

APPENDIX C13

Review of stations which present serious sustainability issues – EIGG

1.0 Introduction

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

1.1 Background

In performing an analysis of information appertaining to Eigg, 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 traditional area to which the unit provides an immediate response to incidents indicated by the red boundary line. In June 2005 the unit was designated as a CRU and assigned a CFS education and first aid/firefighting only intervention response status. It was the intention that Eigg should perform first aid firefighting intervention duties only (to prevent fire spreading from outdoors to affect buildings or to prevent the spread of fire from one building to another) and perform CFS home fire safety checks (HFSC) within this area in support of the service's Risk Reduction Strategy.



Figure 1 - Census output area associated with Eigg

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.

There have been no incidents recorded on Eigg over the reporting period; therefore the unit's performance cannot be measure against crew confidence and turnout times. There are currently five crew members in the Eigg unit. **Table 1** below details their CFS activity.

Table 1 - CFS activity – home fire safety checks (HFSC) performed

	Target for year	Total performed
2006 – 2007	24 visits	0 visits
2007 – 2008	16 visits	2 visits
2008 – 2009	9 visits	10 visits

3.0 Analysis of operational incident data

There have been no incidents in the reporting period or since the 1st of June 2005, when the unit took up their new role, indicating a low level of risk on the island, which is supported by the very low FSEC grading.

The Eigg unit has not booked off the run via the service's command and control centre due to lack of crew over the Sustainability Review period.

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 at 31st March 2009 was six firefighters. **Figure 2** identifies the establishment history from 1st June 2005 to 31st March 2009.

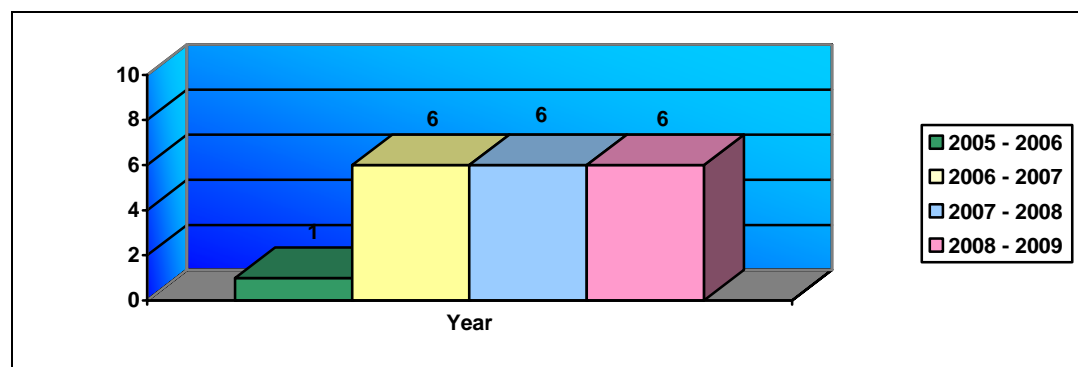


Figure 2 - Establishment history 1st June 2005 to 31st March 2009

While the establishment of the Eigg unit has been at the minimum establishment of six over the past three years it should be noted that since May 2009 the unit establishment has fallen below the minimum sustainable threshold. The current unit establishment is five.

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 Eigg area was drawn from 2001 census information.

Due to the fact that Eigg shares an output area with Canna, Rum and Muck this analysis does not represent the definitive number of persons available to the service it rather serves as a starting indicator from which further investigation can commence. To obtain an accurate figure for Eigg the methodology would require to be applied to the specific island population.

The Eigg unit is located in output area 60QT001326.

Table 2 below shows the community age profile of the census output area associated with Eigg. 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 Eigg unit and the area from where persons can provide an appropriate response.

Table 2 – 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
60QT001326	27	19	38	37	10	131

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 on Eigg. 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 six additional people may be available across the output area.

6.0 Employment profile

Extracted from Highland and Islands Enterprise (HIE) information derived from census 2001 statistics, **Figure 3** illustrates the employment profile for the geographic area in which Eigg unit 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
Total	4,863	4,207	9,070	100.0

Source: GROS 2001 Census

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

Figure 3 Employment profile for the specified geographic area

7.0 Travel to work

Table 3 drawn from 2001 census information, identifies the distance travelled to place of work or study for the above output area.

Table 3 - 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
60QT001326	131	32	23	45	4	0	2	3	7	15	0	0

While the island status of Eigg is acknowledged the census information illustrates that 12 people travel more than 10km to work. Due to the geographical size of the island it can be assumed that these people work away from the island.

Using 2001 census information **Table 4** identifies the cumulative population analysis for Eigg.

Table 4 – Cumulative population analysis

Eigg (Canna, Muck & Rum) population details	No	Running total
Total resident population (census 2001)	131	131
Residents under the age of 18	27	104
Residents over the age of 65	10	94
Residents already in the unit	6	88
Residents remaining		88

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 10km from the station they would be unable to provide a suitable response to an emergency incident. However considering the geographical size of Eigg, travel distance should have little or no bearing on attendance times.
- 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 Eigg can therefore be further projected as illustrated in **Table 5** below.

Table 5 – Potential cumulative population analysis

Eigg (Canna, Muck & Rum) population details		Running total
Residents remaining – carried forward		88
Residents working in ‘Agriculture and Fishing’	7.1% of 88=6	82
Residents working in ‘Transport and Communication’	7.5% of 88=7	75
Number of residents working > 10km of unit (on mainland)		12
Total potential residents remaining		63

Further analysis was performed by operations command in 2009 to examine and update 2001 census information. These initial findings suggested that Eigg currently has a total population of approximately 67 residents. Applying the above methodology to the identified population would reduce this number significantly.

8.0 Conclusions

For the period 1st April 2006 to 31st March 2007, Eigg unit did not receive any emergency calls; therefore the unit's performance cannot be measured against crew confidence and turnout times. However:

- Eigg unit did not fulfil their allocated target for CFS HFSC only completing 25% of their allocation
- Unit establishment decreased to five members in May 2009

Demographic Profile:

- Information from 2001 census suggests that, at best 63 additional people are present across the whole census output area (Eigg, Muck Rum and Canna) which are suitable for employment as a firefighter. This represents 43% of the population
- If a similar proportion of 43% of the population believed to be present on Eigg are considered potentially suitable to be firefighters this would indicate a potential recruitment pool of 29 people could be available. This theoretical 'residents remaining' figure does not consider that some of the population will not be suitable or willing to be employed as a unit member and as such the potential number of possible recruits may be lower

9.0 Recommendations

- **The Eigg 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 the Eigg unit role to that of a CRU delivering CFS information and education only**
- **The CRM department will continue to review risk associated with Eigg as part of the ongoing Risk Review process**

APPENDIX C14

Review of stations which present serious sustainability issues - MUCK

1.0 Introduction

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

1.1 Background

In performing an analysis of information appertaining to Muck, 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 traditional area to which the Muck unit provides an immediate response to incidents indicated by the red boundary line. In June 2005 the unit was designated as a CRU and assigned a CFS education and first aid firefighting only intervention response status. It was the intention that Muck should perform first aid firefighting intervention duties only (to prevent fire spreading from outdoors to affect buildings, or to prevent the spread of fire from one building to another) and perform CFS home fire safety checks (HFSC) within this area in support of the service's Risk Reduction Strategy.



Figure 1 - Census output area associated with Muck

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.

There have been no incidents recorded on Muck therefore the unit's performance cannot be measure against crew confidence and turnout times. There are currently four crew members in the Muck unit. **Table 1** below details their CFS activity.

Table 1 - CFS activity – home fire safety checks (HFSC) performed

	Target for year	Total performed
2006 – 2007	52 visits	0 visits
2007 – 2008	9 visits	3 visits
2008 – 2009	5 visits	3 visits

The target for 2006/07 of 52 visits was calculated on the overall output area figure of households, which covers Canna, Eigg, Muck and Rum. There are only 14 properties on Muck, some of which may not be occupied.

3.0 Analysis of operational incident data

There have been no incidents in the reporting period or since the 1st of June 2005, when the unit took up their new role, indicating a low level of risk on the island, which is supported by the very low FSEC grading.

The Muck unit has not booked off the run via the service's command and control centre due to lack of crew over the Sustainability Review period.

4.0 Establishment history

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

The establishment for Muck at 31st March 2009 was four, and consisted of one watch manager and three firefighters. **Figure 2** below depicts the establishment history from 1st June 2005 to 31st March 2009.

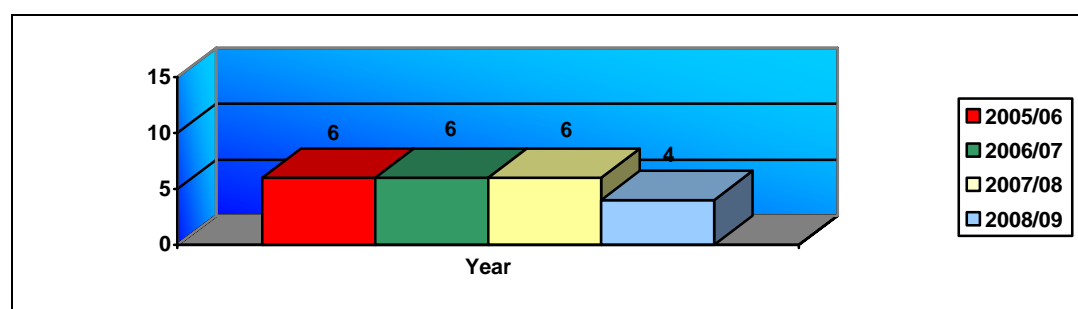


Figure 2 - Establishment history 1st June 2005 to 31st March 2009

Whilst the establishment of the Muck unit has been at the minimum establishment of six for most of the reporting period it should be noted that since May 2009 the unit establishment has fallen below the minimum sustainable threshold. The current establishment of the unit is four.

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 on Muck was drawn from the 2001 census information.

Due to the fact that Muck shares an output area with Canna, Rum and Eigg this analysis does not represent the definitive number of residents available to the service it rather serves as a starting indicator from which further investigation can commence. To obtain an accurate figure for Eigg the methodology would require to be applied to the specific island population.

The Muck unit is located in Output area 60QT001326.

Table 2 below shows the community age profile of the census output area associated with Muck. 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 unit member and as such unable to support the establishment of the station. The green highlighted census output area contains Muck unit and the area from where residents can provide an appropriate response.

Table 2 – 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
60QT001326	27	19	38	37	10	131

NB - This output area is shared with the communities of Canna, Eigg and Rum.

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 on Muck. 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 six additional people may be available, across the output area.

6.0 Travel to work

Table 3 drawn from 2001 census information, identifies the distance travelled to place of work or study for the above output areas.

Table 3 – Distance travelled to place of work or study census - 2001

Output Area	All People	Not currently working or studying	Works or studies mainly at 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/study	Working or studying outside the UK	Working at offshore installation
60QT001326	131	32	23	45	4	0	2	3	7	15	0	0

While the island status of Muck is acknowledged the census information illustrates that 12 people travel more than 10km to work. Due to the geographical size of the island it can be assumed that these people work away from the island.

7.0 Employment profile - Lochaber

Extracted from Highland and Islands Enterprise (HIE) information derived from census 2001 statistics, **Figure 3** illustrates the employment profile for the geographic area in which the station 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
Total	4,863	4,207	9,070	100.0

Source: GROS 2001 Census

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

Figure 3 – Employment Profile for the Specified Geographic Area

Using 2001 census information **Table 4** identifies the cumulative population analysis for Muck.

Table 4 – Cumulative population analysis

Muck population details	No	Running total
Total resident population (census 2001)	131	131
Residents under the age of 18	27	104
Residents over the age of 65	10	94
Residents already in the unit	6	88
Residents who have left the unit (2007/08)	2	86
Residents remaining		86

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 given the geographical size of Muck, travel distance should have little or no bearing on attendance times.
- 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 Muck can therefore be further projected as illustrated in **Table 5** below.

Table 5 – Potential cumulative population analysis

Muck population Details		Running Total
Residents remaining – carried forward		86
Residents working in ‘agriculture and fishing’	7.1% of 86=6	80
Residents working in ‘transport and communication’	7.5% of 86=7	73
Number of residents working > 10km of unit (on mainland)		12
Total potential residents remaining		61

Further analysis was performed by operations command in 2009 to examine and update 2001 census information. These initial findings suggested that Muck currently has a total population of approximately 30 residents. Applying the above methodology to the identified population would reduce this number significantly.

8.0 Conclusions

For the period 1st April 2006 to 31st March 2009, Muck unit did not receive any emergency calls; therefore the unit's performance cannot be measured against crew confidence and turnout times. However:

- Despite the over provision in the allocation of CFS HFSC to Muck the unit has not been able to complete HFSC for all the properties on the island with only six visits being completed

Demographic Profile:

- Information from the latest population census suggests that at best 61 people are present across whole census output area (Eigg, Muck Rum and Canna) which are suitable for employment as a firefighter. This represents 46% of the population
- If a similar proportion of 46% of the population believed to be present on Muck are considered potentially suitable to be firefighters this would indicate a potential recruitment pool of 29 people could be available. 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
- The employment profile indicates that 13% of people work out with the community

9.0 Recommendations

- **The Muck 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 the role of Muck to that of a CRU delivering CFS information and education only**
- **The CRM department will continue to review risk associated with Muck as part of the ongoing Risk Review process**

APPENDIX C15

Review of stations which present serious sustainability issues – PAPA STOUR

1.0 Introduction

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

1.1 Background

In performing an analysis of information appertaining to Papa Stour, 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 area associated with Papa Stour highlighted in green. The traditional area to which the unit provides an immediate response to incidents is indicated by the red boundary line. In June 2005 the unit was designated as a CRU and assigned a CFS education and first aid/firefighting only intervention response status. It was the intention that Papa Stour should perform first aid firefighting intervention duties only (to prevent fire spreading from outdoors to affect buildings or to prevent the spread of fire from one building to another) and perform CFS home fire safety checks (HFSC) within this area in support of the service's Risk Reduction Strategy.



Figure 1 - Census output area associated with Papa Stour

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.

However, following Papa Stour's designation as a CRU with CFS education and first aid/firefighting only intervention response, establishment decreased from four in July 2005 to one in August 2005. Papa Stour unit was therefore unable to perform this role or deliver against the following performance targets;

- **Crew confidence – target 100% of incidents**
- **Turnout times – target seven¹ minutes**

While over the reporting period 30 HFSC have been allocated to be completed on Papa Stour, performance in this area is limited as two persons are required to complete each visit. Despite this, 14 HFSC have been carried out in conjunction with district staff and the Shetland Community Safety Advocate (CSA). These 14 visits relate to eight houses with one refusal.

3.0 Analysis of operational incident data

There have been no incidents in the reporting period or since the 1st of June 2005, when the unit took up their new role, indicating a low level of risk on the island, which is supported by the very low FSEC grading.

4.0 Establishment history

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

The establishment for Papa Stour at 31st March 2009 was one firefighter. **Figure 2** identifies the establishment history from 1st June 2005 to 31st March 2009. To date, this situation has not changed.

¹ 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

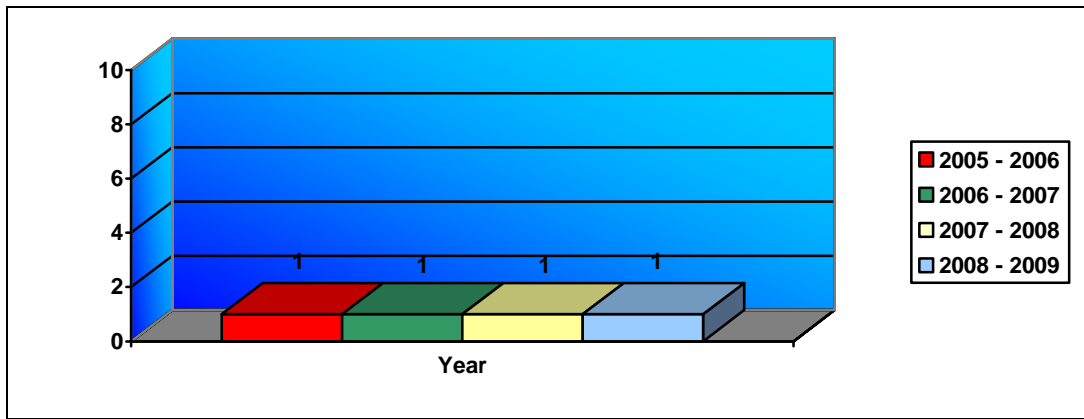


Figure 2 - Establishment History 1st April 2004 to 31st March 2009

NB - The current member of the unit is employed on a CRU/CFS contract only.

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.

Papa Stour unit is located in census output area 60RD000029. However as this output area incorporates part of mainland Shetland, census 2001 information does not accurately reflect the precise population details of Papa Stour.

While the following 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 1 below shows the community age profile of the census output area associated with Papa Stour. 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 Papa Stour unit and the area from where residents can provide an appropriate response.

Table 1 - 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
60RD000029	48	22	40	50	30	190	49.51

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 on Papa Stour. 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.

Further analysis was performed by operations command in October 2007 to examine and update 2001 census information, as well as revisiting the issues relating to recruitment. The information captured is presented in **Table 2**.

Table 2 – Updated population details

Papa Stour population details	No	Running total
Total resident population as at 1 st Oct 2007	19	19
Residents under the age of 18	5	14
Residents not physically fit for fire & rescue service duties	7	7
Residents already in the unit	1	6
Residents remaining		6

6.0 Conclusions

For the period 1st April 2006 to 31st March 2009, Papa Stour unit did not receive any emergency calls; therefore the unit's performance cannot be measure against crew confidence and turnout times. However:

- Papa Stour station only has one crew member and is therefore deemed operationally off the run. 14 HFSC have been carried out in conjunction with district staff and the Shetland CSA. These 14 visits relate to eight houses with one refusal

For the period 1st June 2005 to 31st March 2006:

- Papa Stour's establishment decreased from four in July 2005 to one in August 2005. The current establishment has remained constant at one
- No emergency calls have been received

Demographic Profile:

- An analysis carried out by operations command in October 2007 identified that there were 19 people resident on the island. Of these, six could be suitable for recruitment to the fire service. This does not consider that some of the population will not be suitable of willing to be employed as a firefighter

Unit Members:

- Operations command and the local community have made attempts to recruit new members to the unit by distributing recruitment posters throughout the island. In addition, letters were sent to households within the community which resulted in two application packs being issued, these have never been returned

7.0 Recommendations

- **The Papa Stour unit currently has one member and it has not proven possible for the local community to further support the unit. The Board accept that it has not proven possible to support a safe and effective intervention response and therefore the role of the unit be changed to that of a CRU with the role of delivering CFS information and education only**
- **In this new role the Papa Stour unit should be allocated a twelve month period in which to recruit one other unit member and demonstrate that they can effectively deliver CFS information and education**
- **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**
- **Following this period should the unit not be able to demonstrate an appropriate level of performance then the Board accept the position and provide the appropriate level of CFS support utilising the wider resources of the service. Therefore the board should no longer support the provision of a CFS CRU unit on Papa Stour**
- **The CRM department will continue to review risk associated with Papa Stour as part of the ongoing Risk Review process**