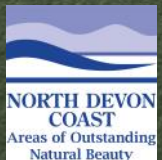
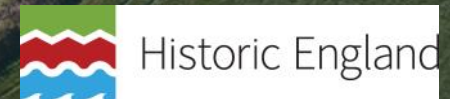


NORTH DEVON COAST AREAS OF OUTSTANDING NATURAL BEAUTY

**MONUMENT MANAGEMENT SCHEME—COASTAL HILLFORTS PROJECT REPORT**

July 2020





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# 1. INTRODUCTION

In December 2018, the North Devon Coast Area of Outstanding Natural Beauty (AONB) were successful in a £27,800 bid to the Monument Management Scheme (MMS) to deliver a range of activities at iron-Age hillforts located in the AONB coast.

Awarded and administered by Historic England, the MMS is a grant funded partnership scheme to enable work with local authorities and other trusted partners. Grants, which may be match funded with other resources, cover improvements to the condition, management and understanding of Scheduled Monuments and designated heritage assets. MMS often involve opportunities to engage volunteers and members of the public, as well as contractors and consultants. Projects can also cover a number of sites over a period of time, in order to better secure their future.

The North Devon Coast AONB MMS focussed on the recording and surveying of a number of iron-age coastal sites, in addition to the delivery of physical improvements to the condition and management, undertaken by contractors, volunteers and community groups.

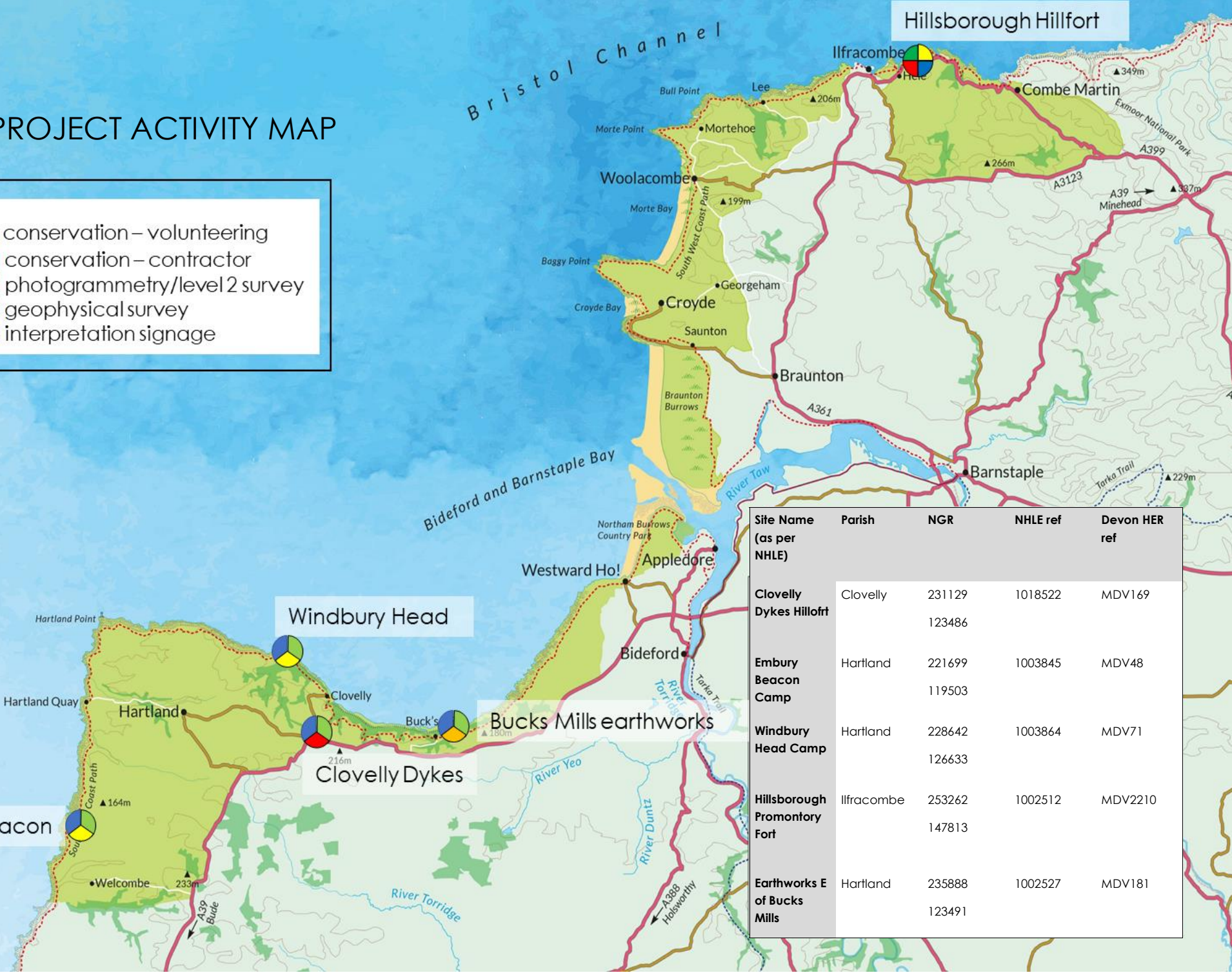
The portfolio of sites included the earthworks to the east of Bucks Mills, a hilltop enclosure; three cliff-top or promontory iron-age hillforts, at Embury, Windbury and Hillsborough; and the iconic Clovelly Dykes.

Cover photo: Clovelly Dykes, looking south east

Facing page: Interpretation post at Windbury Head hillfort

## 2. PROJECT ACTIVITY MAP

- conservation – volunteering
- conservation – contractor
- photogrammetry/level 2 survey
- geophysical survey
- interpretation signage



Site Name (as per NHLE)	Parish	NGR	NHLE ref	Devon HER ref
Clovelly Dykes Hilloft	Clovelly	231129	1018522	MDV169
		123486		
Embury Beacon Camp	Hartland	221699	1003845	MDV48
		119503		
Windbury Head Camp	Hartland	228642	1003864	MDV71
Hillsborough Promontory Fort	Ilfracombe	253262	1002512	MDV2210
		147813		
Earthworks E of Bucks Mills	Hartland	235888	1002527	MDV181
		123491		

### 3. CONSERVATION

Besides coastal erosion affecting Embury Beacon, Windbury Head and Hillsborough, the principle vulnerability on all of the hillforts was scrub encroachment.

Not surprisingly, the worst affected areas was where there was limited access for vehicles and machinery and/or where regular management, for example through grazing, had been lacking. The deepest and steepest of Clovelly Dykes' ramparts were particularly badly affected, and in contrast the flat, interior of the monument had been maintained in an optimal condition through regular management more easily achieved.

Hillsborough, the second largest site in the portfolio had seen a succession of bramble, bracken and blackthorn of its ramparts. The steep topography on all but one side of the site made vehicular access almost impossible. On its southern boundary width restrictions between walls and hedges of the boundary prevented regular, mechanised management.

In the case of Clovelly Dykes, £17k of project funding, approximately 60% of the total MMS project budget was used to engage a contractor in an extensive programme of works. At Hillsborough, £2.5k funding (including £1k match-funded by North Devon District Council) was used to widen access on the southern boundary. This will allow access to the site by tractor for works due to be carried out in the late Summer 2020.

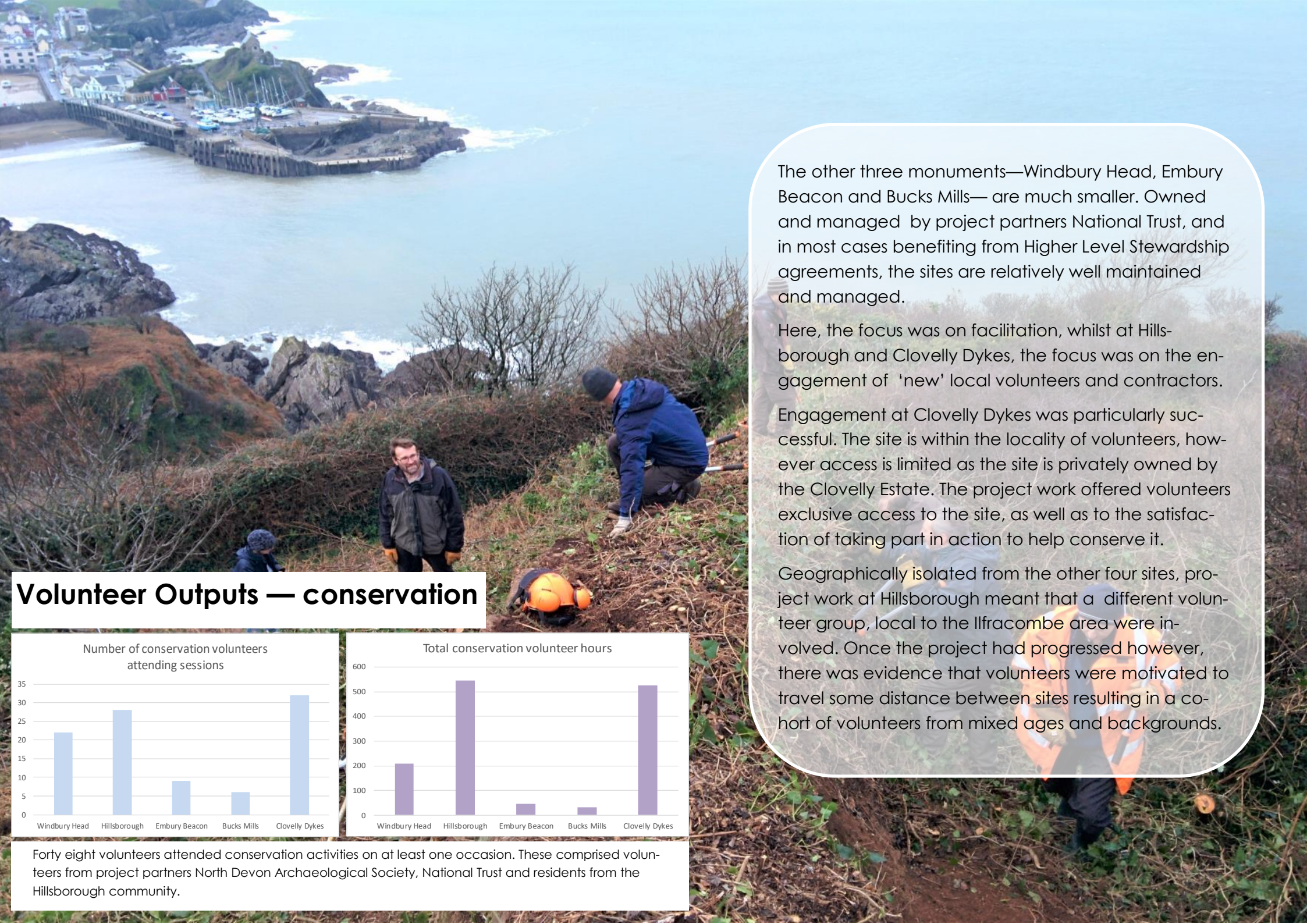


Access improvement work at Hillsborough southern entrance



Volunteer work parties were held at Clovelly Dykes. Hand cutting scrub vegetation proved effective, especially where the steep, outer ramparts prevented mechanical access.





The other three monuments—Windbury Head, Embury Beacon and Bucks Mills— are much smaller. Owned and managed by project partners National Trust, and in most cases benefiting from Higher Level Stewardship agreements, the sites are relatively well maintained and managed.

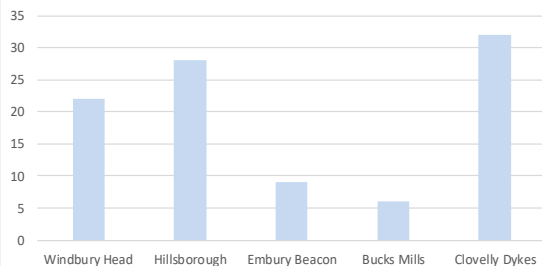
Here, the focus was on facilitation, whilst at Hillsborough and Clovelly Dykes, the focus was on the engagement of 'new' local volunteers and contractors.

Engagement at Clovelly Dykes was particularly successful. The site is within the locality of volunteers, however access is limited as the site is privately owned by the Clovelly Estate. The project work offered volunteers exclusive access to the site, as well as to the satisfaction of taking part in action to help conserve it.

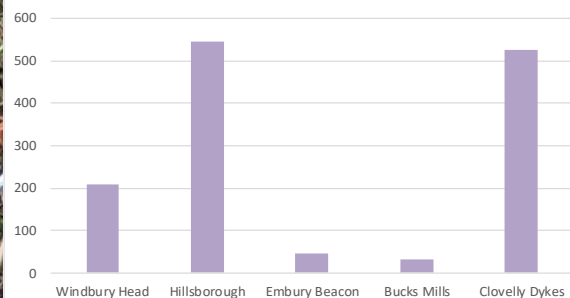
Geographically isolated from the other four sites, project work at Hillsborough meant that a different volunteer group, local to the Ilfracombe area were involved. Once the project had progressed however, there was evidence that volunteers were motivated to travel some distance between sites resulting in a cohort of volunteers from mixed ages and backgrounds.

## Volunteer Outputs — conservation

Number of conservation volunteers attending sessions



Total conservation volunteer hours



Forty eight volunteers attended conservation activities on at least one occasion. These comprised volunteers from project partners North Devon Archaeological Society, National Trust and residents from the Hillsborough community.

Local volunteers assisting Adam Stamford (Aerial Cam Ltd) with preparations for the aerial survey at Hillborough Hillfort. Work involved setting out and recording coordinates at a number of ground control points.



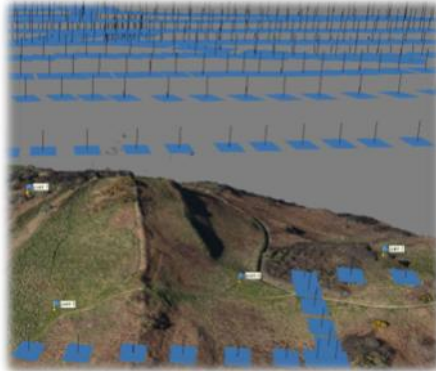
## 4. SURVEYS

Project design included commissioning five photogrammetry surveys for each of the hillforts in the project portfolio, in addition to geophysical survey of the earthworks east of Bucks Mills. The project aspired to bring the hillfort sites into better condition and to reach out to new audiences by revealing the scale, complexity and landscape context of the monuments in a innovative and engaging way.

The resulting orthophotographic, Digital Elevation Models (DEM) and 3D visualisations produced by **Aerial Cam Ltd** enabled virtual access to the project sites. By their very nature almost all of the sites are in remote locations and accessed over steep terrain, or in the case of Clovelly Dykes, where there are no formal public access arrangements.

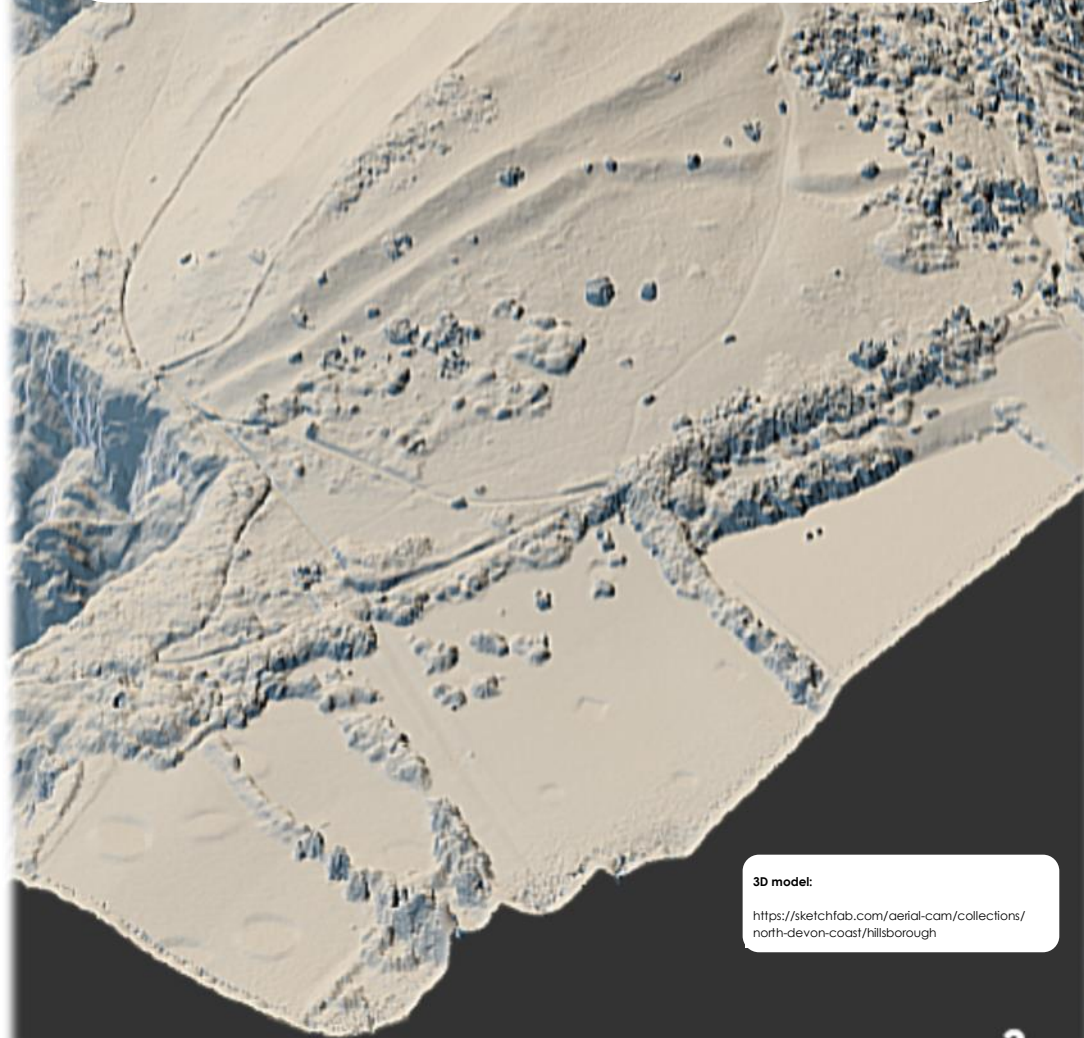
### Generating 3D models

An Unmanned Aerial Vehicle or 'drone' was flown in a grid pattern, taking high resolution photographs, each overlapping the one before it. This produced a 'point cloud' representation of the hillfort sites comprising all the possible overlapping matches between the images. The results were projected geo-spatially, to produce a series of 3D models.



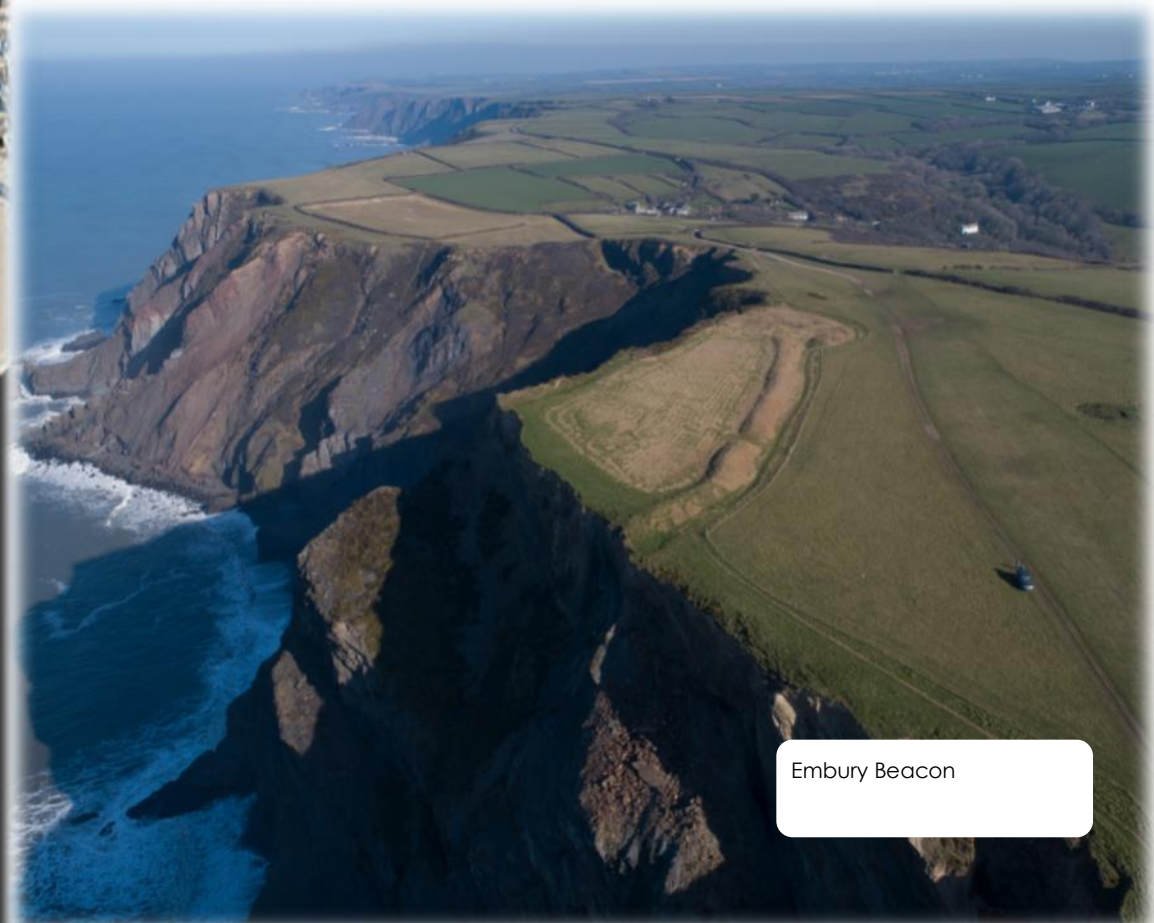
### Eroding earthworks

The **aerial photographs** generated by the survey revealed the nature and extent of coastal erosion. Volunteers carried out conservation work in the weeks' preceding the survey. By removing scrub from the ramparts, the hillfort earthworks were revealed and could be recorded with increased clarity. Aerial photographs have also provided land managers with a base-line visual reference for assessing the condition of monuments and to inform conservation management in the future.

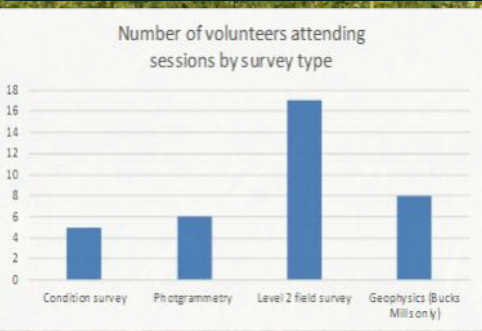


3D model:

<https://sketchfab.com/aerial-cam/collections/north-devon-coast/hillsborough>



Embury Beacon



23 volunteers attended survey sessions. With the exception of the monument condition surveys which were carried out by individual volunteers, these were small-group sessions facilitated by partners Cotswold Archaeology, Substrata and Aerial Cam.

**Cotswold Archaeology** were commissioned to validate the results of the aerial survey by undertaking Level 2 walkover surveys of the hillforts, facilitating project volunteers. Additional work included a geophysical survey (magnetometer) conducted by **Substrata Ltd.** at Bucks Mills earthworks.

The following conclusions were drawn from the survey phase of the project:

- With the exception of Clovelly Dykes, the hillforts are at immediate and ongoing risk of loss due to their cliff-top locations. The report and associated aerial surveys provide an essential record of their extent and condition at this point in time.
- Whilst the coastal landscape has changed since their construction, it is fair to assume that the hillforts in the Hartland Peninsula share some intervisibility. Although they may have been constructed at different points in time, they share a relationship with the landscape in which they were constructed, including visibility to and from the Bristol Channel.
- In order to ensure that the surviving earthworks are conserved, sites would benefit from Conservation Management Plans. Further research and investigation is also recommended to understand the relationship of the hillfort locations with the surrounding landscape in which they belong, especially with the valleys and combs which would have provided access from the sea inland.

(Arkley, 2019)



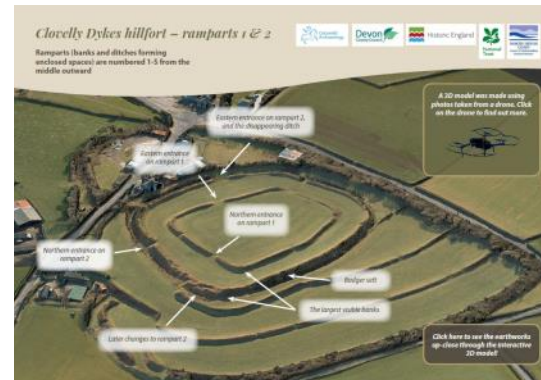
## 5. INTERPRETING THE EARTHWORKS

In addition to coastal hillforts, many other historical and archaeological remains can be found on the North Devon Coast, including bronze-age barrows, 19th century limekilns and World War II relics. An unusually high concentration of these features are situated on the South West Coast Path and are made accessible by Open Access arrangements and Public Rights of Way.

It was therefore possible to introduce interpretation points at three of the five monuments, either on footpaths or in the case of Embury Beacon, within the scheduled area. Installed on waymark posts and existing rights of way furniture, the interpretation points provide virtual access to a suite of interpretative media including 3D models, site orientation guides and video footage, as generated by the photogrammetry survey.

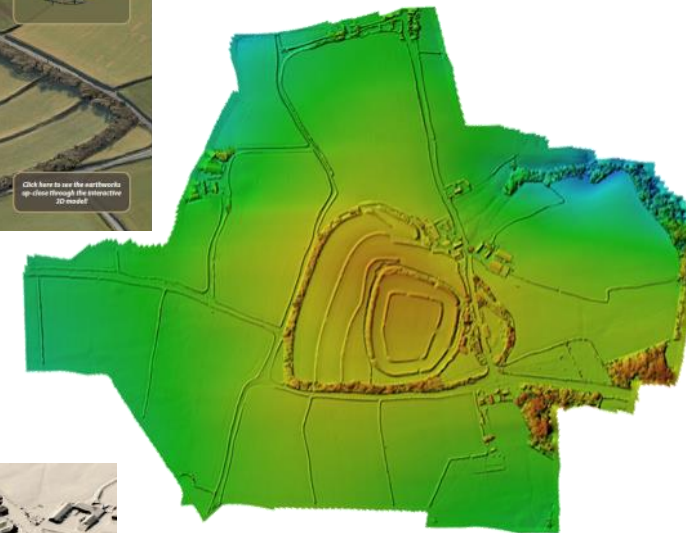


## Digital outputs



### Downloadable site guides

<https://www.northdevon-aonb.org.uk/coastalheritage/iron-age>

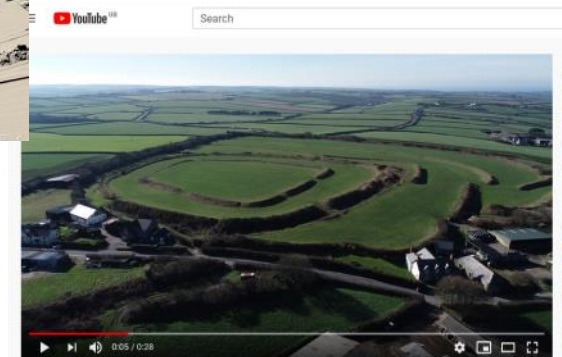


Digital Elevation Models



### 3D visualisations

<https://sketchfab.com/aerial-cam/collections/the-hillforts-of-the-north-devon-coast-aonb>



### Mp4 video footage

<https://www.youtube.com/channel/UCV9bpw6wR76KXwH34r4mvpA>

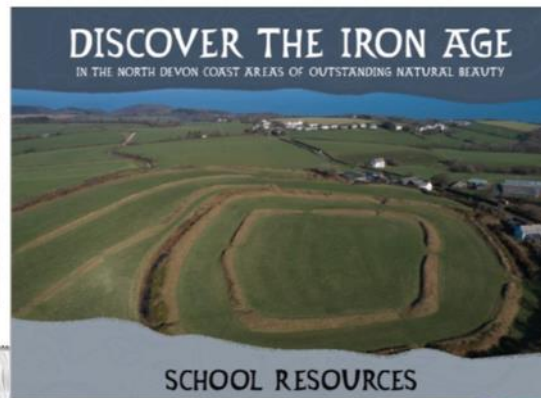


### Complementary activity

With funding resources from the **National Lottery Heritage Fund** and the **South West Coast Path Association**, the AONB's *Coastal Heritage Project* produced complementary resources and products themed on, and promoting access to the five iron-age hill-forts.

These include the production of an iron-age learning resource pack for Key Stage 1&2 children, provided free-of-charge on loan to schools. Images, plans and web links to the MMS digital outputs are featured in the learning pack

Those publicly accessible hillforts are also promoted in the 'Heritage Hotspots' guide to the Hartland Peninsula.

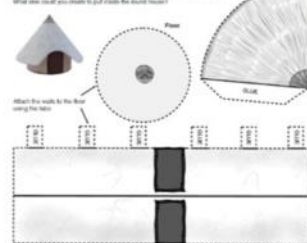


ARCHAEOLOGIST'S TOOLBOX INFORMATION CARDS

Pottery shard	Animal bone	Iron ring
Archaeologists often find pieces of broken pottery like this shard. A piece of one handle or rim can tell us about the shape and size of the whole object. They can also tell us about the date of the object. These can help us to date the site.	Archaeologists often find pieces of animal bone. They can tell us about the diet of the people who lived at the site. They can also tell us about the date of the object. These can help us to date the site.	Archaeologists often find pieces of iron objects like this ring. They can tell us about the diet of the people who lived at the site. They can also tell us about the date of the object. These can help us to date the site.

#### BUILD AN IRON AGE ROUNDHOUSE

Cut out the material shown and fold the sides back to form a cone. Use the material to make a roundhouse.



## Summary of key achievements

The North Devon AONB MMS has been a particularly pleasing and well developed project as it has managed to address all the elements of re-search, improved management and condition, access and public engagement.

- 51 volunteers engaged in both archaeological survey and conservation management activities, contributing 504 person hours and generating £5875 in-kind support
- Excluding Project Officer time, a further 71 hours of partner staff-time was provided, contributing an estimated £832 in-kind
- The five hillfort sites are better understood and interpreted via aerial photography, digital models and a project report,
- As a result of the project, Clovelly Dykes hillfort will be the focus of a follow-on MMS grant in 20/21 to provide a comprehensive programme of scrub management and bracken control. The aim will be to remove the site from the Heritage At Risk register
- Links with partners and landowners have been strengthened. National Trust, North Devon Council and the Clovelly Estate are fully engaged and committed to the long-term protection and enhancement of the iron-age monuments. They are more aware of the range of impacts and understand how and why monument management is a priority



For further information on the North Devon Coast MMS project, visit:

<https://www.northdevon-aonb.org.uk/projects/monument-management-scheme>

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Historic England