THE CONDITION OF SCOTLAND'S SCHEDULED MONUMENTS 2012-17

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

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Note: Photographs of monuments are included to illustrate particular categories and monument types. The inclusion of a photograph of a monument does not infer poor condition or risk

The characteristics of the dataset mean that some changes over time are unlikely to be statistically significant. However, we regard our recent condition and risk information as a valuable resource that can guide field officer monitoring, advice giving, and investment.

EXECUTIVE SUMMARY

- We have produced this report to share an important data set; to help owners, stakeholders and Historic Environment Scotland understand priorities for further analysis and funding; and to identify monument types at most risk and take action.

- A key aim of Scotland's Historic Environment Strategy *Our Place in Time* is to care for and protect the historic environment. The strategy stresses the need to develop a strong evidence base so that we can understand and monitor performance. A vital part of this must be to record and understand the condition of Scotland's nationally important Scheduled Monuments. These sites can have high value for local communities, and can support tourism, education, leisure activities and research.

- Enhancing the protection of the historic environment is one of the five strategic themes set out in our Corporate Plan (2016-19). Improving the condition of Scotland's historic environment is one of our key performance indicators. Accurate and up-to-date information on scheduled monument condition is an essential part of achieving this. To respond effectively to the challenges laid down in Scotland's Historic Environment Strategy and our Corporate Plan, we need to understand the condition of our nationally important scheduled monuments. Only then can we make the best use of our resources and achieve the best outcomes for these nationally important assets.

- Scheduled monuments remain the property of their owners, and there is no compulsion to manage them positively or improve condition. However, Historic Environment Scotland can give advice on management and can provide funding for owners to improve monument condition.

- This report analyses the condition and risk information on scheduled monuments gathered up to 2017. It follows a previous report produced in 2012.

- It must be emphasised that identifying simple trends over time is problematic – we have visited different samples of monuments at different times, for different reasons. As a result, small changes in condition for the sample we visit are unlikely to be statistically significant. Rather, the value lies in understanding where in Scotland monuments are at most risk, which monument categories are most vulnerable, and why.

- The percentage of monuments visited in the last 5 years in satisfactory condition is around 88%. This is closely comparable with the figure of 87% for 2007-2012. The percentage of monuments we visited that were at high or immediate risk of further deterioration was around 8%. In 2012 the figure was 12%. Around 25% of monuments show an improvement in condition over time, with 21% showing a decline. In 2012, the figures were 28% and 26% respectively. The figures for risk are similar.

- Analysis of the condition of scheduled monuments by local authority area shows a number of geographical zones where proportionately, scheduled monuments appear to be in a poorer condition. In particular, a zone in West Scotland has higher than average unsatisfactory condition scores. Our data is collected by local authority area, but it is important to note that the findings have nothing to do with the actions of any local authority. Rather, the condition issues may relate to occurrence of monument types, climate, and landuse.

- Certain categories of monument appear more vulnerable now than five years ago. Crosses and carved stones are particularly affected.

- However, Ecclesiastical and Secular monuments, including many masonry structures, show the highest proportions in unsatisfactory condition. Some Roman and Industrial monuments also show above average unsatisfactory condition scores.

- The condition of monuments buried below ploughsoil and known only from cropmarking is difficult to score. We have highlighted that the current scoring guidance used when assessing the condition of cropmark monuments is not ideal, and does not produce data that can be combined or compared with those for other monument types. Our analysis shows that in future, we should report separately on these monuments to ensure they are not distorting the overall picture. Alternative scoring methodologies should also be investigated and adopted if appropriate.

- Analysis of the 'causes of poor condition' has been undertaken to better understand how and why the condition of some monuments deteriorates. Trees and tree regeneration are the most widespread causes across six of the eight monument categories.

- Detailed analysis of scheduled monuments in Dumfries and Galloway, one of the areas with higher than average scores for unsatisfactory or deteriorating condition, suggests a small number of category sub-types are particularly likely to be affected. These include earthwork castles and forts. Analysis of causes of poor condition indicates that bracken, tree regeneration and animal erosion are significantly more frequent causes in Dumfries and Galloway than across Scotland as a whole. We must emphasise again that while we have used local authority areas in our spatial analysis, the issues in this region have nothing to do with the actions of the local authority.

- We will use the findings of this report to prioritise the allocation of resources and field officer visits over the next five years. We will develop projects to work with owners to improve monument condition, focussing on earthwork castles in Dumfries and Galloway and on the monuments in poorest condition nationally. We will welcome additional suggestions from owners and stakeholders and work with them where possible to improve monument condition.

- Field Officer visits to scheduled monument offer many benefits beyond condition and risk recording. These include proactively raising awareness of monuments and offering advice and funding to owners. But by identifying and targeting vulnerable areas, site types and issues, we can maximise the impact of our visits.

1. BACKGROUND TO DATASET

There are around 8200 scheduled monuments in Scotland. Our Field Officers visit the majority of these on a 5-10 year visit cycle. During a visit, the field officer will record the condition of the monument on a 5 point scale, and make an assessment of the future risk to the monument.

Condition is scored from 1 to 5 based on site observations:

1 – Optimal
2 – Satisfactory with minor localised problems
3 – Satisfactory with significant localised problems
4- Unsatisfactory with major localised problems
5 – Extensive significant problems

Risk is also assessed on a five point scale:

1 – Minimal
2 – Slight
3 – Medium (deterioration likely within 5 years) 4 – High (deterioration likely within 1 year)
5 – Immediate (ongoing deterioration)

Guidance on scoring for 4 broad monument types – field monuments, standing buildings, cropmark sites and carved stones, can be found at Appendix 2. Further information on Historic Environment Scotland's condition monitoring programme can be found in the leaflet 'Scheduled Monument Condition Monitoring: A guide for owners, occupiers and land managers'.

In addition, Field Officers record information about the causes of poor condition, if relevant, for each monument they visit.



In the analyses in this report, we have grouped condition scores 1, 2 and 3 together as broadly 'satisfactory'. We have grouped scores 4 and 5 as unsatisfactory. Unsatisfactory condition can include trees or bracken growing on more than 50% of a site; serious rabbit infestation; mature trees, ivy or cracking affecting a standing building; or significant ground disturbance. The guidance at Appendix 2 provides more examples.

Field Officers began their visit programme in 1989. However, comprehensive condition and risk scores are only available from 1998 onwards. Around 500-700 monuments are visited annually. Before 2012, visits were prioritised on a rolling cycle according to date of last visit. In 2012, Field Officers moved to an annual planning programme, where the last known condition and risk of the monument is taken account of in visit prioritisation. This ensures that monuments in poorer condition, or those deemed to be at greater risk, are given higher priority than monuments in a stable, satisfactory condition. As such, those in a poorer condition are now visited more frequently. This allows us to focus our effort where we can have most impact. However, it also means we must be wary of making simple comparisons between the data gathered before and after 2012.

We currently have visit information for 7326 scheduled monuments, representing 89% of the total. However, the information for 3385 of these monuments was collected more than 5 years ago. It is therefore important that the age of the data is acknowledged in any conclusions drawn from assessment. A limit of 5 years has been placed on the use of data to compile a picture of the current state of monuments. Older data has however been used to analyse trends.

In looking at trends, it is important to understand that in any five year period, we are comparing visits to a different sample of scheduled monuments. We can overcome this to a degree by analysing changes in condition and risk for the same monument where we have information from two or more visits to it. However, the group of monuments sampled in any five year period will still be different.

In 2012-2017, we visited many monuments scheduled for the first time in the decades starting in 2000 and 2010. We also made second visits to monuments scheduled in the 1990s. The condition and risk scores gathered in 2012-2017 will therefore reflect the characteristics of the monuments scheduled in these decades.

A further issue is that the condition of monuments identified only through cropmarking is particularly difficult to establish on the basis of a field inspection. These monuments are by definition covered by plough soil and not visible on the surface; it is likely they may have elevated condition scores (see below Section 4). This is compensated for to a degree by the risk scoring system, which takes account of factors such as slope, soil type, crop type and exposure of subsoil.

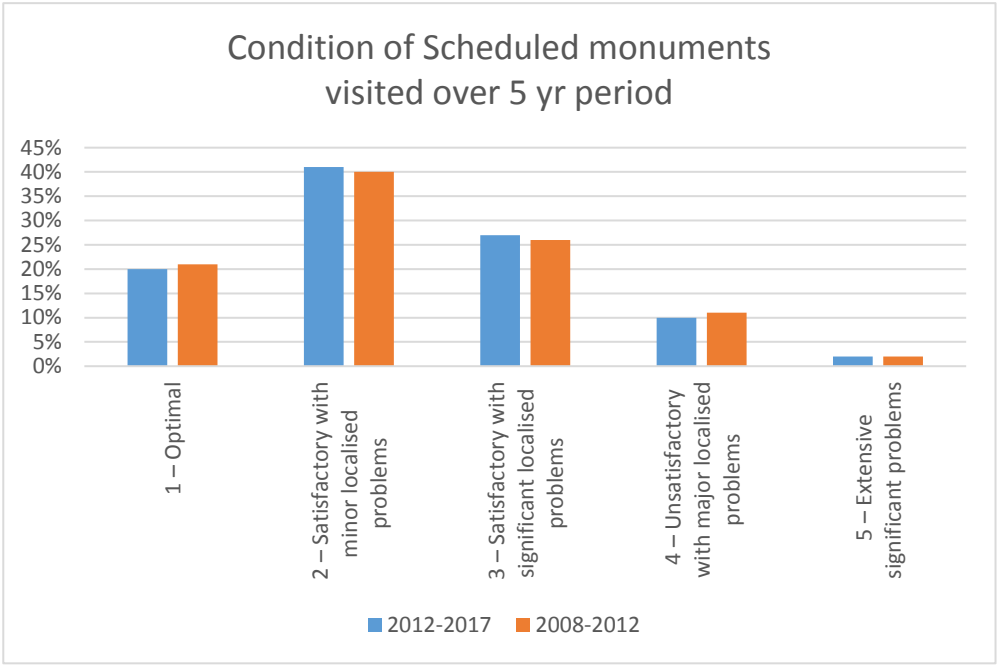
These factors mean that some changes in the data over time are unlikely to be statistically significant. But although data cannot be used simplistically to identify trends, our recent condition and risk information can help us identify the vulnerabilities of particular monument types, or parts of the country where issues are emerging. It is therefore a highly valuable dataset for guiding field officer monitoring, advice giving, and investment to where it is most needed.

2. NATIONAL TRENDS

2.1 CONDITION OF MONUMENTS ACROSS SCOTLAND

Information on the condition of scheduled monuments collected within the last 5 years shows around 88% of monuments visited are in a satisfactory condition (condition scores 1, 2, and 3). 12% are in optimal condition. The most common condition score is 2, ie satisfactory with minor localised problems (41% of monuments). Around 10% of monuments have major but localised problems, while 2% have extensive significant problems. Appendix 2 gives examples of issues associated with each condition score.

CONDITION - 5 year period ending:	2013-17	%	2008-12
No of SMs visited in last 5 yrs where condition is satisfactory (score 1-3)	3460	88%	87%
No of SMs visited in last 5 yrs where condition is unsatisfactory (score 4-5)	481	12%	13%
No of SMs visited in last 5 yrs where condition is 1 – Optimal	774	20%	21%
No of SMs visited in last 5 yrs where condition is 2 – Satisfactory with minor localised problems	1624	41%	40%
No of SMs visited in last 5 yrs where condition is 3 – Satisfactory with significant localised problems	1062	27%	26%
No of SMs visited in last 5 yrs where condition is 4 – Unsatisfactory with major localised problems	405	10%	11%
No of SMs visited in last 5 yrs where condition is 5 – Extensive significant problems	76	2%	2%



The figures are broadly comparable with those recorded in the period 2008-2012, when 87% of monuments visited were in satisfactory condition. As noted at Section 1, the small variations in the two data sets are not significant.

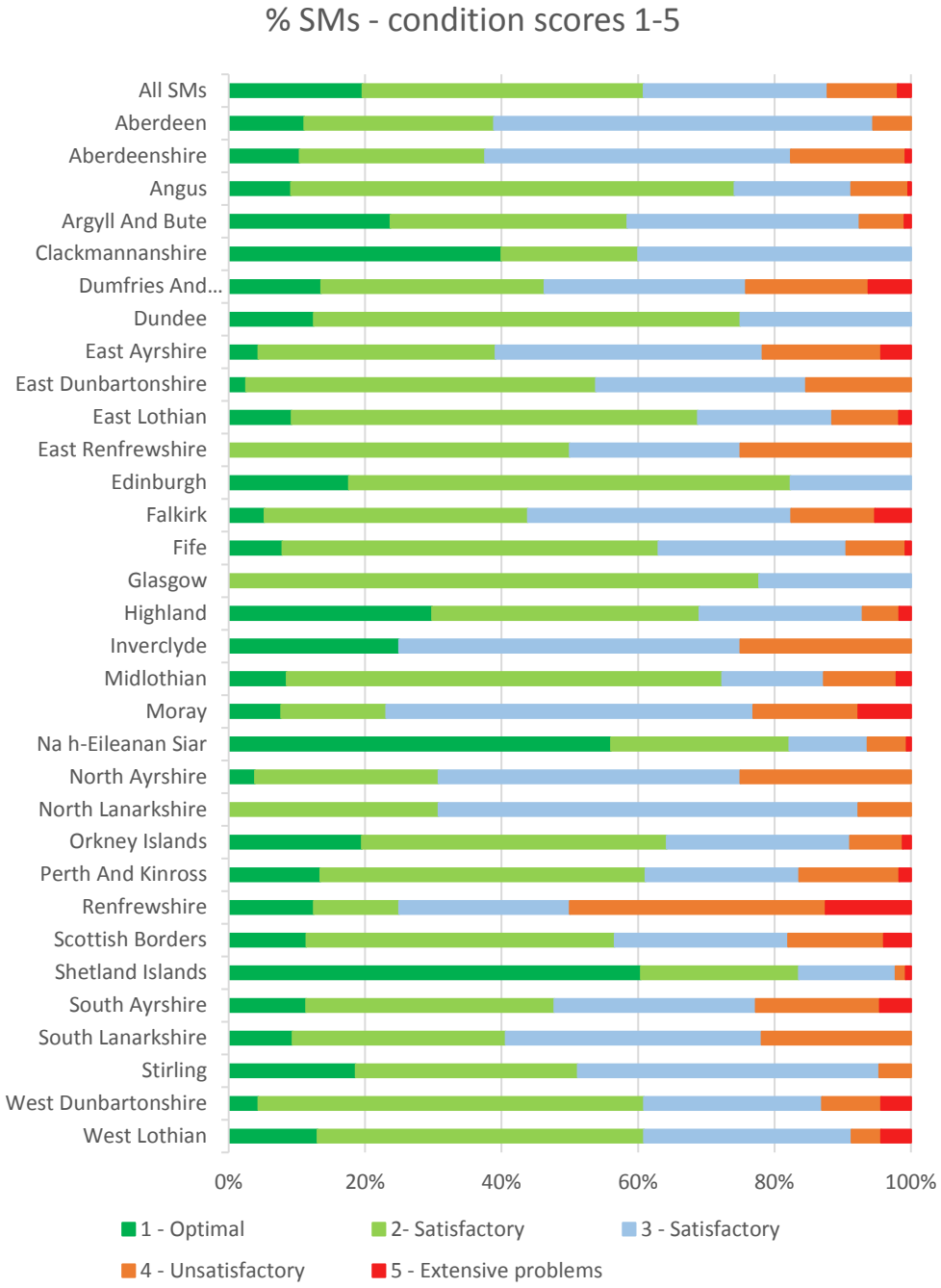
The condition data can be analysed by local authority area. The table and chart below use data collected in 2013-17.

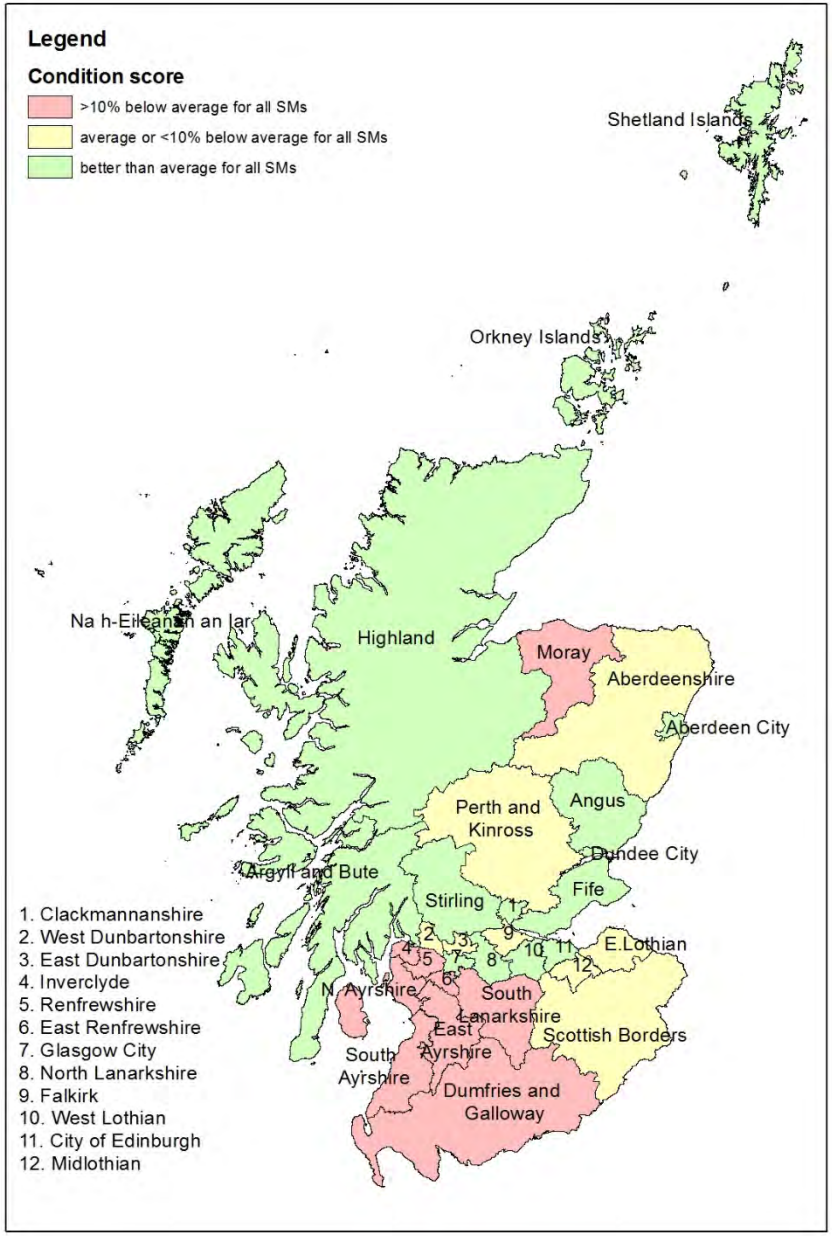
Condition – By local authority area	SMs in monitoring programme	SMs - current condition scores	% - current condition score	% satis-factory	% unsatis-factory
All SMs	7864	3941	50%	88%	12%
Aberdeen	45	18	40%	94%	6%
Aberdeenshire	550	250	45%	82%	18%
Angus	370	263	71%	91%	9%
Argyll And Bute	792	426	54%	92%	8%
Clackmannanshire	13	5	38%	100%	0%
Dumfries And Galloway	1014	339	33%	76%	24%
Dundee	14	8	57%	100%	0%
East Ayrshire	29	23	79%	78%	22%
East Dunbartonshire	40	39	98%	85%	15%
East Lothian	287	173	60%	88%	12%
East Renfrewshire	11	4	36%	75%	25%
Edinburgh	56	17	30%	100%	0%
Falkirk	87	57	66%	82%	18%
Fife	240	127	53%	91%	9%
Glasgow	16	9	56%	100%	0%
Highland	1226	707	58%	93%	7%
Inverclyde	31	4	13%	75%	25%
Midlothian	76	47	62%	87%	13%
Moray	76	13	17%	77%	23%
Na h-Eileanan Siar	213	157	74%	94%	6%
North Ayrshire	91	52	57%	75%	25%
North Lanarkshire	32	13	41%	92%	8%
Orkney Islands	372	246	66%	91%	9%
Perth And Kinross	730	409	56%	84%	16%
Renfrewshire	33	8	24%	50%	50%
Scottish Borders	740	228	31%	82%	18%
Shetland Islands	392	134	34%	98%	2%
South Ayrshire	86	44	51%	77%	23%
South Lanarkshire	179	32	18%	78%	22%
Stirling	183	43	23%	95%	5%
West Dunbartonshire	25	23	92%	87%	13%
West Lothian	47	23	49%	91%	9%

= Better than average for all SMs

= Average or < 10% below average for all SMs

= >10% below average for all SMs





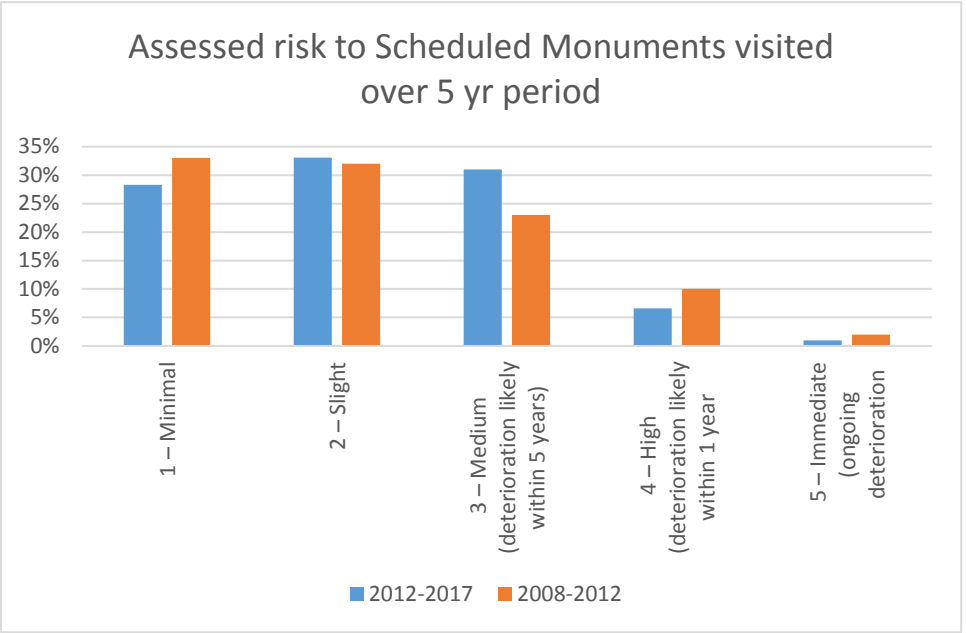
The data shows areas in the west of Scotland where a higher percentage of monuments with significant management needs has been identified. For many of these areas, the sample size is very small, and we cannot attribute a high level of significance to the figures. However, the number of monuments visited in Dumfries and Galloway is relatively large, and suggests there may be issues particular to West Scotland that are affecting the condition of scheduled monuments. These issues may relate to factors such as landuse and climate. The condition of monuments in these areas would benefit from further study. Our analysis of the causes of poor condition at Section 5 below contributes to this. Aberdeenshire and Scottish Borders also have large numbers of scheduled monuments with a below average % in satisfactory condition.

The areas with a high proportion of monuments in satisfactory condition include local authorities with large areas of sparsely populated uplands, as well as several of Scotland's major cities.

2.2. ASSESSED RISK TO MONUMENTS ACROSS SCOTLAND

Information on the assessed risk to monuments collected over the last 5 years suggests that 61% are currently at low risk (minimal or slight). 8% are assessed as being at high (deterioration within 1 year) or immediate (ongoing deterioration) risk.

RISK - 5 year period ending:	2012-17	%	2008-12
No of SMs visited in last 5 yrs where risk is low (score 1-2)	2415	61%	65%
No of SMs visited in last 5 yrs where risk is high (score 4-5)	300	7%	12%
No of SMs visited in last 5 yrs where risk is 1 – Minimal	774	28%	33%
No of SMs visited in last 5 yrs where risk is 2 – Slight	1624	33%	32%
No of SMs visited in last 5 yrs where risk is 3 – Medium (deterioration likely within 5 years)	1062	31%	23%
No of SMs visited in last 5 yrs where risk is 4 – High (deterioration likely within 1 year	405	7%	10%
No of SMs visited in last 5 yrs where risk is 5 – Immediate (ongoing deterioration	76	1%	2%



This is fairly consistent with figures collected in 2012 and annual figures collected since 1998. As with the condition figures, the nature of the dataset means these relatively small changes in assessed risk over time are unlikely to be significant, as we have monitored different groups of monuments.

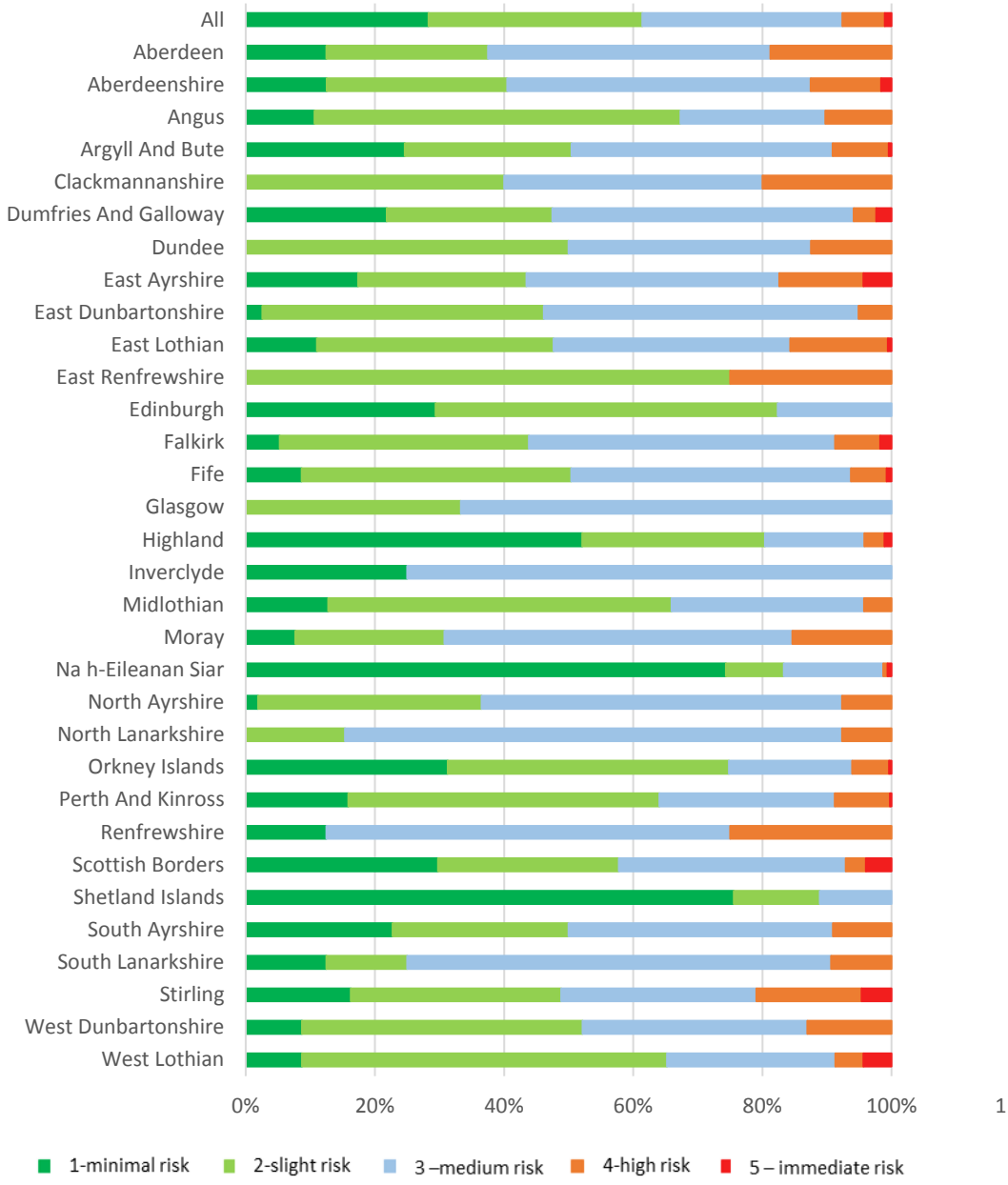
The risk data can again be analysed by local authority area. The table and chart below use data collected in 2012-17.

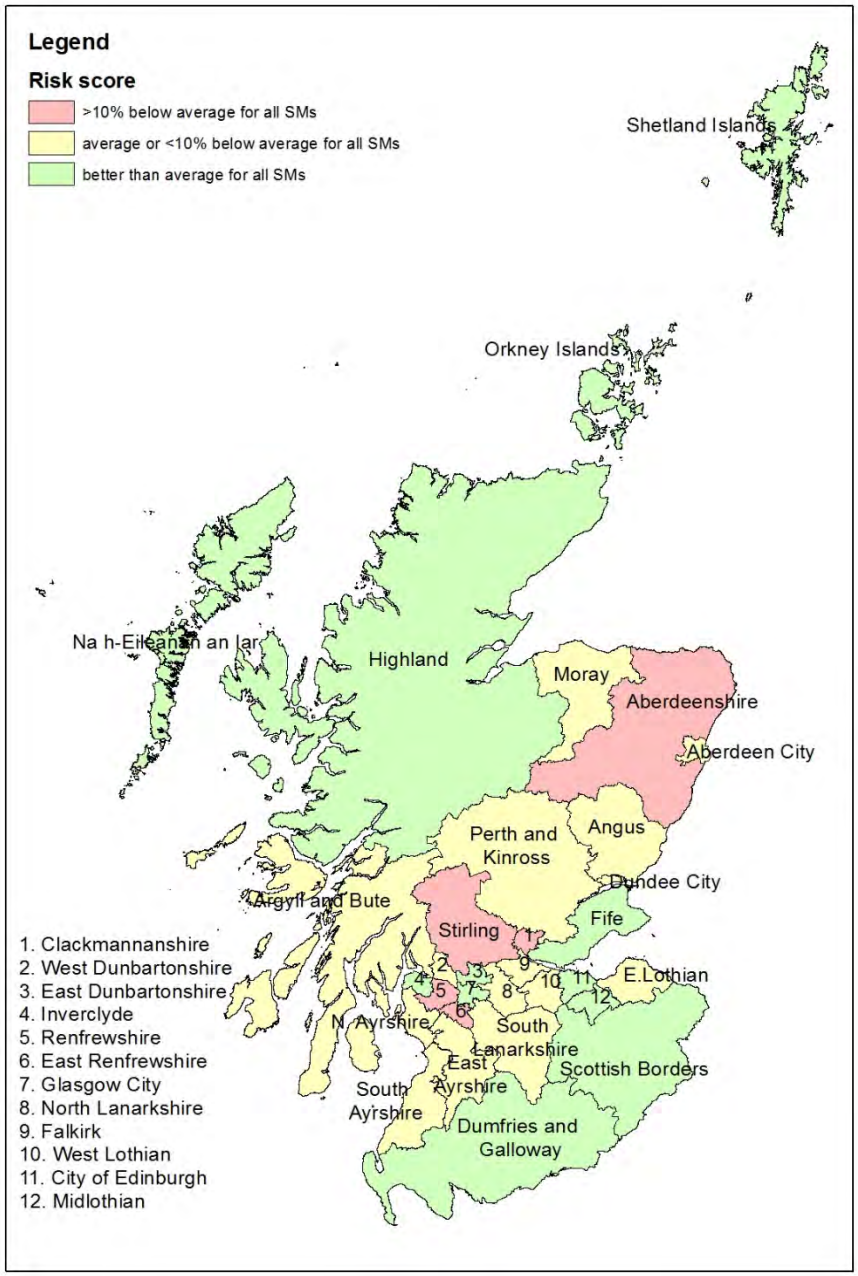
Risk – by Local Authority Area	SMs in monitoring programme	SMs with current risk scores	% with current risk score	% satis-factory	% unsatis-factory
All SMs	7864	3933	50%	92%	8%
Aberdeen	45	16	36%	81%	19%
Aberdeenshire	538	247	46%	87%	13%
Angus	353	263	75%	90%	10%
Argyll And Bute	754	426	56%	91%	9%
Clackmannanshire	12	5	42%	80%	20%
Dumfries And Galloway	986	339	34%	94%	6%
Dundee	12	8	67%	88%	13%
East Ayrshire	27	23	85%	83%	17%
East Dunbartonshire	39	39	100%	95%	5%
East Lothian	277	172	62%	84%	16%
East Renfrewshire	11	4	36%	75%	25%
Edinburgh	52	17	33%	100%	0%
Falkirk	85	57	67%	91%	9%
Fife	227	127	56%	94%	6%
Glasgow	15	9	60%	100%	0%
Highland	1205	708	59%	96%	4%
Inverclyde	30	4	13%	100%	0%
Midlothian	75	47	63%	96%	4%
Moray	73	13	18%	85%	15%
Na h-Eileanan Siar	212	156	74%	99%	1%
North Ayrshire	87	52	60%	92%	8%
North Lanarkshire	32	13	41%	92%	8%
Orkney Islands	352	246	70%	94%	6%
Perth And Kinross	713	409	57%	91%	9%
Renfrewshire	31	8	26%	75%	25%
Scottish Borders	735	225	31%	93%	7%
Shetland Islands	384	135	35%	100%	0%
South Ayrshire	83	44	53%	91%	9%
South Lanarkshire	176	32	18%	91%	9%
Stirling	175	43	25%	79%	21%
West Dunbartonshire	24	23	96%	87%	13%
West Lothian	44	23	52%	91%	9%

= Better than average for all SMs

= Average or < 10% below average for all SMs

= >10% below average for all SMs





The risk data shows a partial geographical correspondence with the condition data - areas with a high percentage of monuments with satisfactory risk scores include upland areas and several larger cities, zones which also had high proportions of monuments in satisfactory condition.

However, the risk data also shows some variance from the condition data. Although there are elevated unsatisfactory risk scores for parts of West Scotland, Dumfries and Galloway has a better than average % of monuments with satisfactory risk scores. The value in the risk data is that it enables us to identify areas that may have above average condition scores, but where challenges may lie ahead. For example, Stirling has a low percentage of monuments in unsatisfactory condition, but a higher than average proportion of unsatisfactory risk scores.

3. CHANGE IN CONDITION AND RISK OF INDIVIDUAL MONUMENTS OVER TIME

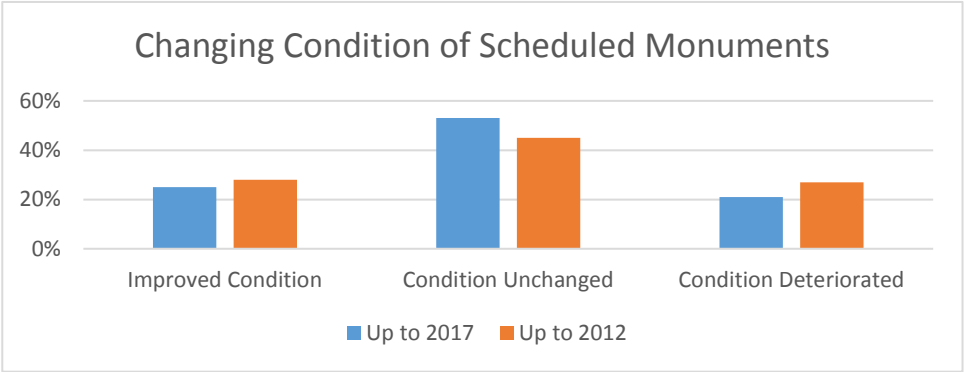
3.1 METHOD

The number of visits per monument varies from 0 to over 20. Some 5237 scheduled monuments (64%) have been visited more than once. For monuments with two or more visits, analysis of the change in condition and risk over the two most recent visits has been performed.

3.2 CHANGE IN CONDITION

The majority of monuments show an unchanged condition score over their last two visits. The number with improving condition (about 25%) is larger than the number with condition deteriorating (about 21%). The figures are broadly comparable with those calculated in 2012, but show a larger percentage with unchanged condition scores, and smaller percentages with improving or deteriorating condition.

CHANGE IN CONDITION SCORE	Up to 2017		Up to 2012
Number of SMs with >1 visit	5237	64%	40%
Number of SMs where condition had improved at last visit	1323	25%	28%
Number of SMs where condition score was unchanged at last visit	2792	53%	45%
Number of SMs where condition had deteriorated at last visit	1122	21%	27%



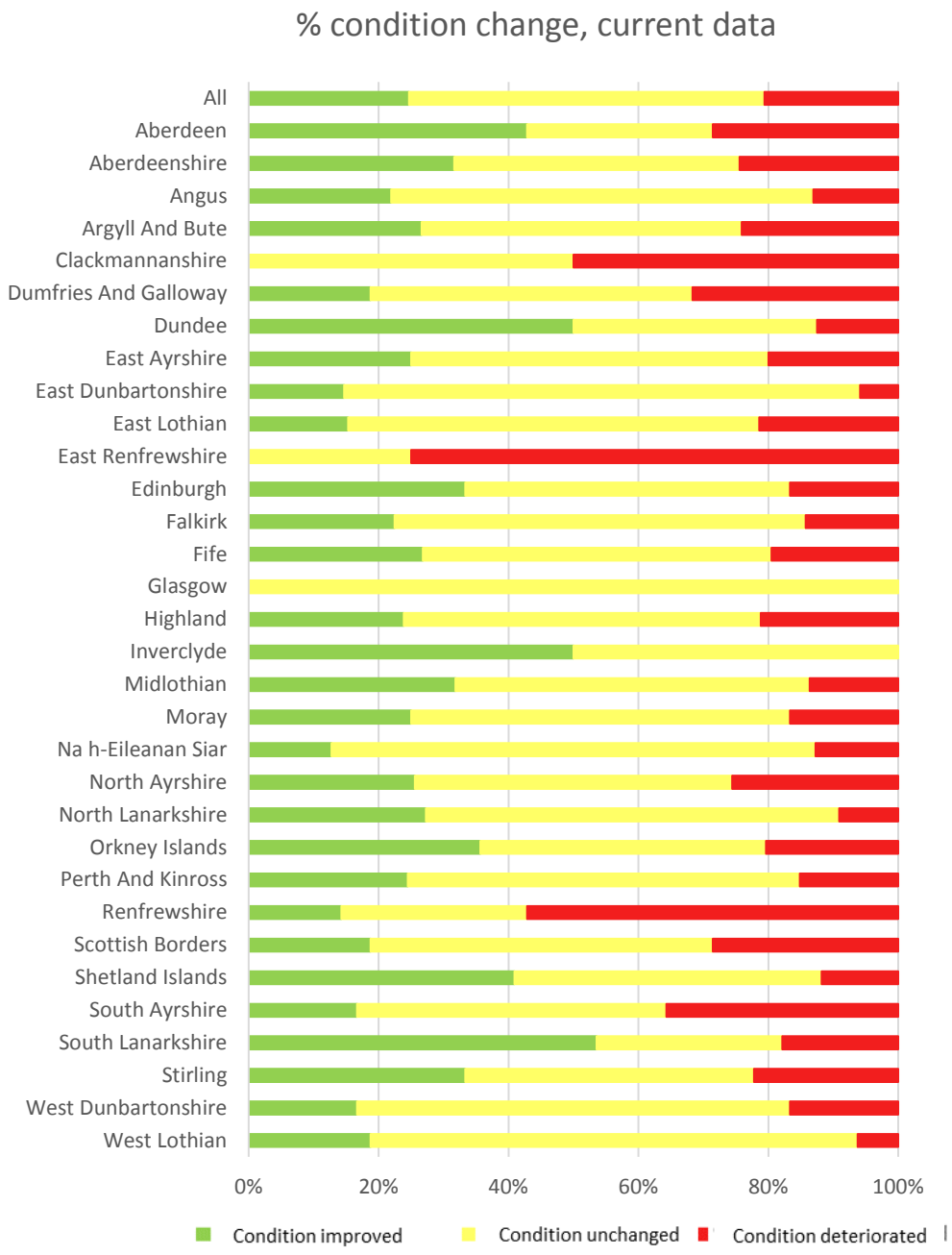
The table and chart below show change in condition by local authority area, for monuments with current condition information.

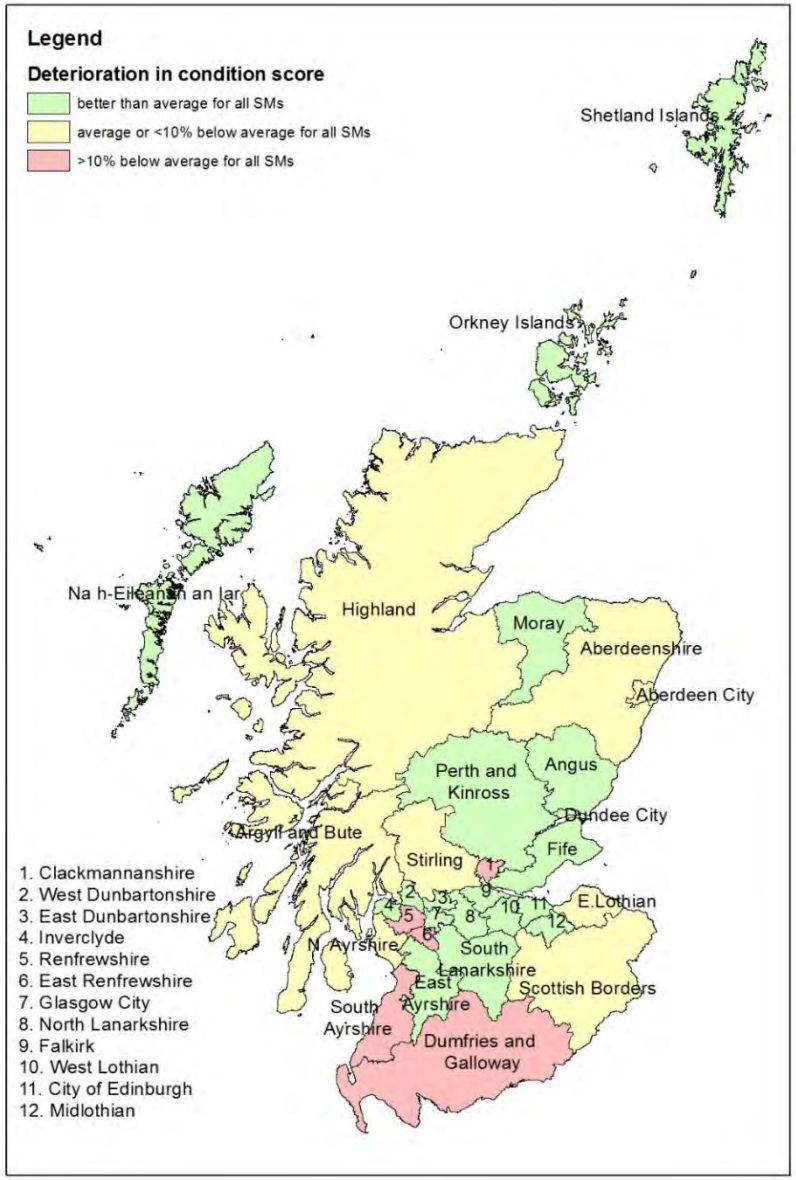
Local authority	SMs in monitoring programme	SMs with >1 visit and current data	% condition improved	% condition unchanged	% condition deteriorated
All	7864	3308	25%	55%	21%
Aberdeen	45	14	43%	29%	29%
Aberdeenshire	538	139	32%	44%	24%
Angus	353	260	22%	65%	13%
Argyll And Bute	754	357	27%	49%	24%
Clackmannanshire	12	2	0%	50%	50%
Dumfries And Galloway	986	325	19%	50%	32%
Dundee	12	8	50%	38%	13%
East Ayrshire	27	20	25%	55%	20%
East Dunbartonshire	39	34	15%	79%	6%
East Lothian	277	98	15%	63%	21%
East Renfrewshire	11	4	0%	25%	75%
Edinburgh	52	6	33%	50%	17%
Falkirk	85	49	22%	63%	14%
Fife	227	123	27%	54%	20%
Glasgow	15	4	0%	100%	0%
Highland	1205	637	24%	55%	21%
Inverclyde	30	2	50%	50%	0%
Midlothian	75	22	32%	55%	14%
Moray	73	12	25%	58%	17%
Na h-Eileanan Siar	212	157	13%	75%	13%
North Ayrshire	87	43	26%	49%	26%
North Lanarkshire	32	11	27%	64%	9%
Orkney Islands	352	216	36%	44%	20%
Perth And Kinross	713	396	24%	60%	15%
Renfrewshire	31	7	14%	29%	57%
Scottish Borders	735	112	19%	53%	29%
Shetland Islands	384	110	41%	47%	12%
South Ayrshire	83	42	17%	48%	36%
South Lanarkshire	176	28	54%	29%	18%
Stirling	175	36	33%	44%	22%
West Dunbartonshire	24	18	17%	67%	17%
West Lothian	44	16	19%	75%	6%

= Better than average for all SMs

= Average or < 10% below average for all SMs

= >10% below average for all SMs





Visits made in the past 5 years are showing large geographical variations in the proportion of monuments in declining condition. The figures again highlight the challenges faced by some monuments in parts of West Scotland. Here, some small geographical areas show high levels of monuments with deteriorating condition, but with a very small sample size – the small sample size raises doubts about the significance of their figures. However other areas in the West with a larger sample of scheduled monuments also show elevated levels of deterioration, suggesting a genuine issue in this part of the country. Aberdeenshire and Scottish Borders are also areas with large numbers of scheduled monuments, a relatively high proportion in unsatisfactory condition, and above average levels of deterioration.

There may be a variety of factors influencing this trend, including climate change, changes in farm stocking levels, and changes in the management of small land parcels containing monuments. Many of the areas with higher levels of declining condition are characterised by concentrations of pasture and forestry. Management issues may be complicated, for example, high stocking levels may lead to erosion of upstanding monuments, but falls in stock levels may lead to regeneration of trees, scrub and bracken.

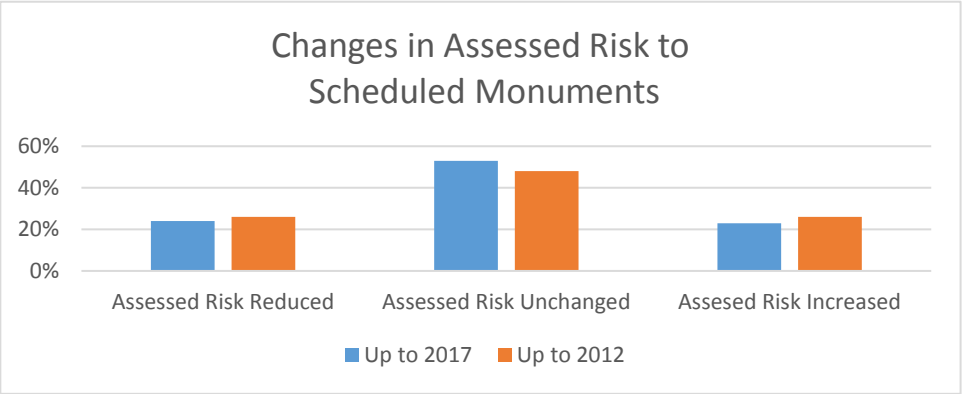
The areas where declining condition is an issue may also have concentrations of monument types that are vulnerable to erosion or tree/scrub regeneration, for example upstanding earthworks.

These figures have caused us to look in more detail at the Dumfries and Galloway area, to try and identify types of monument that may be vulnerable to deteriorating condition (see Section 7, below).

3.2 CHANGE IN RISK

The majority of monuments show an unchanged risk score over their last two visits. The numbers with reducing and increasing risk are very similar (about 24% and about 23%). The figures are broadly comparable with 2012, but as with condition, they show a larger percentage with unchanged scores, and smaller percentages with reducing or increasing risk.

CHANGE IN RISK SCORE	Up to 2017		Up to 2012
Number of SMs with >1 visit	5206	63%	40%
Number of SMs where risk has reduced at last visit	1232	24%	26%
Number of SMs where risk score was unchanged at last visit	2757	53%	48%
Number of SMs where risk had increased at last visit	1217	23%	26%



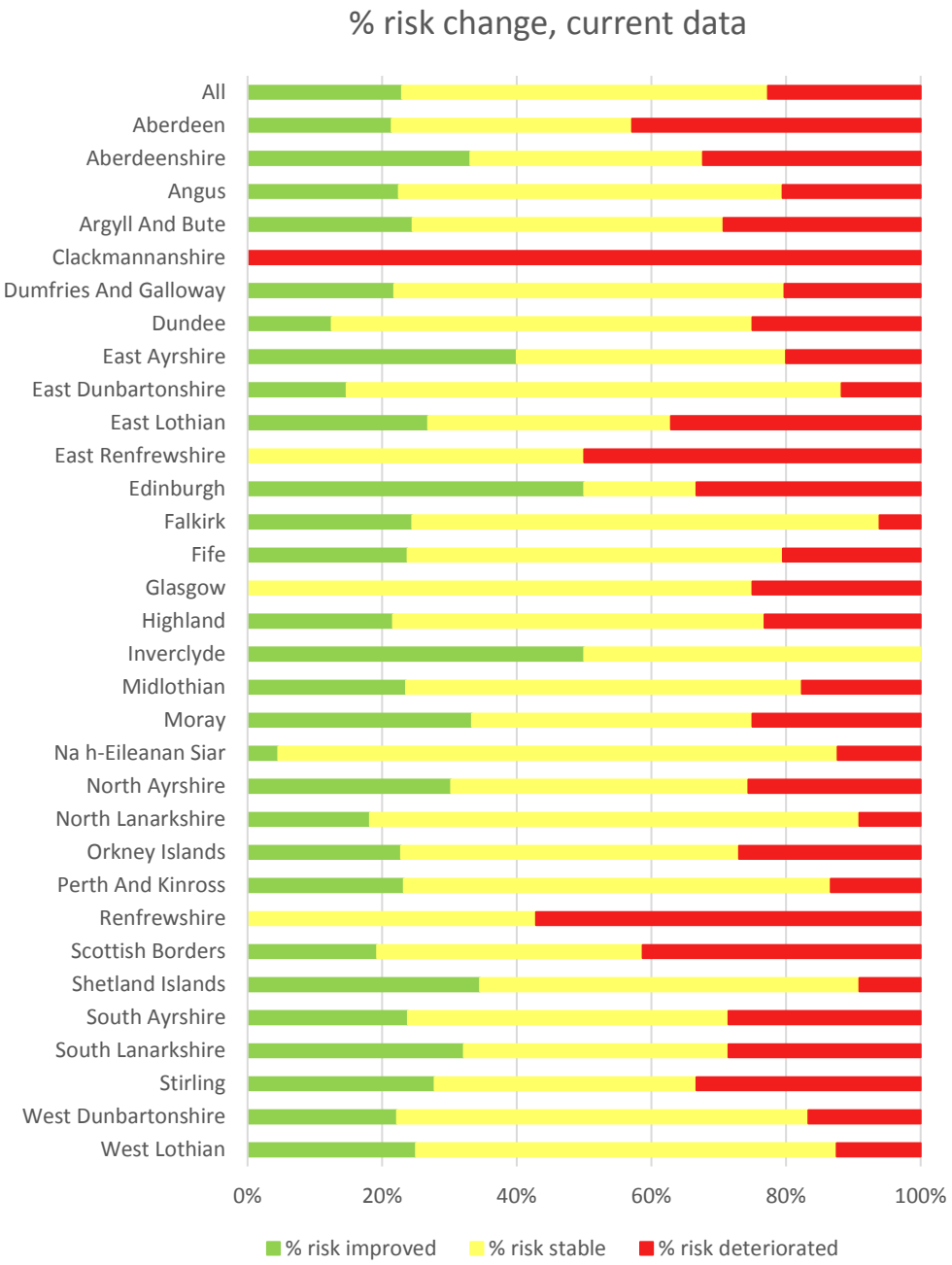
The table and chart below show change in risk by local authority area, for monuments with current condition information.

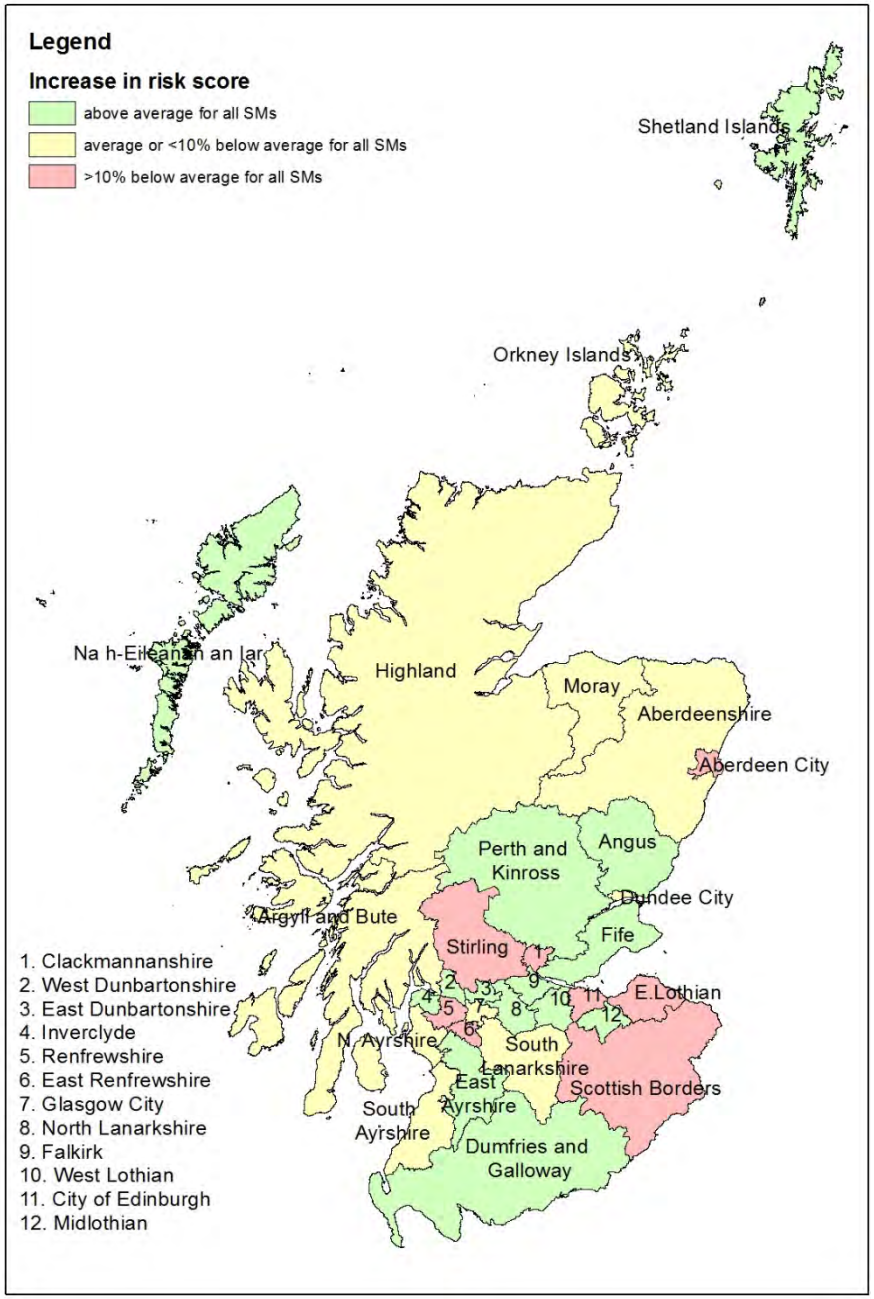
Local authority	SMs in monitoring programme	SMs with >1 visit and current data	% risk improved	% risk stable	% risk deteriorated
All	7864	3280	23%	54%	23%
Aberdeen	45	14	21%	36%	43%
Aberdeenshire	538	136	33%	35%	32%
Angus	353	258	22%	57%	21%
Argyll And Bute	754	355	25%	46%	29%
Clackmannanshire	12	2	0%	0%	100%
Dumfries And Galloway	986	321	22%	58%	20%
Dundee	12	8	13%	63%	25%
East Ayrshire	27	20	40%	40%	20%
East Dunbartonshire	39	34	15%	74%	12%
East Lothian	277	97	27%	36%	37%
East Renfrewshire	11	4	0%	50%	50%
Edinburgh	52	6	50%	17%	33%
Falkirk	85	49	24%	69%	6%
Fife	227	122	24%	56%	20%
Glasgow	15	4	0%	75%	25%
Highland	1205	634	22%	55%	23%
Inverclyde	30	2	50%	50%	0%
Midlothian	75	17	24%	59%	18%
Moray	73	12	33%	42%	25%
Na h-Eileanan Siar	212	154	5%	83%	12%
North Ayrshire	87	43	30%	44%	26%
North Lanarkshire	32	11	18%	73%	9%
Orkney Islands	352	215	23%	50%	27%
Perth And Kinross	713	396	23%	63%	13%
Renfrewshire	31	7	0%	43%	57%
Scottish Borders	735	109	19%	39%	41%
Shetland Islands	384	110	35%	56%	9%
South Ayrshire	83	42	24%	48%	29%
South Lanarkshire	176	28	32%	39%	29%
Stirling	175	36	28%	39%	33%
West Dunbartonshire	24	18	22%	61%	17%
West Lothian	44	16	25%	63%	13%

= Better than average for all SMs

= Average or < 10% below average for all SMs

= >10% below average for all SMs





The figures for change in risk can give us information about areas with monuments at increasing risk of deterioration. There is a mixed picture in West Scotland; the relatively large group of monuments in Dumfries and Galloway show low levels of increasing risk. In part, this may be because some monuments are already in poor condition and are not assessed as being likely to deteriorate further. Scottish Borders accounts for a large number of scheduled monuments and has levels of deteriorating risk scores that are well above average; the East Lothian and Stirling areas also have relatively large numbers of scheduled monuments and above average deteriorating risk scores. Aberdeenshire also accounts for many scheduled monuments and has above average deteriorating risk scores.

Some parts of Scottish Borders, Stirling and Aberdeenshire show similar land management regimes to areas in Dumfries and Galloway. There is a possibility that in future, similar condition issues may develop in these areas.

4. MONUMENTS IDENTIFIED THROUGH CROPMARKING

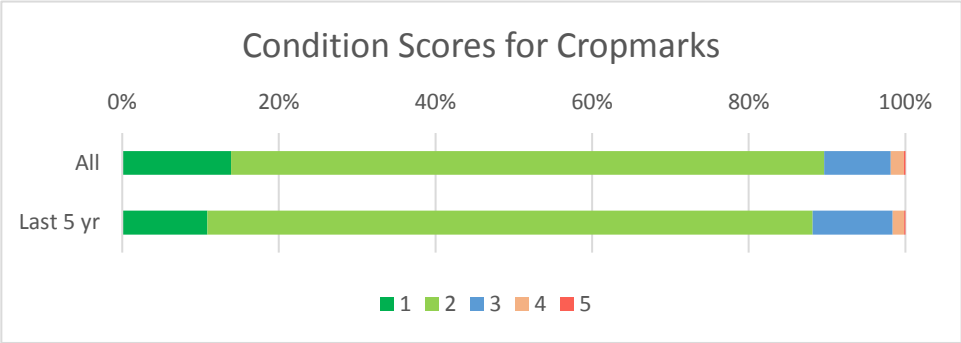
There are c 1075 scheduled monuments identified through cropmarking, making up c 13% of all scheduled monuments. Condition information is available for 1015 of these sites (94%).

The current HES guidance for scoring the condition of monuments identified through cropmarking is presented in the table below.

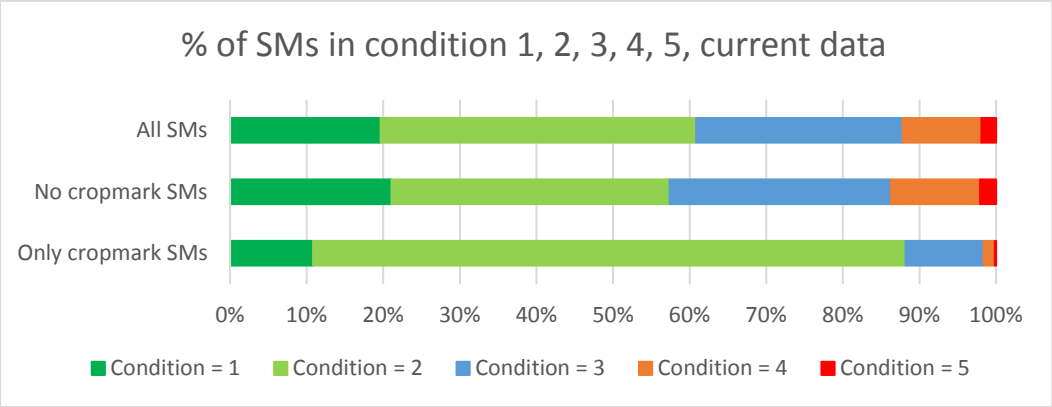
CONDITION	Cropmark sites
1. Optimal Condition	Under permanent pasture/ uncultivated since scheduling.
2. Generally satisfactory condition but with minor Localised problems	Ground disturbance has continued since scheduling but is no deeper than is legally permitted. Localised ground disturbance, such as tree planting on edges.
3. Generally satisfactory condition but with significant localised problems	Ground disturbance since scheduling has (apparently) exceeded what is legally permitted, e.g. new drains.
4. Generally unsatisfactory condition with major localised problems	Significant ground disturbance, beyond what is legally permitted, e.g. building of farm sheds, stables etc; topsoil stripping
5. Extensive problems	Any form of cultivation or activity which disturbs a greater depth of soil than is legally permitted over all/the majority of the monument. Extensive problems, collapse, etc.

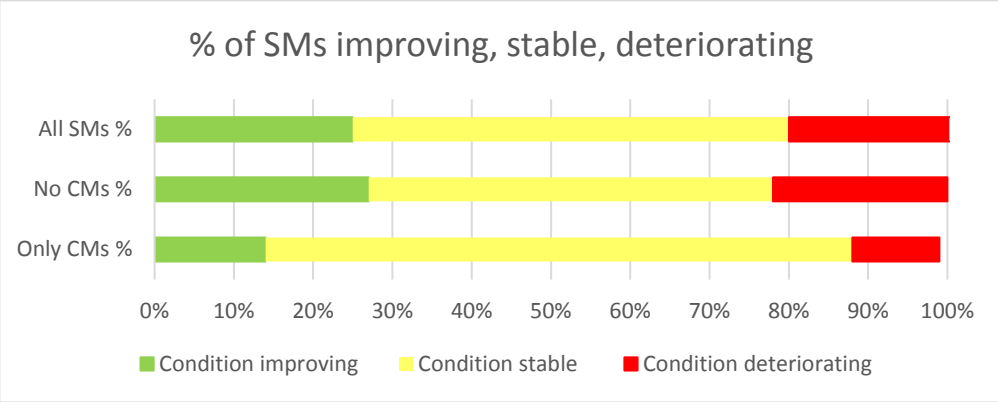
Cultivation is the main factor affecting the condition of scheduled monuments known through cropmarking (cultivation of scheduled monuments on ploughed land is allowed to continue under the Ancient Monuments (Class Consents) (Scotland) Order 1996, so long as it has been carried out legally in the previous 10 years and does not disturb the soil to a greater depth). Differentiating between monuments under plough (score >1) and those in permanent pasture/uncultivated (score 1) is therefore a useful distinction. 14% of monuments were in optimal condition when last visited, and 11% of the 609 monuments visited in the last 5 years were in optimal condition -suggesting > 86% are in cultivation (> 875 monuments).

Condition	1	2	3	4	5
All last visit data	14%	76%	8%	2%	0%
Last 5 yrs	11%	77%	10%	1%	0%



The current distinction between condition score 2-5 is focussed solely on the extent or otherwise of any unauthorised works. No other class of monument is scored in this way. In terms of ploughing, it can be extremely difficult to ascertain either the depth of ploughing at the point of scheduling, or the current depth today. As the charts below demonstrate, monuments identified through cropmarking have a very high proportion of good condition scores (scores 1-2) relative to the average for all monuments. The number with a stable condition score is also high, and the number with a deteriorating condition score is low. The distribution of these scores, with around 90% of monuments attributed a score of 1 or 2, suggests that this is an ineffective method of identifying the cropmark monuments in poorest condition.





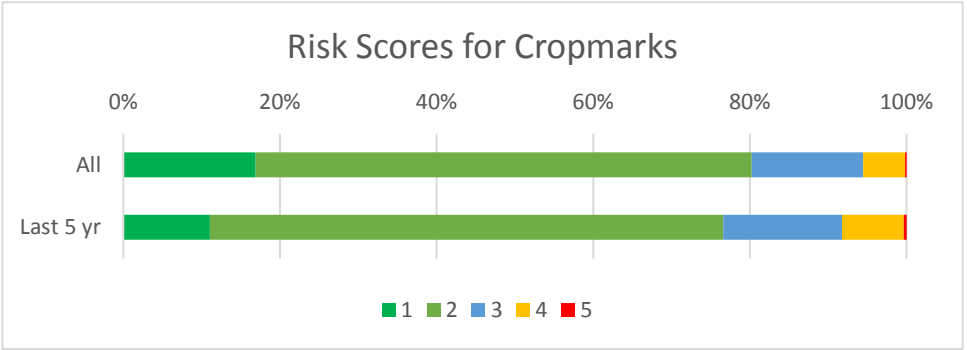
A significant issue is the failure of the present scoring system to take account of factors such as slope, soil type, crop type and exposure of subsoil, which are known through research to adversely affect the survival of archaeological features under plough. Investigations such as the The Strathearn Environs and Royal Forteviot (SERF) project by the University of Glasgow have shown quite widespread plough attrition of monuments known through cropmarking. These comparisons appear to confirm that the current scoring system is overestimating the satisfactory condition of these monuments, and in the process distorting slightly the overall figures on scheduled monument condition.

The present assessment of risk does incorporate many elements which are likely to be indicative of condition, and may be a better indicator of condition in the longer term:

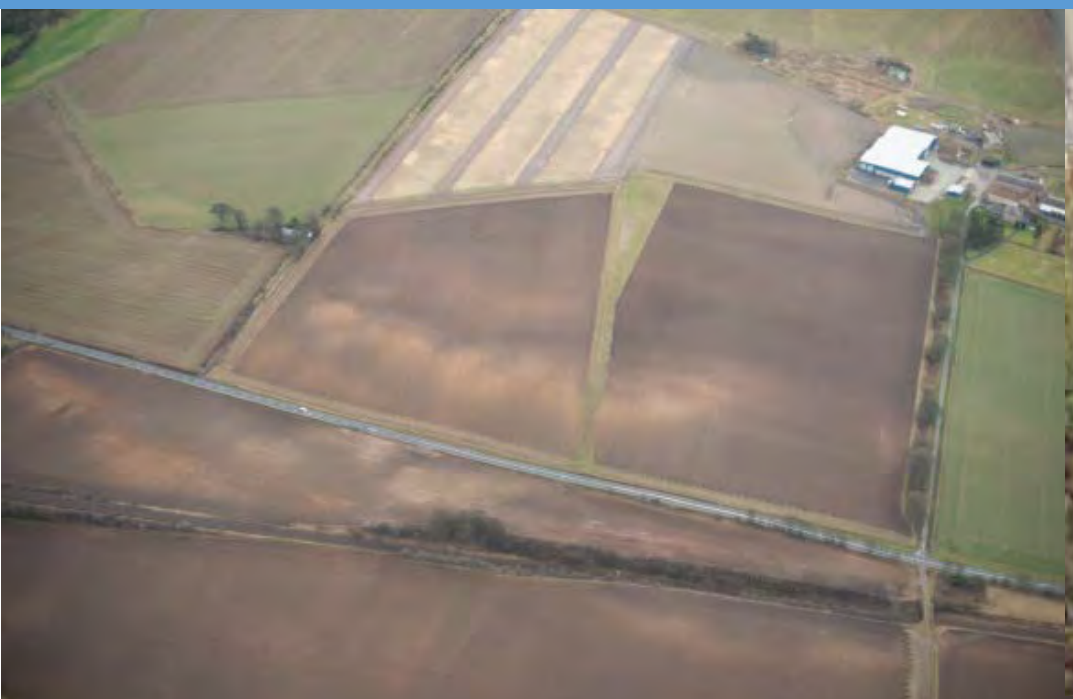
RISK	Cropmark sites
1. Minimal – no factors present to alter stable condition of monument	Land converted to/ under pasture. No ground disturbance or any similar threats.
2. Slight – intervention may be desirable in the long term but monument appears stable currently	Legal cultivation continues, but ground slopes so vulnerable to erosion, etc. Light soil type (e.g. sand) is being cultivated and is vulnerable to erosion.
3. Medium – deterioration likely within five years	Exposure of subsoil in ploughed land
4. High – deterioration likely within one year	Aggressive and frequent ploughing continues; crop types involve significant ground disturbance (potatoes, soft fruit,etc).
5. Immediate – ongoing deterioration in condition of monument	Development or other change of land use proposed; significant artefactual material has been recovered since last visit

However, the figures for minimal or slight risk are still much lower than would be expected, with around 80% of monuments scored as being at minimal or low risk:

Risk	1	2	3	4	5
All last visits	17%	63%	14%	5%	0%
Last 5 yrs	11%	66%	15%	8%	0%



It is clear that the current scoring system for cropmark monuments is not fit for purpose. Alternatives should be investigated and taken forward in future years At present, until an adequate system of scoring is determined, we recommend that the condition of monuments known though cropmarking is analysed separately in future condition reports, and presented separately to other monuments in annual reporting. In Section 5 below, we have presented separate analyses of categories of scheduled monument where this issue is likely to be particularly marked (eg prehistoric enclosures, Roman camps).



5. CONDITION OF MONUMENTS BY CATEGORY

5.1 BACKGROUND

All scheduled monuments are assigned a monument category and type (listed at Appendix 1). Monument category represents a broad classification according to period and character (eg Prehistoric ritual and funerary). Monument types are more specific groupings within categories (eg chambered cairn). Identification of monument categories and types which appear to be more vulnerable can assist in planning visits, and help to shape a future programmes of pro-active monument management.

In this analysis, every attribution of a monument to a category and type has been included. A monument may have more than one category/ type, so in this part of the analysis, the total number of condition and risk scores is higher than the total number of scheduled monuments.

Previous analyses have shown a direct relationship between condition and risk. In this report, we have therefore focussed on the condition of monuments.

5.2 CONDITION OF MONUMENTS BY CATEGORY - SUMMARY

Category	No of SMs with condition scores – all last visit data	% of SMs in satisfactory condition – all last visit data	No of SMs with condition scores – last 5 years	% of SMs in satisfactory condition – last 5 years
All SMs	**7326**	**88%**	**3941**	**88%**
Prehistoric ritual and funerary	2106	92%	1170	92%
Prehistoric domestic and defensive	3338	90%	1173	91%
Crosses and carved stones	253	88%	129	83%
20th Century Military	67	87%	36	89%
Roman	216	85%	145	85%
Industrial	214	83%	116	86%
Ecclesiastical	522	81%	288	80%
Secular (post-Roman)	1296	79%	668	79%

= Better than average for all SMs

= Average or < 5% below average for all SMs

= 5% or more below average for all SMs

The table above shows that although 88% of scheduled monuments visited in the last 5 years are in satisfactory condition, there is significant variation between each monument category. Prehistoric categories are in general in a better condition, while Crosses and Carved Stones, Ecclesiastical, and Secular are in poorer condition. This probably reflects the challenges faced by upstanding masonry monuments, as opposed to field monuments.

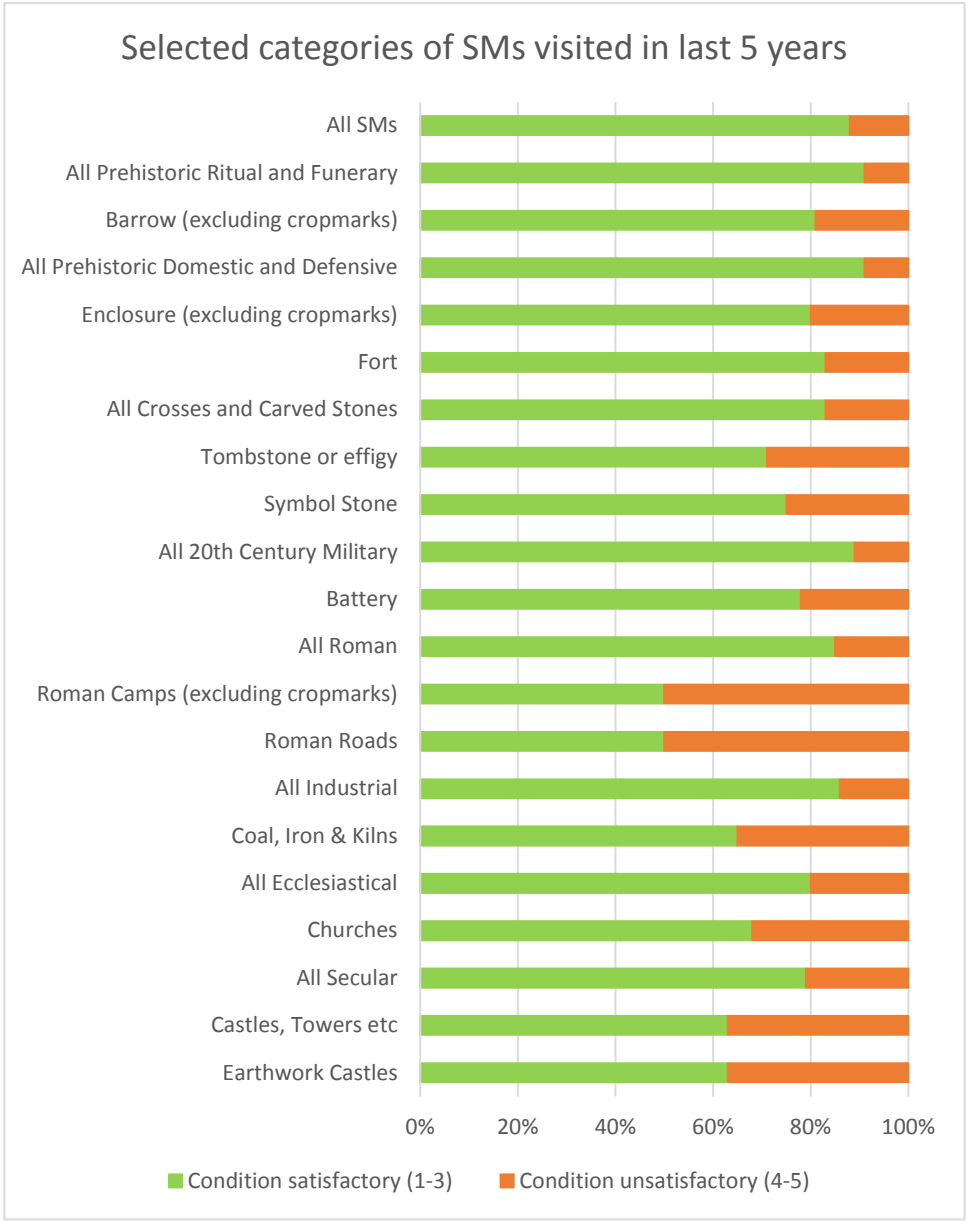
It is notable that the scores from the last 5 years show poorer condition for Crosses and Carved Stones, when compared to data from all last visits. This suggests Crosses and Carved stones may be suffering particular condition deterioration, something that is confirmed by the change in condition data (Section 5.3 below).

Our analysis identifies several monument subcategories with a markedly higher than average % of unsatisfactory condition scores:

- Barrows (excluding cropmarks)
- Enclosures
- Forts
- Tombstones or effigies
- Symbol stones
- Batteries
- Roman camps (excluding cropmarks)
- Roman Roads
- Coal, Iron & Kilns
- Churches
- Castles, Towers etc
- Earthwork Castles

The table and chart below provide more information on monument subcategories with a lower % of satisfactory condition scores:

Monument Category / subcategory	No of SMs with current condition score	% of SMs with current condition score	Condition satisfactory (1-3)	Condition unsatisfactory (4-5)
All SMs	3941	50%	88%	12%
All Prehist Ritual/Funerary	1170	55%	91%	9%
Barrow (excluding CMs)	112	65%	81%	19%
All Prehist Dom/Defensive	1773	52%	91%	9%
Enclosure (excluding CMs)	79	42%	80%	20%
Fort	340	46%	83%	17%
All Crosses & Carved Stones	129	50%	83%	17%
Tombstone or effigy	21	54%	71%	29%
Symbol Stone	16	34%	75%	25%
All 20th Century Military	36	54%	89%	11%
Battery	9	45%	78%	22%
All Roman	145	65%	85%	15%
Roman Camps (excl CMs)	6	35%	50%	50%
Roman Roads	12	57%	50%	50%
All Industrial	116	53%	86%	14%
Coal, Iron & Kilns	20	49%	65%	35%
All Ecclesiastical	288	54%	80%	20%
Churches	116	55%	68%	32%
All Secular	668	51%	79%	21%
Castles, Towers etc	189	49%	63%	37%
Earthwork Castles	71	51%	63%	37%



5.3 CHANGE IN CONDITION OF INDIVIDUAL MONUMENTS BY CATEGORY – SUMMARY

Category	No of SMs with > 1 visit	% improving condition - all last visits	% deteriorating condition - all last visits	% improving – visit in last 5 years	% deteriorating – visit in last 5 years
All SMs	5237	25%	21%	25%	21%
Prehistoric ritual and funerary	1622	29%	21%	29%	21%
Prehistoric domestic and defensive	2286	24%	20%	23%	18%
Crosses and carved stones	214	27%	25%	25%	27%
20th Century Military	36	36%	17%	31%	13%
Roman	170	20%	15%	16%	11%
Industrial	143	26%	24%	23%	24%
Ecclesiastical	393	25%	26%	25%	29%
Secular (post-Roman)	897	22%	24%	24%	24%

= Better than average for all SMs

= Average or < 5% below average for all SMs

= 5% or more below average for all SMs

When we look at the change in condition for individual monuments with more than one visit, 25% of SMs were improving and 21% were deteriorating. The figures are the same for monuments visited most recently within the last five years.

Overall, the category with the highest % of monuments in deteriorating condition is 'Ecclesiastical'. The figure for visits in the last five years suggests the issues with ecclesiastical monuments may be getting worse. Ecclesiastical monuments also have the second lowest % of monuments in satisfactory condition (5.2 above). 'Secular' monuments, which have the lowest % in satisfactory condition, also show below average figures for ongoing deterioration.

'Industrial' monuments and 'crosses and carved stones' also show below average figures for deterioration. The condition issues with crosses and carved stones may be accelerating, because the % deteriorating is highest for monuments visited in the past 5 years (27%). Anecdotal evidence suggests the deteriorating condition of crosses and carved stones may be related to climate change, though the analysis at Section 6 indicates that tree growth is a major factor.

6. CAUSES OF POOR CONDITION

6.1 BACKGROUND

As well as scoring condition and risk, Field Officers collect data on the causes of poor condition for each monument. The issues they identify include:

- natural problems such as coastal erosion or wind erosion
- land management issues such as bracken growth, trees or visitor erosion
- damage caused by unauthorised works such as dumping or excavation

A single monument may have one or more causes of poor condition. Each cause is scored on a three point scale: Marginal: 1, Moderate: 2, Severe: 3

6.2 METHODOLOY

For each monument category, we selected the monuments in unsatisfactory condition (condition scores 4 and 5), and counted the number of instances of each condition issue that was scored moderate or severe. By focussing on monuments with condition problems, and counting causes that were moderate or severe, we have been able to isolate the factors that are most responsible for the unsatisfactory condition of monuments.

We repeated this for monuments in satisfactory condition (condition scores 1-3) in order to identify issues that though problematic, had not lead to unsatisfactory condition scores for monuments as a whole.

6.3 OVERVIEW - CAUSE OF POOR CONDITION BY CATEGORY

The table below shows the three most common causes of poor condition for each scheduled category, looking specifically at monuments in unsatisfactory condition.

Monument type	1st issue	2nd issue	3rd issue
Prehistoric ritual and funerary	Trees (more than 10cm)	Tree Regeneration	Bracken
Prehistoric domestic and defensive	Tree Regeneration	Bracken	Trees (more than 10cm)
Crosses and carved stones	Tree Regeneration	Trees (more than 10cm)	Stone (Water)
20th Century Military	Masonry	Tree Regeneration	Metal
Roman	Trees (more than 10cm)	Tree Regeneration	Fences
Industrial	Trees (more than 10cm)	Tree Regeneration	Masonry
Ecclesiastical	Masonry	Tree Regeneration	Trees (more than 10cm)
Secular (post-Roman)	Tree Regeneration	Trees (more than 10cm)	Masonry

It is notable that trees or tree regeneration are the most common issues for six of the eight monument categories. For the two categories where masonry decay is the most common problem, tree regeneration is the second most common problem.

The detailed data on each monument category underlying this report allows us to compare causes of poor condition for monuments in satisfactory condition overall, and for those that are unsatisfactory overall. This allows us to isolate the key causes that have led to unsatisfactory condition scores. While quite a wide range of causes might be present when a monument is in satisfactory condition overall, when we look at the unsatisfactory monuments, it is trees and tree regeneration that most commonly appear as the causes of the poor condition.

6.4 MONUMENT SUBCATEGORIES WITH PARTICULAR ISSUES

Within monument categories, some sub-categories have elevated levels of unsatisfactory condition. We analysed the causes of poor condition for some of these groups, eg Prehistoric barrows, Prehistoric enclosures, Roman camps and roads.

We found that, for these sub-categories with elevated poor condition scores, trees are again usually the most common cause of poor condition. This is especially true if the various issues related to trees (eg Trees, Tree Regeneration, Plantation) are added together. When the tree categories are summed like this, they are the most common problem even for castles and churches, exceeding the figure for masonry decay. The figures do indicate some causes of poor condition more specific to individual monument subcategories, eg for Roman Roads, recreational erosion is an issue, while for batteries, metal and masonry decay and vandalism are the main problems.

7. DETAILED STUDY OF MONUMENTS IN DUMFRIES AND GALLOWAY – COMPARISON TO NATIONAL DATA

7.1 BACKGROUND

Analysis of the national dataset consistently identifies monuments in the Dumfries and Galloway area as being in a poorer condition, and showing higher levels of deterioration, than the national average. Our data is broken down by local authority areas, as these are convenient spatial units – however, it is important to note that the condition of scheduled monuments does not reflect on the local authority. Whilst other local authority areas are also affected, the sample size in Dumfries and Galloway is sufficient to allow a more detailed examination of possible causes, enabling a comparison to the national overview presented above.

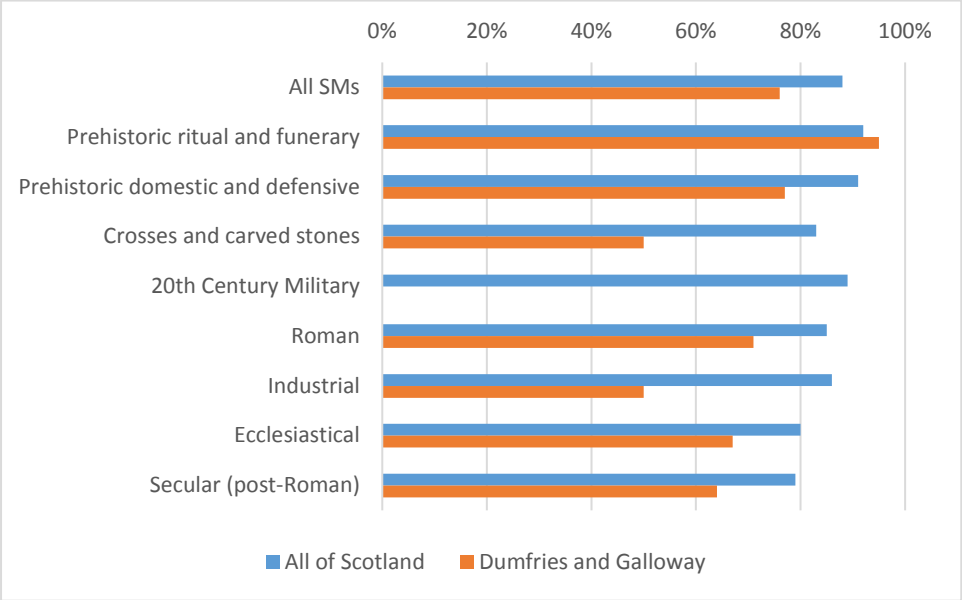
7.2 CONDITION OF MONUMENTS BY CATEGORY

	% of SMs in satisfactory condition – last 5 years	
Category	**All of Scotland**	**Dumfries and Galloway**
All SMs	**88%**	**76%**
Prehistoric ritual and funerary	92%	95%
Prehistoric domestic and defensive	91%	77%
Crosses and carved stones	83%	50%
20th Century Military	89%	-
Roman	85%	71%
Industrial	86%	50%
Ecclesiastical	80%	67%
Secular (post-Roman)	79%	64%

= Better than average for all SMs

= Average or < 5% below average for all SMs

= 5% or more below average for all SMs

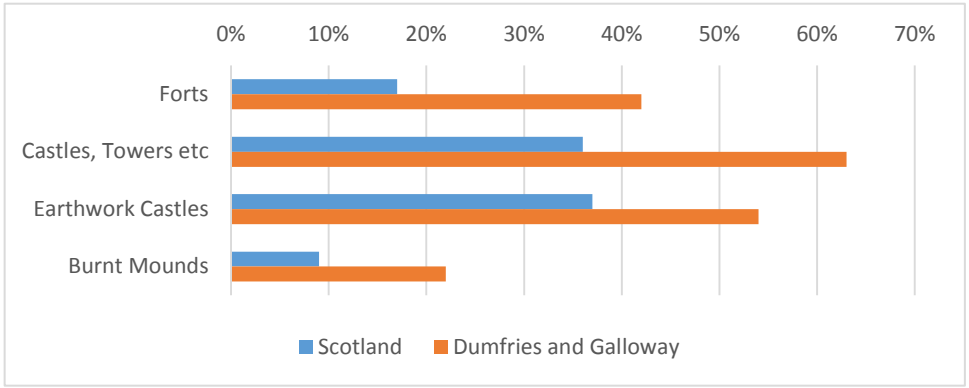


Comparison of the percentage of scheduled monuments in a satisfactory condition by category indicates that, with the exception of prehistoric ritual and funerary monuments, the percentage values are lower for all categories in Dumfries and Galloway, in comparison to the national picture.

Although a high proportion of crosses and carved stones are in unsatisfactory condition, there of very few of these monuments in Dumfries and Galloway, so the sample size is very small. In numerical terms, four subcategories dominate the monuments in unsatisfactory condition in Dumfries and Galloway:

- Forts
- Castles, Towers etc
- Earthwork Castles
- Burnt Mounds

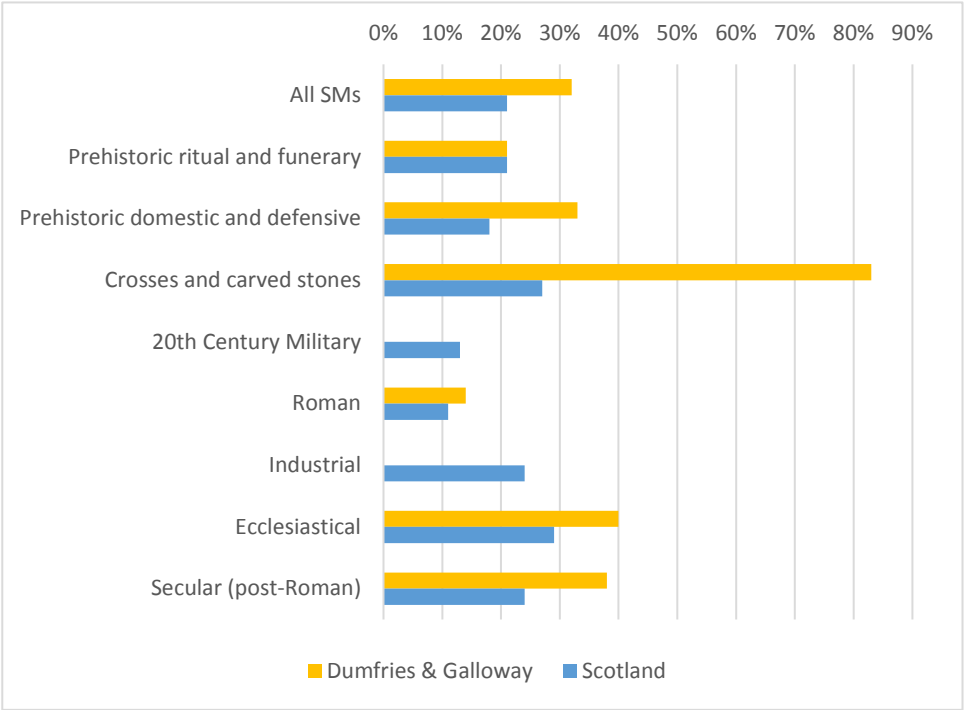
	% current unsatisfactory Score	
Sub-type	Dumfries and Galloway	Scotland
Forts	42%	17%
Castles, Towers etc	63%	36%
Earthwork Castles	54%	37%
Burnt Mounds	22%	9%



Comparison to the national data shows the percentage of monuments in an unsatisfactory condition in these sub-categories within Dumfries and Galloway to be significantly higher than the national figure. This suggests Dumfries and Galloway data is having a significant effect on the overall condition scores for these monument sub-types.

7.3 CHANGE IN CONDITION OF INDIVIDUAL MONUMENTS BY CATEGORY – SUMMARY

	% deteriorating – visit in last 5 years	
Category	**Dumfries & Galloway**	**Scotland**
All SMs	32%	21%
Prehistoric ritual and funerary	21%	21%
Prehistoric domestic and defensive	33%	18%
Crosses and carved stones	83%	27%
20th Century Military	-	13%
Roman	14%	11%
Industrial	-	24%
Ecclesiastical	40%	29%
Secular (post-Roman)	38%	24%



The percentage of monuments in Dumfries and Galloway showing a deterioration in condition from their last visit is around 50% greater than the national average. With the exception of prehistoric ritual and funerary monuments, all categories are elevated relative to the national average.

Looking in more detail at the sub-categories which contribute to this, these appear to be a slightly different subset to the monuments in an unsatisfactory condition. The four sub-categories making up 50% of the monuments in a deteriorating condition are:

- Forts
- Hut circles
- Burnt mounds
- Farmsteads

	% deteriorating condition	
Sub-type	Dumfries and Galloway	Scotland
Forts	31%	21%
Hut Circles	41%	27%
Burnt Mounds	48%	23%
Farmsteads	39%	29%

Comparison to the national data shows the percentage of monuments in a deteriorating condition in these sub-categories within Dumfries and Galloway to be significantly higher than the national figure. This suggests Dumfries and Galloway data is having a significant effect on the overall condition scores for these monument sub-types.

Farmsteads and hut circles appear to be in a deteriorating condition, but have not yet reached significant numbers in an unsatisfactory condition. Castles, Towers and earthwork castles, by comparison, have been in an unsatisfactory condition prior to the last visit, and do not therefore factor significantly in the deteriorating condition dataset.

The data on change in condition is therefore helpful in identifying monument types that, while in mostly satisfactory condition now, are likely to deteriorate if causes of damage are not addressed.

7.4. CAUSES OF POOR CONDITION

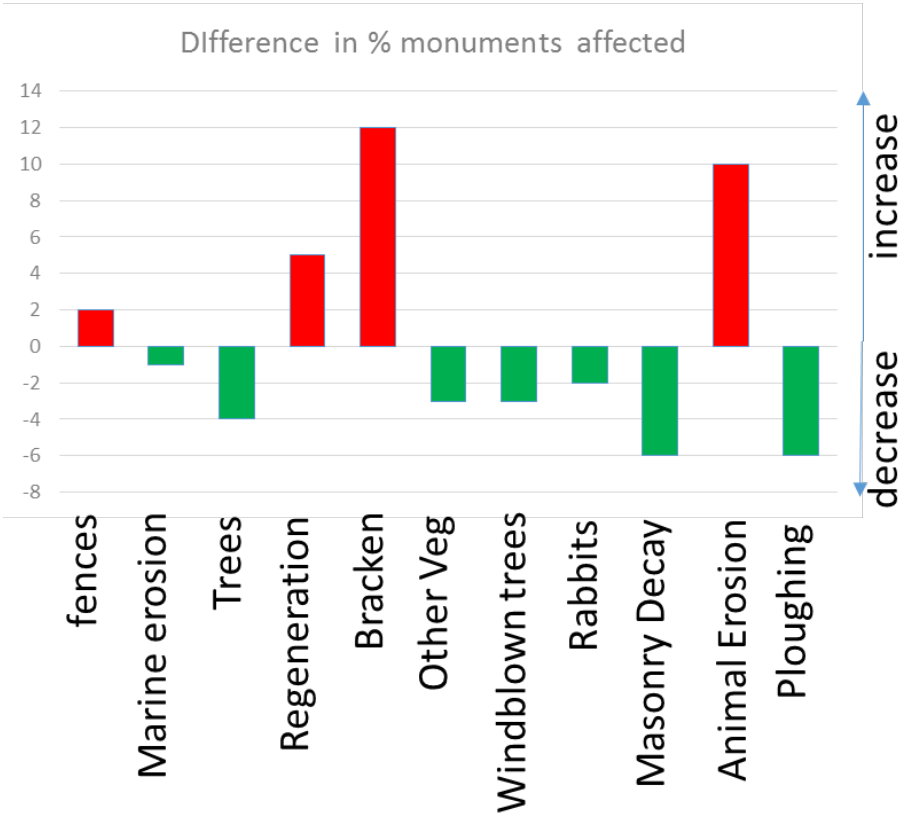
For each of the 6 sub-categories which show a significant increase in percentage of monuments in an unsatisfactory or deteriorating condition, causes of damage were examined and compared to the national dataset to identify whether there were any clear contributing factors.

	Dumfries and Galloway			Scotland		
Monument sub type	**1st issue**	**2nd issue**	**3rd issue**	**1st issue**	**2nd issue**	**3rd issue**
Forts	Regeneration	Animal erosion	Trees (more than 10cm)	Regeneration	Trees (more than 10cm)	Bracken
Castles, Towers etc	Regeneration	Trees (more than 10cm)	Masonry	Masonry	Regeneration	Trees (more than 10cm)
Earthwork Castles	Regeneration	Bracken	Trees (more than 10cm)	Regeneration	Trees (more than 10cm)	Bracken
Burnt Mounds	Bracken	-	-	Bracken	Plantation Forestry	Ploughing
Farmsteads	Bracken			Bracken		
Hut Circles	Bracken			Bracken	Windblown Trees	Regeneration

The analysis indicates that bracken and animal erosion appear to be a greater contributing factor in these groups.

When the % of monuments affected by each issue are compared across all monuments with data, it can be seen that 10% more monuments in Dumfries and Galloway are affected by significant bracken and animal erosion problems, compared to Scotland as a whole. Interestingly, the % of monuments affected by established trees appears lower in Dumfries and Galloway, but the % affected by regeneration is elevated.

	Scotland	Dumfries & Galloway	Difference
Fences	3%	5%	2%
Marine Erosion	1%	0%	-1%
Trees (more than 10cm)	17%	13%	-4%
Regeneration	16%	21%	5%
Bracken	10%	22%	12%
Other vegetation	5%	2%	-3%
Windblown Trees	4%	1%	-3%
Rabbits	5%	3%	-2%
Masonry	9%	3%	-6%
Animal Erosion	5%	15%	10%
Ploughing	7%	1%	-6%

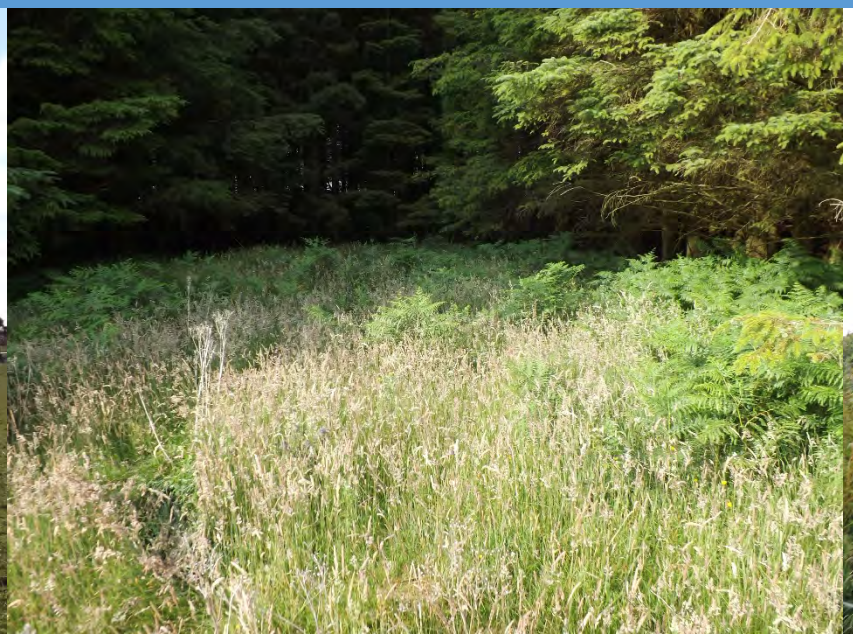


7.5 SUMMARY

Detailed analysis of the condition of monuments in Dumfries and Galloway has shown that 4 sub-types contribute significantly to the lowered number of monuments in a satisfactory condition. Castles & Towers, Earthwork Castles, Burnt Mounds and Forts are more likely to be in an unsatisfactory condition if located in Dumfries and Galloway, than across Scotland as a whole. Many of Scotland's scheduled Earthwork Castles are found in Dumfries and Galloway, but the area accounts for most of those in unsatisfactory condition. Although earthwork monuments such as these may be particularly vulnerable to deterioration, the problems in Dumfries and Galloway are worse than elsewhere in Scotland.

Whilst Castles and Towers, and Earthwork Castles are in a sustained unsatisfactory condition, forts, burnt mounds, hut circles and farmsteads show a significant increase in deteriorating condition from previous visits, suggesting more are likely to fall into an unsatisfactory condition with time.

Analysis of causes of damage shows that bracken, tree regeneration and animal erosion appear to be more significant factors in Dumfries and Galloway than across Scotland as a whole.



8. CONCLUSIONS AND RECOMMENDATIONS

Condition and risk scores outlined in this report are broadly comparable with those presented in 2012. However, it can be problematic to identify long term trends in the data, particularly because different samples of monuments are visited in different 5 year periods. Arguably more significant are the analyses of: (1) areas that have concentrations of monuments in unsatisfactory condition; (2) monument categories and sub-categories that have elevated unsatisfactory condition scores; and (3) the main causes of damage for each monument category.

Looking at monument categories, crosses and carved stones have seen a rise in unsatisfactory condition for visits conducted in the past 5 years. This may in part reflect climate change, particularly a wetter climate. Some sub-categories of Roman and Industrial monuments appear vulnerable – Roman roads and some camps, and industrial sites associated with coal and iron working and kilns. However, Ecclesiastical and Secular monuments, which include many masonry structures, show the highest proportions of unsatisfactory condition; for ecclesiastical monuments the situation may be deteriorating. Prehistoric monuments continue to show better condition and risk scores, though particular sub-categories present issues, eg some enclosures and forts and some barrows.

Monuments known through cropmarking are challenging for condition scoring and may be distorting the overall figures. In future we should report on the condition of cropmark and non-cropmark monuments separately, and investigate alternative scoring systems for cropmarks.

We can analyse the causes of damage in detail for individual monument types and for geographical areas. Analysis at the national level shows that masonry decay is an important problem for many secular, ecclesiastical and industrial monuments. However, it is striking that the management of trees and tree/scrub regeneration is the most common issue for most monument categories where sites are in unsatisfactory condition. We will use the data on causes of poor condition to refine and prioritise our investment in monument management.

We have identified a group of areas in West Scotland with higher than average unsatisfactory condition scores. Detailed analysis of Dumfries and Galloway, the most significant part of this group in terms of sample size, suggests a small number of monument types, including earthwork castles and forts, make up a large proportion of the monuments in unsatisfactory or deteriorating condition. Analysis of causes of damage indicates that bracken, tree regeneration and animal erosion are significantly more frequent causes of damage in Dumfries and Galloway than across Scotland as a whole.

Our Actions:

1) We will use the findings to prioritise the allocation of resources and field officer visits in the 2019/20 financial year, aiming to respond to the condition issues identified in parts of West Scotland, and to our data on the causes of poor condition.
2) During 2018/19, we will scope a project to monitor the condition of earthwork castles / mottes in Dumfries and Galloway, working with owners where possible to improve condition.
3) During 2018/19, we will scope a project to assess the monuments in poorest condition across Scotland, identifying those where we may be able to work with owners to improve condition.
4) We will welcome additional suggestions from owners and stakeholders and work with them where possible to improve monument condition.

APPENDIX 1 –MONUMENT CATEGORIES AND SUB-CATEGORIES IN THIS REPORT

20th C Military
C20 Mil: Battery
C20 Mil: Pillbox
C20 Mil: Other

Crosses and carved stones (CCS)
CCS: cross FS (free-standing)
CCS: cross slab
CCS: cross-incised
CCS: tombstone or effigy
CCS: other
CCS: symbol (symbol stone)

Ecclesiastical
Eccles: mon (monastic)
Eccles: other
Eccles: burial ground
Eccles: chapel
Eccles: church

Industrial
Ind: coal, iron, kiln
Ind: farming, food
Ind: inland water
Ind: mines, quarries
Ind: other

Prehistoric domestic and defensive (PDD)
PDD: broch
PDD: burnt mound
PDD: island struct
PDD: cultivation
PDD: dun
PDD: enclosure
PDD: fort
PDD: house
PDD: settlement
PDD: souterrain
PDD: other

Prehistoric ritual and funerary (PRF)
PRF: barrow
PRF: cairn (not chambered)
PRF: ch cairn (chambered)
PRF: rock art
PRF: henge, encl (enclosure)**, cursus, bank barrow**
PRF: standing stone
PRF: stone circle, setting
PRF: other

Roman
Roman: Ant Wall (Antonine Wall)
Roman: camp
Roman: fort
Roman: road
Roman: other

Secular
Secular: castle, tower etc
Secular: EW castle (earthwork castle)
Secular: domestic, agric blding
Secular: field etc
Secular: other

APPENDIX 2 – GUIDE TO CONDITION AND RISK SCORES

CONDITION	Field monuments	Cropmark sites	Standing buildings	Carved stones
1. Optimal Condition	Optimal in given landscape	Under permanent pasture/ uncultivated since scheduling.	The historic fabric is stable. Wall tops may have turf growing on them.	No weathering, biological growths, enclosed inside a building
2. Generally satisfactory condition but with minor localised problems	e.g. minor animal erosion, fence line impinges on site; animal feeding on edge of site; some rank vegetation	Ground disturbance has continued since scheduling but is no deeper than is legally permitted. Localised ground disturbance, such as tree planting on edges.	Small areas of vegetation growth (weeds, herbaceous plants) on the walls. Some minor mortar/ stone decay.	Lichens/mosses and other biological growths, etc.
3. Generally satisfactory condition but with significant localised problems	A few wind-thrown trees; dumping; track across site; trees, scrub, shrubs & bracken growing on less than 50%; a few disused burrows	Ground disturbance since scheduling has (apparently) exceeded what is legally permitted, e.g. new drains.	Cracks; moderate ivy or woody growth, small saplings growing on wall heads; traces of water ingress through vaults	Water ingress; animal rubbing; covered but still open in some places
4. Generally unsatisfactory condition with major localised problems	Trees, scrub, bracken growing on more than 50% of scheduled area; perimeter of site ploughed; major erosion; rabbits or other burrowing animals active with fresh spoil	Significant ground disturbane, beyond what is legally permitted, e.g. building of farm sheds, stables etc; topsoil stripping	Presence of mature trees/ extensive ivy; Significant cracks with signs of movement, crumbling masonry, etc, but localised. Significant water ingress through walls and vaults (indicated by wet patches, growth of algae)	Cracks; 'wick' effect
5. Extensive problems	Serious rabbit infestation; extensive scrub, bracken (more than 70% of scheduled area); site entirely planted or overgrown with trees; forestry ploughing over 50% or more of site	Any form of cultivation or activity which disturbs a greater depth of soil than is legally permitted over all/the majority of the monument. Extensive problems, collapse, etc.		Weathering/ lack of shelter from elements; combinations/ extensive versions of the above

RISK	Field monuments	Cropmark sites	Standing buildings	Carved stones
1. Minimal – no factors present to alter stable condition of monument	No factors likely to alter stable condition	Land converted to/ under pasture. No ground disturbance or any similar threats.	Ruin appears stable, no threats	No weathering, etc.; secure location
2. Slight – intervention may be desirable in the long term but monument appears stable currently	Gradual attrition, perhaps not possible to measure directly; vegetation continuing to grow; minor changes in landuse /grazing desirable	Legal cultivation continues, but ground slopes so vulnerable to erosion, etc. Light soil type (e.g. sand) is being cultivated and is vulnerable to erosion.	Ruin appears stable in most parts, some minor issues not affecting fabric (e.g. nettles inside buildings)	
3. Medium – deterioration likely within five years	e.g. danger of invasion by rabbits; bracken; regeneration and other harmful vegetation; continued ploughing too close to site; trees within 20m buffer zone	Exposure of subsoil in ploughed land	Young harmful vegetation; bulging or leaning walls; signs of mortar or stone decay; cracks exist but are not progressing; vandalism confined to deposits of bottles and cans	Gradual attrition of carvings
4. High – deterioration likely within one year	e.g. active, largescale rabbit problem; aggressive invasive vegetation; dead trees in danger of collapsing	Aggressive and frequent ploughing continues; crop types involve significant ground disturbance (potatoes, soft fruit, etc).	e.g. likelihood of collapse; mature vegetation or over-hanging trees are threatening stability; small scale collapse at basal levels which could get worse; vandalism includes damaging fabric, graffiti	Possibility of theft; rapid attrition of carvings; water ingress; developing cracks; animal rubbing; vandalism includes damaging fabric, graffiti
5. Immediate – ongoing deterioration in condition of monument	e.g. standing stone about to fall; works proposed in vicinity; monument being newly ploughed or drained	Development or other change of land use proposed; significant artefactual material has been recovered since last visit	Collapse/further collapse imminent; delicate internal features being actively damaged	Stone actively fracturing; new cracks; vandalism

We are the lead public body established to investigate, care for and promote Scotland's historic environment.

We want to make sure Scotland's heritage is cherished, understood, shared and enjoyed with pride by everyone.

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