

# Historic Environment Polygonisation Standards (Scotland)

## Part 3: Case Studies





Royal  
Commission on the  
Ancient and  
Historical  
Monuments of  
Scotland

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Front cover: Broomend of Crichton, Aberdeenshire, henge  
monument and standing stone. DP011657

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## Case Study 1

# Known Site Extent Polygons (Farmstead)

## Cranslagvourity Farm, Bute

The illustrations show a Known Site Extent Polygon projected over modern Ordnance Survey mapping. In it we can see how the polygon is a product of a series of polygons outlining the differing extents of the farm as depicted on a range of historical mapping. In this example the polygon creator has limited the known extent to include only buildings and named yards. The resulting polygon defines an area of known potential; an area where users will be certain to encounter historic environment assets.



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### Note

A Known Site Extent Polygon defines the limits of known upstanding and prospected remains. The polygon will be created based on both sources and professional judgement. Known Site Extent Polygons should not be buffered and should be plotted against the largest map scale available.

### Representation Source

Many different sources of information may be used to identify a site's known extent. These will include defining the extent of a site's **upstanding physical remains**; outlining a site's **prospeted remains** (which may be known from excavation or from the use of prospection methods such as aerial and geophysical survey), and defining a site's **historical extent** from an analysis of historic mapping.

## Minimum attribution required for MIDAS compliance

### Known Site Extent Polygons

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data                 | Can the data entry be automated |
|--|--|-----------------------------|---------------------------------|
| Primary Reference Number                                       | Numlink  | 153858                      | N                               |
| Primary Reference Number Type                                  | Polygontype  | Known                       | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS                      | Y                               |
| Date of compilation  | Entrydate  | 22-July-2009                | Y                               |
| Date of last update  | Lastupdate   | 22-July-2009                | Y                               |
| Positional Accuracy  | Accuracy   | 1:10000                     | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon                     | Y                               |
| X Coordinate   | X  | 204750                      | Y                               |
| Y Coordinate   | Y  | 665830                      | Y                               |
| Representation Source  | Source   | Historic and modern mapping | N (pick list)                   |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

### Further information

Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>

## Case Study 2

# Known Site Extent Polygons (Cropmark)

## Woodhill Cursus, Angus

This example shows the Known Site Extent Polygon for the Woodhill Cursus in Angus. The polygon is based on transcriptions of cropmarks identified on aerial photography. The polygon was created by outlining the extent of the features that form the cursus. No attempt is made to include areas where the cursus is not visible in the air photograph but where it might be reasonably considered to continue.

Other cropmarks are clearly visible and these too have been transcribed. One might consider making more Known Site Extent polygons for these. To the south of the cursus there is field drainage showing up as a series of parallel diagonal lines. These could be outlined as a single coherent unit. There are also many other cropmarks that don't form a coherent identifiable monument. Here, one might consider outlining the whole area of cropmarks as one single Site Extent Polygon to delimit the entire cropmark complex.



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### Note

A Known Site Extent Polygon defines the limits of known upstanding and prospected remains. The polygon will be created based on sources and professional judgement. Known Site Extent Polygons should not be buffered and should be plotted against the largest map scale available.

### Representation Source

Many different sources of information may be used to identify a site's known extent. These will include defining the extent of a site's **upstanding physical remains**; outlining a site's **prospeted remains** (which may be known from excavation or from the use of prospection methods such as aerial and geophysical survey), and defining a site's **historical extent** from an analysis of historic mapping.

## Minimum attribution required for MIDAS compliance

### Known Site Extent polygon

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data       | Can the data entry be automated |
|--|--|-------------------|---------------------------------|
| Primary Reference Number                                       | Numlink  | 72878             | N                               |
| Primary Reference Number Type                                  | Polygontype  | Known             | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS            | Y                               |
| Date of compilation  | Entrydate  | 12-May-2006       | Y                               |
| Date of last update  | Lastupdate   | 16-July-2009      | Y                               |
| Positional Accuracy  | Accuracy   | 1:10000           | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon           | Y                               |
| X Coordinate   | X  | 204750            | Y                               |
| Y Coordinate   | Y  | 665830            | Y                               |
| Representation Source  | Source   | AP Transcriptions | N (pick list)                   |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

### Further information

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## Case Study 3

# Buffered Site Extent Polygons (Standard buffer)

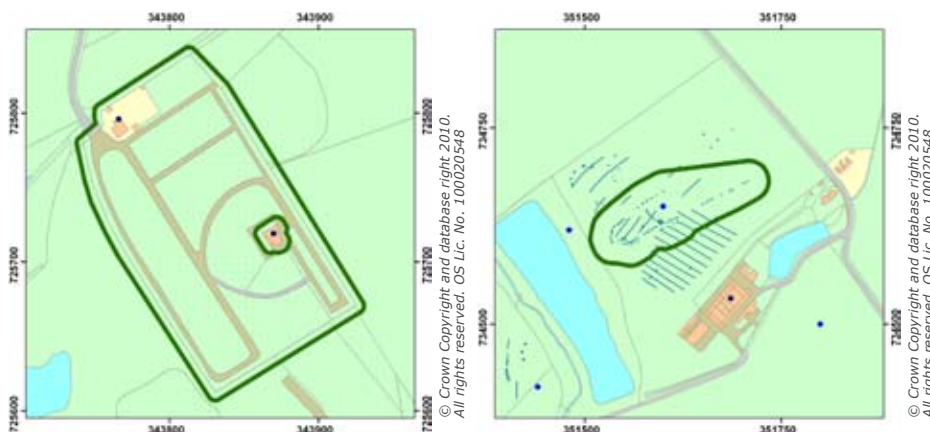
## Vicarsford Cemetery, Fife & Woodhill Cursus, Angus

The figures show two examples of a standard buffer. In both, the buffers are based on Known Site Extent polygons with a standard buffer added. How wide the buffer will be will depend on local management priorities; however, there are three main ways in which the buffer can be added. These are:

- a standard buffer width for all sites
- a standard buffer width that varies from site to site depending on the monument and its specific characteristics
- a set of buffer widths mapped to a thesaurus of monument types that vary depending on monument type

The first example shows two buffers, the inner buffer around a chapel's footprint and the outer around the associated graveyard. The buffer is small and was added to highlight the proximity of the monuments to anyone working in the surrounding area. A professional judgement was made that the chapel's extent is unlikely to continue beyond the known extent and therefore a small buffer is seen as sufficient.

The second example of the Woodhill Cursus applies a standard 25m buffer around a known Site Extent Polygon.



### Note

A Buffered Site Extent Polygon defines the limits of known upstanding and prospected remains and includes an additional buffer around the monument to protect areas where professional judgement suggests there is significant potential for further surviving remains. The size of the buffer will reflect local priorities, judgement and monument type. Buffered Site Extent Polygons should always be prefixed by how the buffer was created, ie, Bespoke, Standard or Automated site-centred.

## Minimum attribution required for MIDAS compliance

### Standard Buffered Site Extent polygon (Chapel)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data           | Can the data entry be automated |
|--|--|-----------------------|---------------------------------|
| Primary Reference Number                                       | MonUID   | ABC1234               | Y                               |
| Primary Reference Number Type                                  | Monument   | Standard              | Y                               |
| Compiler (Organisation)  | Organisation   | Acurator              | Y                               |
| Date of compilation  | Creation_Date  | 08-Jan-2008           | Y                               |
| Date of last update  | Edit_Date  | 08-Jan-2008           | Y                               |
| Positional Accuracy  | Capture_Scale  | 1:10000               | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon               | Y                               |
| X Coordinate   | East   | 343870                | Y                               |
| Y Coordinate   | North  | 725717                | Y                               |
| Representation Source  | Source_Map   | OS Mastermap          | N (pick list)                   |
| Buffer Zone Width  | Buffer_Width   | 5                     | Y                               |
| Quality  | Confidence   | Based on OS Mastermap | Y / N (pick list)               |

### Standard Buffered Site Extent polygon (Woodhill Cursus)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data  | Can the data entry be automated |
|--|--|--|---------------------------------|
| Primary Reference Number                                       | Numlink  | 72878  | Y                               |
| Primary Reference Number Type                                  | Polygontype  | Standard   | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS   | Y                               |
| Date of compilation  | Entrydate  | 12-May-2006  | Y                               |
| Date of last update  | Lastupdate   | 16-July-2009   | Y                               |
| Positional Accuracy  | Displayscale   | 1:10000  | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon  | Y                               |
| X Coordinate   | X  | 204750   | Y                               |
| Y Coordinate   | Y  | 665830   | Y                               |
| Representation Source  | Source   | AP Transcriptions  | N (pick list)                   |
| Buffer Zone Width  | Bufferwidth  | 25   | Y                               |
| Quality  | Buffertype   | Based on present known extent of archaeological features | Y / N (pick list)               |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

### Further information

Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>



## Case Study 4

# Buffered Site Extent Polygons (Bespoke buffer)

## Woodhill Cursus, Angus

Here are three examples of bespoke buffers enclosing the Woodhill Cursus.

In the first the cursus monument has been outlined by a 25m buffer around the visible cropmark with the buffer elongated to the east where the cursus might reasonably be assumed to continue.

In the second example the entire cropmark complex has been outlined with a variable buffer added.

The third example outlines the entire field. Here the polygon's creator has adopted a methodology that assumes that all fields showing cropmarks have increased potential for surviving archaeological remains, making it reasonable to identify the entire field as a historic environment asset.



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### Note

A Buffered Site Extent Polygon defines the limits of known upstanding and prospected remains and includes an additional buffer around the monument to protect areas where professional judgement suggests there is significant potential for further surviving remains. The size of the buffer will reflect local priorities, judgement and monument type. Buffered Site Extent Polygons should always be prefixed by how the buffer was created, ie, Bespoke, Standard or Automated site-centred.

## Minimum attribution required for MIDAS compliance

### Buffered Site Extent Polygons (Woodhill Cursus)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data   | Can the data entry be automated |
|--|--|---|---------------------------------|
| Primary Reference Number                                       | Numlink  | 72878   | Y                               |
| Primary Reference Number Type                                  | Polygontype  | Bespoke   | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS  | Y                               |
| Date of compilation  | Entrydate  | 16-July-2009  | Y                               |
| Date of last update  | Lastupdate   | 17-July-2009  | Y                               |
| Positional Accuracy  | Displayscale   | 1:10000   | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon   | Y                               |
| X Coordinate   | X  | 204750  | Y                               |
| Y Coordinate   | Y  | 665830  | Y                               |
| Representation Source  | Source   | AP Transcriptions   | N (pick list)                   |
| Buffer Zone Width  | Bufferwidth  | Varies  | Y                               |
| Quality  | Polyquality  | Based on present known extent of archaeological features. | Y / N (pick list)               |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

### Further information

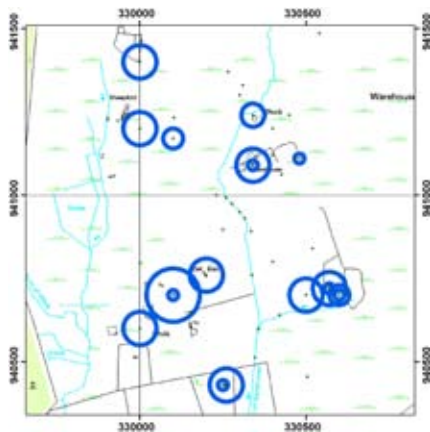
Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>

## Case Study 5

# Buffered Site Extent Polygons (Automated site-centred buffer)

## Warehousehill, Highland & Woodhill Cursus, Angus

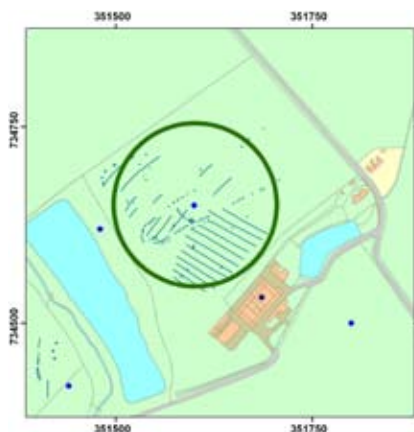
The main advantage of automatic buffering is that it is quick to implement and allows an entire database to be polygonised rapidly. However, these polygons should only be created as a preliminary step. Many of the resulting polygons will not be sufficient to adequately define an extent of the monument. Polygons that are not accurately centred may miss the monument they are designed to highlight. In the first example, the polygon at the top left is offset from the monument it aims to define while the second and third examples show how this type of polygon can be inadequate for larger monuments if the buffer width is insufficient.



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### Note

A Buffered Site Extent Polygon defines the limits of known upstanding and prospected remains and includes an additional buffer around the monument to protect areas where professional judgement suggests there is significant potential for further surviving remains. The size of the buffer will reflect local priorities, judgement and monument type. Buffered Site Extent Polygons should always be prefixed by how the buffer was created, ie, Bespoke, Standard or Automated site-centred.

## Minimum attribution required for MIDAS compliance

### Automated site-centred Buffered Site Extent Polygons (Woodhill Cursus)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data             | Can the data entry be automated |
|--|--|-------------------------|---------------------------------|
| Primary Reference Number                                       | Numlink  | 72878                   | Y                               |
| Primary Reference Number Type                                  | Polygontype  | Auto                    | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS                  | Y                               |
| Date of compilation  | Entrydate  | 31-Oct-2007             | Y                               |
| Date of last update  | Lastupdate   | 31-Oct-2007             | Y                               |
| Positional Accuracy  | Displayscale   | 1:10000                 | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon                 | Y                               |
| X Coordinate   | X  | 204750                  | Y                               |
| Y Coordinate   | Y  | 665830                  | Y                               |
| Representation Source  | Source   | Grid Reference          | N (pick list)                   |
| Buffer Zone Width  | Bufferwidth  | 50                      | Y                               |
| Quality  | Buffertype   | Based on 5-fig grid ref | Y / N (pick list)               |

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### Further information

Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>



## Case Study 6

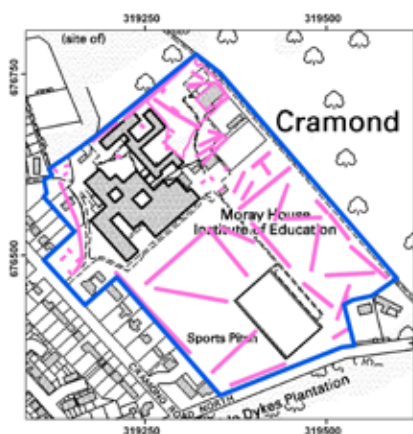
# Events Polygons (Event Extent and Intervention Extent)

## Excavations at Moray House Institute, Cramond, City of Edinburgh

The illustrations below show how the Event Extent and the Intervention Extent polygons define the limit of works and the scale of a project.

Event Extent polygons show the user where work has taken place. These will be used by the curator to manage areas and monitor projects, and they are used by others to aid in the discovery of information and resources related to these events. Used together, Event Extent and the Intervention Extent polygons enable the user to quantify the scale of work undertaken and show exactly where, within an area, work has taken place.

Although primarily a resource discovery tool, Events polygons can also be used to highlight potential. The example shows a concentration of trenching within a project toward the south-west and north-west of an Event Extent with large areas not tested due to the original field team avoiding standing buildings and a sports field. By comparing the Events polygons with historic and modern mapping, it may be possible to identify surviving pockets of potential near areas already tested and known to have delivered positive results.



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### Note

Shown in blue in this example, an Event Extent polygon defines the known limits of an event. An Event Extent may also be referred to as the **Study Area** or the **Limit of Survey**. The polygon should define the exact limit of the event when plotted against the largest map scale possible. Event Extent polygons should not be buffered.

### Intervention Extent polygons

Shown in pink in this example, Intervention Extent polygons define the known limits of fieldwork interventions. An intervention might be any form of physical intervention and will include **excavation trenches, sondages** and **test pits**. Intervention Extent polygons should be created in the field from field survey data tied in to the National Grid. Intervention polygons should not be buffered.

## Minimum attribution required for MIDAS compliance

### Event Extent polygon (Cramond)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data    | Can the data entry be automated |
|--|--|----------------|---------------------------------|
| Primary Reference Number                                       | RCAHMS Canmore ID                                      | 183716         | N                               |
| Primary Reference Number Type                                  | Polygontype  | Event          | Y                               |
| Compiler (Organisation)  | Organisation   | A Unit         | Y                               |
| Date of compilation  | Complied   | 01-June-2005   | Y                               |
| Date of last update  | Updated  | 17-July-2005   | Y                               |
| Positional Accuracy  | Accuracy   | On-site survey | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon        | Y                               |
| X Coordinate   | Easting  | 319350         | Y                               |
| Y Coordinate   | Northing   | 676520         | Y                               |

**Intervention Extent polygon (Cramond)**

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data    | Can the data entry be automated |
|--|--|----------------|---------------------------------|
| Primary Reference Number                                       | Trench No  | 11             | N                               |
| Primary Reference Number Type                                  | Polygon Type   | Intervention   | Y                               |
| Compiler (Organisation)  | Organisation   | A Unit         | Y                               |
| Date of compilation  | Complied   | 12-May-2005    | Y                               |
| Date of last update  | Updated  | 12-May-2005    | Y                               |
| Positional Accuracy  | Accuracy   | On-site survey | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon        | Y                               |
| X Coordinate   | Easting  | 319414         | Y                               |
| Y Coordinate   | Northing   | 676588         | Y                               |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

**Further information**

Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>



## Case Study 7

# Consultation Trigger Polygons

## Vicarsford Cemetery, Fife & Woodhill Cursus, Angus

Replace entire paragraph with: Any existing polygon can be used as a consultation trigger polygon. Initially, many different types will need to be used to provide a national coverage and together these will reflect the current state of definition of historic environment assets across the sector. This means that, initially at least, a national layer will be made up of a mix of known, buffered and automated polygons. The examples below, all used in previous case studies, could all be used as consultation trigger polygons. The first, Vicarsford cemetery, is a buffered site extent polygon of five metres; the second, an example of a known site extent; the third is a standard buffer of 25m and the final, a bespoke buffer. However, although the three Woodhill Cursus polygons are the same as those seen in earlier case studies, their attribution is different. This is seen in the second of the two accompanying attribute tables which can be attached to any one of the three Woodhill Cursus polygons shown.

### Note

Consultation trigger polygons are a harmonised resource of data derived from the government Historic Environment sector, namely Historic Scotland, RCAHMS and the Local Authority Sites and Monuments Records and Historic Environment Records. They define areas of known Historic Environment resource and provide details of who to contact for more detailed advice.



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## Minimum attribution required for MIDAS compliance

### Consultation trigger polygon (Vicarsford Cemetery)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data   | Can the data entry be automated |
|--|--|---|---------------------------------|
| Primary Reference Number                                       | MonUID   | ABC1234   | Y                               |
| Primary Reference Number Type                                  | Monument   | Consultation  | Y                               |
| Compiler (Organisation)  | Organisation   | A curator   | Y                               |
| Date of compilation  | Creation_Date  | 08-Jan-2008   | Y                               |
| Date of last update  | Edit_Date  | 08-Jan-2008   | Y                               |
| Positional Accuracy  | Capture_Scale  | 1:10000   | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon   | Y                               |
| X Coordinate   | East   | 343870  | Y                               |
| Y Coordinate   | North  | 725717  | Y                               |
| Contact point  | Contact_info   | <a href="http://localHER.gov.uk/">http://localHER.gov.uk/</a> | Y                               |

### Consultation trigger polygon (Woodhill Cursus)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data   | Can the data entry be automated |
|--|--|---|---------------------------------|
| Primary Reference Number                                       | Numlink  | 72878   | Y                               |
| Primary Reference Number Type                                  | Polygontype  | Consultation  | Y                               |
| Compiler (Organisation)  | Organisation   | RCAHMS  | Y                               |
| Date of compilation  | Entrydate  | 17-July-2009  | Y                               |
| Date of last update  | Lastupdate   | 17-July-2009  | Y                               |
| Positional Accuracy  | Displayscale   | 1:10000   | N (pick list)                   |
| Spatial Feature Type   | Shape  | Polygon   | Y                               |
| X Coordinate   | X  | 204750  | Y                               |
| Y Coordinate   | Y  | 665830  | Y                               |
| Contact point  | Contact  | <a href="http://localHER.gov.uk/">http://localHER.gov.uk/</a> | Y                               |

The polygons and the compiler attribute tables in the case studies above have been manipulated and modified to show how fully compliant MIDAS data sets might look. The data contained in these fields is for illustrative purposes only.

### Further information

Further information can be found on the RCAHMS website: <http://www.rcahms.gov.uk/historic-environment-polygonisation-standards-scotland.html>





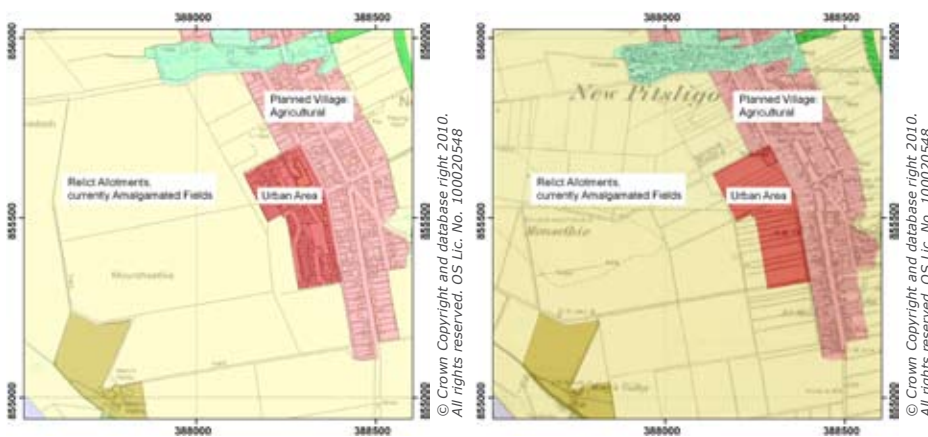
## Case Study 8

# Historic Land-use Assessment Polygons

*Sine Hood (RCAHMS)*

## New Pitsligo, Aberdeenshire

The examples below show the HLA data displayed using one of the four different legend files available with the data. This legend displays current Land-use Types and for this illustration the colours have been set to display as semi-transparent in order to allow the base mapping to be visible.



### Note

The Historic Land-use Assessment (HLA) project was established in 1995 and is jointly funded and managed by the Royal Commission on the Ancient and Historical Monuments of Scotland and Historic Scotland. The project records all current land-use and up to three different relict land-uses. The interpretation of land-use is based mainly on the use of vertical aerial photography from the 1940s to present day, and on historical and current Ordnance Survey mapping. The data is mapped to a scale of 1:25,000 and the minimum area assigned to any one Land-use Type is one hectare.

Each of the defined Land-use polygons is assigned a Type, Category and Period of currency. To accompany the data, there are four standard legend files that allow the user to display the data with different colours for each polygon according to Category, Type, Period and Relict Type.

This example shows the HLA defined current Land-use Types for the village of New Pitsligo in Aberdeenshire (NJ85) and its immediate surroundings. The map to the left shows the HLA data displayed over modern Ordnance Survey mapping and to the right over the 1st edition OS map.

The regular layout of the 18th century planned agricultural village is still evident today and is shown in pink. In contrast to this, is the area of 20th century expansion (Land-use Type: Urban area) is shown in red.

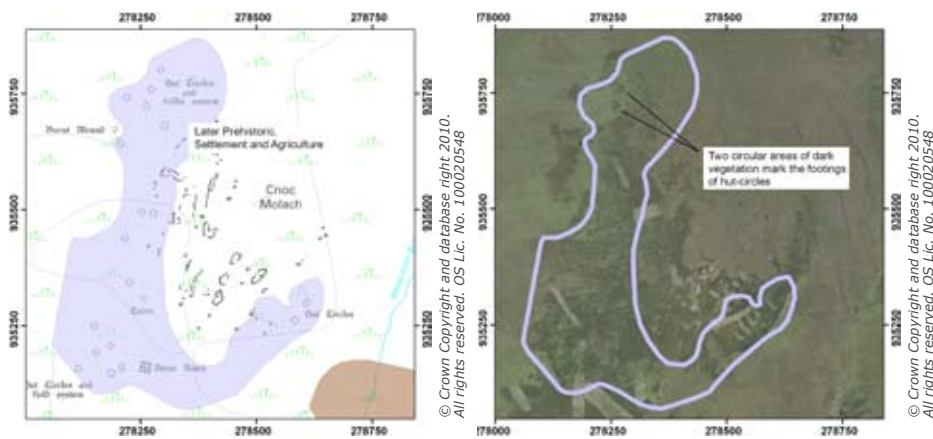
To the west of the village small allotment plots were laid out and allocated to the workers living in the village. The 1st edition of the Ordnance Survey 1:10,560 map shows these allotments but, as can be seen here, the boundaries of these plots have since been lost. HLA has recorded the allotments as a Relict Type lying within what is currently Amalgamated Fields, since the footprint is evident in the boundary of the fields.

The boundaries between the individual allotted plots were not always actually fenced, sometimes they were little more than a low baulk, and as such the Ordnance Survey did not always record them. In this example the 1st edition

OS map shows the divisions between the allotments in the immediate vicinity of the village as pecked lines. Later editions of the OS map may show more extensive areas of allotments, and documentary sources, such as the Statistical Accounts, may contain descriptions of the extent of the allotted ground.

## Cnoc Molach, Highland

In this example the data is presented using the legend which displays the relict Land-use Types.



The lilac polygon marks the extent of Cnoc Molach, an area to the NE of Loch Badanloch in Sutherland (NC73) where traces of Later Prehistoric Settlement and Agriculture are still evident in the landscape. In this case many of these features are marked and annotated on the Ordnance Survey 1:10,000 map. Other examples of this relict Land-use Type were recorded after analysis of the vertical aerial photography and a review of site information held in the RCAHMS database and the local authority sites and monuments records.

| MIDAS Historic Environment data Standard: Units of Information | HLA data structure mapped to MIDAS | Sample Data   |
|--|------------------------------------|---|
| Primary Reference Number                                       | FID                                | 7498  |
| Primary Reference Number Type                                  | Not Used                           | N/A   |
| Compiler (Organisation)  | In Metadata                        | RCAHMS  |
| Date of compilation  | In Metadata                        | 17-July-2009  |
| Date of last update  | In Metadata                        | 17-July-2009  |
| Positional Accuracy  | Not Used                           | N/A   |
| Spatial Feature Type   | Shape                              | Polygon   |
| X Coordinate   | Not Used                           | N/A   |
| Y Coordinate   | Not Used                           | N/A   |
| Representation Source  | In Metadata                        |   |
| Buffer Zone width  | Not Used                           | N/A   |
| Quality  | In Metadata                        | Boundaries defined using aerial photography, all eras and scales of Ordnance Survey, RCAHMS Database and Local Authority SMR and HER data |

| Other attributions available in this data set | Project description of field information  | Sample Data             |
|---|---|-------------------------|
| Tag   | Project assigned code numbers for current Land-use Types and up to three relict Land-uses.                            | 5/135/101/100           |
| His_Code                                      | Separated code number for current Land-use Type.  | 12                      |
| Rel1_Code                                     | Separated code number for first relict Land-use Type, where applicable. Default value where no assigned code number.  | 108                     |
| Rel2_Code                                     | Separated code number for second relict Land-use Type, where applicable. Default value where no assigned code number. | 134                     |
| Rel3_Code                                     | Separated code number for third relict Land-use Type, where applicable. Default value where no assigned code number.  | 203                     |
| Historic_L                                    | Project assigned Category as per Type.  | Woodland and Forestry   |
| Period  | Project assigned Period of implementation of Land-use Type.   | 20th Century            |
| Type  | Project assigned Land-use Type.   | Coniferous Plantation   |
| Rel1_Cat                                      | Project assigned Category as per Type, where applicable. Default value where no assigned Category.                    | Defensive Establishment |
| Rel1_Per                                      | Project assigned Period of implementation of Land-use Type, where applicable. Default value where no assigned Period. | Roman                   |
| Rel1_Typ                                      | Project assigned Land-use Type, where applicable. Default value where no assigned Type.                               | Roman Military Site     |
| Rel2_Cat                                      | Project assigned Category as per Type, where applicable. Default value where no assigned Category.                    | Crofting                |

| Other attributions available in this data set | Project description of field information  | Sample Data                  |
|---|---|------------------------------|
| Rel2_Per                                      | Project assigned Period of implementation of Land-use Type, where applicable. Default value where no assigned Period. | 18th-19th Century            |
| Rel2_Typ                                      | Project assigned Land-use Type, where applicable. Default value where no assigned Type.                               | Smallholdings                |
| Rel3_Cat                                      | Project assigned Category as per Type, where applicable. Default value where no assigned Category.                    | Cropmark Site                |
| Rel3_Per                                      | Project assigned Period of implementation of Land-use Type, where applicable. Default value where no assigned Period. | Medieval                     |
| Rel3_Typ                                      | Project assigned Land-use Type, where applicable. Default value where no assigned Type.                               | Cropmark Medieval Settlement |

## Further information

Further information can be found on the Historic Land-use Assessment (HLA) website: <http://www.rcahms.gov.uk/hlamap.html>



## Case Study 9

# Scheduled Monuments (SM) Polygons

Donald Coutts and James Steel (HS)

## Torness Cairn, Highland

This figure shows an example of a Scheduled Monument polygon near Torness, Highland.

### Preferred Symbology

- 50% transparent
- Fill C12, M100, Y100, K0
- Outline no colour
- Outline width 2.00

### Availability

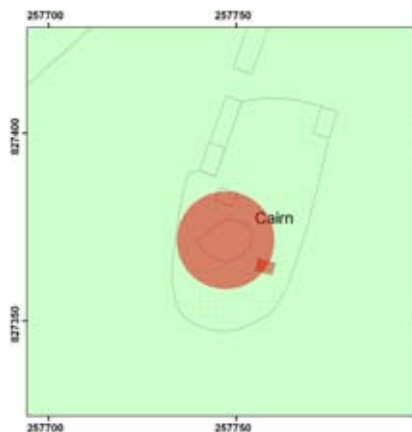
Download – <http://hsewsf.sedsh.gov.uk/gisdl.html>

Web Feature Services

– Planned to be available by 31 March 2010.

### Restrictions on Use

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### Note

The Scheduled Monuments dataset comprises a GIS dataset of the boundaries of all scheduled monuments in Scotland. The purpose of this dataset is to allow people to identify the approximate position, size and extent of scheduled monuments in Scotland. The user should be aware that this information is INDICATIVE.

### Limitations of use

The scheduled monument dataset has not been fully corrected for Ordnance Survey's Positional Accuracy Improvement (PAI) programme. As such, some of the data may appear slightly out of place in relation to the base mapping. The HS\_PA1 field within the attribute table will indicate if the particular site has been corrected for PAI.

## Mapping Heritage minima mapped to SM attributions

### Scheduled Monuments (Polygon)

| MIDAS Historic Environment data Standard: Units of Information | SM data structure mapped to MIDAS | Sample Data   |
|--|-----------------------------------|---|
| Primary Reference Number                                       | IndexNo                           | 11800   |
| Primary Reference Number Type                                  | In Metadata                       | Scheduled Monument  |
| Compiler (Organisation)  | In Metadata                       | Historic Scotland   |
| Date of compilation  | In Metadata                       | 01/03/07  |
| Date of last update  | In Metadata                       | 16/07/07  |
| Positional Accuracy  | PAI_HS                            | Y   |
| Spatial Feature Type   | Shape                             | Polygon   |
| X Coordinate   | Not Used                          | N/A   |
| Y Coordinate   | Not Used                          | N/A   |
| Representation Source  | In Metadata                       | Mastermap/aerial photography  |
| Buffer Zone width  | Not Used                          | N/A   |
| Quality  | In Metadata                       | Boundaries are indicative based on currently known extent of features |

### Further information

Further information can be found on the Historic Scotland website:

See Historic Scotland – Looking after our heritage – Scheduled Monuments – <http://www.historic-scotland.gov.uk/index/heritage/searchmonuments.html>



## Case Study 10

# Designated Wrecks (DW) Polygons

*Donald Coutts and James Steel (HS)*

### Note

Scottish Ministers through Historic Scotland have powers to designate shipwrecks and the remains of these that are of historic, artistic or archaeological importance under section 1 of the Protection of Wrecks Act 1973. There are currently eight wrecks in territorial waters adjacent to Scotland that are currently afforded such protection. Historic Scotland refers to these as "Designated Wrecks".

This case study relates to the definition of restricted areas for Designated Wrecks but shipwrecks may also be protected by Historic Scotland as scheduled monuments or, if lost in military service, by the Ministry of Defence as "controlled sites" or "protected places" under the Protection of Military Remains Act 1986. For the future, provisions in the Marine (Scotland) Bill would give Scottish Ministers powers to create Historic Marine Protected Areas. The new 'Historic MPA' designation would replace that under section 1 of the Protection of Wrecks Act 1973.

Designation decisions under section 1 of the Protection of Wrecks Act 1973 are discretionary and usually follow field assessment of the remains of the wreck on the seabed, consultation with relevant parties and recommendations from a UK-wide Advisory Committee on Historic Wreck Sites (ACHWS). A statutory instrument is the legal document and it identifies the position of the wreck and the extent of the restricted area around it.

Historic Scotland maintains a GIS dataset for Designated Wrecks that includes definition of the circular restricted areas referred to in the relevant statutory instruments. While there is no standard symbology for this dataset, the attribute table does include information about:

- The name of the site
- The date of the wreck (if known)
- The period of the wreck
- The date of designation and information on any subsequent re-designation
- The function of the ship (eg warship)
- The depth of seabed at the wreck location
- The relevant statutory Instrument
- The size of the restricted area (these vary)
- Information about the seabed (eg boulders and bedrock)
- The presence of specific obstructions within the restricted area
- If the Designated Wreck is located within an area of seabed designated for other purposes, (eg a pilot project area for the Scottish Sustainable Marine Environment Initiative – SSMEI; or a Marine SAC)
- If the surrounding waters have a use (eg as a known creeling area or are close to a shipping channel)
- The relevant Harbour Authority for the area
- Location details such as the nearest local authority, map sheets and co-ordinates of the central point of the restricted area in latitude and longitude as well as x and y
- The extent of the restricted areas around Designated Wrecks is published on UK Admiralty Charts.

## The Designated Shipwreck of Kinlochbervie

By way of example, the figure below illustrates the restricted area for the Designated Wreck of a merchantman/warship lost during the late 16th or early 17th century off Kinlochbervie, Sutherland. Note that although the circle encompasses areas of land, for Designated Wrecks, land above mean high water ordinary spring tides is excluded from statutory protection in the relevant statutory instrument.

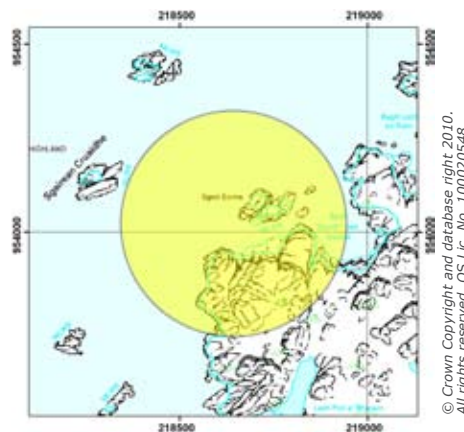
### Preferred Symbology

There is no preferred symbology in place for Designated Wrecks.

### Availability

Download – <http://hsewsf.sedsh.gov.uk/gisd1.html>

Web Feature Services  
– Planned to be available by 31 March 2010.



### Restrictions on Use

Please see "One Scotland Mapping Agreement: Schedule 5 – End User Licence" for restrictions on use.

## Mapping Heritage minima mapped to DW attributions

### Designated Wrecks WGS84 (Polygon)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data                |
|--|--|----------------------------|
| Primary Reference Number                                       | Index  | 3                          |
| Primary Reference Number Type                                  | Not Used   | N/A                        |
| Compiler (Organisation)  | In Metadata  | Historic Scotland          |
| Date of compilation  | In Metadata  | 2005/01/01                 |
| Date of last update  | In Metadata  | 2005/01/01                 |
| Positional Accuracy  | Not Used   | N/A                        |
| Spatial Feature Type   | Shape  | Polygon                    |
| X Coordinate   | X  | 218643                     |
| Y Coordinate   | Y  | 954022                     |
| Representation Source  | In Metadata  | Seazone Hydro-spatial Data |
| Buffer Zone width  | Buffer   | 300                        |
| Quality  | U/K  | U/K                        |

### Further information

Further information can be found on the Historic Scotland website:

See Historic Scotland – Looking after our heritage – What is a Designated Wreck Site? – <http://www.historic-scotland.gov.uk/index/heritage/wrecksites/what-is-a-designated-wreck-site.html>

## Case Study 11

# Inventory of Gardens and Designed Landscapes (IGDL) Polygons

*Donald Coutts and James Steel (HS)*

### Note

The IGDL GIS dataset reflects the boundaries of all gardens and designed landscapes within Scotland which have been considered to be of national importance and is a growing and evolving record. It is created and maintained by the Gardens Casework Team at Historic Scotland. The purpose of this dataset is to allow people to identify the approximate position, size and extent of sites from the Inventory, both within Historic Scotland, and externally through PASTMAP or GIS download data from Historic Scotland's website. Inclusion of a site (there are currently 386) means that it receives recognition and a degree of protection through the planning system. A value system is used to rate each site but this information is not available in the GIS dataset. The user should be aware that the information is INDICATIVE.

### Limitations of use

The Gardens and Designed Landscape dataset has been undergoing a process of PAI, both in line with routine resurvey work and as a project in its own right. The attribute table associated with the dataset contains a field ("PAI") to indicate where this has already occurred.

There is no standard symbology. The symbology used by Historic Scotland for the IGDL GIS dataset differs from that on PASTMAP; however, while the GIS data download site on Historic Scotland's website offers a shapefile, it also provides a layer with the same symbology as used internally. This symbology is single symbol, 10% simple hatch (45 degree angle, 5.00 separation with line width 0.50 in Purple Heart) and an outline width of 2, colour Cattleya Orchid.

## Threave, Dumfries & Galloway

This figure shows an example of a IGDL polygon representing Threave in Dumfries and Galloway.

### Preferred Symbology

- Transparency 0%
- 10% Simple hatch
- Angle 45
- Offset 0.0000
- Separation 5.0000
- C55, M100, Y70, K0
- Line width 0.50
- Line Caps Butt
- Line Joins Miter
- Outline colour C34, M100, Y48, K0
- Outline width 2.00



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### Availability

Download – <http://hsewsf.sedsh.gov.uk/gisd1.html>

Web Feature Services – Planned to be available by 31 March 2010.

### Restrictions on Use

Please see "One Scotland Mapping Agreement: Schedule 5 – End User Licence" for restrictions on use.

## Mapping Heritage minima mapped to IGDL attributions

### IGDL (Polygon)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data   |
|--|--|---|
| Primary Reference Number                                       | Site ID  | 369   |
| Primary Reference Number Type                                  | In Metadata  | Garden and designed landscape                                       |
| Compiler (Organisation)  | In Metadata  | Historic Scotland   |
| Date of compilation  | In Metadata  | 20/03/2009  |
| Date of last update  | In Metadata  | 20/03/2009  |
| Positional Accuracy  | Not Used   | N/A   |
| Spatial Feature Type   | Shape  | Polygon   |
| X Coordinate   | Not Used   | N/A   |
| Y Coordinate   | Not Used   | N/A   |
| Representation Source  | In Metadata  | Mastermap or Landline   |
| Quality  | In Metadata  | Based on aerial photography and Ordnance Survey large scale mapping |

### Further information

Further information can be found on the Historic Scotland website:

See Historic Scotland – Looking after our heritage  
 – Gardens & Designed Landscapes – <http://www.historic-scotland.gov.uk/index/heritage/gardens.html>





## Case Study 12

# Conservation Areas (CA) Polygons

*Donald Coutts and James Steel (HS)*

### Note

The defining of Conservation Areas is governed by the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 but most were first designated under the preceding 1972 Act. Designated by local authorities, they play an important role in environmental enhancement, economic and community regeneration, e.g. Townscape Heritage Initiatives and Conservation Area Regeneration Schemes.

Councils review conservation areas from time to time to assess the need for proactive enhancement or preservation of character. They may alter their boundaries to take account of new ways of understanding areas. Management of change is achieved through, for example, Article 4 directions that remove certain classes of permitted development. Many conservation areas now have character appraisals to explain what it is that should be preserved and what can be enhanced. As conservation areas relate not only to single buildings but to inter-relationships and the spaces between, they are best understood through maps, and statistical results can be obtained through polygons.

The dataset was first created by merging shapefile and CAD data provided by some councils in 2003. Some in-house data capture was done by Historic Scotland at a scale of 1:2500 from published maps.

Council-supplied data has been refreshed in 2006/2007 (All areas), May 2008 (Glasgow) and July 2009 (Perth and Kinross). Inverclyde, Edinburgh and East Dunbartonshire were also revised due to new and amended boundaries in 2008–9.

## Gilmerton, City of Edinburgh

This figure shows an example of a Conservation Area polygon (Gilmerton, City of Edinburgh).

### Preferred Symbology

- Transparency 50%
- Fill C0, M25, Y25, K0
- Outline C0, M0, Y0, K100
- Outline width 0.40

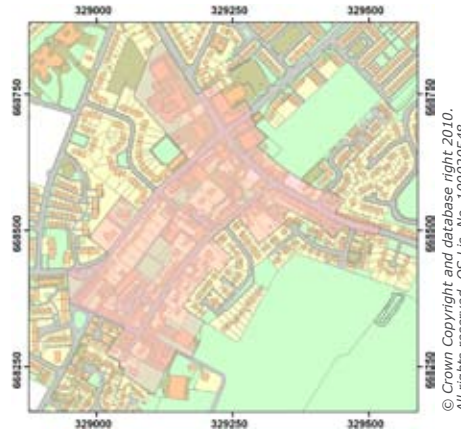
### Availability

Will be available to download by 31st March 2010 – <http://hsewsf.sedsh.gov.uk/gisdl.html>

Web Feature Services – Planned to be available by 31 March 2010.

### Restrictions on Use

Please see "One Scotland Mapping Agreement: Schedule 5 – End User Licence" for restrictions on use.



## Mapping Heritage minima mapped to CA attributions

### Conservation Areas (Polygon)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data  |
|--|--|--|
| Primary Reference Number                                       | Not Used   | N/A  |
| Primary Reference Number Type                                  | Not Used   | Conservation Area  |
| Compiler (Organisation)  | In Metadata  | Data Compiled by Local Authorities and aggregated by Historic Scotland |
| Date of compilation  | In Metadata  | 2008   |
| Date of last update  | In Metadata  | 17/07/09   |
| Positional Accuracy  | Unknown  | Defined by Local Authorities   |
| Spatial Feature Type   | Shape  | Polygon  |
| X Coordinate   | Not Used   | N/A  |
| Y Coordinate   | Not Used   | N/A  |
| Representation Source  | In Metadata  | Based on Ordnance Survey large scale mapping                           |
| Quality  | N/A  | Defined by Local Authorities   |

### Further information

Further information can be found on the Historic Scotland website – <http://www.historic-scotland.gov.uk/memorandum-app1.pdf>



## Case Study 13

# World Heritage Sites (WHS) Polygons

Donald Coutts and James Steel (HS)

## The Antonine Wall World Heritage Site

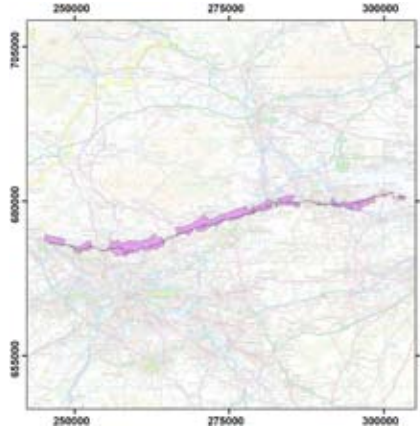
### Preferred Symbology

- Transparency 40%
- Boundary and Buffer
- Boundary Fill C23, M100, Y0, K0
- Boundary Outline C0, M0, Y0, K57 at 0.40 width
- Buffer Fill C13, M55, Y0, K0
- Buffer Outline C0, M0, Y0, K57 at 0.40 width

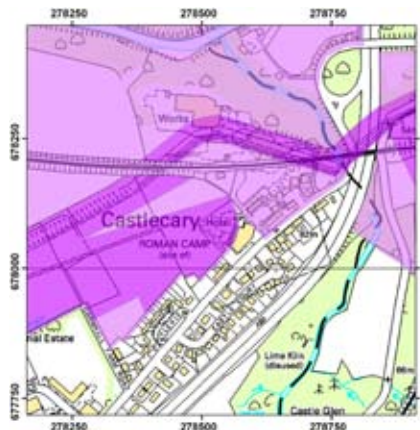
This figure shows an additional example at a larger scale of the Antonine Wall WHS.

### Preferred Symbology

- Transparency 40%
- Boundary and Buffer
- Boundary Fill C23, M100, Y0, K0
- Boundary Outline C0, M0, Y0, K57 at 0.40 width
- Buffer Fill C13, M55, Y0, K0
- Buffer Outline C0, M0, Y0, K57 at 0.40 width



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### Note

World Heritage Sites are described by UNESCO as exceptional places of 'outstanding universal value' and 'belonging to all the peoples of the world, irrespective of the territory on which they are located'. Scotland currently enjoys five such sites: the Heart of Neolithic Orkney WHS; St Kilda WHS; Edinburgh Old and New Towns WHS; New Lanark WHS and most recently the Antonine Wall WHS which forms part of a larger appreciation of the Frontiers of the Roman Empire WHS. These sites can be found in rural and urban landscapes.

The designation of a World Heritage Site is a decision taken by the United Nations (through UNESCO) and one which they review and can revoke. Many organisations, however, can be active in preparing a case for a site to be given or to retain WHS status, and Historic Scotland has been among organisations at the forefront of such efforts.

## Edinburgh Old and New Towns World Heritage Site

### Preferred Symbology

- Transparency 40%
- Fill C0, M25, Y9, K0
- Outline C23, M100, Y0, K0 at 0.40 width



## New Lanark World Heritage Site

### Preferred Symbology

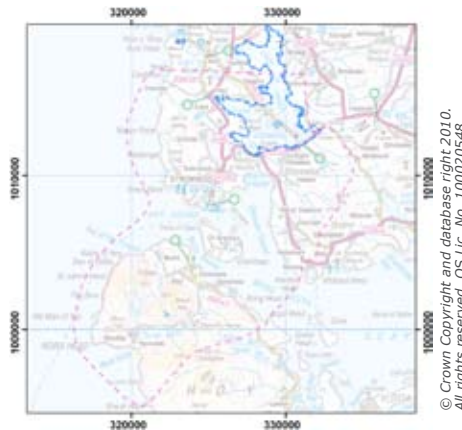
- Transparency 40%
- Boundary and Buffer
- Boundary Fill C1, M13, Y26, K0
- Boundary Outline C0, M0, Y0, K57 at 0.40 width
- Buffer Fill No Colour
- Buffer Outline (dashed line) C23, M100, Y0, K0, Line Caps Butt, Line Joins Round, mark 6 points, blank 6 points, Interval 1.00 at 2.00 width



## The Heart of Neolithic Orkney World Heritage Site

### Preferred Symbology

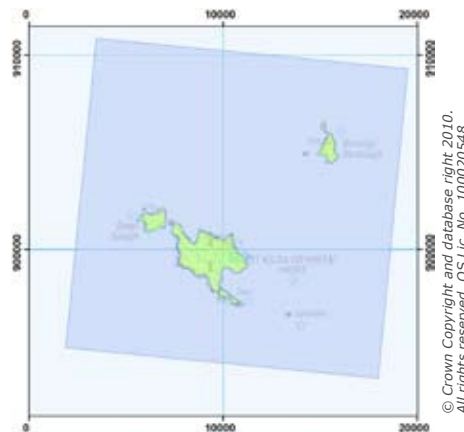
- Transparency 40%
- Boundary and Inner Buffer and Outer Buffer
- Boundary Fill C41, M14, Y5, K0
- Boundary Outline C75, M60, Y8, K0 at 0.40 width
- Inner Buffer Fill No Colour
- Inner Buffer Outline (dashed line) C100, M56, Y0, K0, Line Caps Butt, Line Joins Round, mark 6 points, blank 2 points, mark 2 points, blank 2 points, Interval 1.00 at 2.00 width
- Outer Buffer Fill No Colour
- Outer Buffer Outline (dashed line) C0, M55, Y13, K0 (dashed line), Line Caps Butt, Line Joins Round, mark 6 points, blank 6 points, Interval 1.00 at 2.00



## St Kilda World Heritage Site

### Preferred Symbology

- Transparency 40%
- Boundary and Buffer
- Boundary Fill C36, M0, Y55, K0
- Boundary Outline C70, M55, Y100, K0 at 0.40 width
- Buffer Fill C25, M18, Y0, K0
- Buffer Outline C100, M64, Y10, K0 at 0.40



### Availability

Download – <http://hsewsf.sedsh.gov.uk/gisd1.html>

Web Feature Services – Planned to be available by 31 March 2010

### Restrictions on Use

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## Mapping Heritage minima mapped to WHS attributions

### WHS (Polygon)

| MIDAS Historic Environment data Standard: Units of Information | Compiler organisation's data structure mapped to MIDAS | Sample Data   |
|--|--|---|
| Primary Reference Number                                       | Not Used   | Dataset Uses Named Location ie, New Lanark World Heritage Site                                |
| Primary Reference Number Type                                  | In Metadata  | World Heritage Site   |
| Compiler (Organisation)  | In Metadata  | In Metadata   |
| Date of compilation  | In Metadata  | 20/09/01  |
| Date of last update  | In Metadata  | 20/09/01  |
| Positional Accuracy  | Not Used   | N/A   |
| Spatial Feature Type   | Shape  | Polygon   |
| X Coordinate   | Not Used   | N/A   |
| Y Coordinate   | Not Used   | N/A   |
| Representation Source  | In Metadata  | Boundaries defined by using aerial photography, lidar and Ordnance Survey large scale mapping |
| Quality  | In Metadata  | Boundaries defined by using aerial photography, lidar and Ordnance Survey large scale mapping |

The data contained in these fields is for illustrative purposes only.

### Further information

Further information can be found on the Historic Scotland website:

See Historic Scotland – Looking after our heritage – World Heritage Sites in Scotland – <http://www.historic-scotland.gov.uk/index/heritage/worldheritage/world-heritage-sites-in-scotland.html>