						<b>Strongly agree</b>
I felt safe walking the Hollyford Track	1	2	3	4	5	6	7
I was able to enjoy nature and scenery	1	2	3	4	5	6	7
I was able to experience natural peace and quiet	1	2	3	4	5	6	7
I was able to experience solitude	1	2	3	4	5	6	7
I was able to learn about the history of the area.	1	2	3	4	5	6	7
I was able to relax and reduce stress.	1	2	3	4	5	6	7
The area was natural and unmodified	1	2	3	4	5	6	7
The track suited my level of experience and fitness	1	2	3	4	5	6	7
The track was adequately marked	1	2	3	4	5	6	7
The track was challenging	1	2	3	4	5	6	7

9. a) How did the activities of other visitors affect your visit?

	Did not notice this	Noticed this but it didn't annoy me	Noticed this and it annoyed me a little	Noticed this and it annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing motorised boats				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				
• Meeting large groups				

b) If you were annoyed by the activities of other visitors please give details

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10. Did you feel crowded at all during your visit to the Hollyford Track?

a) On the track?

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

b) In the huts?

1	2	3	4	5	6	7	8	9
Not at all crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

c) If you felt crowded, where did this happen? (please be specific)

\_\_\_\_\_

\_\_\_\_\_

11. a) Did you travel by jet boat during your visit to the Hollyford Track?

Yes  No

b) Did you travel by aircraft during your visit to the Hollyford Track?

Yes  No

12. Where did you **stay the night** on the Hollyford Track? (Indicate number of nights)

	Number of nights		Number of nights
1. Hidden Falls Hut		6. Martins Bay Hut	
2. Alabaster Hut		7. Pyke Lodge	
3. McKerrow Island Hut		8. Martins Bay Lodge	
4. Demon Trail Hut		9. Olivine hut	
5. Hokuri Hut		10. Big Bay Hut	

13. a) Did you camp during your visit to the Hollyford Track?

Yes  No

b) Where did you camp? \_\_\_\_\_

**14 a)** What did you think about the services and facilities provided on the Hollyford Track?  
 (circle one number on each line)

	Very poor							Excellent	Did not use/ see
• Huts	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Hut wardens	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Maps and brochures	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Signs and information panels	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Toilets	1	2	3	4	5	6	7	<input type="checkbox"/>	
• Tracks	1	2	3	4	5	6	7	<input type="checkbox"/>	

b) If you were unhappy with any of the facilities and services on the Hollyford Track please give details.

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**15.** What did you like the most about your visit to the Hollyford Track?

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**16. a)** On a scale of 1 to 10, where 1 is *very disappointing* and 10 is *couldn't have been better*, how would you rate your experience on this trip? (circle one number)

Very disappointing      1      2      3      4      5      6      7      8      9      10      Couldn't have been better

b) If you did not rate your trip as 10 out of 10, what would have made it a 10?

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*Thank you for your time!*

*If you have any feedback about this survey please contact Michael Harbrow,  
 Southland Conservancy, Department of Conservation, PO Box 743, Invercargill.  
 Ph. 03-211-2400. Email: [mharbrow@doc.govt.nz](mailto:mharbrow@doc.govt.nz)*

# Appendix 5: Lake Gunn Nature Walk Survey 2009/10



Department of Conservation  
*Te Papa Atawhai*

Date

## Lake Gunn Nature Walk Survey 2009/10

**This survey will help the Department of Conservation manage the Lake Gunn Nature Walk. Your help in completing this form is greatly appreciated. All responses are anonymous**

**First please tell us a little about yourself and your group**

1. Age: 16-19   
20-29   
30-39   
40-49   
50-59   
60-69   
70+

2. Gender Male   
Female

3. Where do you normally live? \_\_\_\_\_

4. If you live in NZ, please tell us where \_\_\_\_\_

5. a) Do you have a physical disability?

Yes  No

b) If you answered yes, did you have any problems using the Lake Gunn Nature Walk?

Yes  No

6. a) Who are you visiting the Lake Gunn Nature Walk with today? (Tick one box)

Independent  Club / organisation   
Commercial / guided group  School / educational group   
Other \_\_\_\_\_

b) How many people are in this group (Including yourself and any guides)? \_\_\_\_\_

7. How many people in your group are aged less than 18 years of age? \_\_\_\_\_

8. Have you visited the Lake Gunn Nature Walk before today?

Yes  No

If YES, how many times? \_\_\_\_\_

**Now we'd like you to tell us about your experiences on the track**

9. Thinking about your visit to the Lake Gunn Nature Walk today, how much do you <u>agree or disagree</u> that...?	Strongly disagree						Strongly agree
I felt safe walking the track	1	2	3	4	5	6	7
I was able to enjoy nature and scenery	1	2	3	4	5	6	7
I was able to experience natural peace and quiet	1	2	3	4	5	6	7
I was able to learn about the area's plants and animals	1	2	3	4	5	6	7
I was able to relax and reduce stress	1	2	3	4	5	6	7
The area was natural and unmodified	1	2	3	4	5	6	7
The information I read / heard about the track before my visit was accurate	1	2	3	4	5	6	7
The track suited my level of experience and fitness	1	2	3	4	5	6	7
The track was adequately marked	1	2	3	4	5	6	7
The track was easy	1	2	3	4	5	6	7

**10. How did the activities of other visitors affect your visit?**

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Behaviour of other visitors				
• Hearing or seeing helicopters				
• Hearing or seeing motorised vehicles				
• Hearing or seeing planes				
• Meeting commercial / guided groups				
• Meeting large groups				

**11. Did you feel crowded at all at during your visit to the Lake Gunn Nature Walk?**

(circle one number)

1	2	3	4	5	6	7	8	9
<b>Not at all Crowded</b>		<b>Slightly Crowded</b>			<b>Moderately Crowded</b>		<b>Extremely Crowded</b>	



# Appendix 6: Milford Track Visitor Survey 2008/09



Department of Conservation  
*Te Papa Atawhai*

Date: \_\_\_\_\_

## Milford Track Visitor Survey 2008/09

ID: \_\_\_\_\_

This survey will help the Department of Conservation manage the Milford Track. Your help in completing this form is greatly appreciated. All responses are anonymous.

Details about yourself																							
<p>1. Are you:            Female <input type="checkbox"/>    Male <input type="checkbox"/></p> <p>2. What is your age? ____ years</p> <p>3. What is your occupation? _____</p> <p>4. Your usual place of residence  If from OVERSEAS please state country _____</p> <p>If NEW ZEALAND, please state your town or city _____</p> <p>If you are a NEW ZEALAND RESIDENT, go to question 7</p>	<p>b) If YES, how many times _____</p> <p>8. Have you walked any of the following tracks before today?</p> <table style="width: 100%;"> <tr> <td>Abel Tasman Coast Track <input type="checkbox"/></td> <td>Kepler Track <input type="checkbox"/></td> </tr> <tr> <td>Greenstone / Caples Track <input type="checkbox"/></td> <td>Lake Waikaremoana Track <input type="checkbox"/></td> </tr> <tr> <td>Heaphy Track <input type="checkbox"/></td> <td>Rakiura Track <input type="checkbox"/></td> </tr> <tr> <td>Hollyford Track <input type="checkbox"/></td> <td>Routeburn Track <input type="checkbox"/></td> </tr> <tr> <td>Hump Ridge Track <input type="checkbox"/></td> <td>Tongariro Northern Circuit <input type="checkbox"/></td> </tr> </table> <p>9. How many overnight tramping or hiking trips have you completed before this visit (including overseas)?</p> <table style="width: 100%;"> <tr><td>0</td><td><input type="checkbox"/></td></tr> <tr><td>1-5</td><td><input type="checkbox"/></td></tr> <tr><td>6-10</td><td><input type="checkbox"/></td></tr> <tr><td>11-20</td><td><input type="checkbox"/></td></tr> <tr><td>21-50</td><td><input type="checkbox"/></td></tr> <tr><td>More than 50</td><td><input type="checkbox"/></td></tr> </table>	Abel Tasman Coast Track <input type="checkbox"/>	Kepler Track <input type="checkbox"/>	Greenstone / Caples Track <input type="checkbox"/>	Lake Waikaremoana Track <input type="checkbox"/>	Heaphy Track <input type="checkbox"/>	Rakiura Track <input type="checkbox"/>	Hollyford Track <input type="checkbox"/>	Routeburn Track <input type="checkbox"/>	Hump Ridge Track <input type="checkbox"/>	Tongariro Northern Circuit <input type="checkbox"/>	0	<input type="checkbox"/>	1-5	<input type="checkbox"/>	6-10	<input type="checkbox"/>	11-20	<input type="checkbox"/>	21-50	<input type="checkbox"/>	More than 50	<input type="checkbox"/>
Abel Tasman Coast Track <input type="checkbox"/>	Kepler Track <input type="checkbox"/>																						
Greenstone / Caples Track <input type="checkbox"/>	Lake Waikaremoana Track <input type="checkbox"/>																						
Heaphy Track <input type="checkbox"/>	Rakiura Track <input type="checkbox"/>																						
Hollyford Track <input type="checkbox"/>	Routeburn Track <input type="checkbox"/>																						
Hump Ridge Track <input type="checkbox"/>	Tongariro Northern Circuit <input type="checkbox"/>																						
0	<input type="checkbox"/>																						
1-5	<input type="checkbox"/>																						
6-10	<input type="checkbox"/>																						
11-20	<input type="checkbox"/>																						
21-50	<input type="checkbox"/>																						
More than 50	<input type="checkbox"/>																						
Your stay in New Zealand																							
<p>5. How many days are you spending in New Zealand on this visit? ____ days</p> <p>6. Before this visit, how many times have you visited New Zealand?</p> <table style="width: 100%;"> <tr><td>None this is my first visit</td><td><input type="checkbox"/></td></tr> <tr><td>1-5 times</td><td><input type="checkbox"/></td></tr> <tr><td>6 times or more</td><td><input type="checkbox"/></td></tr> </table>	None this is my first visit	<input type="checkbox"/>	1-5 times	<input type="checkbox"/>	6 times or more	<input type="checkbox"/>	<th style="background-color: #cccccc;">About your travelling group</th>	About your travelling group															
None this is my first visit	<input type="checkbox"/>																						
1-5 times	<input type="checkbox"/>																						
6 times or more	<input type="checkbox"/>																						
<th style="background-color: #cccccc;">Your previous experience</th>	Your previous experience	<p>10. How many people are in your group (including yourself)? _____</p> <p>11. Who are you visiting the Milford Track with today?</p> <table style="width: 100%;"> <tr><td>Independent</td><td><input type="checkbox"/></td></tr> <tr><td>Club / organisation</td><td><input type="checkbox"/></td></tr> <tr><td>School / educational group</td><td><input type="checkbox"/></td></tr> <tr><td>Other</td><td><input type="checkbox"/></td></tr> </table> <p>12. How many people in your group are aged less than 18 years? _____</p>	Independent	<input type="checkbox"/>	Club / organisation	<input type="checkbox"/>	School / educational group	<input type="checkbox"/>	Other	<input type="checkbox"/>													
Independent	<input type="checkbox"/>																						
Club / organisation	<input type="checkbox"/>																						
School / educational group	<input type="checkbox"/>																						
Other	<input type="checkbox"/>																						
<p>7 a) Have you walked the Milford Track before this visit?</p> <p>Yes <input type="checkbox"/>    No <input type="checkbox"/></p>																							

## Planning your trip

13. How long ago did you decide to walk the Milford Track?

- Within the past week                       About 2-6 months ago  
 About 1-4 weeks ago                       More than six months ago

14. Please tell us about the information you used to plan your visit to the Milford Track.

	a. Source referred to (tick all that apply)	b. How useful? (circle one number per line)				
		Not useful				Very useful
<input type="checkbox"/>	Friends and relatives / word of mouth	1	2	3	4	5
<input type="checkbox"/>	Guidebooks ( <i>which?</i> )	1	2	3	4	5
<input type="checkbox"/>	Milford Track brochure	1	2	3	4	5
<input type="checkbox"/>	DOC Te Anau visitor centre	1	2	3	4	5
<input type="checkbox"/>	Other DOC visitor centre ( <i>which?</i> )	1	2	3	4	5
<input type="checkbox"/>	DOC Website	1	2	3	4	5
<input type="checkbox"/>	Other ( <i>Please specify</i> )	1	2	3	4	5

15 a) How did you book your visit to the Milford Track?

- Online through the DOC website                       Phone                       Fax  
 Email                       At the visitor centre                       Someone else booked for me

b) On a 1 to 5 scale please indicate your agreement with the following statements

	Strongly disagree				Strongly agree	Does not apply
The booking procedure was easy to follow	1	2	3	4	5	<input type="checkbox"/>
Information about cancelling or changing a booking was easy to understand	1	2	3	4	5	<input type="checkbox"/>
I received good service from visitor centre staff	1	2	3	4	5	<input type="checkbox"/>
The hut fees are good value for money	1	2	3	4	5	<input type="checkbox"/>

c) If you had any problems booking your walk on the Milford Track, please give details

\_\_\_\_\_

## Your experiences on the track

16 a) Was the Milford Track as busy as you expected?

- No, it was much busier                       No, it was busier                       Yes, it was as busy as I expected                        
 No, it was less busy                       No, it was much less busy                       I didn't know what to expect

b) Overall, what effect did the number of other visitors you encountered have on your experience on the Milford Track?

- It had no effect  
 It enhanced the experience  
 It detracted from the experience  
 It both enhanced and detracted from the experience

17. What did you think about the services and facilities provided on the Milford Track  
(Please circle one number per line)

	Very poor							Excellent	Did not see / use
	1	2	3	4	5	6	7		
Huts									
Hut wardens								<input type="checkbox"/>	
Maps & brochures								<input type="checkbox"/>	
Shelters								<input type="checkbox"/>	
Signs & information panels								<input type="checkbox"/>	
Toilets								<input type="checkbox"/>	
Tracks									

18. How did the activities of other visitors affect your visit?  
(please answer for each day of your trip).

- a) Day 1 and 2 from Glade Wharf to Mintaro Hut

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters.				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				

- b) Day 3 from Mintaro Hut over McKinnon Pass to Dumpling Hut.

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Meeting guided/ commercial overnight visitors				

- c) Day 4 from Dumpling Hut to Sandfly Point.

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing motorised boats				
• Hearing or seeing planes				
• Meeting day visitors				
• Meeting guided/ commercial overnight visitors				



# Appendix 7: Routeburn Track Day Walker Survey 2008/09



Department of Conservation  
Te Papa Atawhai

Date: \_\_\_\_\_

## Routeburn Track Day Walker Survey 2008/09

ID: \_\_\_\_\_

This survey will help the Department of Conservation manage the Routeburn Track. Your help in completing this form is greatly appreciated. All responses are anonymous.

Details about yourself	About your travelling group
<p>1. Are you:            Female <input type="checkbox"/>    Male <input type="checkbox"/></p> <p>2. What is your age? ____ years</p> <p>3. Your usual place of residence</p> <p>    If from OVERSEAS please state country</p> <p>    _____</p> <p>    If NEW ZEALAND, please state your town or city</p> <p>    _____</p> <p>    If you are a NEW ZEALAND RESIDENT, go to question 6</p>	<p>7. How many people are in your group (including yourself)? _____</p> <p>8. Who are you visiting the Routeburn Track with today?</p> <p>    Independent                            <input type="checkbox"/></p> <p>    Guided group                            <input type="checkbox"/></p> <p>    Club / organisation                    <input type="checkbox"/></p> <p>    School / educational group           <input type="checkbox"/></p> <p>    Other                                      <input type="checkbox"/></p> <p>9. How many people in your group are aged less than 18 years? _____</p> <p>10. How did you travel to the Routeburn road end today?</p> <p>    Car                                        <input type="checkbox"/></p> <p>    <input type="checkbox"/></p> <p>    Campervan                              <input type="checkbox"/></p> <p>    Bus / commercial transport</p> <p>    Other (please specify _____)</p>
Your stay in New Zealand	Planning your visit
<p>4. How many days are you spending in New Zealand on this visit? ____ days</p> <p>5. Before this visit, how many times have you visited New Zealand?</p> <p>    None this is my first visit            <input type="checkbox"/></p> <p>    1-5 times                                 <input type="checkbox"/></p> <p>    6 times or more                         <input type="checkbox"/></p>	<p>11 a) Why did you choose to visit the Routeburn Track today?</p> <p>_____</p> <p>_____</p> <p>b) How long ago did you decide to visit the Routeburn Track?</p> <p>_____</p>
Your previous experience	
<p>6 a) Have you visited the Routeburn Track before this visit?</p> <p>    Yes <input type="checkbox"/>    No <input type="checkbox"/></p> <p>b) If YES, how many times _____</p>	

12. Please tell us about the information you used to plan your visit to the Routeburn Track and indicate how useful those sources were on the 1 to 5 scale.

	a. Source referred to (tick all that apply)	b. How useful? (circle one number per line)				
		Not useful				Very useful
<input type="checkbox"/>	Friends and relatives / word of mouth	1	2	3	4	5
<input type="checkbox"/>	Guidebooks ( <i>which?</i> )	1	2	3	4	5
<input type="checkbox"/>	Routeburn Track brochure	1	2	3	4	5
<input type="checkbox"/>	DOC Queenstown visitor centre	1	2	3	4	5
<input type="checkbox"/>	Other DOC visitor centre ( <i>which?</i> )	1	2	3	4	5
<input type="checkbox"/>	DOC Website	1	2	3	4	5
<input type="checkbox"/>	Other ( <i>Please specify</i> )	1	2	3	4	5

**Your experiences on the track**

13. What, if anything, did you like about your visit to the Routeburn Track?

\_\_\_\_\_

14 a) Was the Routeburn Track as busy as you expected?

- No, it was much busier   
  No, it was busier   
  Yes, it was as busy as I expected   
   
 No, it was less busy   
  No, it was much less busy   
  I didn't know what to expect

b) What effect did the number of other visitors you encountered have on your experience on the Routeburn Track? (please tick one box per line)

	It had no effect	It enhanced the experience	It detracted from the experience	It both enhanced and detracted from the experience	I didn't visit this place
Car park at the Routeburn Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between the Routeburn Shelter and Routeburn Flats Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between Routeburn Flats and Routeburn Falls Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between Routeburn Falls Hut and the Harris Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At the Harris Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15) Overall, in relation to the number of people you encountered on the track, would you say there were:

Far too many	A few too many	About the right number	Room for more	Room for a lot more
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. How did the activities of other visitors affect your visit? (please tick one box per line)

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Guided day visitors				
• Unguided day visitors				
• Guided overnight visitors				
• Unguided overnight visitors (ie independent trampers)				

17. What did you think about the facilities provided on the Routeburn Track

(Please circle one number per line)

	Very poor						Excellent	Did not see / use
Maps & brochures	1	2	3	4	5	6	7	<input type="checkbox"/>
Shelters	1	2	3	4	5	6	7	<input type="checkbox"/>
Signs & information panels	1	2	3	4	5	6	7	<input type="checkbox"/>
Toilets	1	2	3	4	5	6	7	<input type="checkbox"/>
Tracks	1	2	3	4	5	6	7	

**Did you have a good time?**

18 a) On a scale of 1 to 10, where 1 is "very disappointing" and 10 is "couldn't have been better", how would you rate your experience on this trip? (circle one number)

Very disappointing      1      2      3      4      5      6      7      8      9      10      Couldn't have been better

b) If you did not rate your trip as 10 out of 10, what would have made it a 10?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

19. Is there anything else you would like to tell us about your visit to the Routeburn Track?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Thank you for your time!*

*If you have any feedback about this survey please contact Michael Harbrow, Southland Conservancy, Department of Conservation, PO Box 743, Invercargill. Ph. 03-211-2400. Email: [mharbrow@doc.govt.nz](mailto:mharbrow@doc.govt.nz)*

# Appendix 7: Routeburn Track Visitor Survey 2008/09



Department of Conservation  
*Te Papa Atawhai*

Date: \_\_\_\_\_

## Routeburn Track Visitor Survey 2008/09

ID: \_\_\_\_\_

This survey will help the Department of Conservation manage the Routeburn Track. Your help in completing this form is greatly appreciated. All responses are anonymous.

Details about yourself	
1. Are you: Female <input type="checkbox"/> Male <input type="checkbox"/>	
2. What is your age? ____ years	
3. What is your occupation? _____	
4. Your usual place of residence If from OVERSEAS please state country _____ If NEW ZEALAND, please state your town or city _____ If you are a NEW ZEALAND RESIDENT, go to question 7	
Your stay in New Zealand	
5. How many days are you spending in New Zealand on this visit? ____ days	
6. Before this visit, how many times have you visited New Zealand?	
None this is my first visit <input type="checkbox"/>	
1-5 times <input type="checkbox"/>	
6 times or more <input type="checkbox"/>	
Your previous experience	
7 a) Have you walked the Routeburn Track before this visit?	
Yes <input type="checkbox"/> No <input type="checkbox"/>	
	b) If YES, how many times _____
	8. Have you walked any of the following tracks before today?
	Abel Tasman Coast Track <input type="checkbox"/> Kepler Track <input type="checkbox"/>
	Greenstone / Caples Track <input type="checkbox"/> Lake Waikaremoana Track <input type="checkbox"/>
	Heaphy Track <input type="checkbox"/> Milford Track <input type="checkbox"/>
	Hollyford Track <input type="checkbox"/> Rakiura Track <input type="checkbox"/>
	Hump Ridge Track <input type="checkbox"/> Tongariro Northern Circuit <input type="checkbox"/>
	9. How many overnight tramping or hiking trips have you completed before this visit (including overseas)?
	0 <input type="checkbox"/>
	1-5 <input type="checkbox"/>
	6-10 <input type="checkbox"/>
	11-20 <input type="checkbox"/>
	21-50 <input type="checkbox"/>
	More than 50 <input type="checkbox"/>
About your travelling group	
	10. How many people are in your group (including yourself)? _____
	11. Who are you visiting the Routeburn Track with today?
	Independent <input type="checkbox"/>
	Guided group <input type="checkbox"/>
	Club / organisation <input type="checkbox"/>
	School / educational group <input type="checkbox"/>
	Other <input type="checkbox"/>
	12. How many people in your group are aged less than 18 years? _____

### Planning your trip

13 a) How did you book your visit to the Routeburn Track?

- At a DOC visitor centre       Email       Fax
- Online through the DOC website       Phone       Post / mail
- Someone else booked for me       Other \_\_\_\_\_

b) **Independent trampers:** please indicate your agreement with the following statements on the 1 to 5 scale

	Strongly disagree					Strongly agree	Does not apply
	1	2	3	4	5		<input type="checkbox"/>
The booking procedure was easy to follow	1	2	3	4	5		<input type="checkbox"/>
Information about cancelling or changing a booking was easy to understand	1	2	3	4	5		<input type="checkbox"/>
I received good service from visitor centre staff	1	2	3	4	5		<input type="checkbox"/>
The hut and campsite fees are good value for money	1	2	3	4	5		<input type="checkbox"/>

c) If you had any problems booking your walk on the Routeburn Track, please give details

\_\_\_\_\_

14. Why did you choose to walk the Routeburn Track?

\_\_\_\_\_

### Your experiences on the track

15. What, if anything, did you like about your visit to the Routeburn Track?

\_\_\_\_\_

16 a) Was the Routeburn Track as busy as you expected?

- No, it was much busier       No, it was busier       Yes, it was as busy as I expected
- No, it was less busy       No, it was much less busy       I didn't know what to expect

b) **Independent trampers:** What effect did the number of other visitors you encountered have on your experience at the huts and campsites on the Routeburn Track?

	It had no effect	It enhanced the experience	It detracted from the experience	It both enhanced and detracted from the experience	I didn't visit this facility
Routeburn Flats Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Routeburn Falls Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MacKenzie Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Howden Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At the campsites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) **All visitors:** What effect did the number of other visitors you encountered have on your experience at other places on the Routeburn Track? (please tick one box per line)

	It had no effect	It enhanced the experience	It detracted from the experience	It both enhanced and detracted from the experience	I didn't visit this place
Car park at the Routeburn Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between the Routeburn Shelter and Routeburn Flats Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between Routeburn Flats and Routeburn Falls Huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between Routeburn Falls Hut and the Harris Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At the Harris Shelter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between the Harris Shelter and Howden Hut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Between Howden Hut and the Divide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At Key Summit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At the Divide car park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d) Overall, in relation to the number of people you encountered on the track, would you say there were:

Far too many	A few too many	About the right number	Room for more	Room for a lot more
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. How did the activities of other visitors affect your visit? (please tick one box per line)

	Did not notice this	Noticed this but it didn't annoy me	Annoyed me a little	Annoyed me a lot
• Hearing or seeing helicopters				
• Hearing or seeing planes				
• Guided day visitors				
• Unguided day visitors				
• Guided overnight visitors				
• Unguided overnight visitors (ie independent trampers)				

18. **Independent trampers:** What did you think about the services and facilities provided on the Routeburn Track

(Please circle one number per line)

	Very poor						Excellent	Did not see / use
	1	2	3	4	5	6	7	<input type="checkbox"/>
Campsites	1	2	3	4	5	6	7	<input type="checkbox"/>
Huts	1	2	3	4	5	6	7	<input type="checkbox"/>
Hut wardens	1	2	3	4	5	6	7	<input type="checkbox"/>
Maps & brochures	1	2	3	4	5	6	7	<input type="checkbox"/>
Shelters	1	2	3	4	5	6	7	<input type="checkbox"/>
Signs & information panels	1	2	3	4	5	6	7	<input type="checkbox"/>
Toilets	1	2	3	4	5	6	7	<input type="checkbox"/>
Tracks	1	2	3	4	5	6	7	

**Did you have a good time?**

19 a) On a scale of 1 to 10, where 1 is “*very disappointing*” and 10 is “*couldn't have been better*”, how would you rate your experience on this trip? (circle one number)

Very disappointing      1      2      3      4      5      6      7      8      9      10      Couldn't have been better

b) If you did not rate your trip as 10 out of 10, what would have made it a 10?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. Is there anything else you would like to tell us about your visit to the Routeburn Track?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Thank you for your time!*

*If you have any feedback about this survey please contact Michael Harbrow,  
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