

## APPENDIX C5

### Review of stations which present serious sustainability issues - GLENBORRODALE

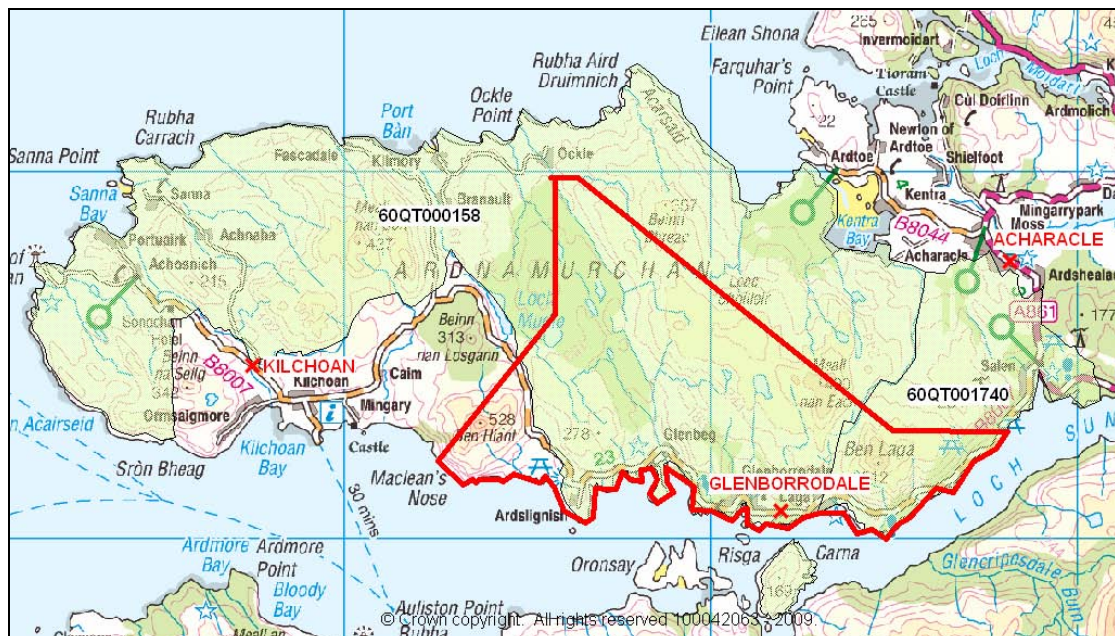
#### 1.0 Introduction

This report provides an analysis of Glenborrodale's performance based on statistics gathered over the 36 month Sustainability Review period extending from 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009. The report also examines operational activity for the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 following Glenborrodale's adoption of a community response unit (CRU) assigned a community fire safety (CFS) education and wildfire only intervention response status.

#### 1.1 Background

In performing an analysis of information appertaining to Glenborrodale, as much relevant data relating to the unit area as possible has been considered. As such information gathered has included: station personnel employed (including potential recruitment pool), operational incidents, risk information etc. Data from 2001 census provides the baseline demographic information for the study with subsequent reports and local intelligence being considered as appropriate.

**Figure 1** illustrates the census output areas associated with Glenborrodale highlighted in green. The traditional area to which the unit provides an immediate response to Wildfire incidents is indicated by the red boundary line. In June 2005 the unit was designated as a CRU a CFS education and wildfire only intervention response status. It was the intention that Glenborrodale should form part of an integrated Wildfire resource and as such be able to undertake wildfire fire fighting activities out with this traditional boundary.



*Figure 1 - Census output areas associated with Glenborrodale*

## **2.0 Summary of information.**

To date, eight Sustainability Review reports have been created extending over a 36 month period. The results from each have been widely circulated to operations command and district offices. The following **Tables** present a cumulative summary of the information supplied.

**Table 1 - Crew confidence – target 100%**

	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
2006 – 2007	Failed 1/1	No Calls	No Calls	No Calls
2007 – 2008		No Calls		No Calls
2008 – 2009		No Calls		No Calls

NB - six monthly reports produced for years 2007/08 and 2008/09

### **Turnout times**

It is important that emergency fire appliances and crews respond and mobilise to operational incidents promptly. Highlands and Islands Fire and Rescue Service (HIFRS) have established a benchmark figure of seven minutes<sup>1</sup>.

Glenborrodale unit was alerted once (in reporting year 2006/2007) to a wildfire incident in the Kilchoan station area as part of an integrated wildfire resource, however no crew members responded or mobilised.

**Table 2 - CFS activity – home fire safety checks (HFSC) performed**

	<b>Target for year</b>	<b>Total performed</b>
2006 – 2007	31 visits	0 visits
2007 – 2008	2 visits	0 visits
2008 – 2009	1 visit	0 visits

## **3.0 Analysis of Operational Incident Data**

Analysing incident performance data from the Sustainability Review information distributed to operations command and district offices, and considering other data sets relevant to station areas/performance, presents an overall view which could have a potential bearing on the sustainability of stations.

**Figure 2** below illustrates the emergency calls received by Glenborrodale from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 broken down into general incident types. There were two incidents in total.

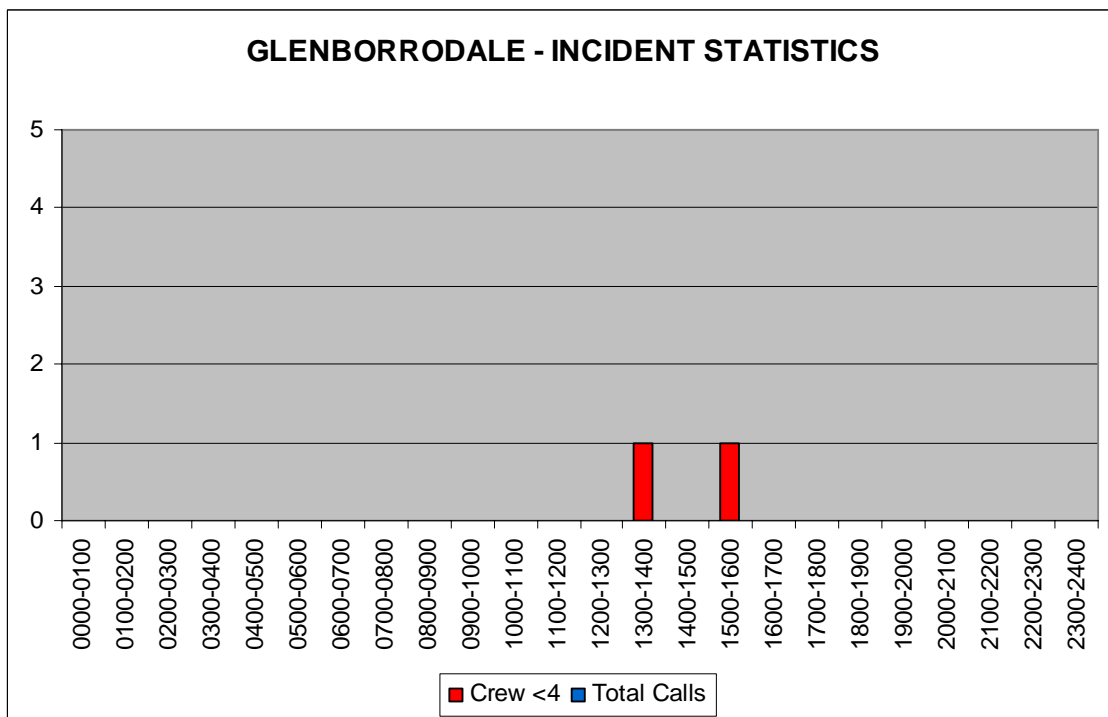
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<sup>1</sup> Comprising of five minutes to respond to station and two minutes to mobilise appliance with sufficient crew members; station personnel are alerted for a second time if no response is made in five minutes



**Figure 2 - Summary of total incidents received from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

**Figure 3** illustrates the total number of calls received by Glenborrodale over the period extending from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 by time of day in one hour time bands. From the graph (failed incidents illustrated in red) it can be seen that for 100% of incidents there were insufficient personnel to form a crew. As a result Glenborrodale failed to provide an effective response to these incidents.



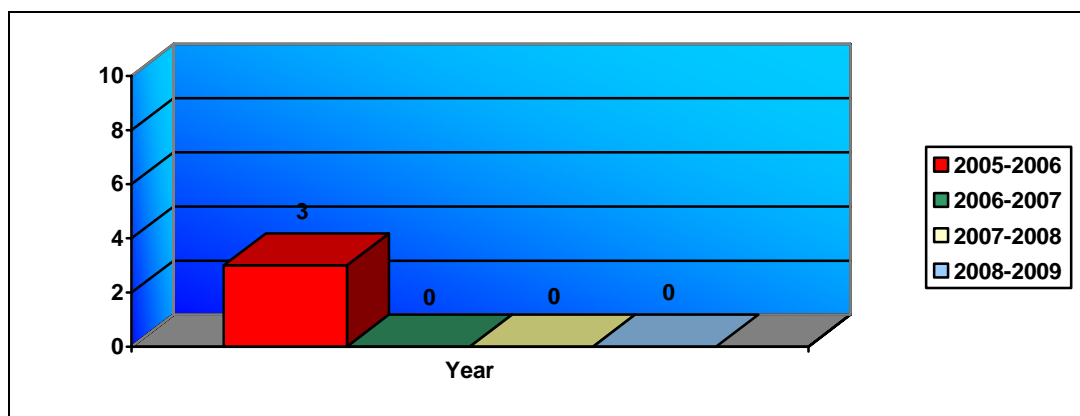
**Figure 3 - Number of calls received by time of day 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

It is essential that when an appliance and crew are mobilised to an incident sufficient crew are available to ensure a safe system of work can be employed. To achieve the required safe system of work the minimum number of personnel required by HIFRS to form a safe crew is four.

#### **4.0 Establishment history**

To ensure an appropriate response, the service requires existing personnel (or potential employees) to attend their station promptly. Personnel are therefore required to live and/or work within close proximity of their station.

Glenborrodale currently has no unit members. **Figure 4** below identifies the establishment history from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009.



**Figure 4 - Establishment history 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

## 5.0 Demographic profile

In order for a station to be able to contribute to reducing community risk sufficient personnel must be available to form an appropriate station establishment. To explore the sustainability of a station, an analysis of the total population resident for Glenborrodale area was drawn from 2001 census information.

While this analysis may not represent the definitive number of persons available to the service it serves as a good indicator from which further investigation can commence.

Glenborrodale station is located in census output area 60QT000158.

**Table 3** below shows the community age profile of the census output area associated with Glenborrodale. From the information provided by the 2001 census it can be considered that those below the age of 18 and above the age of 65 years are not able to perform the role of operational firefighter and as such unable to support the establishment of the station. The green highlighted census output area contains Glenborrodale station and the area from where residents can provide an appropriate response.

**Table 3 - Community age profile per output area from census - 2001**

Output area	No. of under 18s	No. of 18-29 yrs	No. of 30-44 yrs	No. of 45-65 yrs	No. of over 65s	Total residents	Area sq/km
60QT001740	22	6	21	34	24	107	29.24
60QT000158	24	14	21	54	36	149	57.53
<b>Total</b>	<b>46</b>	<b>20</b>	<b>42</b>	<b>88</b>	<b>60</b>	<b>256</b>	<b>87</b>

NB - Consideration has to be given to the time that has elapsed between the collection of census 2001 data and that of the present.

From further information contained in the census output area sub-categories, it can be assumed that all residents recorded in the 'number of under 18s' sub-category 10 to 17, will now be of age for consideration as potential recruits, provided they still reside in the Glenborrodale area. Conversely all residents recorded in the 'number of 45 to 65' sub-category can be broken down further to show those aged 60-64, will no longer be considered as potential recruits. Therefore 24 people have been identified as now being over 18, however 25 people will now be over 65, reducing the current total of 'residents available as potential recruits' by one.

## 6.0 Travel to work

**Table 4** below, drawn from 2001 census information, identifies the distance travelled to place of work or study for the above output areas.

**Table 4 - Distance travelled to place of work or study census - 2001**

	ALL PEOPLE	Not currently working or studying	Works or studies mainly at or from home	Less than 2km	2km - less than 5km	5km - less than 10km	10 km - less than 20km	20km - less than 40km	40km and over	No fixed place of work or study	Working or studying outside the UK	Working at offshore installation
60QT001740	107	41	6	7	8	9	3	2	14	16	1	0
60QT000158	149	48	30	10	2	9	3	4	27	16	0	0

## 7.0 Employment profile – Lochaber

Extracted from Highland and Islands Enterprise (HIE) information derived from census 2001 statistics, **Figure 5** illustrates the employment profile for the greater geographic area in which Glenborrodale is located.

Sector	Male	Female	Total	Percentage
Agriculture and Fishing	543	102	645	7.1
Manufacturing	802	184	986	10.9
Energy & Water	55	13	68	0.8
Construction	740	46	786	8.7
Wholesale, Hotels & Restaurants	1,006	1,635	2,641	29.1
Transport & Communications	508	175	683	7.5
Banking, Finance & Real Estate, etc.	343	357	700	7.7
Public Admin., Education & Health	515	1,444	1,959	21.6
Other Sectors	351	251	602	6.6
<b>Total</b>	<b>4,863</b>	<b>4,207</b>	<b>9,070</b>	<b>100.0</b>

Source: GROS 2001 Census

Note: Numbers may not total due to errors in rounding percentages.

### ***Figure 5 Employment profile for the specified geographic area***

Using 2001 census information **Table 5** identifies the cumulative population analysis for Glenborrodale.

**Table 5 - Cumulative population analysis**

<b>Glenborrodale population details</b>	<b>No</b>	<b>Running total</b>
Total resident population (census 2001)	256	256
Residents under the age of 18	46	210
Residents over the age of 65 (new figures)	61	149
Residents already in the unit	0	149
<b>Residents remaining</b>		<b>149</b>

This theoretical ‘residents remaining’ figure does not consider that some of the population will not be suitable or willing to be employed as a firefighter and as such the potential number of possible recruits may be lower.

While not definitive, additional information can also be considered:

- As a general assumption, if a person lives or works at a location greater than 5km from the station they would be unable to provide a suitable response to an emergency incident. However, it is accepted that for some stations with dispersed populations this figure may need to be reviewed
- While no specific information per census output area is available it can be assumed that residents employed in some professions will not be available for immediate response to the station on receipt of an emergency call. In the majority of cases it could be assumed that residents employed in ‘agriculture and fishing’ and ‘transport and communication’ would not be available for a significant proportion of the day

The potential cumulative population analysis for Glenborrodale can therefore be further projected as illustrated in **Table 6** below.

**Table 6 – Potential cumulative population analysis**

<b>Glenborrodale population details</b>		<b>Running total</b>
Residents remaining – carried forward		149
Residents working in ‘agriculture and fishing’	<b>7.1% of 149=11</b>	138
Residents working in ‘transport and communication’	<b>7.5% of 149=11</b>	127
<b>Number of residents working &gt; 5km of station</b>		71
<b>Total potential residents remaining</b>		<b>56</b>

## **8.0 Conclusions**

For the Sustainability Review period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 and incident statistics over the reporting period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009, the analysis of Glenborrodale unit is identified below.

Establishment at Glenborrodale station decreased from eight in March 2005 to three in June 2005 with the commencement of their new wildfire/CFS role.

For the period 1<sup>st</sup> April 2006 to 30<sup>th</sup> September 2006, Glenborrodale station had three crew members which enabled the unit to carry out CFS HFSC. The last remaining crew members resigned from the unit in September 2006. Therefore:

- Glenborrodale unit is unavailable to provide a response to wildfire incidents
- As the unit had no personnel Glenborrodale unit failed to achieve the minimum crew confidence levels or turnout times
- During the period 1st April 2006 to 30th September 2006 Glenborrodale unit had a sufficient number of personnel to perform CFS duties, however failed to fulfil their allocated target for CFS HFSC. As such all referrals were passed to and progressed by personnel from adjacent stations and the dedicated CSA based in the Lochaber area

For the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009:

- For the two incidents which occurred, both where outside the immediate Glenborrodale area and insufficient crew attended on both occasions. Both incidents occurred between 0800 and 1800 hours

Demographic Profile:

- Information from the latest population census suggests that, within the output areas nearest the station 149 people are in the employment age group; however 71 work out with 5km of the station and 22 are employed in agriculture and fishing or transport and communication. This would suggest that 56 residents could be suitable and available for the unit (this does not identify that some will not be suitable for employment or wish to undertake fire service duties)
- To ensure the safety of firefighters for wildfire operations a minimum crew of four firefighters are required to form a response to each incident. To ensure this minimum response level is at least possible it is required that for a unit to be viable a minimum of at least six unit members be present. As only 56 people appear to be available for possible recruitment, it is probable that the Glenborrodale community are highly unlikely to be able to sustain a unit with a wildfire intervention role

#### Station Members:

- Following Glenborrodale's designation as a CRU assigned a CFS education and wildfire only intervention response status, five members of the unit resigned. Despite support from the service the remaining 3 members resigned from the unit in September 2006
- To be able to provide an effective level of crew confidence to attend wildfire incidents would require a minimum establishment of six. To undertake CFS activities including performing HFSC requires two unit members to be available. Despite this it has not been possible to attract sufficient recruits to the Glenborrodale unit to enable HFSC to be completed
- Extensive efforts have been made by district managers and the local community council to recruit new members to the unit. The most recent campaign followed the resignation of the last remaining unit members in September 2006, however no interest was shown locally nor requests for recruitment application packs received

Considering Glenborrodale's close proximity to adjacent stations with resources to provide an appropriate and measured response to potential wildfire incidents and requests for HFSC it is recommended that:

- Due to Glenborrodale's unit currently having no establishment and no suitable potential recruits having been generated from local community recruitment campaigns, it would appear that Glenborrodale can no longer support the provision of a wildfire intervention resource. Should the need for a wildfire intervention resource be required, a response will be provided through the existing mobilising contingencies utilising resources from the nearest appropriate station
- As CFS HFSC are currently being performed by personnel from adjacent stations and the dedicated Lochaber based CSA, appropriate CFS provision can be provided for the Glenborrodale area. As such, all current and future requests for HFSC and CFS activities will be performed by personnel from adjacent stations and the dedicated Lochaber based CSA

## **9.0 Recommendations**

- **The Glenborrodale unit currently has no members and it has not proven possible for the local community to support the unit at Glenborrodale. As such the Board accept that the local community is unable to support a safe and effective intervention response. Therefore the board should no longer support the provision of a unit at Glenborrodale.**
- **A wildfire response to the area will be provided utilising the wider resources of the service**
- **All current and future requests for HFSC and CFS activities to be performed by personnel from adjacent stations and the dedicated Lochaber based CSA**
- **The CRM department will continue to review the wildfire risk associated with the service area as part of the ongoing Risk Review process**

## APPENDIX C6

### Review of stations which present serious sustainability issues - GLENUIG

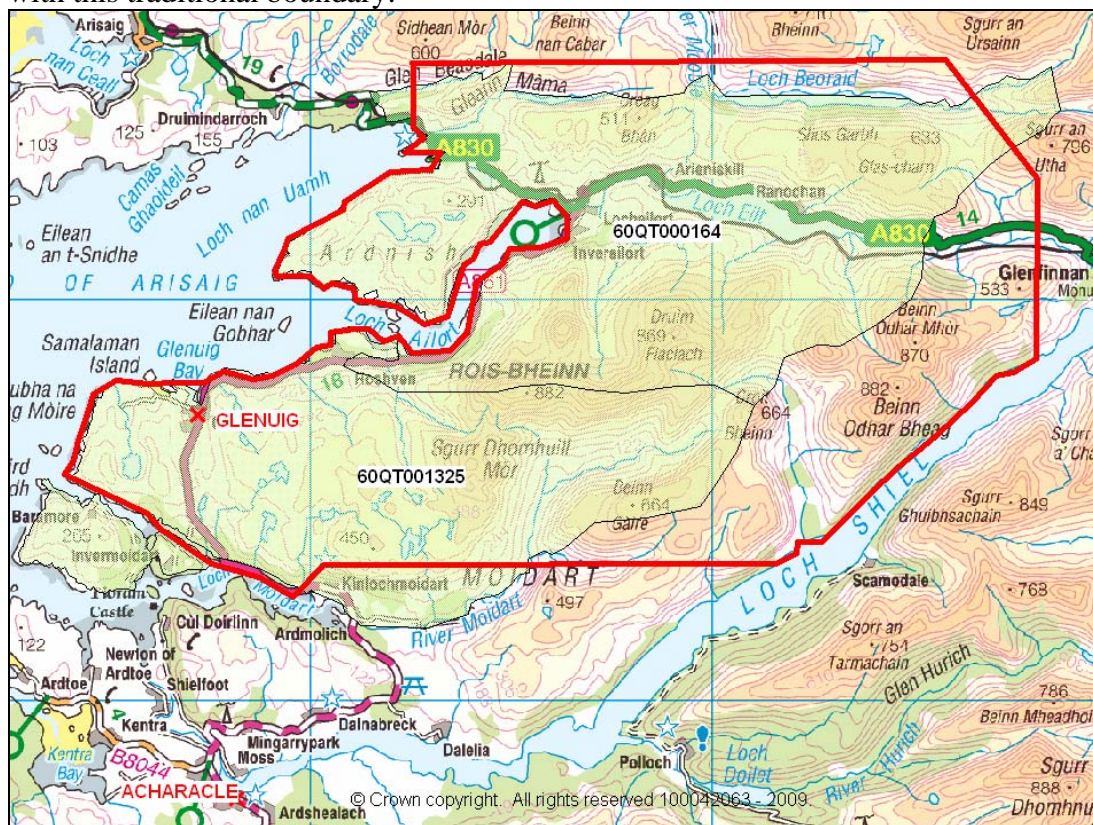
#### 1.0 Introduction

This report provides an analysis of Glenuig's performance based on statistics gathered over the 36 month Sustainability Review period extending from 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009. The report also examines operational activity for the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 following Glenuig's adoption of a community response unit (CRU) assigned a community fire safety (CFS) education and wildfire only intervention response status.

#### 1.1 Background

In performing an analysis of information appertaining to Glenuig, as much relevant data relating to the unit area as possible has been considered. As such information gathered has included: station personnel employed (including potential recruitment pool), operational incidents, risk information etc. Data from 2001 census provides the baseline demographic information for the study with subsequent reports and local intelligence being considered as appropriate.

**Figure 1** illustrates the census output areas associated with Glenuig highlighted in green. The traditional area to which the unit provides an immediate response to wildfire incidents is indicated by the red boundary line. In June 2005 the unit was designated as a CRU assigned a CFS education and wildfire only intervention response status. It was the intention that Glenuig should form part of an integrated Wildfire resource and as such be able to undertake wildfire fire fighting activities out with this traditional boundary.



*Figure 1 - Census output areas associated with Glenuig*

## 2.0 Summary of information.

To date, eight Sustainability Review reports have been created extending over a 36 month period. The results from each have been widely circulated to operations command and district offices. The following **Tables** present a cumulative summary of the information supplied.

**Table 1 - Crew confidence – target 100%**

	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
2006 – 2007	Failed 1/1	No Calls	No Calls	Failed 1/1
2007 – 2008		No Calls		No Calls
2008 – 2009		No Calls		No Calls

NB - 6 monthly reports produced for years 2007/08 and 2008/09

### Turnout times

It is important that emergency fire appliances and crews respond and mobilise to operational incidents promptly. Highlands and Islands Fire and Rescue Service (HIFRS) have established a benchmark figure of seven minutes<sup>1</sup>.

During the period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 the fire service command and control centre attempted to mobilise Glenuig to attend two incidents. On each occasion insufficient crew was available to provide an appropriate response and as such no turn out times are available for the station.

**Table 2 - CFS Activity – home fire safety checks (HFSC) performed**

	<b>Target for year</b>	<b>Total performed</b>
2006 – 2007	45 visits	5 visits
2007 – 2008	15 visits	0 visits
2008 – 2009	8 visits	0 visits

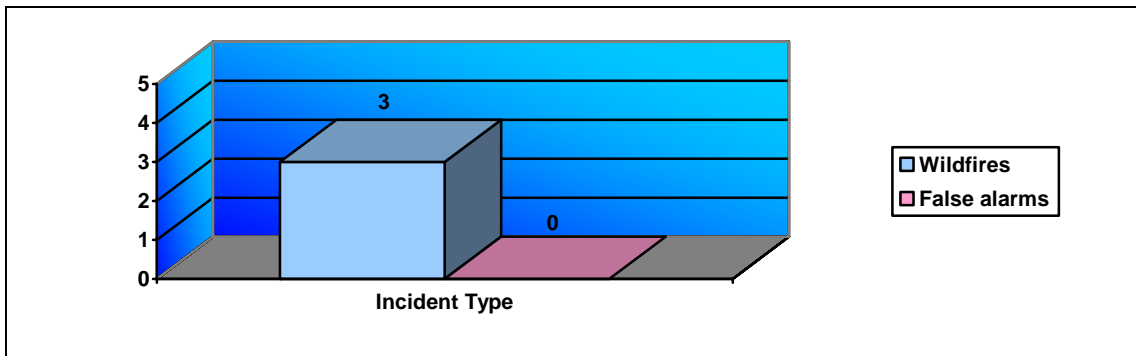
## 3.0 Analysis of operational incident data

Analysing incident data from the Sustainability Review information distributed to operations command and district offices, and considering other data sets relevant to station areas/performance, presents an overall view which could have a potential bearing on the sustainability of stations.

**Figure 2** below illustrates the emergency calls received by Glenuig from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 broken down into general incident types.

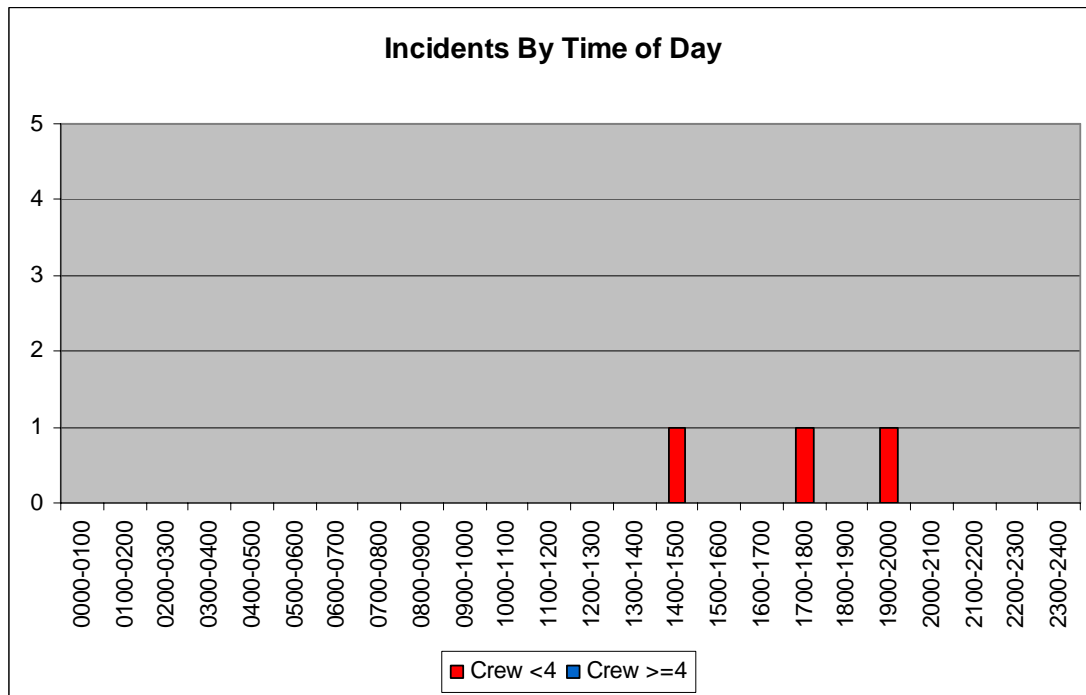
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<sup>1</sup> Comprising of five minutes to respond to station and two minutes to mobilise appliance with sufficient crew members; station personnel are alerted for a second time if no response is made in five minutes



**Figure 2 - Summary of total incidents received from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

**Figure 3** illustrates the total number of calls from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 received by time of day in one hour time bands. From the graph (incidents with insufficient crew available are illustrated in red) it can be seen that for 100% of incidents there were insufficient personnel to form a crew. As a result Glenuig station failed to provide an effective response to these incidents.



**Figure 3 - Number of calls received by time of day 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

Despite being unavailable for all of the above calls, Glenuig did not book off the run via the service's command and control centre due to lack of crew.

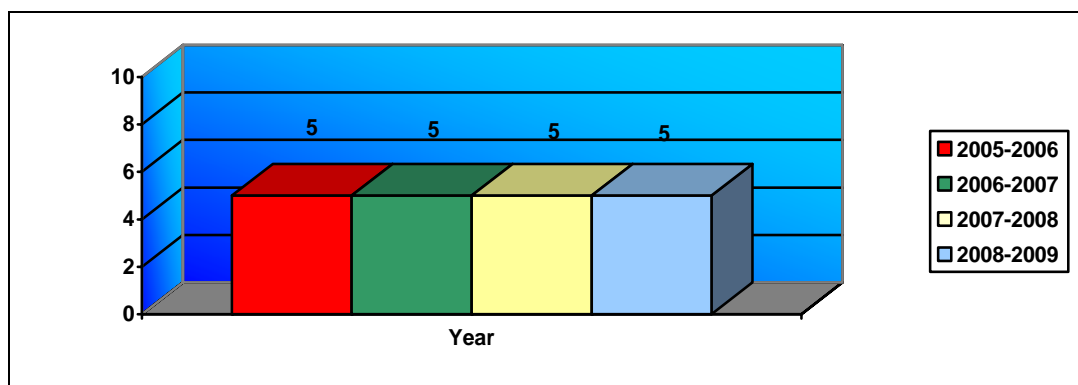
#### **4.0 Establishment history**

To ensure an appropriate response, the service requires existing personnel (or potential employees) to attend their station promptly. Personnel are therefore required to live and/or work within close proximity of their station.

To ensure the station is able to respond to wildfire incidents 24hrs/day 7days/week and to allow firefighters to maintain the appropriate work/life balance the service maintains an average station establishment of ten to twelve personnel to crew one appliance, which generally allows a minimum of four and a maximum of six people to crew the appliance.

The establishment as at 31<sup>st</sup> March 2009 was five, and consisted of one watch manager and four firefighters.

**Figure 4** identifies the establishment history from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009.



*Figure 4 - Establishment history 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009*

## 5.0 Demographic profile

In order for a station to be able to contribute to reducing community risk sufficient personnel must be available to form an appropriate station establishment. To explore the sustainability of a station, an analysis of the total population resident in the census output area containing Glenuig station, and those census output areas sufficiently close to allow a rapid response to the station, has been completed.

While this analysis may not represent the definitive number of persons available to the service it serves as a good indicator from which further investigation can commence.

**Table 3** shows the community age profile of the census output area associated with Glenuig. From the information provided by the 2001 census it can be considered that those below the age of 18 and above the age of 65 years are not able to perform the role of operational firefighter and as such unable to support the establishment of the station. The green highlighted census output area contains Glenuig station and the area from where persons can provide an appropriate response.

**Table 3 - Community age profile per output area from census - 2001**

Output area	No. of under 18s	No. of 18-29 yrs	No. of 30-44 yrs	No. of 45-65 yrs	No. of over 65s	Total residents	Area sq/km
60QT000164	16	5	16	16	6	59	100.34
60QT001325	30	5	32	49	10	126	77.97
	46	10	48	65	16	185	178.31

NB - Consideration has to be given to the time that has elapsed between the collection of census 2001 data and that of the present.

From further information contained in the census output area sub-categories, it can be assumed that all residents recorded in the 'number of under 18s' sub-category 10 to 17, will now be of age for consideration as potential recruits, provided they still reside in the Glenuig area. Conversely all residents recorded in the 'number of 45 to 65' sub-category can be broken down further to show those aged 60-64, will no longer be considered as potential recruits. Taking these figures into account, 18 potential people will be available however the same figure will now be over the age of 65, therefore on this occasion, no additional people will be available.

## 6.0 Travel to work

**Table 4** below, drawn from 2001 census information, examines/identifies the distance travelled to place of work or study for the above output areas.

**Table 4 - Distance travelled to place of work or study census - 2001**

Output Area	All People	Not currently working or studying	Works or studies mainly at or from home	Less than 2km	2km - less than 5km	5km - less than 10km	10 km - less than 20km	20km - less than 40km	40km and over	No fixed place of work or study	Working or studying outside the UK	Working at offshore installation
60QT000164	59	17	10	8	0	1	13	5	1	4	0	0
60QT001325	126	46	18	12	6	7	6	13	8	10	0	0

## 7.0 Employment profile – Lochaber

Extracted from Highland and Islands Enterprise (HIE) information derived from census 2001 statistics, **Figure 5** illustrates the employment profile for the geographic area in which Glenuig is located.

Sector	Male	Female	Total	Percentage
Agriculture and Fishing	543	102	645	7.1
Manufacturing	802	184	986	10.9
Energy & Water	55	13	68	0.8
Construction	740	46	786	8.7
Wholesale, Hotels & Restaurants	1,006	1,635	2,641	29.1
Transport & Communications	508	175	683	7.5
Banking, Finance & Real Estate, etc.	343	357	700	7.7
Public Admin., Education & Health	515	1,444	1,959	21.6
Other Sectors	351	251	602	6.6
<b>Total</b>	<b>4,863</b>	<b>4,207</b>	<b>9,070</b>	<b>100.0</b>

Source: GROS 2001 Census

Note: Numbers may not total due to errors in rounding percentages.

**Figure 5 - Employment profile for the specified geographic area**

Using 2001 census information **Table 5** identifies the cumulative population analysis for Glenuig.

**Table 5 - Cumulative population analysis**

<b>Glenuig population details</b>	<b>No</b>	<b>Running total</b>
Total resident population (census 2001)	185	185
Residents under the age of 18	46	139
Residents over the age of 65 (new figure)	16	123
Residents already in the unit	5	118
<b>Residents remaining</b>		<b>118</b>

This theoretical ‘residents remaining’ figure does not consider that some of the population will not be suitable or willing for employment as a firefighter and as such the potential number of possible recruits may be a lower figure.

While not definitive, additional information can also be considered:

- As a general assumption, if a person lives or works at a location greater than 5km from the station they would be unable to provide a suitable response to an emergency incident. However, it is accepted that for some stations with dispersed populations this figure may need to be reviewed
- While no specific information per census output area is available it can be assumed that residents employed in some professions will not be available for immediate response to the station on receipt of an emergency call. In the majority of cases it could be assumed that persons employed in ‘agriculture and fishing’ and ‘transport and communication’ would not be available for a significant proportion of the day

The potential cumulative population analysis for Glenuig can therefore be further projected as illustrated in **Table 6** below.

**Table 6 - Potential cumulative population analysis**

<b>Glenuig population details</b>		<b>Running total</b>
Residents remaining – carried forward		118
Residents working in ‘agriculture and fishing’	<b>7.1% of 118=8</b>	8
Residents working in ‘transport and communication’	<b>7.5% of 118=9</b>	9
<b>Number of residents working &gt; 5km of station</b>		54
<b>Total potential residents remaining</b>		<b>47</b>

## **8.0 Conclusions**

For the Sustainability Review period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 and incident statistics over the reporting period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009, the analysis of Glenuig unit is identified below:

- Glenuig station did not respond to either of the two emergency calls received and therefore did not meet the target performance standards for crew confidence or turnout times
- Glenuig station personnel did not fulfil their allocated target for CFS HFSC only completing 7% of their allocation

### Demographic Profile:

- Information from the latest population census suggests that, within the output areas nearest the station 123 people are in the employment age group; however 54 work out with 5km of the station and 17 are employed in agriculture and fishing or transport and communication. With five persons already employed by the service, this would suggest that 47 people could be suitable and available for the unit (this does not identify that some will not be eligible for employment)
- The employment profile indicates that 25% of people work out with the community
- To ensure the safety of firefighters for wildfire operations a minimum crew of four firefighters are required to form a response to each incident. To ensure this minimum response level is at least possible it is required that for a unit to be viable a minimum of at least 6 unit members be present. As only 47 people appear to be available for possible recruitment it is probable that the Glenuig community are unlikely to be able to sustain a unit with a wildfire intervention role

### Station Members:

- Following Glenuig's designation as a CRU assigned with CFS education and wildfire intervention response status on 1<sup>st</sup> June 2005, two members resigned
- To be able to provide an effect level of crew confidence to attend wildfire incidents would require a minimum establishment of six. To undertake CFS activities including performing HFSC requires two persons to be available. Despite this it has not been possible to attract sufficient recruits to the Glenuig unit members to enable HFSCs to be completed
- Considerable efforts have been made by the community council and district managers to recruit new members to the unit; however no interest has been shown by the community to become members of the unit

## **9.0 Recommendations**

- **The Glenuig unit should be allocated a twelve month period in which to recruit sufficient members and demonstrate that they can provide a safe and effective intervention response**
- **It is hoped, that with the commitment of the existing personnel and the support of the community and the service, the sustainability issues can be resolved within the twelve months**
- **If this does not prove possible and the unit are not able to demonstrate an appropriate level of performance then the Board should consider changing Glenuig's role to that of a CRU delivering CFS information and education only**
- **The CRM department will continue to review the wildfire risk associated with the service area as part of the ongoing Risk Review process**



## APPENDIX C7

### Review of stations which present serious sustainability issues - MINGINISH

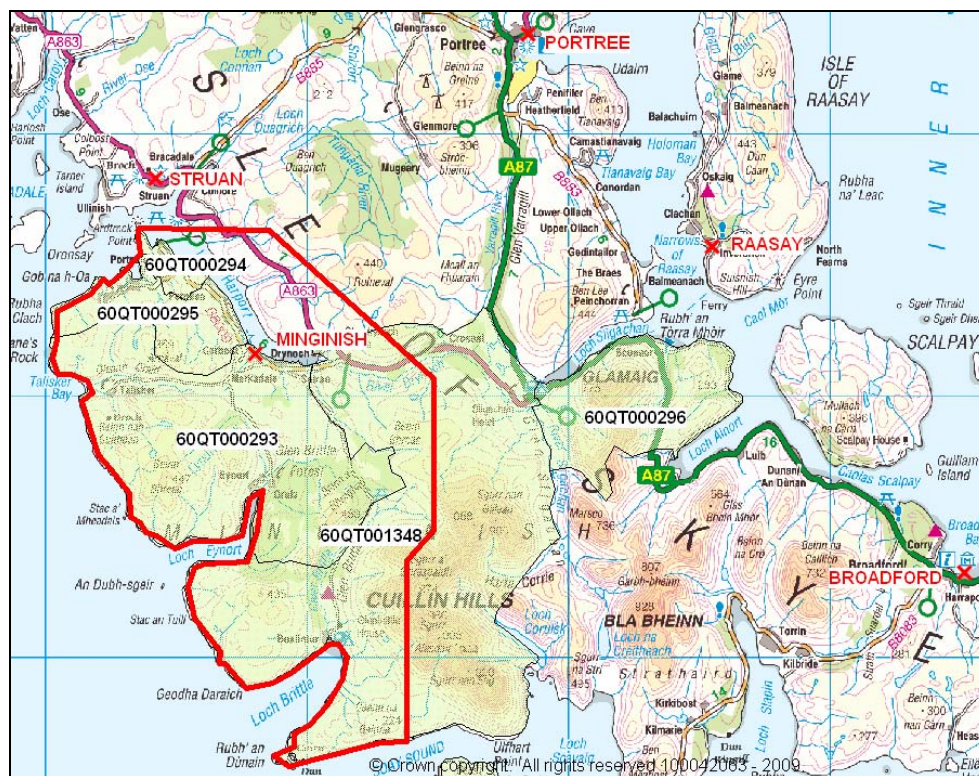
#### 1.0 Introduction

This report provides an analysis of Minginish's performance based on statistics gathered over the 36 month Sustainability Review period extending from 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009. The report also examines operational activity for the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 following Minginish's adoption of a community response unit (CRU) assigned a community fire safety (CFS) education and wildfire only intervention response status.

#### 1.1 Background

In performing an analysis of information appertaining to Minginish, as much relevant data relating to the unit area as possible has been considered. As such information gathered has included: station personnel employed (including potential recruitment pool), operational incidents, risk information etc. Data from 2001 census provides the baseline demographic information for the study with subsequent reports and local intelligence being considered as appropriate.

**Figure 1** illustrates the census output areas associated with Minginish highlighted in green. The traditional area to which the unit provides an immediate response to wildfire incidents is indicated by the red boundary line. In June 2005 the unit was designated as a CRU assigned a CFS education and wildfire only intervention response status. It was the intention that Minginish should form part of an integrated wildfire resource and as such be able to undertake wildfire fire fighting activities out with this traditional boundary.



*Figure 1 - Census output areas associated with Minginish*

## **2.0 Summary of sustainability review data**

To date, eight Sustainability Review reports have been created extending over a 36 month period. The results from each have been widely circulated to operations command and district offices. The following **Tables** present a cumulative summary of the information supplied.

**Table 1 - Crew confidence – target 100%**

	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
2006 – 2007	No Calls	No Calls	No Calls	Failed 1/1
2007 – 2008		No Calls		Failed 1/1
2008 – 2009		No Calls		No Calls

NB - six monthly reports produced for years 2007/08 and 2008/09

### **Turnout times**

It is important that emergency fire appliances and crews respond and mobilise to operational incidents promptly. Highlands and Islands Fire and Rescue Service (HIFRS) have established a benchmark figure of seven minutes<sup>1</sup>.

During the period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 the fire service command and control centre attempted to mobilise Minginish to attend two incidents. On each occasion insufficient crew was available to provide an appropriate response and as such, no turnout times are available for the station.

**Table 2 - CFS activity – home fire safety checks (HFSC) performed**

	<b>Target for year</b>	<b>Total performed</b>
2006 – 2007	52 visits	25 visits
2007 – 2008	44 visits	4 visits
2008 – 2009	25 visits	0 visits

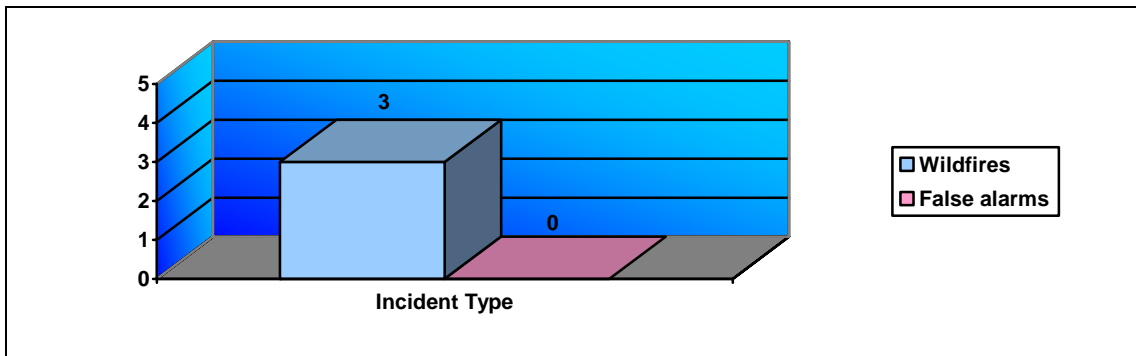
## **3.0 Analysis of operational incident data**

Analysing incident data from the Sustainability Review information distributed to operations command and district offices, and considering other data sets relevant to station areas/performance, presents an overall view which could have a potential bearing on the sustainability of stations.

**Figure 2** below illustrates the emergency calls attended from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 broken down into general incident types.

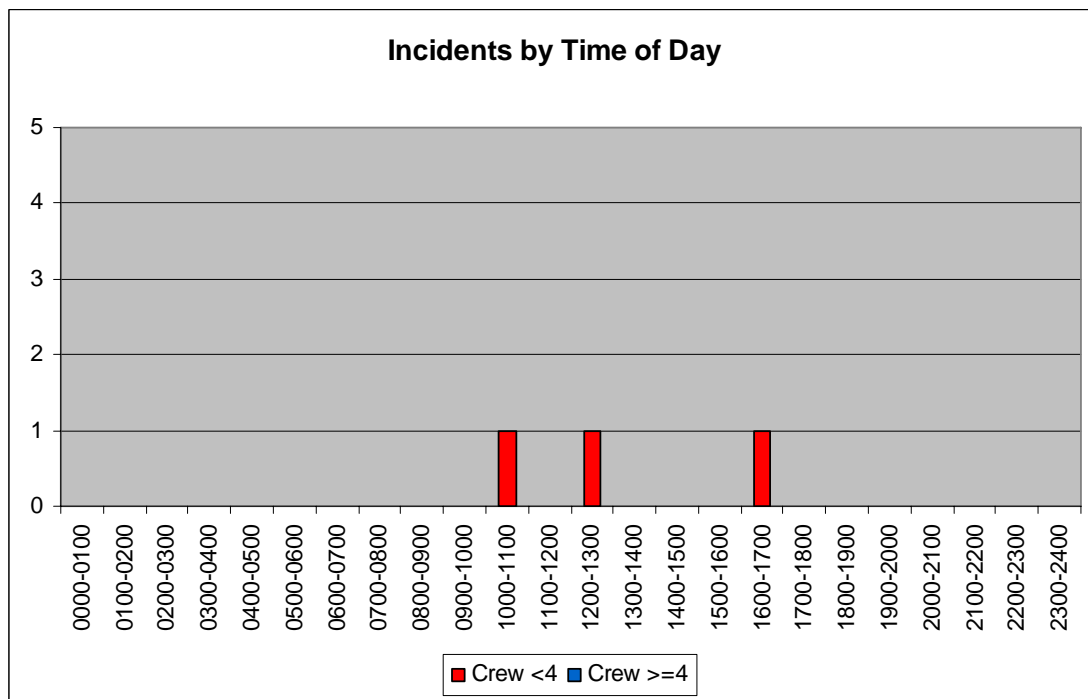
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<sup>1</sup> Comprising of five minutes to respond to station and two minutes to mobilise appliance with sufficient crew members; station personnel are alerted for a second time if no response is made in five minutes



**Figure 2 – Summary of total incidents received 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

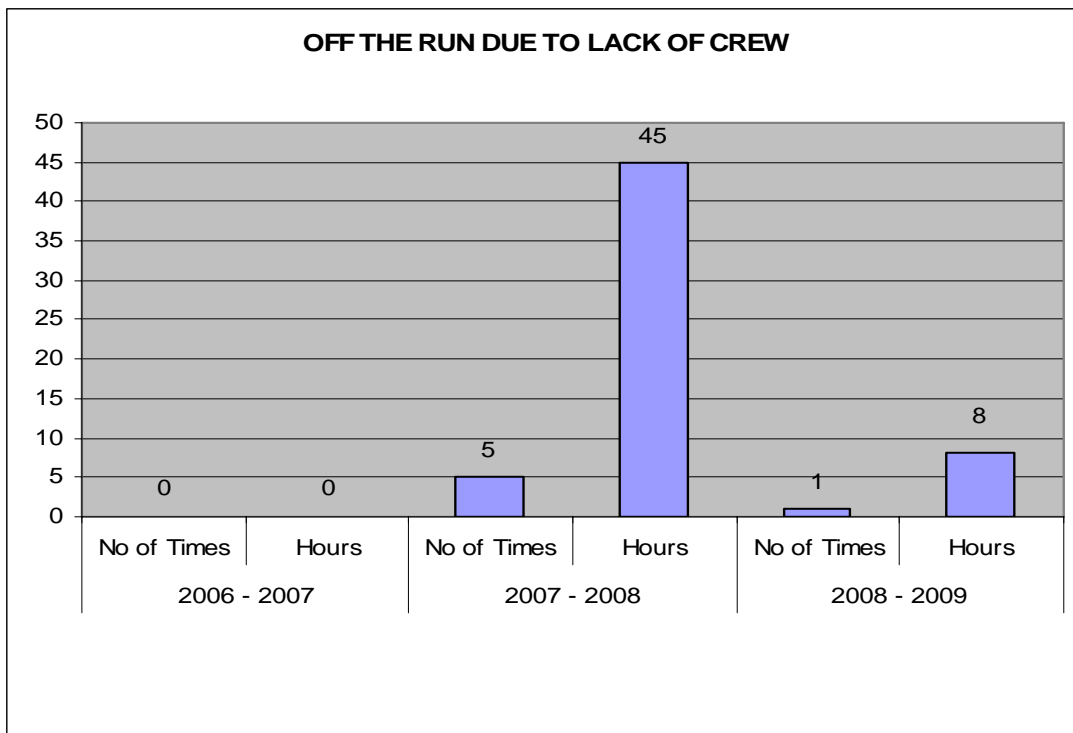
**Figure 3** illustrates the total number of calls from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 received by time of day in one hour time bands. From the graph (failed incidents illustrated in red) it can be seen that for 100% of incidents there were insufficient personnel to form a crew. As a result the station failed to provide an effective response to these incidents.



**Figure 3 - Number of calls received by time of day 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

It is essential that when an appliance and crew are mobilised to an incident sufficient crew are available to ensure a safe system of work can be employed. To achieve the required safe system of work the minimum number of personnel required by HIFRS to form a safe crew is four.

Within the Sustainability Review period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 there were only six instances where the Minginish appliance was recorded as unavailable for calls in the service's command and control centre due to lack of crew. **Figure 4** gives details of these instances.



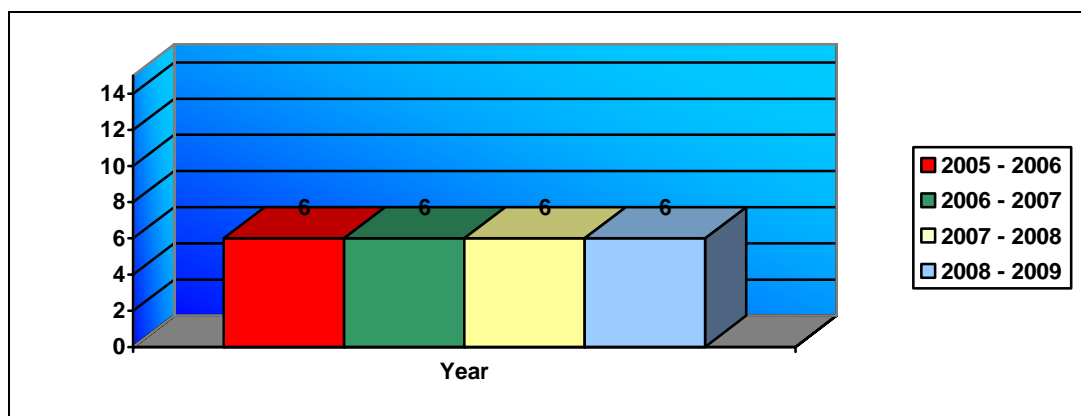
**Figure 4 - Appliance “off the run” due to lack of crew 1<sup>st</sup> April 2006 – 31<sup>st</sup> March 2009**

#### **4.0 Establishment history**

To ensure an appropriate response, the service requires existing personnel (or potential employees) to attend their station promptly. Personnel are therefore required to live and/or work within close proximity of their station.

The establishment for Minginish at 31<sup>st</sup> March 2009 was six, and consisted of one watch manager and five firefighters.

**Figure 5** identifies the establishment history from 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009.



**Figure 5 Establishment history 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009**

Whilst the establishment of the Minginish unit has been at the minimum establishment of six over the past three years it should be noted that since June 2009 the unit establishment has dropped below the minimum sustainable threshold. The current establishment of the unit is two.

## 5.0 Demographic profile

In order for a station to be able to contribute to reducing community risk sufficient personnel must be available to form an appropriate station establishment. To explore the sustainability of a station, an analysis of the total population resident in the census output area containing Minginish station, and those census output areas sufficiently close to allow a rapid response to the station, has been completed.

While this analysis may not represent the definitive number of residents available to the service it serves as a good indicator from which further investigation can commence.

**Table 3** shows the community age profile of the census output area associated with Minginish. From the information provided by the 2001 census it can be considered that those below the age of 18 and above the age of 65 years are not able to perform the role of operational firefighter and as such unable to support the establishment of the station. The green highlighted census output area contains Minginish station and the additional areas from where residents can provide an appropriate response are also identified.

**Table 3 - Community age profile per output area from census - 2001**

Output area	No. of under 18s	No. of 18-29 yrs	No. of 30-44 yrs	No. of 45-65 yrs	No. of over 65s	Total residents	Area sq/km
60QT000293	25	12	31	45	30	143	73.52
60QT000294	20	7	24	34	17	102	3.23
60QT000295	24	7	26	35	30	122	15.49
60QT000296	31	5	21	33	12	102	29.15
60QT001348	16	12	16	24	11	79	46.98
	<b>116</b>	<b>43</b>	<b>118</b>	<b>171</b>	<b>100</b>	<b>548</b>	<b>168.37</b>

NB - Consideration has to be given to the time that has elapsed between the collection of census 2001 data and that of the present.

From further information contained in the census output area sub-categories, it can be assumed that all residents recorded in the 'number of under 18s' sub-category 10 to 17, will now be of age for consideration as potential recruits, provided they still reside in the Minginish area. Conversely all residents recorded in the 'number of 45 to 65' sub-category can be broken down further to show those aged 60-64, will no longer be considered as potential recruits. Taking these figures into account, a maximum of 20 additional people may be available.

## 6.0 Travel to work

**Table 4**, drawn from 2001 census information, identifies the distance travelled to place of work or study for the above output areas.

**Table 4 - Distance travelled to place of work or study census - 2001**

	ALL PEOPLE	Not currently working or studying	Works or studies mainly at or from home	Less than 2km	2km - less than 5km	5km - less than 10km	10 km - less than 20km	20km - less than 40km	40km and over	No fixed place of work or study	Working or studying outside the UK	Working at offshore installation
60QT000293	143	56	14	32	0	4	20	5	1	11	0	0
60QT000294	102	38	14	7	15	1	16	1	3	7	0	0
60QT000295	122	48	8	5	3	6	36	1	6	8	0	1
60QT001348	79	25	13	6	5	3	8	4	9	6	0	0

## 7.0 Employment profile – Skye and Lochalsh

Extracted from Highland and Islands Enterprise (HIE) information derived from census 2001 statistics, **Figure 6** illustrates the employment profile for the geographic area in which the station is located.

<b>Table 4: Employment in Sectors by Gender, 2001</b>				
<b>Sector</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Percentage</b>
Agriculture and Fishing	423	57	480	8.7
Manufacturing	195	95	290	5.3
Energy & Water	49	4	53	1.0
Construction	479	31	510	9.3
Wholesale, Hotels & Restaurants	607	864	1,471	26.8
Transport & Communications	302	79	381	6.9
Banking, Finance & Real Estate, etc.	274	216	490	8.9
Public Admin., Education & Health	376	1,027	1,403	25.5
Other Sectors	229	190	419	7.6
<b>Total</b>	<b>2,934</b>	<b>2,563</b>	<b>5,497</b>	<b>100.0</b>

Source: GROS 2001 Census

Note: Numbers may not total due to errors in rounding percentages.

***Figure 6 - Employment profile for the specified geographic area***

Using 2001 census information **Table 5** identifies the cumulative population analysis for Minginish.

**Table 5 - Cumulative population analysis**

<b>Minginish population details</b>	<b>No</b>	<b>Running total</b>
Total resident population (census 2001)	548	548
Residents under the age of 18	116	432
Residents over the age of 65	100	332
Residents already in the unit	2	326 <sup>2</sup>
<b>Residents remaining</b>		<b>326</b>

This theoretical ‘residents remaining’ figure does not consider that some of the population will not be suitable or willing to be employed as a firefighter and as such the potential number of possible recruits may be lower.

While not definitive, additional information can also be considered:

- As a general assumption, if a person lives or works at a location greater than 5km from the station they would be unable to provide a suitable response to an emergency incident. However, it is accepted that for some stations with dispersed populations this figure may need to be reviewed
- While no specific information per census output area is available it can be assumed that residents employed in some professions will not be available for immediate response to the station on receipt of an emergency call. In the majority of cases it could be assumed that residents employed in ‘agriculture and fishing’ and ‘transport and communication’ would not be available for a significant proportion of the day

The potential cumulative population analysis for Minginish can therefore be further projected as illustrated in **Table 6**.

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<sup>2</sup> This figure includes the four unit members who recently resigned and are therefore unavailable to perform unit/role related duties

**Table 6 - Potential cumulative population analysis**

<b>Minginish population details</b>		<b>Running total</b>
Residents remaining – carried forward		<b>326</b>
Residents working in 'agriculture and fishing'	<b>8.7% of 326=28</b>	<b>298</b>
Residents working in 'transport and communication'	<b>6.9% of 326=23</b>	<b>275</b>
<b>Number of residents working &gt; 5km of unit</b>		<b>124</b>
<b>Total potential residents remaining</b>		<b>151</b>

## **8.0 Conclusions**

For the Sustainability Review period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009 and incident statistics over the reporting period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009, the analysis of Minginish unit is identified below:

For the period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009:

- Minginish station was unable to provide an appropriate response to either of the two emergency calls received and therefore, did not meet the target performance standards for crew confidence or turnout times
- Minginish station personnel did not fulfil their allocated target for CFS HFSC only completing 24% of their allocation
- Minginish appliance booked off the run due to lack of crew on six occasions, totalling 53 hours, averaging nine hours per occurrence

For the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009:

- Minginish appliance received three calls to operational incidents, however due to insufficient crew numbers being available it was not possible to undertake effective firefighting operations utilising practices and procedures that would facilitate safe systems of work
- All three incidents occurred in the daytime cover period of 0800 and 1800 hours

Demographic Profile:

- Information from the latest population census suggests that, within the output areas nearest the station 332 people are in the employment age group; however 124 work out with 5km of the station and 51 are employed in agriculture and fishing or transport and communication. With two people already employed and four having recently resigned, this would suggest that 151 people (or 171 if incorporating those who would now be over 18, utilising updated figures) could be suitable and available for the unit (this does not identify that some will not be employable)
- The employment profile indicates that 38% of people work out with the community

Station Members:

- Minginish unit establishment currently remains at two personnel. To be able to provide an effect level of crew confidence to attend wildfire incidents would require a minimum establishment of six. To undertake CFS activities including performing HFSC requires two persons to be available. Despite this,

station personnel did not fulfil their target for CFS HFSC, only completing 24% of their allocation

- Extensive efforts have been made by the community council and operations command to recruit new members to the unit. This was undertaken through the creation of a station specific action plan and the promotion of local recruitment however to date the wider community has been unable to support the unit and no further recruits have been identified

## **9.0 Recommendations**

- **The Minginish unit should be allocated a twelve month period in which to recruit sufficient members and to demonstrate that they can provide a safe and effective intervention response**
- **It is hoped, that with the commitment of the existing personnel and the support of the community and the service, the sustainability issues can be resolved within the twelve months**
- **If this does not prove possible and the unit are not able to demonstrate an appropriate level of performance then the Board should consider changing Minginish's role to that of a CRU delivering CFS information and education only**
- **The CRM department will continue to review the wildfire risk associated with the service area as part of the ongoing Risk Review process**

## APPENDIX C8

### Review of stations which present serious sustainability issues - ERISKAY

#### 1.0 Introduction

This report provides an analysis of Eriskay's role related performance based on statistics gathered over the 36 month Sustainability Review period extending from 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009. The report also examines unit activity for the period 1<sup>st</sup> June 2005 to 31<sup>st</sup> March 2009 following Eriskay's designation as a community response unit (CRU) assigned with a community fire safety (CFS) education only role.

#### 1.1 Background

In performing an analysis of information appertaining to Eriskay, as much relevant data relating to the unit area as possible has been considered. As such information gathered has included; station personnel employed (including potential recruitment pool) and CFS activity. Data from the 2001 census provides the baseline demographic information for the study with subsequent reports and local intelligence being considered as appropriate.

**Figure 1** illustrates the census output area associated with Eriskay highlighted in green. The traditional area associated with Eriskay in which it is desirable that risk reduction initiatives be undertaken (including the completion of home fire safety checks (HFSC) is indicated by the red boundary line. In June 2005 the unit was designated a CRU and assigned a CFS role delivering community safety information and education. It was the intention that Eriskay would perform CFS HFSC within this area in support of the service's Risk Reduction Strategy.



**Figure 1 - Census output area associated with Eriskay**

## **2.0 Summary of sustainability review data**

To date, eight Sustainability Review reports have been created extending over a 36 month period. The results from each have been widely circulated to operations command and district offices.

However, when Eriskay was designated a CRU with a CFS Education role on 1<sup>st</sup> June 2005, the unit had no members with the last remaining unit member resigning from the unit in November 2004. As such members from the Eriskay unit have never contributed towards the CFS HFSC performance targets.

All CFS HFSC on Eriskay are currently being carried out by personnel from Lochboisdale station.

## **3.0 Demographic Profile**

In order for a unit to be able to contribute to reducing community risk sufficient personnel must be available to form an appropriate unit establishment. To explore the sustainability of the unit, an analysis of the total population resident on Eriskay was drawn from 2001 census information.

While this analysis may not represent the definitive number of residents available to the service it serves as a good indicator from which further investigation can commence.

Eriskay unit is located in output area 60RJ000008.

**Table 1** shows the community age profile of the census output areas associated with Eriskay.

**Table - 1 Community age profile per output area from census - 2001**

<b>Output area</b>	<b>No. of under 18s</b>	<b>No. of 18-29 yrs</b>	<b>No. of 30-44 yrs</b>	<b>No. of 45-65 yrs</b>	<b>No. of over 65s</b>	<b>Total residents</b>	<b>Area sq/km</b>
60RJ000008	29	10	13	50	31	133	7.18
60RJ000010	33	8	26	23	22	112	23.66
	<b>62</b>	<b>18</b>	<b>39</b>	<b>73</b>	<b>53</b>	<b>245</b>	<b>30.83</b>

NB - Consideration has to be given to the time that has elapsed between the collection of census 2001 data and that of the present.

From further information contained in the census output area sub-categories, it can be assumed that all residents recorded in the 'number of under 18s' sub-category 10 to 17 years of age, will now be of age for consideration as potential recruits, provided they still reside on Eriskay. Conversely all residents recorded in the 'number of 45 to 65' sub-category can be broken down again to show those aged 60 to 64, and will no longer be considered as potential recruits. Taking these figures into account, a maximum of twelve additional people may be available.

#### 4.0 Employment profile – Western Isles

Extracted from Highland and Islands Enterprise (HIE) information derived from 2001 census statistics, **Figure 2** below illustrates the employment profile for the geographic area in which the Eriskay unit is located.

<b>Sector</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Percentage</b>
Agriculture and Fishing	756	86	841	7.3
Manufacturing	765	275	1,039	9.0
Energy & Water	96	8	104	0.9
Construction	1,155	61	1,216	10.6
Wholesale, Hotels & Restaurants	867	1,144	2,011	17.5
Transport & Communications	733	198	931	8.1
Banking, Finance & Real Estate, etc.	550	477	1,027	8.9
Public Admin., Education & Health	964	2,695	3,658	31.8
Other Sectors	405	276	680	5.9
<b>Total</b>	<b>6,291</b>	<b>5,220</b>	<b>11,511</b>	<b>100.0</b>

Source: GRO S 2001 Census

Note: Numbers may not total due to errors in rounding percentages.

**Figure 2 - Employment profile for the specified geographic area**

Using 2001 census information **Table 2**, identifies the cumulative population analysis for Eriskay.

**Table 2 - Cumulative population analysis**

<b>Eriskay Population Details</b>	<b>No</b>	<b>Running Total</b>
Total resident population (census 2001)	245	245
Residents under the age of 18	62	183
Residents over the age of 65	53	130
Residents already in the unit	0	130
<b>Residents remaining</b>		<b>130</b>

This theoretical ‘residents remaining’ figure does not consider that some of the population will not be suitable or willing to be employed as a CRU/CFS member and as such the potential number of possible recruits may be lower.

## **5.0 Conclusions**

For the Sustainability Review period 1<sup>st</sup> April 2006 to 31<sup>st</sup> March 2009, the analysis of Eriskay unit is identified below. However, when Eriskay was designated a CRU with a CFS education role on 1<sup>st</sup> June 2005, the unit had no members with the last remaining unit member resigning from in November 2004. As such, members from the Eriskay unit have never contributed towards the CFS HFSC performance targets.

All CFS HFSC on Eriskay are currently being carried out by personnel from Lochboisdale station and the dedicated Western Isles CSA.

### Demographic Profile:

- Information from the latest population census, supported with local knowledge, suggests that 130 people (or 142 if incorporating those who would now be over 18, based on updated figures) could be suitable and available for recruitment to the unit (this does not identify that some will not be suitable for employment)
- Theoretically Eriskay community could sustain a CRU/CFS unit based on the figure of 130 people (potentially 142). However the unit has had no establishment since November 2004 and subsequent recruitment campaigns, conducted between 2001 and 2003, have failed to attract applications from the community to become members
- Following completion of the causeway between Eriskay and the South Isles in 2002 the community of Eriskay now has direct access to CFS and intervention resources available from Lochboisdale station

## **6.0 Recommendations**

- **With the Board supporting a full intervention resource at Lochboisdale and the construction of the causeway it is recommended that the requirement for a CRU with a CFS role on Eriskay is no longer required.**
- **All current requests and future requirement for HFSC and CFS activities will be performed by personnel from Lochboisdale station supported by the dedicated Western Isles based CSA**
- **The CRM department will continue to review the risk associated with Eriskay as part of the ongoing Risk Review process**