

# GGAT 103: Arfordir Coastal Heritage 2013-14

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A report for Cadw  
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## Summary

Climate change is recognised by the Welsh Government as one of the biggest threats facing the planet. Associated sea level rise, increased coastal erosion and increased frequency of severe weather events will have a major impact on heritage and archaeological sites in the coastal zone. This can manifest as destruction of sites, inundation of currently dry sites, or greater deposition of sand and silting of other areas.

Human responses to these issues will vary, and it is unlikely that archaeological sites will be made a priority for protection from these threats, while mitigatory measures will also impact on the archaeological resource in the coastal zone, with the creation of new sea defences in some areas, while others will be abandoned under 'managed change'. Loss of landscape and heritage caused by this will have a negative impact on the quality of life in Wales.

The Arfordir project has been funded, with grant-aid from Cadw to take advantage of the dynamic environment in the coastal zone to identify new sites and monitor archaeological sites and to engage interested local people. In particular it aims to record and monitor sites under threat of coastal erosion or other forms of damage and to involve interested individuals and community groups in taking an active role in caring for their coastal heritage on an independent and sustainable basis, with minimal professional involvement after initial training and guidance.

Following on from the success of the previous years of the project, which was focused on the coastal area from the Gower peninsula to the mouth of the Ogmore River, the study area was extended to the east to cover the coastline from Ogmore-by-Sea to Penarth.

Time was invested in contacting community history and archaeology groups, advertising the project locally, delivering presentations to existing groups, and holding meetings for volunteers who responded to the advertising. This initial contact and training was followed up with a series of guided walks, held to familiarise the volunteers with recording techniques and to allow them to undertake practical recording on site. In addition to practical fieldwork recording, training was also provided on how to search archaeological records, this session intended to make volunteers aware of the different resources that are available whilst also raising a greater awareness of the archaeological sites already recorded within their local area. This training also highlighted to the volunteers the contribution that their work will make by inputting information back into the regional Historic Environment Record (HER).

Work on creating formal guidance documents on taking photographs and using social media was undertaken. The site condition update form was revised and formal guidance on how to complete the form was also created, a specialised form for recording areas of submerged forest and peat was made, and these documents were distributed to all volunteers involved in the project.

A variety of baseline data has been used to identify sites at risk from coastal erosion; including analysis of the results of the 1990s Coastal Survey (Locock 1996), cartographic information, aerial photographs, information from members of the public, and previous work undertaken by GGAT. A series of initial reconnaissance field visits were undertaken to assess the condition of a selection of sites, the threats facing stretches of coastline, and priorities for further fieldwork.

Data generated by the project will be used to enhance and update the regional HER and to highlight archaeological sites and areas most under threat. Based on this data, management plans can be created, and programmes of regular monitoring, recording and further archaeological investigation implemented, the work to be undertaken by volunteers working independently on the project and in collaboration with professional archaeologists.

This report presents the methodologies, results and outcomes of the third year of the Arfordir project in the Glamorgan-Gwent area, and will present strategies and feedback to aid in the delivery of the project in its fourth year.

## **Acknowledgements**

The project was commissioned by Cadw and undertaken by the Glamorgan-Gwent Archaeological Trust (GGAT) in their remit as the regional archaeological body responsible for the understanding and preservation of the archaeological resource in southeast Wales.

The report and figures were prepared by Paul W Huckfield. The fieldwork has been undertaken by volunteers of the Arfordir project, by Rachel Bowden, and Paul W Huckfield of the Glamorgan-Gwent Archaeological Trust. Thanks are most importantly due to all of the volunteers who have taken part in the project.

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## Introduction

### 1.1 Project Outline

Arfordir is a pan-Wales project funded through grant-aid to the Welsh Archaeological Trusts administered by Cadw. In South Wales it has been designed to monitor the condition and the impact of erosion on archaeological sites in the coastal zone. The first two years of work (2010-11 and 2011-12) were focused on the coastline of Gower, extending east as far as the mouth of the Ogmore River, with the study area for Years 3 and 4 (2012-14) been extended to include the stretch of coastline from Ogmore-by-Sea to Penarth.

The study area for Year 4 contains a plethora of archaeological sites from prehistoric round barrows and a number of important hillforts and promontory forts to significant Second World War defences. The landscape of the study area shows evidence of dense activity and occupation from the prehistoric period onwards. Within the intertidal zone, prehistoric and later remains are regularly uncovered by tidal action and erosion, while cliff erosion has also revealed a number of previously unknown sites. The coastline has been the subject of previous surveys (eg Locock 1996, Locock 1997). Year 4 of the project was primarily marked by the severe storms of winter 2013-14 and the impact they had on all sections of the South Wales coastline. The storms were both a boon and a bane, destroying and damaging coastal sites, while also exposing new sites and features.

Volunteers from the previous study areas continued to be supported in their independent work, while new volunteers continued to be recruited. Following on from the volunteer recruitment stage, training sessions and guided walks were held to equip volunteers with skills for recording sites. Their independent work was also supported by project staff undertaking site visits with groups in the study area, resulting in many new sites being reported. In delivering this, the Trust has also enabled members of the local community, local interest groups, history groups and university students to learn more about the coastal archaeology in the area. It has also provided them with the information and skills to allow them to take an active role in monitoring and recording sites threatened by erosion, and to identify new sites, with minimal supervision from professional archaeologists.

The primary output of the project is data entered into the regional Historic Environment Record (HER), which will enhance and update existing records held, as well as adding new records of previously unrecorded sites.

This report details the results of the fourth year of work undertaken on the project and demonstrates its continuing success in generating site data to enhance the HER and inform conservation and management priorities and in community engagement. The project has also contributed to the Welsh Government's objectives regarding climate change, and addressed research issues identified in the *Welsh Archaeological Research Framework*.

### 1.2 Project Background

The impact of coastal erosion on heritage has been recognised in past works, both Cadw-funded projects, (Locock 1996, Nayling 1998) and National Trust commissioned studies (Poucher 2002-3, Poucher 2003, Poucher 2003-4a, Poucher 2003-4b, The Muckle Partnership 2002), which identified stretches of coastline most vulnerable to erosion. Increasing awareness of the issues of global warming and climate change has highlighted their potential effects on the historic environment in coastal areas, and the need for a sustainable programme of monitoring, with contingency to mitigate the impact in certain cases.

The rising profile of archaeology in public forums and the popularisation of the subject via a variety of media have led to an increased public awareness of the heritage of local areas, and an associated growing interest in and enthusiasm for that heritage. Increasing numbers of members of the public are taking an active role in the historic environment, and public engagement is becoming an important component in archaeological projects achieving success, which can be measured against several objectives laid out in the Cadw forward plan 2011-16, specifically "Promoting public

access, appreciation and enjoyment of the historic environment: encouraging public participation and volunteering”.

The project is run under the same pan-Wales ‘Arfordir’ identity as those run by Dyfed Archaeological Trust and Gwynedd Archaeological Trust. Its goals are based on those of the award-winning SCAPE (Scottish Coastal Archaeology and the Problem of Erosion) project run by Shorewatch in Scotland, and the Thames Discovery Programme (TPD).



### **1.3 Aims and Objectives**

The aims of the project have been to monitor the condition of archaeological sites in the coastal zone, and the impact of erosion on these sites, as well as to identify new sites in the study area in order to enhance and update information held in the regional HER. The project has also aimed to establish and develop community involvement and engagement with coastal heritage; encouraging participation and facilitating a programme of sustainable and long-term monitoring of sites with minimal input from the professional sector. Creating and developing links with other professional bodies, educational institutions, community and local interest groups has provided interested local individuals and groups with the information, skills and tools they need to undertake monitoring of the condition of, and threats to, archaeological sites. The monitoring work can, in some areas, lead to further mitigatory measures against the impact of climate change and coastal erosion on the historic environment of the coastal zone.

The project has also included the updating of information generated by previous survey work undertaken in the study area and added value to previous work undertaken relating to coastal heritage.

### **1.4 Methodology**

The project has adopted a variety of methodologies in different areas of the work programme, with different outcomes, results and feedback.

#### **Volunteer Recruitment and Training**

A major focus of the Arfordir project has been the engagement of members of the public with the coastal heritage of their area, the fostering of their involvement in the monitoring of areas most vulnerable to coastal erosion, the monitoring of the condition of archaeological sites in these areas, and the identification of new sites.

The focus of recruitment of volunteers has been on local people who regularly use and visit coastal areas, as they are well-acquainted with an area and will be best-placed to notice changes to a site and to monitor its condition.

Following a period of recruitment, volunteers were provided with training in archaeological recording skills to allow them to undertake recording and monitoring of sites independently, with professional input decreasing as the volunteers gained confidence and ability. This has been designed to enable work to continue beyond the supported phase of the project.

In both the existing and new study areas, field training was provided to volunteers, and volunteer groups also undertook site visits and monitoring work independently.

#### **Identification of Coastal Sites (both under threat and new sites)**

Previous coastal surveys undertaken within the study area (Locock 1997) were consulted in order to identify areas vulnerable to erosion and combined with HER data of known sites to identify specific priorities for monitoring.

Specific areas and stretches of the coastline were then targeted for visits and walkover surveys in order to assess the threat to known sites and to identify previously unrecorded sites. This highlighted the areas to be prioritised for further monitoring work and those which were most suitable to be targeted by volunteer groups; teams of volunteers were then assembled to undertake monitoring work in these areas.

## **2 Main activities undertaken in the course of year 4**

### **2.1 Review of baseline data and mapping of study area**

The study area has been extended to include the stretch of coastline from Ogmores-by-Sea to Penarth. This area incorporates a 14 mile stretch of coastline which has been recognised and protected by Natural Resources Wales, as the Glamorgan Heritage Coast, which runs from Porthcawl to Aberthaw. For the purposes of the project, the coastal zone has been defined as the intertidal area and a band 500m inland from Mean High Water, but where necessary has been extended to include areas where the Heritage Coast boundary extends inland beyond the anticipated study area and where vulnerable sites lie within this boundary.

HER data for the study area has been extracted, and additional data then included from previous coastal surveys, which had identified areas of coastline vulnerable to erosion and new sites and areas with a high archaeological potential.

### **2.2 Advertising and recruitment**

The advertising and recruitment stage of the project followed the successful approach adopted in the previous years, with press releases, leaflet drops, advertising to local societies and councils, and writing to volunteers from previous community projects.

Promotional display materials, posters and leaflets were also produced, and were distributed at various local libraries, museums and community centres as well as being taken to various outreach events the Trust attended. Press releases were also prepared and sent to local newspapers, such as the Llantwit Major GEM and an article written for the Wick monthly newsletter, which promoted the work that the project has completed to date within the Vale of Glamorgan area.

The Arfordir project had a presence at a number of events, including:

Sense of Place. St Donats Art Centre, Vale of Glamorgan – 14th May 2013.

Wick Village fête. Wick, Vale of Glamorgan – 30th May 2013.

GGAT 'Archaeology for All'. Swansea Museum, Swansea – 13th July 2013

Mumbles Oyster Festival, Gower – 20th October 2013

MOROL Annual Conference, Cardiff Bay, Cardiff– 21st October 2013

Tidal Lagoon Swansea Bay. The Dylan Thomas Centre, Swansea– 22nd January 2014

A number of volunteers have also been recruited to the project through more informal means; volunteers that attended these initial presentations told others about the project and these people then became involved. Members of the public involved with other GGAT community projects also joined Arfordir after being informed about the project from GGAT staff. Letters were also sent to local individuals who had previously been involved with GGAT community projects in the study area inviting them to take part.

### **2.3 Website and Social Media**

The website pages have been updated, with changes to the overall design, to the gallery and to the downloadable resources. Additional changes have been planned and have mostly been implemented with outstanding work to be completed soon.

Guidance on using social media for the project has also been created and includes guidance on the different types of websites/applications that are used and how to use each website/application. It is

hoped that by providing this information and making social media less intimidating that there will be an increase to volunteer usage of these sites.

The Arfordir Social Media streams are steadily increasingly in popularity with the Twitter account and especially the Facebook page growing in interest with the projects volunteers and the general public, who have been commenting on, liking and sharing posts. The page has been used to advertise walks, post photographs, ask general advice and to advertise other Cadw grant-aided projects. It also has been of particular use in mobilising groups to record features that have been recently discovered.

## **2.4 Meetings**

A number of meetings have been held with other professional bodies and stakeholders involved in the project and with other professionals working in the area.

29th January 2014 – Site visit to Rhossili beach with Claudine Gerrard of the National Trust, to ascertain potential damage to the site of the old church (PRN00150w) associated with the scheduled Deserted Medieval Village (PRN 01862w) after substantial cliff fall.

Due to a change of staff during the project a number of meetings were held with the established groups from Yrs 1-3, in order introduce the new project co-ordinator and to decide on priorities for fieldwork, answer any queries that had arisen, to hand out new guidance documents and to offer advice.

6th August 2013 – Handover visit with members of the Porthcawl group

7th August 2013 – Handover visit with members of the South Gower group

8th August 2013 – Handover visit with members of the North Gower group

12th August 2013 – Handover visit with members of the Vale of Glamorgan group

A number of presentations were made to groups that were interested in working in the Year 3 areas, but had only become aware of the project in Year 4. As a result of this, areas of the coast and archaeology that had previously not been covered by the project could be recorded.

Kenfig Archaeological Trust – 24th January 2014

Following on from this initial presentation to recruit volunteers, a training session was held.

15th February 2014 - newly recruited volunteers training day at Sker beach.

Friends of Margan Park – 10th March 2014

## **2.5 Guided walks and field visits**

Due to a change of staff during the project the training of new volunteers was carried out late in 2013-14, with training only being completed in early 2014. A training programme was arranged and included guided walks, talks and a practical workshop session. The guided walks were intended to allow the volunteers to put the theoretical recording training into practice, and to get used to noticing and recognising archaeological sites. In the new study area, the routes were chosen to cover a range of site types and periods and to target areas known to be vulnerable to erosion.

24th April 2013 – Porthkerry Country Park

25th April 2013 – Nash Point

26th April 2013 – Aberavon Beach

23rd May 2013 – Rhossili

4th September 2013 – Llantwit Major Beach

4th September 2013 – Whitford Burrows

16th September 2013 – Nash Point Beach

17th November 2013 – St Donats

19th November 2013 – Merthyr Mawr 19<sup>th</sup> Century Rifle Range



**Plate 1. Gower Arfordir volunteers and former Arfordir Co-ordinator discussing the possibility that a newly discovered site may have been an infantry trench.**



**Plate 2. Visit to the 19th Century rifle range at Merthry Mawr with Cadw's Senior Inspector and Porthcawl U3A. The site was originally recorded by the group during Yr 2 of the project.**

### **Guided walks and field visits feedback:**

Feedback of this aspect of the project has been extremely positive, with praise for the training provided and a keen interest shown by volunteers to work on other volunteer projects led by GGAT.

### **2.6 Other training events**

In addition to the fieldwork implemented one volunteer from the year 4 study area came for a month long work placement at the Trust, where she received training from the then Arfordir Co-ordinator, Rachel Bowden, in entering Arfordir sites into the HER, this also included work on archiving and uploading photographs.

## **3 Year 4 groups**

As the recruitment for the Year 4 groups was only completed late in 2013-14, with training only being completed in early 2014, target areas to monitor were allocated to the groups along with a fixed deadline to return their fieldwork data. The aim of setting a deadline was to establish how well the volunteers had absorbed their training and to allow any additional training needs to be identified at an early stage.

In addition to this, the deadline has helped to spur the volunteers into going for walks and conducting fieldwork immediately rather than allowing a time lapse between training and their independent work.

### **3.1 Servicing HER requests**

In order for the volunteer groups to undertake fieldwork, along with the volunteer recording packs, HER data has been provided. These normally consist of a series of maps and APs, generally laminated to allow use on site, with the HER points marked and labelled on them, along with an index to all the sites in that area with a more detailed gazetteer with full details of all the sites. Data sets were compiled for the following areas:

Margam and Kenfig Burrows;

Loughor;

Burry Holms;

Cwm Ivy to Broughton;

Swansea Bay.

For the Year 3 groups the priority areas allocated included:

Cwm Mawr to Macross;

Barry between Bulwarks and Jackson's Bay.

### **3.2 Equipment packs**

In addition to the six equipment packs purchased and distributed to the Year 1 and Year 2 Arfordir volunteer groups, two further packs were purchased for the third year's work. These consisted of the same items:

3 sets of 2 x 1m connecting ranging poles;

1:25,000 Ordnance Survey map of area;

Handheld Garmin GPS;

10 Megapixel camera;

16 GB SDHC Memory card;

50m Open reel tape measure.

These were distributed to the Kenfig Archaeological Trust and Pastfinders groups.

### **3.3 Use of social media**

The project has made extensive use of social media in advertising, volunteer recruitment, event organisation and raising awareness.

The Twitter account for the project continues to be used and keeps attracting new followers, currently 189, and has been particularly useful for spreading word of the work of the project and advertising volunteering opportunities.

The GGAT Arfordir Facebook page (<http://on.fb.me/1eG050S>) was created in Year 3 to promote all aspects of the project, walks, talks, and photographs from both the co-ordinator and volunteers. The response to the website has been positive, with the page currently having 70 'likes' and a total reach of 188, which is a rise of 150.7%. New and existing volunteers that use Facebook have been invited to 'Like' the page, whilst volunteers that currently do not use Facebook have been made aware of the page's existence and have been encouraged to join the site. With the induction of the Kenfig Archaeological Trust and Pastfinders group, both of which already use social media to communicate, there has been a greater degree of interaction between users to the information that has been posted and it is hoped that connectivity between groups and individual volunteers will grow in the 5th year of the project.

The Swansea Bay group also remains particularly active on Facebook, and use the site to organise group events and site visits, as well as uploading photos of sites and features.

The WordPress project blog has been updated with a new theme background implemented. The blog has been used to promote fieldwork undertaken as part of the training; photographs of finds have also been uploaded highlighting exciting new discoveries and raising the profile of the project's work.

At present there has not been much volunteer input to the Flickr account created for the project last year. However it is anticipated that there will be an increased usage with volunteers updating project blogs with information about their monitoring fieldwork, as a result of the social media guidance that has been distributed to volunteers. In addition to this, it is thought that practical workshop sessions in using these sites, run for all volunteers could also improve usage and make social media less intimidating.

### **3.4 Data verification and entry**

The data and completed forms which have been returned by volunteers have been verified and entered into the project database by project staff. Some have been entered into the Historic Environment Record, the rest have been prepared for entry, with a database entry for each site, corresponding polygons in a MapInfo table, where mapping of a polygon has been possible, and photographs of each site prepared with a photo catalogue to facilitate HER entry.

A number of site visits have been undertaken in the course of the project, by project staff, with other professionals in the sector and with volunteer groups, either to specific sites or to areas identified as suffering from erosion.

A list of new sites is included in Appendix 1. These are listed separately from known HER sites where the data held on them has been enhanced by the project: for example where a description has been expanded; threats identified; a misplaced NGR has been relocated (Appendix 2). Where new sites have been identified, these will be entered into the regional HER and where possible polygons of new and existing sites have been created in a MapInfo table.

## 4 Discovery and Destruction: Winter Storms of 2014

Following the storms of January and February 2014, GGAT was inundated with information from Arfordir volunteers via email and through social media concerning the large number of archaeological coastal sites that had been damaged/destroyed or revealed. It became imperative that in order to mitigate any loss to the archaeological resource all Arfordir volunteers needed to be mobilised.



Plate 3: Message sent out via the GGAT Arfordir social media page calling the groups to mobilise

Through the projects social media streams and more traditional methods the volunteer groups were asked to visit their individual stretches of coastline and to record any damage or exposed sites. Due to the dangerous nature of the coastal zone, especially after such stormy weather, it was emphasised that individual Arfordir volunteers should not go out on their own, but to go out in a group and to use their common sense at all times. It was further stated that there are always risks to examining any new discoveries, particularly if they look like military ordnance. In this instance it was recommended they were to be given a wide berth and the appropriate authorities to be contacted.

### 4.1 Fieldwork

In order to both maximise efficiency and for public safety, the groups were asked to inform the Trust as to where and when they were planning on going out. This information was then mapped, showing the areas of coastline that had been covered by the volunteers, as well as areas that had not yet been visited. Where cliffs falls or erosion was recorded NRW was contacted.

5<sup>th</sup> January 2014 – Sker Beach

6th January 2014 – Cwm Nash, Vale of Glamorgan

7th January 2014 – Sker Beach to Nottage



17th January 2014 – Sker Beach and Pink Bay

23rd January 2014 – Gileston to Summerhouse Point

23rd January 2014 – Swansea Bay

28th January 2014 – Sully to Swanbridge

29th January 2014 – Rhossili.

30th January 2014 – Ogmere-by-Sea to Nash Point.

6th February 2014 – Gileston Beach to East Aberthaw

18th February 2014 – Swansea Bay

2nd March 2014 – St Donats Beach.

13th March 2014 – Whitmore Stairs.

13th March 2014 – East Aberthaw.

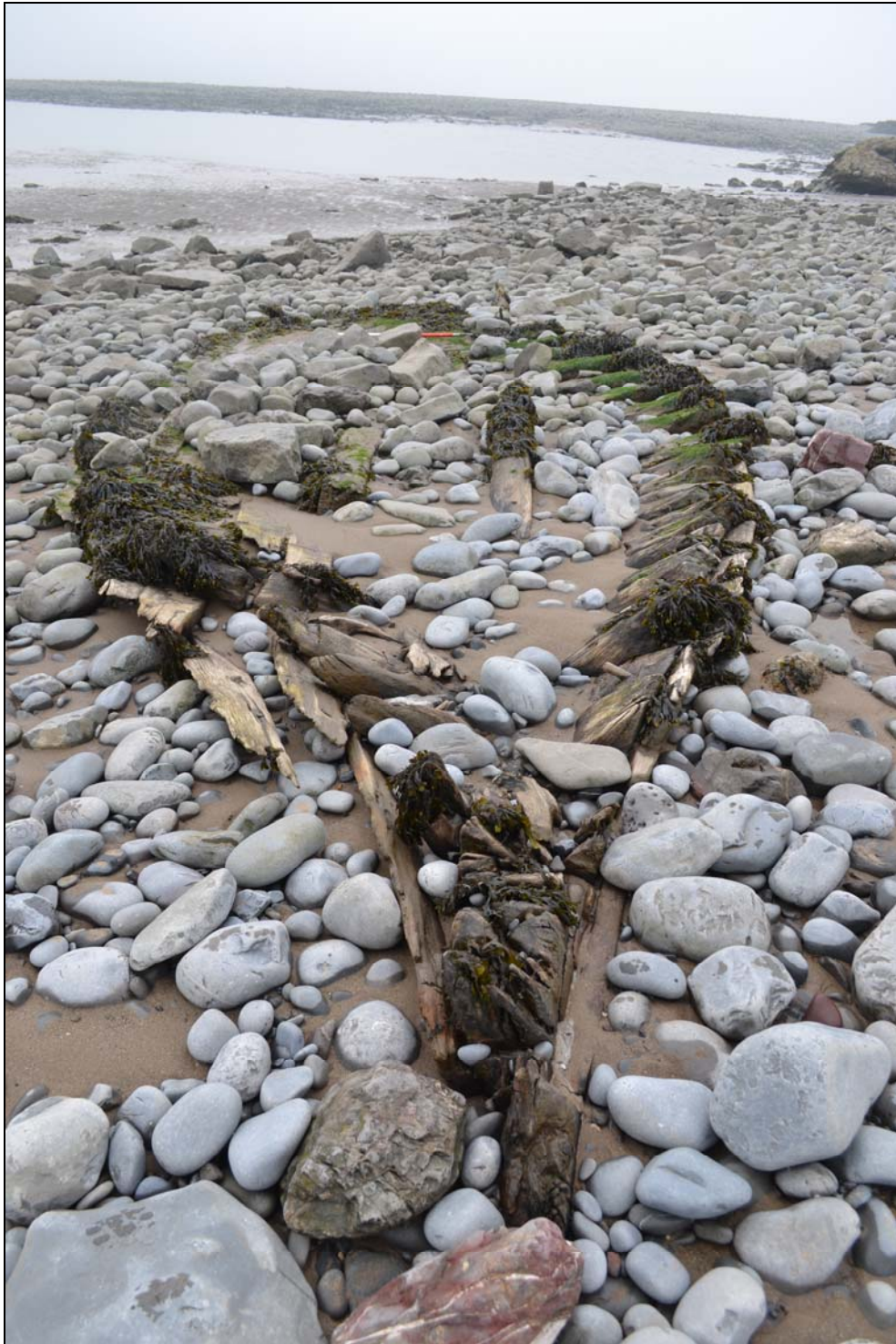
30th March 2014 – Penarth Beach.

#### **4.2 Further Training**

In addition to the fieldwork instigated by the storms of winter 2014, a few of the newly exposed sites provided excellent opportunities to undertake further training with the groups. A measured and offset recording training day was carried out on the 10th February 2014 at the exposed iron-hulled wreck at Nash Point, with a further day recording the East Aberthaw wooden vessel on the 13th March 2014.



**Plate 4: Volunteers from the Llantwit Major Arfordir Group carrying out offset survey of the remains of the iron hulled wreck exposed near to Nash Point**



**Plate 5: This small timber vessel exposed on the beach at East Aberthaw was recorded by volunteers from the Penarth Arfordir Group**

### **4.3 Media**

Due to the severity of the weather around the coast and the large amount of new sites and features being exposed, the work of the project was covered repeatedly by both National and regional media.

28th January – Evening Post Online

29th January – Evening Post (Print)

29th January – BBC News Online

4th February – BBC World at One (Radio 4)

6th February –The Gem (Both online and Print)

9th February – BBC News Online

11th March – BBC Wales Today

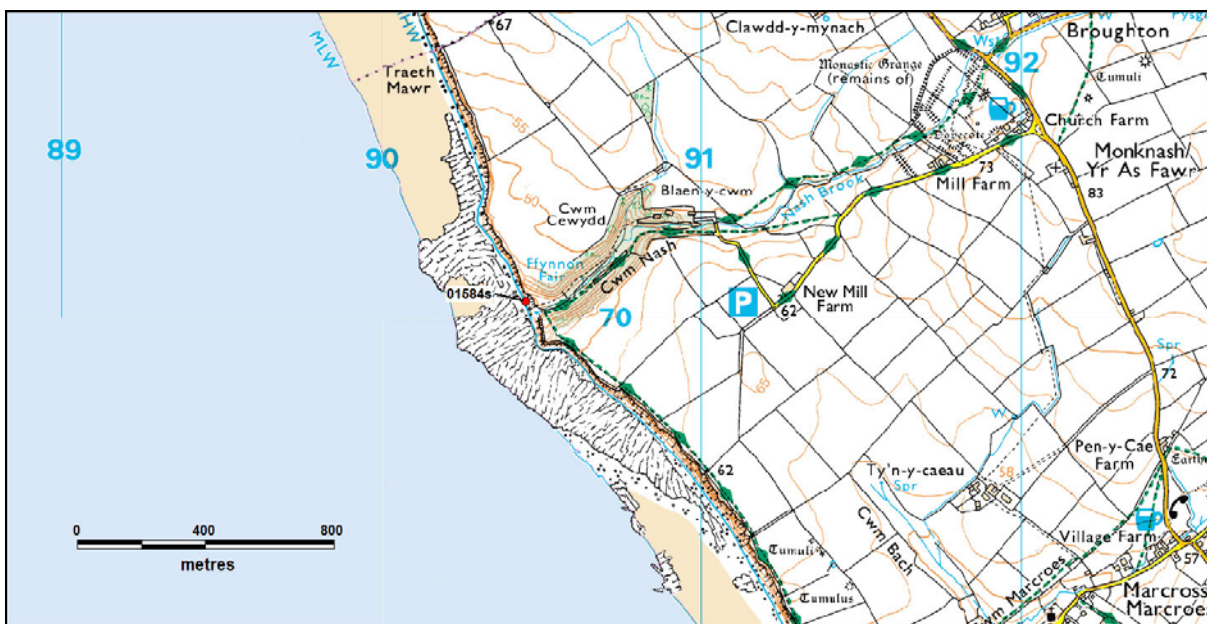
11th March – ITV Wales Evening News

#### 4.4 Sites of specific note

A plethora of sites of specific note have been identified in the course of the storm fieldwork as being of archaeological significance and at risk of erosion or other threat. Four of the most impressive from the projects areas are shown below:

##### 4.4.1 Human Remains. Cwm Nash, Vale of Glamorgan

On the 5th January 2014 a phone call was received by the Glamorgan-Gwent Archaeological Trust from DI Andy Price, Barry CID, who informed the Trust that they had contacted by a Mr Andrew Morgan, a member of the public, who had recovered a quantity of possible human remains from the beach at Cwm Nash, Vale of Glamorgan, after a section of the tufa cliff had collapsed during the January storms. DI Price was aware of the work that Trust had undertaken at the site and contacted us with Mr Morgan's contact details.



**Figure 1: Location of the cemetery at Cwm Nash.**

© Crown copyright and database right (2014). All rights reserved. Welsh Government. Licence number (100017916).  
© Hawlfraint y Goron a ffrainc cronfa ddata (2014). Cedwir pob hawl. Llywodraeth Cymru. Rhif Trwydded (100017916).

After an initial discussion with Mr Morgan it was decided a site visit was required in order to collect the recovered archaeological material and to ascertain the condition of the possible cemetery (PRN 01584s) after the cliff collapse and also to attempt to see if any further remains had been exposed.

Upon visiting the site we were struck by how large the tufa cliff collapse caused by the January storms had been. The collapse (NGR SS9048470039) had removed a large section of the cliff face, leaving a concave recess behind. Remains of the two previously unknown grave cuts were visible within the exposed cliff face and we can now surmise that the skull fragments and long bones recovered originally belonged within these. The two cuts are located approximately 1m apart, orientated ENE-WSW, and show as nothing more than shallow scoops within the subsoil, similar to that excavated by Dunning and Bowden in 2012. Both graves display evidence of additional remains in situ within the fill. The northwestern of the two damaged bones fragments can clearly be seen protruding.



**Plate 6: Cliff fall at Cwm Nash, Vale of Glamorgan. The erosion of the tufa cliff exposed two additional and previously unknown grave cuts.**

A search of the cliff debris field and the surrounding beach was carried out in order to ascertain if additional human remains had been washed out after Mr Morgan's visit, but none were recovered.

The bone assemblage recovered by Mr Morgan consists of 52 items, predominately cranial fragments, relating to two individuals.

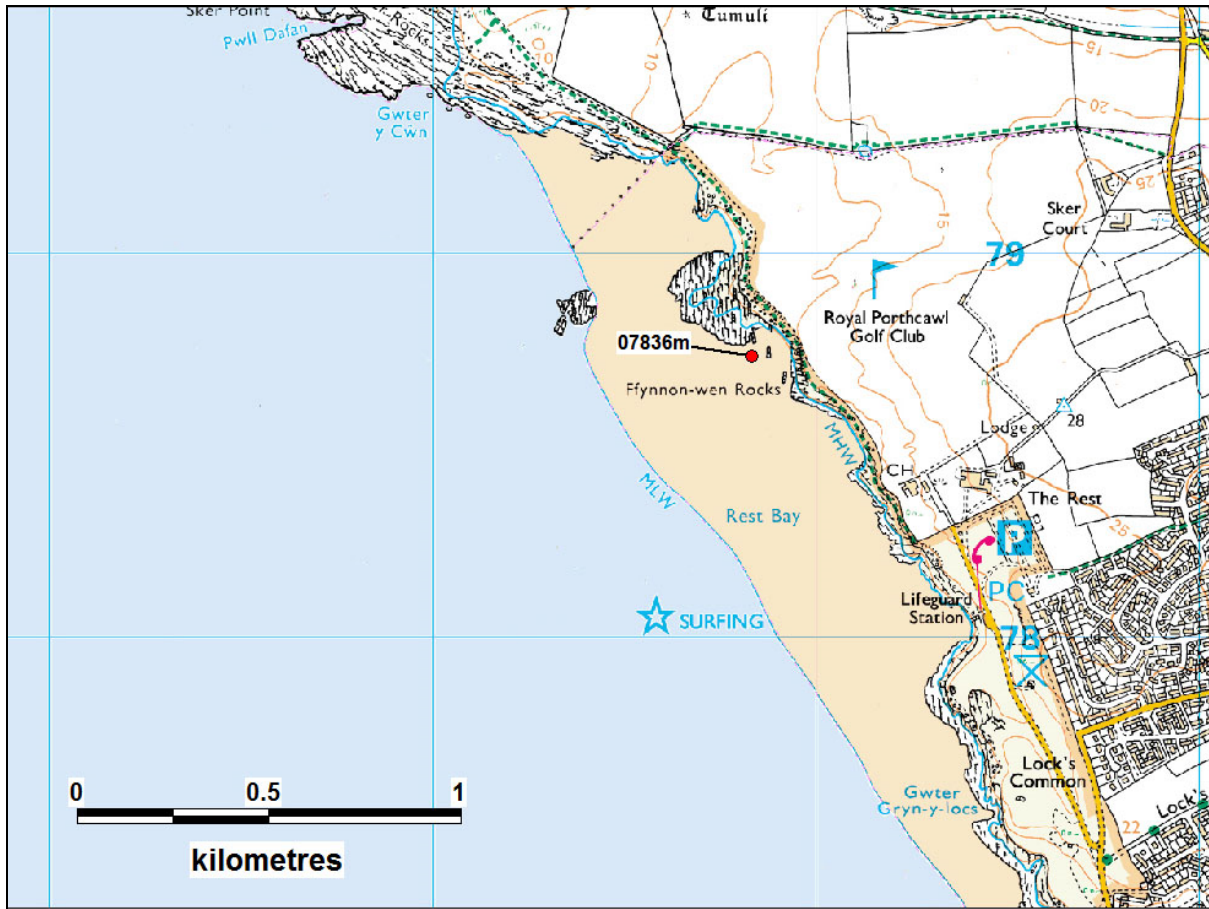


**Plate 7: Cranial remains recovered from the site.**



Plate 8: The complete bone assemblage, recovered by Mr Morgan.

#### 4.4.2 Cannon. Pink Bay, Porthcawl



**Figure 2: Location of the cannon discovered on Pink Bay, Porthcawl.**

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On the 5th of January a photo was emailed to the Arfordir Co-ordinator by a member of the public, who had been walking along the seafront at Rest Bay, Porthcawl after the storms and had stumbled across what they thought were two cannon exposed on the beach. The Trust contacted the gentlemen who provided a grid reference for the cannon and the Arfordir Co-ordinator visited the site the following day (6<sup>th</sup> January).

During the visit, however, no trace of the cannon could be found, and it was thought that the finds had been once again lost to the sea. It was therefore with some surprise we discovered that Porthcawl Museum and Porthcawl RNLI had recovered the cannon from the beach during the night of the 5<sup>th</sup> January.

After contacting Ceri Joseph at Porthcawl Museum, the staff museum very kindly agreed for the Trust to record the cannon for the HER and a visit was carried out on 15<sup>th</sup> January.

The large smooth bore cannon is 135cm long and is in an excellent state of preservation, while the 'Patarero' or swivel deck gun is smaller, measuring 90cm, and is encased in marine concretion. Where the concretion is missing, around the end of the muzzle, the iron beneath seems to be similarly well preserved. When the author visited, the cannon were being stored in rapidly constructed temporary tanks after being recovered from the beach. It was therefore impossible to examine them completely. No stamps or marks however, could be seen on either the trunnions or muzzle of the smooth bore cannon. Both cannon are thought to date from around the 18<sup>th</sup> century.



The museum asked if the Trust could provide any help with the conservation, and the Arfordir coordinator contacted Toby Jones from the Newport Ship on the museum's behalf. Toby agreed to liaise with the museum concerning the desalination of the iron.



**Plate 9: One of the two cannon exposed on Pink Bay, Porthcawl and recovered by Porthcawl Museum.**



**Plate 10: The smooth bore cannon and swivel deck cannon after recovery.**  
Photo courtesy of Ceri Joseph, Porthcawl Museum

#### 4.4.3 Ships Wheel. Swansea Bay



**Figure 3: Location of the ships wheel (PRN recovered from Swansea Bay)**

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This large ship's wheel (Plate 11 & 12) was discovered by members of the 'Swansea Flat' Arfordir Group on Swansea Bay on the 23rd January 2014. Unfortunately, images of the wheel were circulated on social media before being reported to the project.

Due to this issue and the perceived threat to the archaeological resource, it was decided that the wheel would need to be recovered. Clearance for this action was sought from the appropriate authorities, with justification being that the find should be recovered before being lost, in order to attempt to ascertain its provenance. The issue made more imperative as another impending storm front was expected.

Recovery was by members of the Arfordir group along with Trust staff on 24<sup>th</sup> January. The MCA Receiver of Wrecks was informed and subsequent paperwork completed.

Which vessel the wheel came from is so far unknown. Swansea bay has a large number of wrecks littered across its length and until the wheel is conserved and a serial number or vessel name is identified from it any suggestions are purely speculative.

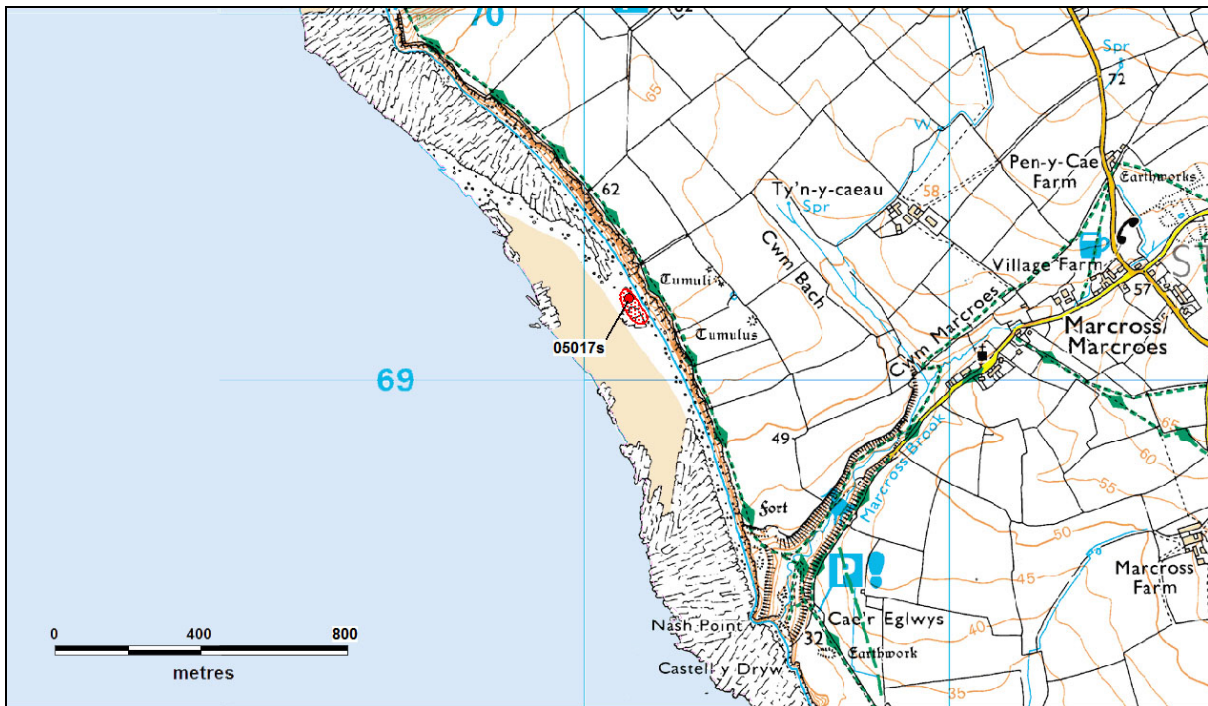


**Plate 11: Recovery of the wheel by the members of the Swansea 'Flat' Arfordir group and Trust staff**



**Plate 12: A large ships wheel of unknown date reported by the Swansea Bay Arfordir group.**

#### 4.4.4 Unknown Wreck between Cwm Nash and Nash Point, Vale of Glamorgan



**Figure 4: Location of the remains of wreck PRN 05017s between Cwm Nash and Nash Point.**

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During a rapid survey of the coastline between Ogmere-by-Sea and Nash Point on the 2<sup>nd</sup> February a large iron wreck was discovered on the beach between Cwm Nash and Nash Point (SS 9112269222). The exposed remains of the wreck measured around 32m in length and 70m in width. However, the vessel's debris field covers a much larger area (around 720m), with remains being discovered almost all the way to Nash Point. The vessel currently lies upside down, with the remains of the interior hull plating visible. A search of the RCAHMW Maritime database recorded three vessels in the immediate area of the wreck, the *Glenieuse* (NPRN 240816), the *Elizabeth* (NPRN 274057) and the *Ben-y-Gloe* (NPRN 273908).

Both the *Glenieuse* and the *Elizabeth* were both wooden vessels; however the *Ben-y-Gloe* was a iron-hulled, full-rigged ship. She had been built in Glasgow in 1886 at 1678 tons, and was undertaking her maiden voyage from Penarth to Singapore with a cargo of timber and rubber, when she was caught in a particularly severe gale. The ship was battered by heavy seas and finally pushed over onto its beam ends just off Nash Point. It was washed onto Nash Sands just after midnight on 15 October 1886 and broke in two. The story goes that the crew managed to scramble from the rigging onshore and walked the mile to Marcross and sought shelter at the inn, most probably the Three Horse Shoes, but hospitality was refused because they had no money to pay. The master left the ship around 2.30am and when he reached the inn was able to confirm that shelter, food and drink would be paid for. The following morning, when they returned to the ship, they found it looted (Edinburgh Evening News Tuesday 9<sup>th</sup> November 1886). Newspapers in both Scotland and South Wales condemned the actions of the innkeeper and local people who engaged in the pillaging.

Research work by Roger Sheal from the Llantwit Major Arfordir group also unearthed a record of the loss of a tug boat, the *Nodsu*, which ran aground on the coast between Cwm Nash and Nash Point in 1919. The *Nodsu* was attempting to refloat an American ship, the *SS Lake Western*. Although the tug was lost, the *Lake Western* was eventually refloated by attaching hundreds of empty wooden barrels to the ship.



Plate 13: Remains of the large iron hulled vessel.



Plate 14: Initial recording of the vessel. The primary wreck covers an area of beach 70 metres x 32 metres.

## 5 Conclusions

The fourth year of work on this project has confirmed that it makes valuable contributions to our understanding of the coastal heritage of southeast Wales and is successfully engaging the community. It has built on the success of the previous years by recruiting further volunteers who are actively engaged in monitoring coastal archaeological sites and has contributed to the development of further work in the future, both Cadw grant-aided under the 'Arfordir' project banner and on a sustainable basis.

As the training for Year 4 volunteers in the area of Barry and Penarth was only partially undertaken late in 2013-14, with training only being completed in early 2014, the volunteers have only been undertaking independent fieldwork for a short time; however they have returned fieldwork data that has been added to the HER. This shows that there has been a genuine engagement with the project by volunteers and also demonstrates that they are willing to organise and undertake fieldwork independently. The groups have gained confidence in undertaking survey work and in completing the recording forms, and it is hoped that the groups will become increasingly independent. The majority of the groups have continued to monitor their areas and results of independent fieldwork have been returned, thus showing a continued enthusiasm for the project. The increase in interest from both volunteers and members of the public in the projects social media streams mirrors the enthusiasm seen in the field.

The threat of coastal erosion and its impact on archaeological sites is continuous, as has been graphically demonstrated by the winter storms of 2013-14. Due to the continued funding of the Arfordir project within the GGAT area and the commitment and dedication of its volunteers the project was able to mobilise and mitigate any loss to the coastal archaeological resource. What happened in the aftermath of the storms, therefore, can be viewed as a clear demonstration of the success of the project, its methodology of devolving the organisation and survey/monitoring work and providing the skills and confidence to the volunteers cemented its success, confirming the valuable contributions it makes to understanding of the coastal heritage of Southeast Wales.

However, the methodologies that are embedded within the project and proved so useful during the storms are also part of the project's problems. A series of meetings were undertaken in Year 4 with the group from Years 1, 2, 3 and 4 to discuss their futures, beyond the formal end of the project and the progressively lessening support and professional input this will ultimately bring. The recurring theme when talking with the groups, especially those created during the first years of the project, was a sense of alienation and anger. This was because the emphasis in the project design was always on recruiting new volunteers/groups and assuming that existing groups would be entirely self-sufficient after the year they were formed. However, the groups felt that GGAT had created them, provided initial support and training and then abandoned them, as the project moved on along the coast. Such feelings were strengthened when groups saw the training/fieldwork that the new Arfordir groups were being provided with and it did not mirror their own experience, case in point being the geophysical survey of Cwm Nash by the Vale Arfordir group.

What, therefore, is the best way to tackle these issues and nurture the project legacy? Would better use of social media, emails and most importantly face-to-face contact help? What has emerged from the feedback sessions with the groups is that it is not enough too continually engage new members and volunteers and encouraged involvement in the project. The volunteers currently working on the project have a significant body of local knowledge on the history and archaeology of the area, they have shown great enthusiasm and that there is a strong appetite in the community to make use of this knowledge to add to existing datasets. If this goodwill and knowledge is not to be lost there must be systems set in place and greater time set aside to continually interact with and provide support to existing groups. Better use of social media and most importantly face-to-face contact are essential if the work of monitoring and recording coastal archaeology is to continue.

## **5.1 Proposed work for 2014-15**

The proposed work programme for 2014—2015 will ensure that the groups set up in the latter end of the fourth year are properly functioning, whilst also maintaining contact with the groups from the first, second, and third years. Additional training requirements thought to be necessary for the volunteers will be investigated to ensure the successful continuation of the volunteers work. Volunteer input will also continue beyond the data collection and monitoring stage; further engagement with the HER has been developed recently, with training for fourth year groups including a session on searching archaeological records using *Archwilio* and the *Archwilio* app. It is anticipated that interest in the data entry and HER work will follow on from survey and monitoring work, and it is hoped that the volunteers will become involved in the creation of polygons and adding sites to the HER, which will also enhance a variety of archaeological skills and knowledge in the community.

The outreach elements of this project are one of the key objectives, the project aims to engage members of the community with the archaeology of their area and equip them with the skills and knowledge not just to appreciate the sites, but also to take an active role in monitoring their on-going condition. Following this the information gained is generated back to the Trust, and enhances the records held in the regional HER. The project will thus also aid the management of the sites under threat of erosion and go some way to mitigate its effects on the archaeological resource, giving a deeper understanding of the threats facing sites within the coastal zone.

The outreach aspects of the project will be enhanced in the fifth year of work by increased use of social media websites (blogs, Facebook groups, flickr, and twitter) to raise awareness of the work of the project, events and training opportunities. It is hoped that volunteers can be encouraged to blog about their own experiences of the project and about the results of their monitoring work to engender a sense of ownership of the project and the work, as well as using the flickr account to add photos of archaeological sites they have visited for the project and to illustrate identified management issues. The anticipated launch of the *Archwilio* app in late spring/early summer 2013 will also provide a new medium for participants to report discoveries.

Further work will be undertaken to consider the mechanisms of support to enable the project and the work of the volunteers to continue and address the future forms of support for as the direct input into the project is reduced.

The primary outputs of the project will be the on-going monitoring of the condition of the sites in the coastal zone, the enhancement of the HER and community engagement, a short report to Cadw on the results of the project's work.



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## Appendix 1. New sites identified by the project

The list of new sites has been created from the data generated by the project to date, but more information is being added all the time.

PRN	ID	Target	Grid_ref	Name	Project_Yr	Recorded_by	Date
07817m	SKB002	0	SS7932279314	Ships timber	4	Paul W Huckfield	19.01.2014
07818m	SKB003	0	SS7871579921	Dram wheels	4	Paul W Huckfield	19.01.2014
07819m	SKB004	0	SS7873479936	Dram wheels	4	Paul W Huckfield	19.01.2014
07820m	SKB005	0	SS7875579944	Engine block	4	Paul W Huckfield	19.01.2014
07821m	SKB006	0	SS7876079962	Middle Peat shelf	4	Paul W Huckfield	07.01.2014
07822m	SKB007	0	SS7886280056	Peat shelf middle	4	Paul W Huckfield	19.01.2014
07824m	SKB010	0	SS7876979963	Dram wheels	4	Paul W Huckfield	07.01.2014
07826m	SKB012	0		Peat shelf	4	Paul W Huckfield	07.01.2014
07823m	SKB008	0	SS7882180142	Peat shelf (upper)	4	Paul W Huckfield	07.01.2014
07825m	SKB011	0	SS7877979997	Dram wheels	4	Paul W Huckfield	07.01.2014
07827m	SKB013	0	SS7879380056	Dram wheels	4	Paul W Huckfield	07.01.2014
07830m	SKB016	0	SS786780666	Kenfig Peat shelf western exposure	4	Paul W Huckfield	19.01.2014
07831m	SKB017	0	SS7866180688	Bone fragments in Kenfig peat bed	4	Paul W Huckfield	19.01.2014
07832m	SKB018	0	SS7864780705	Possible animal tracks in kenfig peat shelf	4	Paul W Huckfield	19.01.2014
07833m	SKB019	0	SS7863280730	Horse hoof tracks in peat	4	Paul W Huckfield	19.01.2014
07834m	SKB020	0	SS7860880803	Horse hoof tracks	4	Paul W Huckfield	19.02.2014
07828m	SKB014	0	SS7880880282	Remains of animal and human trample in p	4	K.A.T.	15.02.2014
07829m	SKB015	0	SS7856680265	Remains of unknown wooden vessel	4	K.A.T.	15.02.2014
07835m	SKB021	0	SS7898079795	Steel sphere (drift net weight?)	4	K.A.T.	15.02.2014
07837m	OG001	0	SS8639974607	Unknown fe object circular with flanged e	4	Paul W Huckfield	31.01.2014
07838m	OG002	0	SS8658274343	Timber with remains of iron nails	4	Paul W Huckfield	31.01.2014
07839m	OG003	0	SS8670274252	Possible dredging bucket	4	Paul W Huckfield	31.01.2014
07840m	OG004	0	SS8687274143	Ships timber	4	Paul W Huckfield	31.02.2014
07841m	OG005	0	SS8690074145	Remains of decking/planking 7ftx5ft	4	Paul W Huckfield	31.01.2014
07842m	VOG001	0	SS8942371713	Unknown metal bands	4	Paul W Huckfield	31.01.2014
07843m	VOG002	0	SS9009571036	Large iron ramp feature	4	Paul W Huckfield	31.01.2014
05016s	VOG004	0	SS9096369373	Ships timber roughly 3m in length	4	Paul W Huckfield	31.01.2014
05017s	VOG005	0	SS9112269222	Iron hulled wreck (possibly part of the Bei	4	Llantwit Major Group	10.02.2014
	SUL001	0	ST1637567530	Remains of hexagonal pillbox roof	4	Paul W Huckfield	28.01.2014
	SUL002	0	ST1664167468	Series of 3 metal posts roughly 1m apart	4	Paul W Huckfield	28.01.2014
07836m	PC001	0	SS7983078733	Cannon exposed on Pink Bay	4	Paul W Huckfield	15.01.2014
07276w	SB001	0	SS6203288335	Ships Wheel	4	Swansea Flat	23.01.2014
07277w	SB002	0	SS6164988196	Remains of a keelson	4	Swansea Flat	18/02/2014
07844m	VOG003	0	SS8966171610	Whitmore Iron hulled wreck	4	Paul W Huckfield	13.03.2014
05018s	VOG006	0	ST0329565793	Remains of small wooden vessel	4	Penarth Arfordir	13.03.2014
05019s	VOG007	0	ST0364265645	Remains of timber post	4	Paul W Huckfield	07.02.2014

## **Appendix 2. Known HER sites with new data**

These sites have been visited under the project, and the records held have been enhanced through the creation of an extended description, a corrected NGR, an updated condition description or a list of identified threats.