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Heart of the Glens  
Landscape Partnership

Industrial Heritage Audit  
March 2013



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## 1. Background to the report

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This Industrial Heritage Audit has been commissioned by the Causeway Coast and Glens Heritage Trust (CCGHT) as part of the development phase of the Heart of the Glens Landscape Partnership Scheme. The Causeway Coast and Glens Heritage Trust is grateful for funding support by the Heritage Lottery Fund for Northern Ireland and the NGO Challenge Fund to deliver this project.

CCGHT is a partnership organisation involving public, private and voluntary sector representatives from six local authorities, the community sector, and the environment sector together with representatives from the farming and tourism industries. The overall aim of the Causeway Coast and Glens Heritage Trust is to 'promote environmental management and sustainable tourism which aims to protect and enhance the unique heritage of the Causeway Coast and Glens area'.

CCGHT is responsible for the management of the Antrim Coast and Glens Area of Outstanding Natural Beauty (AONB), which was designated in 1988 to help protect the special character of the area – recognizing it as one of the finest landscapes in the United Kingdom. As part of promoting the natural and cultural heritage of the AONB, CCGHT has developed a new Landscape Partnership Scheme through Phase 1 funding from the Heritage Lottery Fund (HLF). The Heart of the Glens Landscape Partnership aims to:

1. Conserve and enhance the natural and built heritage of the Glens of Antrim
2. Increase community participation in the heritage of the area
3. Increase access and learning about the heritage of the area
4. Develop heritage skills and training initiatives in the local community

Subject to successfully identifying key projects that deliver on the above aims and securing match funding, Stage 2 HLF funding has the potential to deliver an investment of over £1.8 million into the Glens region over the next five years.

Industrial heritage has been identified as a key theme within the Heart of the Glens Landscape Partnership. As part of the development phase of the project, CCGHT contracted *quarto* to carry out an audit of the industrial heritage of the Glens and to propose a select number of projects to take forward in the delivery phase of the project. The audit aims to:

- collate existing documentation and known information of the industrial heritage of the Glens of Antrim
- provide a statement of heritage significance

- consult with local community groups, interest groups, historical societies, museum services and local in order to identify priority areas of interest and explore opportunities for industrial heritage projects
- complete field surveys of relevant sites of interest, including GIS maps and photographic records
- offer a series of recommendations for future collaborations to enhance, conserve and promote industrial heritage to local people and visitors



## 2. Methodology for the research

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### **Desktop survey**

The desktop survey comprised a number of key steps in preparation for field work, assessment and project development:

1. Compilation of archival materials, including published sources, relevant editions of the OS maps and the Industrial Heritage Record (IHR) from NIEA: Built Heritage.
2. Assessment of the IHR sites and previous work carried out (establishing accuracy, level of survey, date carried out etc.)
3. Cartographic preparation using GIS and locating suitable Ordnance Survey editions. Also establishing the boundaries of the study – it was decided to include two areas outside the Heart of the Glens area, Cargan for the ore mines and Sheddings /Buckna for the density of milling activity. The final study area included 352 sites from the IHR.
4. Editing the IHR database to include survival ratings based on Hamond (1991). This would provide an indicator of whether sites were likely to have potential for inclusion in any future project. The grades are as follows: [1] substantial remains; [2] some remains; [3] traces only; [4] site of. In cases not graded by Hamond [0] was inserted and these were refined as field survey permitted. In addition an extra field [GenType] was added to the database grouping the sites under the following major themes:

Extractive – e.g. mining activities and infrastructure

Agricultural – e.g. corn mills, creameries, breweries

Communications – e.g. roads, bridges, railways

Manufacturing – e.g. brick works, flax mills, bleachworks

Utility – e.g. water, electricity and gas infrastructure

Residence – those dwellings that could be connected to one of the above

5. These themes were further refined by an [Industry] field allowing for focused interrogation of the database.
6. Cleaning the IHR and cartographic distributions to remove all sites graded [4] due to their unsuitability for future project inclusion. Thematic maps were then made available for field survey.

### **Community Consultation**

Consulting with a wide range of public, community and voluntary stakeholders informed the research from an early stage in the project. Information gathered

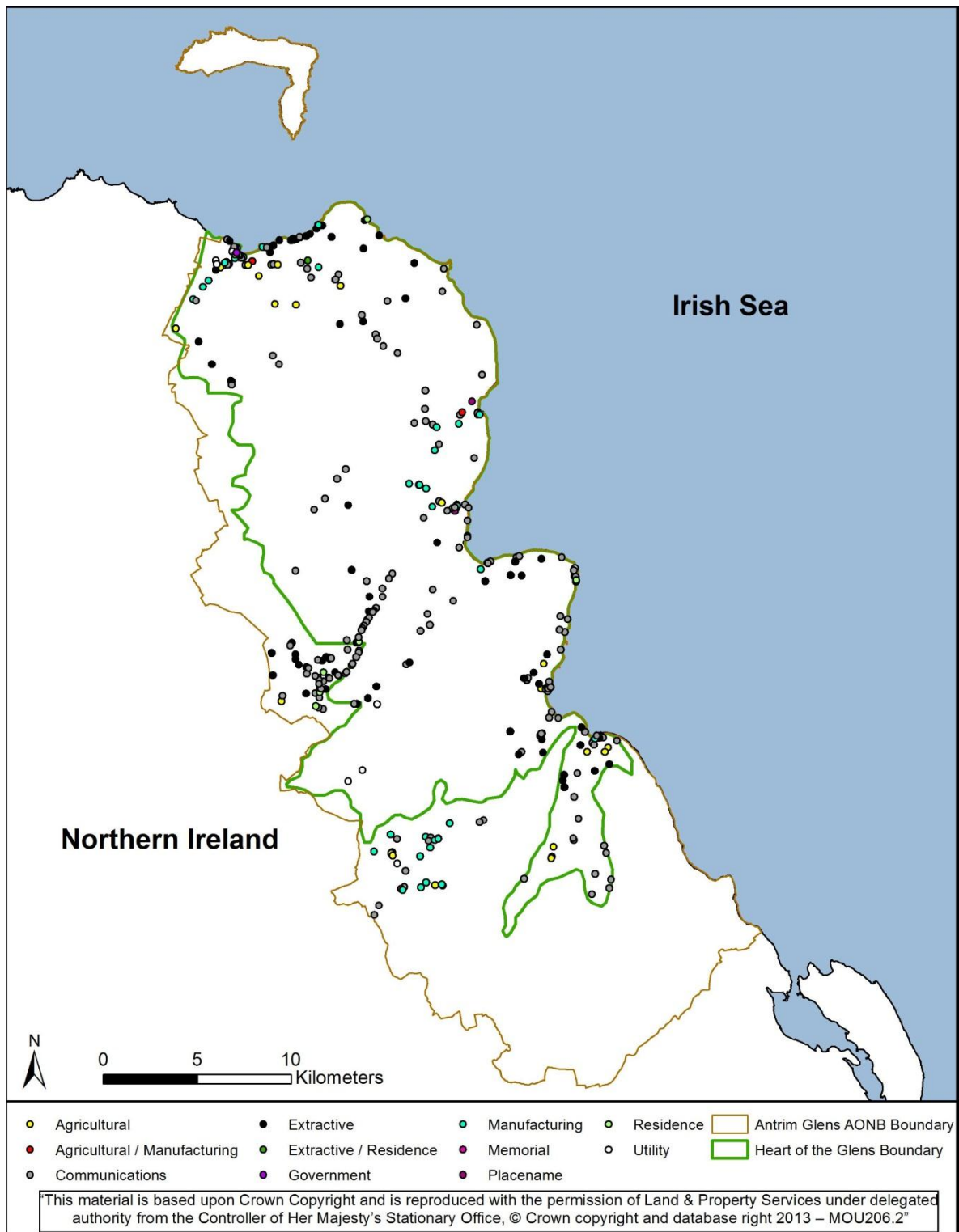
during these consultations helped to focus the fieldwork on particular geographic areas or themes of historical interest or significance. The consultations also identified projects in development or planning which would benefit from a link with the Hearts of the Glens Landscape Partnership as well as potential partnerships through which future projects of benefit to the community or visitors could be developed. For the most part, consultation took the form of a phone interview with key staff members or individuals, though some face-to-face meetings also took place.

During the course of the research the following organisations and individuals were consulted:

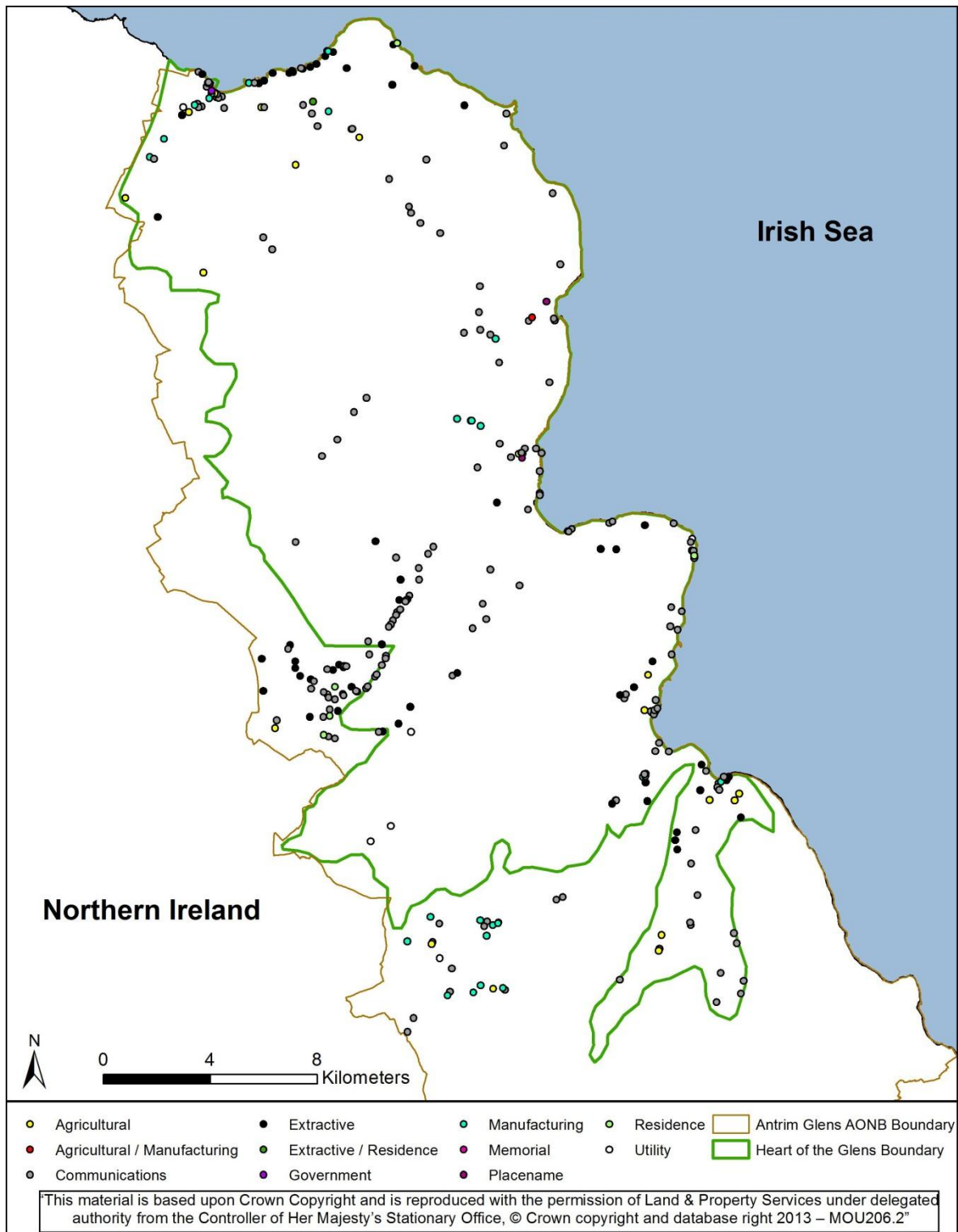
- Moyle District Council Tourism Manager
- Moyle District Council Countryside Access Officer
- Ballycastle Town Centre Partnership
- Ballymena Borough Council Countryside Access Officer
- Larne Borough Council Tourism Manager
- Larne Borough Council Heritage Officer
- Causeway Museum Service Officer
- Mid-Antrim Museum Service Officer
- Glens of Antrim Historical Society Chairperson
- Glenravel Historical Society Treasurer and Secretary
- Glenarm Estate Manager
- Glenarm Village Committee
- Glenariff Improvement Group
- Glenariff Tea House
- Antrim Glens Tourism Group Chairperson
- QUB Centre for Archaeological Fieldwork
- Irish Archaeological Research
- National Trust Operations Manager
- NEELB Curriculum Advisor
- NITB Causeway Coast and Glens Destination Officer

## **Field Survey**

Field survey aimed to verify the nature and survival of industrial remains within the area. Over the period of the survey, field work concentrated on those themes thought likely to be candidates for successful development, although a sample of all types of sites were visited. Crucially this phase of work also sought to grade ease of access to sites and whether they could be viewed from the road or required.



(Figure 1.) All industrial heritage sites selected within the scope of the audit



(Figure 2.) Sites graded 0-3 for survival indicating some visual remains appropriate for inclusion in conservation, access or participation projects

a significant journey on foot. The grading system used was similar to that for survival:

[1] Visible from the road or capable of being visited by a short walk.

[2] Away from the road by up to about a mile, possibly rough terrain but well within the range of hill walkers.

[3] More remote involving a walk of more than a mile over rough ground or sited in an awkward or dangerous position.

[4] Very remote – mainly on boggy uplands where a substantial walk would be involved.

Site visits sought to locate and record the remains by photography, noting condition, access and suitability for inclusion in the project outlines. Of the 352 sites within the study area (Fig. 1) 50 were rejected as being graded [4] for survival. Of the 302 left (Fig. 2), 130 were visited and graded for access. The access grades show a marked bias toward [1] and [2] categories as these were felt to be most likely to be included in any future project plan – they also represented the most efficient use of time in the field for a scoping study such as this. It should be noted that further sites were found than those recorded in the IHR and these have been incorporated into the project proposals below.

Apart from the limitations imposed by time, the weather/short winter days and conditions underfoot in certain locations; other restrictions on the project included the closure of part of the coast road between Ardclinis and Carnlough (Garron Point) due to rock falls; and the closure of part of Glenariff forest park due to tree harvesting.

### 3. What is the industrial heritage of the Antrim Coast and Glens?

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Industrial Heritage is concerned with the material remains of buildings, structures and artefacts typically reflective of the expansion of industry in the modern period (c.1750-1900). A wide variety of sites are encompassed by this term including mines and mills, quarries, bridges and ports. The north-east of Ireland is notable for the extent of industrialisation it experienced in comparison to the rest of the island. Much of this was focused on the linen industry from the 18<sup>th</sup> century, and Belfast became the most rapidly expanding urban centre in Ireland in the 19<sup>th</sup> century. Industrialisation and urbanisation are commonly linked phenomena, however as Ireland experienced very uneven industrialisation the example of the Glens of Antrim has been cited as more typical of Irish industry as a whole, being rural and small-scale (Hammond 1991, 9).

Within the Glens a range of industrial activity was carried out, for extractive, manufacturing, agricultural, processing and infrastructural purposes. In the modern era these can be traced to the 17<sup>th</sup> century (e.g. coal, salt), in the 18<sup>th</sup> century roadside quarries were exploited for building purposes, mills processed cereals for human and animal consumption and Ballycastle became a notable hub of industrial activity (glass and soap-making, tanneries, bleach works, kelp ) under the direction of Hugh Boyd. In the early 19<sup>th</sup> century flax (scutch) mills became more common and significant advances were made in communications, most notably the construction of the Antrim coast road. In the later 19<sup>th</sup> century iron ore and bauxite (aluminium) was extensively mined on the uplands, notably Glenravel. This required further infrastructure in the form of narrow gauge railways taking the ores to Ballymena or the coast. In addition passenger rail services were extended to Ballycastle and coastguard facilities were upgraded. Limestone was used for building material and burnt in kilns for agricultural purposes. Industrial activities continued into the 20<sup>th</sup> century, late additions include ammonia sulphate production in Carnlough.

A small number of atypical sites also feature in the Industrial Heritage Record, including ice houses, convenient for the use of fishermen and for estates such as Glenarm; pigeon cots and, although little remains, the activities of distillers, brewers, saw mills and the toy making industry.

#### 4. Why is it important?

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The Glens of Antrim are situated within the only corner of Ireland that arguably industrialised successfully, the Lagan valley being notably home to the world's largest linen and shipbuilding industries. The Glens represent a more rural and sporadic attempt to industrialise and in this way mirror similar patchwork efforts across the island (Rynne 2006). Nevertheless as a rural region they have a great diversity of industrial heritage, with a cultural significance that encompasses the region and beyond:

- ❖ The range of extractive industries carried out in the area are of **national** significance. Although not necessarily the best surviving examples of each industry, taken together they represent a startling range of activity within a small area over a sustained period – they range from coal (from the 17<sup>th</sup> century); iron ores (based on laterite deposits from the 19<sup>th</sup> century); limestone (from the 19<sup>th</sup> century); bauxite (from the 19<sup>th</sup> century); basalt (from the 18<sup>th</sup> century).
- ❖ The railway infrastructure is of **national** significance. The first railed roads in Ireland were effectively horse-drawn tramways and the earliest reference to this practise dates to 1740-41 at Ballycastle. The ore mining operations are of equal note – the earliest narrow gauge line in Ireland (1875) is that at Glenariff; while the highest railway in Ireland is that from Retreat to Ballymena. Both supported Ironstone mining in the area.
- ❖ Of **national** significance is a complex of sites in Ballycastle Bay representing the earliest post-medieval salt production in Ireland – also the most long-lasting at over 200 years.
- ❖ Ballycastle is a notable hub of industrial activity in the mid-18<sup>th</sup> century, owing much of its success to the vision of Hugh Boyd. It displays a great diversity of production, fuelled by the coal reserves found nearby. Some elements of its heritage (such as the glassworks foundation) represent the only traces of such industry left in Ireland. As a relatively small town it is of **regional** significance.
- ❖ The Antrim Coast Road is of national importance as a scenic drive heavily promoted at home and abroad (it is claimed as being one of the world's

great drives). In heritage terms it is of **regional** importance as a major engineering feat which transformed access to the Glens.

- ❖ The remains of housing associated with industrial workers are of **local** significance. These represent the everyday experience and conditions of domestic life in the Glens for those engaged in industry. They also bear witness to local community's predecessors and as such have significant potential and interest value.



## 5. How is it conserved and managed today?

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The industrial heritage of the Glens has been the subject of research for both professionals and enthusiastic amateurs. In 1960 the Ancient Monuments Advisory Council proposed commissioning a survey of Northern Ireland's industrial remains. This work was undertaken by Alan McCutcheon, culminating in his publication of *The Industrial Archaeology of Northern Ireland* in 1980. Two years later government in Northern Ireland funded the generation of the province's first Industrial Record for the purpose of protecting the resource (Sally 1996). To date the Northern Ireland Environment Agency (Built Heritage) has collated over 16,000 sites maintained on their Industrial Heritage Record (IHR). A small number of these are protected by legislation (scheduling), including the iron smelter at Newtown Crommelin (SMR:024500), and the pump house at Galboly Lower (SMR:020500). Work carried out specifically on the industrial heritage of the Glens includes Fred Hamond's excellent *Antrim Coast and Glens: Industrial Heritage* (1991). This outstanding source was commissioned by the Country and Wildlife Branch (DoE) and used Ordnance Survey maps and memoirs as well as published articles (in e.g. *The Glynnns*) to present a broad selection of the region's archaeology. There are some overlaps between the sites in the IHR and the Historic Buildings survey, and the Maritime Survey – in certain cases these provide useful ancillary information. In addition, a number of sites outside the traditional, post-medieval, definition of industrial archaeology may be considered for inclusion. These include prehistoric mining activity for porcellanite at Tievebullagh, flint from the extensive limestone cliffs and possible early iron exploitation, however varying degrees of knowledge has been generated around these topics.

Neither the IHR nor the published surveys are full or comprehensive records of the industrial remains of the Glens. Some of the limitations of the current state of knowledge include:

- Inaccurate positional information (IHR).
- Dated nature of the some of the survey work.
- Disregard of some elements of the industrial archaeological resource (see below).
- Lack of appreciation of the full extent and complexity of some of the archaeological landscapes.
- Lack of research into the wider components and implications of industrial activity, e.g. housing of workers and their living conditions.

Some aspects of the resource that have been neglected include road side quarries, often mining basalt or limestone. These sites are marked on the historic OS maps, and can still be detected around the region today. These were a convenient source of building material for roads, dwellings, out buildings, piers and any other

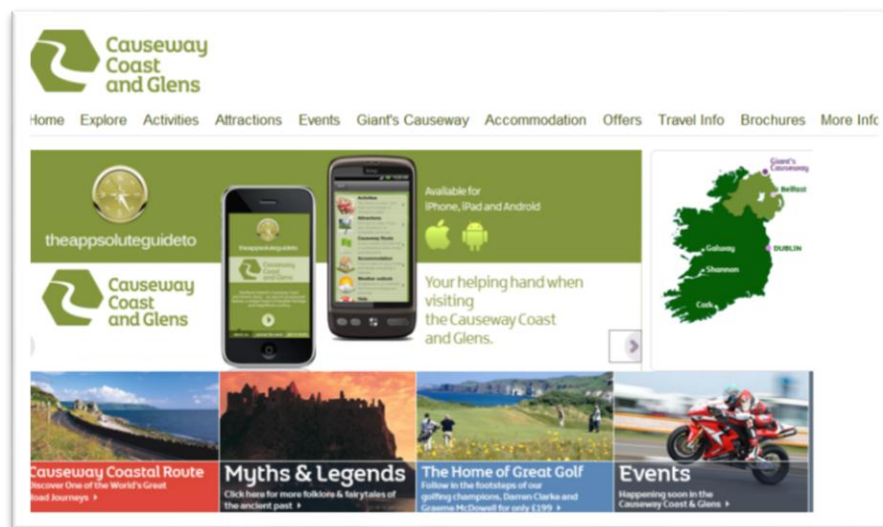
functions required. Their key road side location meant they were convenient to transport for removal. They have obvious implications for some of the themes proposed within this project. A second underdeveloped element is landscape furniture associated with certain activities. This includes mining complexes comprising not only shafts, but also railways, housing, piers, stores, laneways – only a portion of which are included in the record. These present the opportunity for improving our appreciation of such sites and are relevant to the proposed community projects. A final example is the maritime infrastructure of the Glens, which was crucial to travel in and out of the area prior to building the road system. NIEA has been carrying out systematic coastline surveys over the past decade but has not yet surveyed the Glens, meaning a whole strand of information is incomplete – again an opportunity for community involvement.

A final element that will require consideration going forward is the issue of accessibility to sites. During the present survey accessibility was graded from 1 (by or easily visible to the roadside) through to 4 (very remote uplands). In addition to assessing the public's ability to access or view these sites is the situation around landownership – the vast majority of sites are on private land, with a few on National Trust property. Any future developments will have to take landownership into account.

## 6. How do people get involved and learn about the heritage now?

The spectacular scenery of the Antrim Coast and Glens has attracted tourists and visitors since the early 19<sup>th</sup> century. Some of the more significant archaeological sites are also well-known, but the distinct industrial heritage of the area is not so well appreciated outside of the local community.

The Antrim Coast and Glens forms a major part of the Causeway Coastal Route, a 'world-class' driving route from Belfast to Derry. It has been identified as one of the top five driving routes in the world and is promoted by the Northern Ireland Tourist Board as one of its five strategic signature projects ([www.nitb.com/Destinations/CausewayCoastGlens](http://www.nitb.com/Destinations/CausewayCoastGlens)). It is also promoted through the Causeway Coast and Glens Regional Tourism Partnership (CCGRTP) ([www.causewaycoastandglens.com](http://www.causewaycoastandglens.com)), which is responsible for the out of state tourism marketing for the local authority areas of Ballymena, Ballymoney, Carrickfergus, Coleraine, Larne, Limavady, Moyle and Newtownabbey.



(Figure 3.) Screen shot of the Causeway Coast and Glens website

The Giant's Causeway, Northern Ireland's only World Heritage site, acts as a major draw to international tourists to the area, particularly since the opening of the new visitor centre, and creates high volumes of tourist traffic along the Causeway Coastal Route and therefore through the Antrim Glens. However, the main selling point for the route is the spectacular scenery and, as it is regarded as predominantly a driving route between large visitor attractions or urban areas, local business owners and other community groups complain that little incentive is provided for tourists to stop at various points to explore further. The only major attraction within the Glens promoted through the interactive map on

[www.discovernorthernireland.com](http://www.discovernorthernireland.com) is Glenariff Forest Park. The CCGPTP website and mobile app does provide information on a range of attractions and activities in the area, although the list of attractions does not include a subsection for 'heritage'. The seven recommended itineraries include a five day historical tour and a three day myths and legends tour. The historical tour mentions the Glendun Viaduct and the industrial heritage of Carnlough briefly, but as it is designed only to give a flavour of the area a large number of heritage sites and trails along the route are not included.

Countryside access, heritage and tourism officers within the local councils have created and promoted a variety of walking routes and heritage trails throughout the Glens, some of which do highlight the area's industrial heritage. The 'Ballymena Walks' Leaflet produced by Ballymena Borough Council includes The Drum, a walk through a young wood managed by the Woodland Trust which is named after the site of the winding gear for the iron ore mines close to Cargan village and from which a sculpture illustrating the iron ore industry can be seen (fig. 4).



*(Figure 4.) Mining sculpture and 'The Drum' close to Cargan*

The 'Larne Walks' leaflet produced by Larne Borough Council includes three walks that make reference to the industrial heritage of the area. The Cranny Falls/Gortin Quarry walk leads from Carnlough Harbour past Glenlough Community Centre, formerly the site of a whiting mill, and along the bed of the mineral railway line to Gortin limestone quarry. After rising to the viewing point at the top of the quarry, walkers can then return downhill and follow another path to the Cranny waterfall, through a nature reserve of 'species-rich limestone grasslands'. The walk was created a number of years ago and the path was upgraded recently with funding from NRRTI, but the interpretive signs are now worn and dated and have suffered from vandalism (figs. 5&6). It is unfortunate

that in the village centre and at the harbour two additional sets of signs have been installed, which in some cases are directly beside one another and in some places repeat similar information.



(Figure 5.) Examples of the three sets of interpretive signage presently installed in Carnlough.



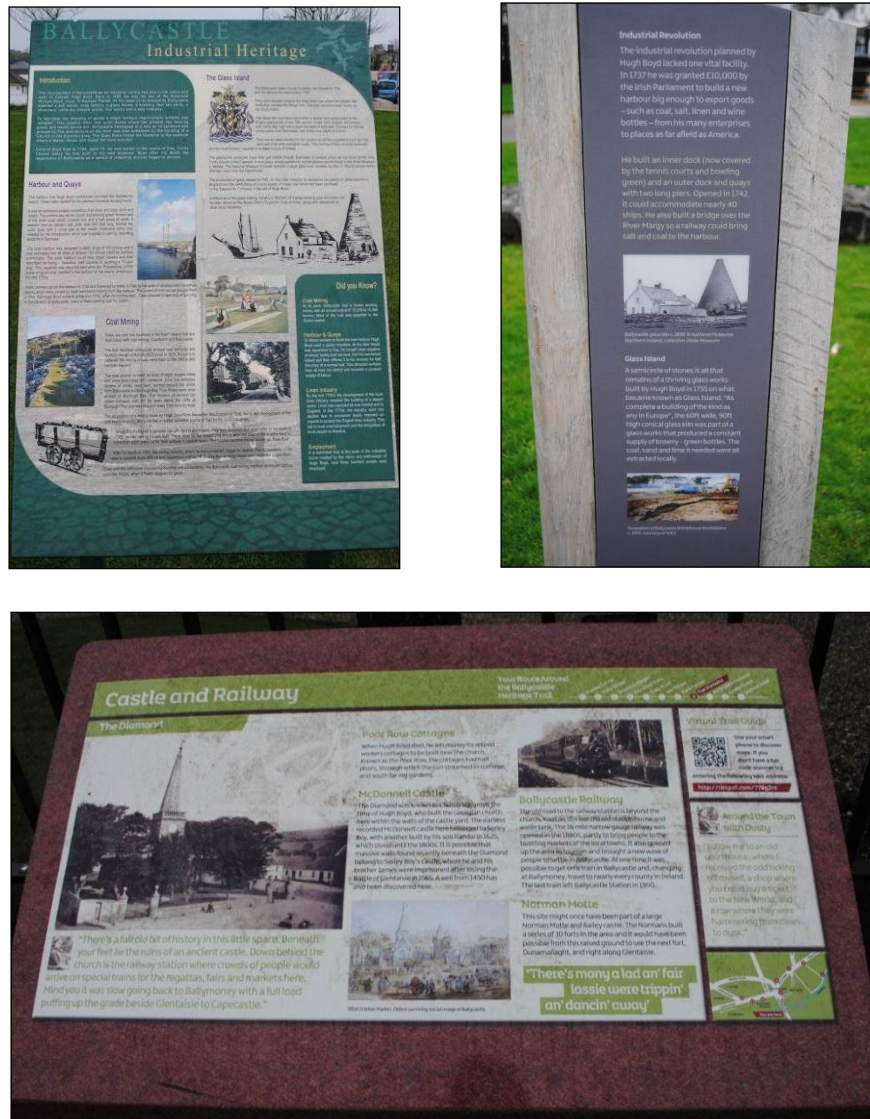
(Figure 6.) Left: View of Carnlough from Gortin quarry. The walk to Cranny Falls follows the former route of the railway in the centre right of the picture. Right: Gortin quarry face, spoil heaps and kilns.

The Layde Walk in Glenarm starts at the Coast Road and travels through the village before following the path of an artificial waterway, which took water from the glen to the whiting mill at the coast, past an old limestone quarry and back down to the harbour. The Glenarm Coastal Walk is a short linear walk along the shoreline which is promoted for its spectacular views of the Glens and towards the Western Isles of Scotland but from which the salmon farm can also be seen. These walks, and others through the village and Glenarm Forest, have been highlighted with a series of attractive interpretive panels recently installed as part of the Glenarm Regeneration Strategy.

Moyle District Council has recently installed a Ballycastle Town Heritage Trail, which consists of a number of interpretive signs at points of interest around the town, which include QR codes that link to additional video and audio clips on a



dedicated website ([www.moyle-council.org/ballycastletowntrail](http://www.moyle-council.org/ballycastletowntrail)). The trail highlights the harbour, glass house, salt works and coal mines established by Col. Hugh Boyd in the eighteenth century, as well as the narrow gauge railway built in the nineteenth century and the exportation of iron ore and limestone from the Glens. A leaflet promoting the trail is available in the Tourist Information Centre. The panels in the harbour area sit alongside two other sets of interpretive signs, which, as in Carnlough, can detract from each other (fig. 7).



(Figure 7.) Interpretive signs in Ballycastle town and on the sea front

Ballycastle Museum houses a nationally significant collection of artefacts relating to the Irish Home Industries Workshop, which was founded in the town in the early twentieth century during the Irish Arts and Crafts Revival. The museum also displays a series of panels and small range of artefacts relating to the industrial

foundations of Ballycastle under the leadership of Col. Hugh Boyd during the eighteenth century. In partnership with local historians, the museum produced a beautifully illustrated booklet on the subject, which is available for sale at the museum and at the tourist information centre. Over the last number of years these resources have formed the basis of a variety of short-term educational projects with local schools. Unfortunately, the museum is only open to the public during July and August and the limited available space and staffing resources do not allow for temporary exhibition programmes or group learning activities.



*(Figure 8.) Left and middle: model spinning wheel and Celtic cross made in the Ballycastle Home Industries Workshop and now held by Ballycastle Museum. Right: front cover of the Boyd's Ballycastle resource booklet produced by the museum in partnership with local historians. Images courtesy of Causeway Museum Service.*

There are active and productive historical societies in the area, most notably the Glens of Antrim Historical Society (GAHS), which was formed in 1965 and is recognised as one of the foremost historical societies in Ireland ([www.antrimhistory.net](http://www.antrimhistory.net)). The society publishes a highly respected annual journal called *The Glynns* and regularly produces more substantial publications on a variety of subjects. It also delivers events, workshops and learning projects, the most major of which was a three year programme supported by the Heritage Lottery Fund exploring the history of clachan settlements within the Glens. Much of these resources and activities relate to the industrial heritage of the area, in fact the *Glynns* was a major source of information for this piece of research. The society also holds a large archive of unpublished articles, photographs and oral history recordings and other resources that could be made accessible to the public through digitisation.

Glenravel Historical Society is a smaller and less established group, being founded as recently as 2010. The Glenravel area contains substantial remains of iron ore mines and related railways and the subjects forms a key part of the group's research and other activities. The group website promotes members' articles and seeks to collect additional information and visual material from the wider community ([www.glenravelhistoricalsociety.org](http://www.glenravelhistoricalsociety.org)). The group recently worked with Mid-Antrim Museum Service to develop and deliver a temporary exhibition on the iron ore railway which was displayed at the Braid.



## 7. What opportunities are there to improve conservation, learning and participation?

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### **Conservation**

There are a number of opportunities to enhance our knowledge of industrial heritage and harness the energy of the local community for its conservation and presentation. Presently our information on industrial heritage (IHR) is maintained by the NIEA – as noted above there are issues with the method of IHR compilation (map evidence does not capture all sites), and fieldwork is sporadic and incomplete. In addition the complexity of many sites is underestimated and there are serious omissions. This presents an opportunity for researchers and local groups to make a real and meaningful contribution, which ultimately will lead to the better protection of the resource. Community-led initiatives have led in the past to work on heritage themes in collaboration with national institutions (e.g. the Glens clachan project in partnership with the Ulster Folk Museum). This could be widened to draw on the strengths of other partners, notably from the two universities, where considerable expertise lies in the areas of community archaeology, post-medieval archaeology and industrial processes. For example the Centre for Archaeological Fieldwork (QUB) have wide-ranging survey and excavation experience; while the Centre for Maritime Archaeology (UU) have an active programme of work on Glens industrial heritage, as well as long-standing coastal archaeological experience.

There are a number of community groups who would like to see the restoration and re-use of some of the surviving industrial buildings in the area. Glenravel Historical Society has ambitions to restore The Drum and Parkmore Railway Station and create a walk connecting these and other sites along the line of the old railway tracks. However, the society currently lacks the capacity and resources to undertake this work independently and a suitable future use of Parkmore Railway Station has not been identified. The station is privately owned and the current owner would not object to the building being listed to save it from demolition.

A similar situation exists in Ballycastle, where Ballycastle Town Partnership has ambitions to restore Ballycastle Railway Station and create a walk from it to the Town River Path and Ballycastle Forest. However, the difficult location of the station in relationship to the surrounding topography and later buildings would make this project challenging and, again, a future use for the building has not yet been identified.

At Waterfoot, a railway engine shed has been in use for many years as Glenariff Parish Hall, but its condition has deteriorated and it is currently closed to the public due to health and safety concerns. The integrity of the building has been

affected by conversion to a church hall and subsequent modern extensions, but with the right support and resources there is potential to restore it in a sensitive and practical manner so that it can be returned to sustainable community use. Repairing and restoring derelict buildings is one of two main priorities within the Glenn Airbh Plan published by Moyle District Council in 2008, though the parish hall is not mentioned within it as the building was still in use at that time.

An ambitious and innovative Regeneration Strategy has been developed for Glenarm, which identifies the old Whiting Mill as a potential restoration project for future use as a heritage centre and/or community venue. The lead partners in the project will be submitting an application for outline planning permission for the regeneration plans within the next month, and will subsequently seek to appoint a suitable developer to take the project forward. The lead partners are determined to ensure that the overall design of the project will be in keeping with the historic built environment of Glenarm Village and use local materials, particularly limestone, in any new building work. The Whiting Mill forms a key part of the regeneration plans, as a major visual and historical landmark at the southern entrance to the Glens. However, no business plan for the restoration and re-use of the building has yet been developed and therefore preserving the building for the future is not yet guaranteed (see Appendix E for further information and outline plans).

## **Tourism**

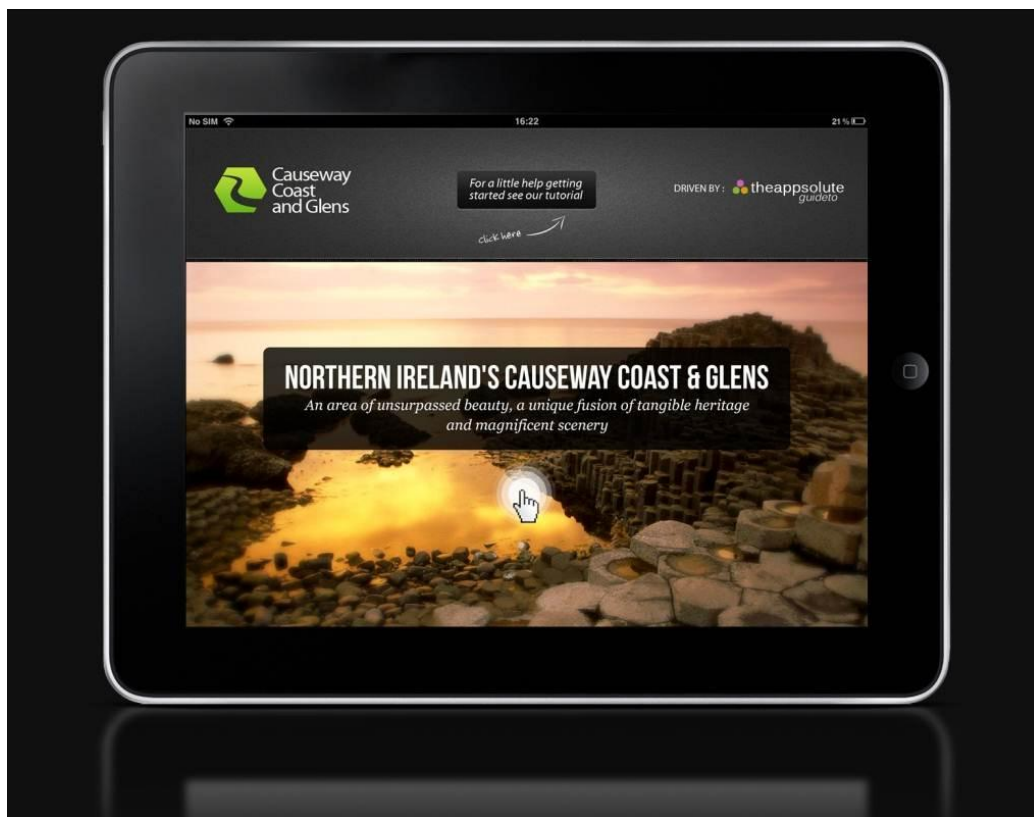
As the Antrim Coast and Glens forms a major, and one of the most renowned, elements of the Causeway Coastal Route, there is significant potential to draw the attention of the large numbers of domestic and overseas visitors coming to the area towards the unique and diverse heritage of the Glens.

The Causeway Coast and Glens Tourism Area Action Plan identifies a need to develop new tourism products, particularly themed trails, and mobile app and web resources that promote dispersal and exploration of the region. One of the principle aims of the plan is to create and build an exceptional visitor experience, which is seen to be achieved through an investment in developing walking, cycling and driving trails and activity tourism products that improve access and interpretation to the natural and cultural heritage of the area.

NITB research into visitor satisfaction for the Causeway Coast and Glens Signature Project has also identified a need to provide more opportunities to ‘uncover’ local stories that will engage the visitor more fully and deliver on the perception of a unique and authentic experience. New interpretive resources should uncover stories and learning about the natural and cultural heritage of the area through

outdoor events, exhibitions and trails. Maritime heritage is highlighted as a key potential theme for development.

The Causeway Coast and Glens Regional Tourism Partnership (CCGRTP) are currently developing an improved and enhanced version of the existing Causeway Coast and Glens mobile app (see Appendix C for further information). The new version will include a fully categorised and searchable list of activities, accommodation, attractions, events and special offers as well as a 'Myths & Legends' tour with images and possibly video. CCGRTP hope to create a 'best of breed' solution that other tourist organisations will acknowledge as the preferred platform for their own mobile content delivery. Therefore it would be relatively simple and cost effective to further enhance this resource with additional heritage content that could be integrated with information on other attractions, available accommodation etc.



*(Figure 9.) Screen shot of the Version 2 Causeway Coast and Glens mobile app currently in development.*

## **Community development**

Glenarm, once a thriving industrial community in the Glens, has suffered from years of decline and neglect. The Glenarm Regeneration Strategy, produced

through the Prince's Foundation for the Built Environment in partnership with Larne Borough Council, the Department of the Environment (DOENI) and the local community, provides a clear framework to guide the successful regeneration and sustainable growth of Glenarm (See Appendix E for further detail). The first phase of delivering the strategy sought to address the lack of links between the harbour and the village and the lack of incentive for tourists to stop in the village. An interpretation project created interpretive signage at key points of interest, encouraging visitors to stop and explore the walks along the coast, through the village and through the forest (fig. 10).



*(Figure 10.) Example of the interpretive signage installed in Glenarm as part of the village regeneration project*

The next stage will be to submit an application for outline planning permission for major redevelopment of the harbour area, and old town quarry, which is due to take place within the next month. When outline planning permission is secured, a property development company will be sought through which to carry out the development plans in a series of phases. The area to be developed includes the old whiting mill, which is the first historic landmark on the Antrim Coast Road as you enter the Glens from the south, but is in a sad state of disrepair. The Glenarm community wish to see this building restored and re-purposed as a community and/or heritage venue but no viable business plan has yet been developed. Glenarm Buildings Preservation Trust are also planning to restore Seaview Hall, a



historic building on the coast road adjacent to the listed chapel, which has also been identified as a possible venue for community and heritage activities. And Glenarm Village Committee are hoping to secure the necessary financial support to clear out and restore a wagon tunnel through which limestone was transported to the harbour, including re-instating a section of trackway and a restored or replica cart (fig. 11).

Heritage development is also a significant feature of the Carnlough Village Plan, developed through Carnlough Community Association with support from the North East Rural Development Village Renewal Measure and Larne Borough Council. Plans are currently being developed to redevelop the Town Hall as a library, heritage and tourist information centre and to carry out some conservation



*(Figure 11.) Restoration of the area in front of the limestone wagon tunnel, Glenarm*

and restoration work to the old lime kiln behind it. The plan also includes actions referring to developing access and awareness of local heritage, enhancing the Cranny Falls walk, developing more effective tourist information signage and interpretive panels and, which may also be relevant to other areas of the Landscape Partnership Scheme, promoting and developing volunteering opportunities.

## **Walking activities and heritage trails**

The Forestry Service recently announced the intention to invest £4million in developing the tourism potential of its forests, and has put in place a memorandum of agreement with Moyle District Council to carry out a scoping study for the three state-owned forests within the council area. A consultant is due to be appointed shortly and the resulting recommendations will inform a more detailed study and action plan required to access the funding. Glenariff Improvement Group has taken a lead in advance of the commissioned study by scoping the potential for tourism development within Glenariff Forest Park. The group have built relationships with archaeological, historical, outdoor pursuits and tourism groups, as well as business owners and public bodies and have identified significant potential for a wide range of activities within the park, including historical and archaeological trails, exhibitions, walking, running and mountain biking activities. The exhibition centre managed by the Forestry Service is in need of a radical redesign and provides some space for educational workshop activities. The forest itself contains the remains of a limestone quarry from which limestone was transported by cable car to a railway below that ran to the White Arch on the shore. Tracks leading out of the forest also connect with the Dungonnell Way and Moyle Way in the Glenravel area; if these routes were enhanced they would provide attractive additional opportunities for hill walking and rambling. Northern Ireland Water is due to allocate funding to improve access from Dungonnell Reservoir into the forest park and Ballymena Borough Council are developing plans to create a new walk at Carncormick, which crosses one of the railway sidings associated with the iron ore mines. Glenravel Historical Society is keen to see the development of a walk following the narrow-gauge railway as well as the restoration of the Drum and Parkmore Railway Station and there appears to be goodwill from some local landowners for such a project.

Moyle District Council has started negotiations with local landowners to assert the right of way from the site of Marconi's cottage on the Carrickmore Road along the cliff shore towards Carrickmore port and improve the path along this route. This would not only provide access to the historic port, but also to the late medieval and early modern salt works on the shoreline, some well-preserved kelp kilns, and coal mines in the cliff face above. From Carrickmore it is possible to walk up an old road to the cliff top, which connects to Fair Head and Murlough Bay, an area which also contains a number of industrial heritage sites. The National Trust owns or leases land across this area and would like to explore the potential to encourage hill walking activities. However, there is a history of contention over landownership issues with private landlords that may present a significant obstacle to creating way-marked ways or paths.

Moyle District Council is also committed to developing a MacDonnell trail in partnership with the Northern Ireland Environment Agency (NIEA), Coleraine Borough Council and Larne Borough Council. The trail will make connections between a number of disparate sites associated with the MacDonnell family, drawing out the stories relating to those sites and encouraging visitors to explore further. NIEA has agreed to provide the research material necessary to develop the trail and has already committed funding towards upgrading signage at the state-care sites such as Kinbane Castle and Bonymargy Friary. Moyle council envisages the major interpretive resource being a leaflet guide supported by online marketing and promotion and is planning to deliver the project in three phases; firstly from Dunluce Castle to Glenarm, then expanding to between Derry and Carrickfergus and finally expanding further to encompass the Western Isles of Scotland. This scope of project complements current research being undertaken by Dr. Colin Breen at the University of Ulster which has the potential to not only deliver the necessary research information but also to make the relevant links with public and community organisations which could support the project. It would be possible to add an industrial heritage element to the current list of proposed sites by including the post-medieval salt works and coal mines close to Carrickmore that were first developed by the MacDonnells.



*(Figure 12.) Survey and excavation of the Ballycastle Bay salt works underway in 2012.*

The post-medieval salt works site at Ballycastle is one of three successive salt working sites along the coast (fig. 12). The latest, which was operating in the nineteenth-century includes one of the only iron salt pans surviving in situ in the UK or Ireland. These sites have therefore drawn significant attention from archaeologists and historians across Europe and now form part of the Ecosal Atlantis Project (see Appendix F). Dr Wes Forsythe from the Centre for Maritime Archaeology at the University of Ulster is currently seeking funding for an



archaeological investigation of these and other salt working sites in Northern Ireland and hopes that an excavation of the post-medieval salt works at Ballycastle will take place in 2014.

Ballycastle Town Partnership is developing plans to extend the Ballycastle Town Heritage Trail by extending the Tow River path to join the tracks of the old narrow gauge railway up to the entrance to Ballycastle Forest. They also have ambitions to restore the Old Railway Station House as part of the project (fig. 13). The plans are in an early stage of development and would benefit from additional support and advice.



*(Figure 13.) Ballycastle railway station*

The National Trust is beginning to scope the potential to redevelop Glenmona House in Cushendun as a hub for community activity, perhaps as an outdoor pursuits centre. As these plans develop, the National Trust is seeking to build community support and potential audiences for the project. The building, which is currently lying vacant, would provide an ideal venue for a range of community events, exhibitions and other activities.

There are several outdoor pursuit organisations operating within the Glens with whom it would be possible to promote existing and developed walks and increase their use by both local residents and visitors to the area. These include Ardclynis



Outdoor Adventure Centre ([www.ardclinis.com](http://www.ardclinis.com)), Walk Antrim Hills ([www.walkantrimhills.com](http://www.walkantrimhills.com)) and South West Walks Ireland, which is based in Kerry but organised guided walks in the Glens ([www.irishcycletours.com](http://www.irishcycletours.com)).

### **Community events and activities**

The most established and well-known community event in the area is the Heart of the Glens Festival, which takes place over August every year in and around the village of Cushendall ([www.glensfestival.com](http://www.glensfestival.com)). Although the programme does not usually include heritage activities, it would provide an ideal opportunity to promote the successes of any future projects through exhibitions, guided walks or family activities. In addition, Cushendun Buildings Preservation Trust is progressing in plans to restore and open Cushendun Old Church as an arts centre ([www.cushendunbpt.org](http://www.cushendunbpt.org)). The trust currently only has the resources to open the church to the public for small events a few times in the year. The support of other organisations in extending the programme of activities through additional exhibitions and events would help build audiences and create a sustainable resource for the local community.

The Glens of Antrim Historical Society are keen to develop a community archaeology project aiming to draw attention to lesser known archaeological sites in the area and improve public understanding and appreciation of those sites. They have already identified a large number and range of sites for investigation and have a large volunteer base with which to deliver such a project. They envisage working in partnership with professional archaeologists to survey and possibly excavate selected sites over a period of a few years.

## 8. Project Proposals

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### 8.1 Antrim Coast Road driving route mobile app

Aim: Driving trail from Larne to Ballycastle and vice versa – the development of an app to allow travellers to appreciate the feat of engineering that the coast road entailed and other industrial heritage remains that can be seen from the road. Including cuts, quarries, arches, bridges and viaducts. Designed to enhance experience of the Causeway Coastal Route – note that the app will have to be designed for both directions / aspects of the route. For the purposes of this project an area from White Bay to Ballycastle has been selected, although some aspects may be extended to Ballygalley or further south (Blackcave tunnel would be appropriate).

Rationale: Constructed between 1832 and 1843, the Antrim Coast Road is a major feature of historical importance. The road significantly opened up the Glens to traffic, previously reliant on older, poor roads (including those across the boggy plateau) and sea travel. It presented major engineering challenges given the natural barriers of steep headlands and deep glens, requiring quarrying and the construction of bridges and viaducts (figs. 14&15). In addition to the road itself the project provides the opportunity to highlight many other aspects of industrial heritage that can be viewed while making the journey. The development of a heritage mobile app will enhance the visitor's experience of the Causeway Coastal Route and support a number of key objectives in the Causeway Coast and Glens Tourism Area Action Plan.

Target audiences:

- Overseas visitors driving along the Causeway Coastal Route
- Domestic visitors on holiday in the area
- Local tour groups
- Educational groups

Links to LPS Programmes:

- Programme C: Access and Learning

Potential links to Geology Action Plan:

- Investigate the feasibility and prepare a business case for establishing a long distance driving or cycling Geodiversity Touring Trail, from Magilligan to Larne, that covers Precambrian to Quaternary site series
- Incorporate geodiversity interpretation into all Trail development recommendations for the Heart of the Glens Landscape Partnership programme

Identified partners: Larne Borough Council, Moyle District Council, Causeway Coast and Glens Regional Tourism Partnership, Northern Ireland Tourist Board

**Sites along the road include:**

<b>MIA number</b>	<b>Site</b>	<b>IHR reference</b>	<b>Note</b>
	White Bay quarry	-	Little Deer Park
7768	Parishagh quarries	07530:000:00	route north
6934	Glenarm limestone quarry	06701:000:00	
6932	Glenarm whiting mill	06699:000:00	
	Glenarm harbour	06698:000:00	
6854	Glencloy bridge	06620:000:00	
7318	Carnlough mineral railway	06614:000:00	
	Carnlough harbour	06617:000:00	
8814	Gortin limestone quarry	07528:001:00	route north
8815	Creggan limestone quarry	07528:002:00	route north
8683	Coastguard cottages	07695:000:00	Occupied
6770	Water / Engine house	06532:000:00	
6768	Ardclinis bridge	06530:000:00	
9016	Waterfoot railway (White Arch)	06527:001:00	
9018	Engine House	06527:003:00	Now a parish hall
8637	Miners housing	07608:000:00	Occupied
6718	Waterfoot bridge	05694:000:00	
7751	Red Arch	07507:000:00	
	Red Bay pier	06525:000:00	
6759	Cushendall bridge	06521:000:00	
4988	Glendun viaduct	03928:000:00	
4994	Craigcat bridge	03934:000:00	Date stone
4911	Coretavy bridge	03854:000:00	Stone with engineer's name
4909	Bushburn bridge	03852:000:00	Date stone
4910	Altheela bridge	03853:000:00	Date stone
4907	Altdreen bridge	03850:000:00	Date stone
4900	Ballynagard / Ballyreagh Lower bridge	03843:000:00	
4892	Bonamargy bridge	03835:000:00	
	Ballycastle overview		collieries,glass,salt

Refer to Appendix B for further information.

**Further archaeological sites that could be incorporated:**

Ballygalley flint mine [SMR: ANT035039]

Ballygalley castle/bawn [SMR: ANT 035015]

Ardclinis church and graveyard [SMR: ANT 020001]

Tievebulliagh porcellanite mine [SMR: ANT019012]

Carnanmore [SMR: ANT010001] (site of 'Scots Warning fire')



*(Figure 14.) Clockwise from left: The Red Arch, Limestone quarrying in the White Bay area, Coretaavy bridge.*





(Figure 15.) The sites along the Antrim Coast Road project proposal.

Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Research consultancy services, including image sourcing and reproduction permissions	£2,000	
	Design services:		
	brief development and content planning	£1,250	
	content development: script, audio track, voiceover asset, review and prep	£5,500	
	architecture: user journeys, functionality, screen wire frames	£1,500	
	visual design	£2,000	
	prototype development and testing	£4,750	
	complete app building and testing	£4,750	
	launch and publication to app store	£1,000	
	Maintenance contract: 24 months to ensure compatibility (optional)	£5,000	
Volunteer costs	5 volunteers x 3 workshops for planning, prototype testing and complete app testing	£750	
<b>Total Costs</b>		<b>£28,500</b>	
<b>Total Volunteer Contribution</b>		<b>£750</b>	<b>3%</b>

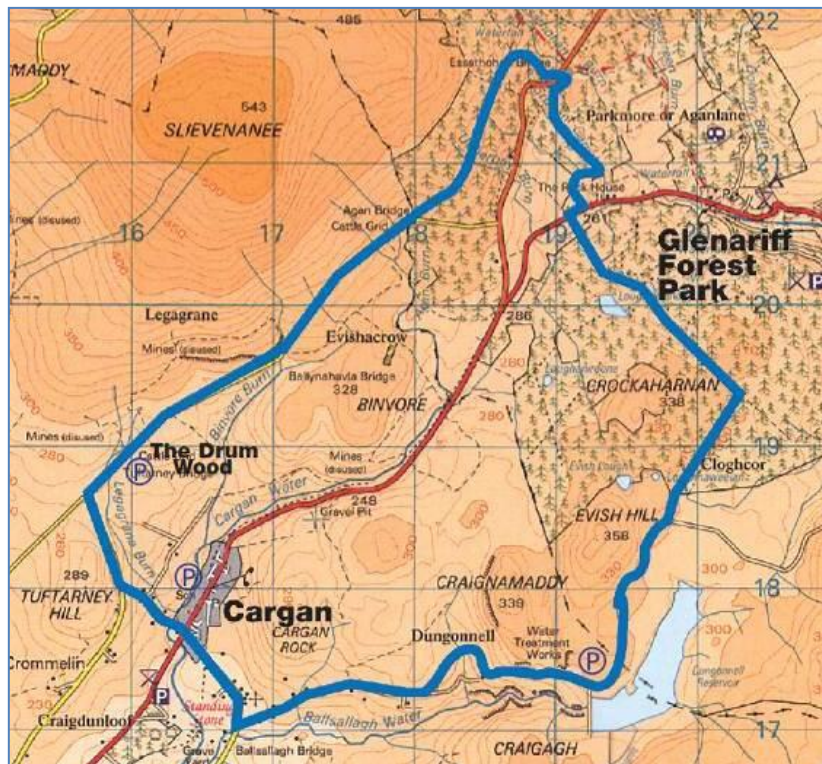
Issues and barriers to development:

- Inconsistent mobile coverage in the area and need for allow for different views in each direction on the route requires thoughtful scripting and design solutions
- Failure to establish links with principle tourism stakeholders in the area and develop a sustainable approach to integrating the app with other available interpretive resources
- Failure to market the app successfully to ensure widespread use
- Ability to ensure the apps are sustainable in terms of ongoing maintenance and improvement

## 8.2 Ore Mining in the Glens walking trail mobile app

Aim: To enhance existing hill walks by drawing attention to the ore mines and associated railways of the Cargan/Parkmore area. Predominantly following the route of the Dungonnell Way (fig.16) and linking into Glenariff Forest Park.

Rationale: Located on the highest area of the Glens and near the villages of Cargan and Newton Crommelin, a range of monuments primarily associated with extractive industries can be found. These include ironstone and bauxite mines, and a smelter, as well as the highest railway in Ireland – the narrow gauge line between Retreat and Ballymena. The railway track has been lifted but a range of associated infrastructure is still visible – sidings and embankments, a winching site, bridges and stations (fig. 17). A link with nearby Glenariff (also the site of mining activity) would provide further points of interest and tie in with a popular tourist point. This proposal could provide information on individual sites of interest as well being applicable to established walking routes (e.g. Dungonnell Way, Moyle Way; fig. 18). There is an opportunity to enhance these existing routes or to extend them through partnerships with the principal stakeholders. This project supports a number of key objectives in the Coast and Glens Tourism Area Action Plan.



(Figure 16.) The existing Dungonnell Trail is in proximity to many industrial monuments including mines, winches, bridges, railways, utilities and engine houses

Target audience:

- Hill walkers
- Outdoor pursuits and rambling groups
- Overseas and domestic visitors to Glenariff Forest Park
- Local residents
- Railway heritage groups

Links to LPS Programmes:

- Programme B: Increasing community participation
- Programme C: Access and Learning

Potential links to Geology Action Plan:

- Produce a new walk series for the CCG area based upon the “Landscapes from Stone”
- Incorporate geodiversity interpretation into all Trail development recommendations for the Heart of the Glens Landscape Partnership programme

Identified partners: Ballymena Borough Council, Moyle Borough Council, Glenravel Historical Society, Glenariff Improvement Group, walking/outdoor activity groups

**Sites include [note the following denote sites in proximity to walking trails: DG: Dungonnell Way; MW: Moyle Way; GF: Glenariff Trails; Dr: Drum Wood]:**

<b>MIA number</b>	<b>Site</b>	<b>IHR reference</b>	<b>Note</b>
6725	Newtown Crommelin smelter	05701:000:00	
6835	Tuftarney bridge	06599:000:00	DG, Dr
6834	Ballynahavla Bridge	06598:000:00	DG
6827	Glenravel ironstone mines	06591:000:00	DG
6826	Ballynahavla ironstone mines	06590:000:00	DG
	Drum Brae winch and inclined plane	-	DG; Dr
9062	Crommelin siding: engine house remains	06516:012:02	DG
9066	Parkmore siding: bridge	06516:008:01	DG
9182	Parkmore siding: bridge	06516:008:02	DG
6833	Agan bridge	06597:000:00	DG
8657	Essathohan bridge	07648:000:00	DG; MW

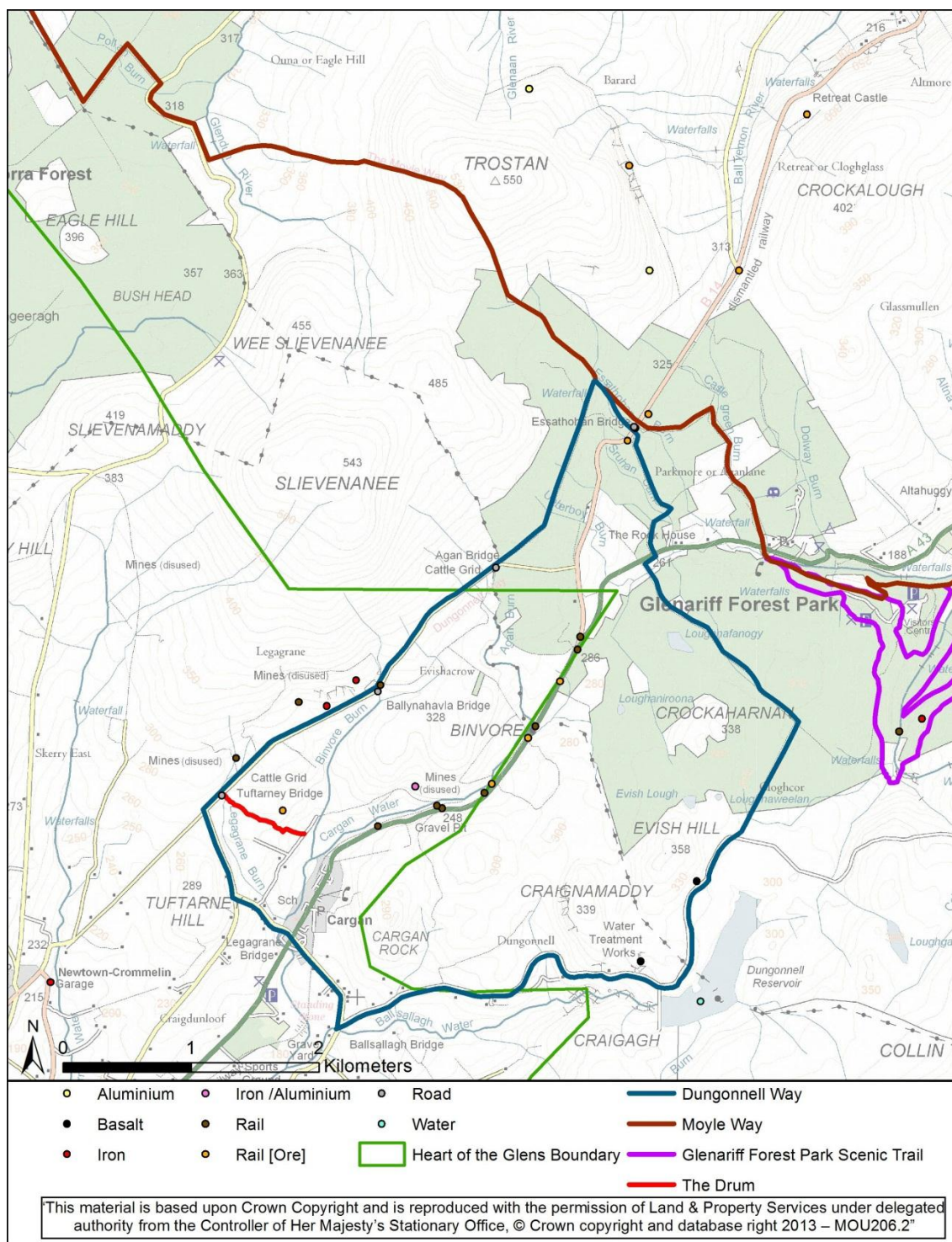


6750	Bauxite workings	06511:000:00	
7321	Railway bridge	06516:004:00	DG; MW
7322	Parkmore Station	06516:007:00	
7320	Retreat Station	06516:001:00	
7323	Parkmore siding	06516:008:00	G'ariff-Cargan Road
6829	Evishacrow Mine (Ironstone / Bauxite)	06593:000:00	G'ariff-Cargan Road
7324	Evishacrow railway siding	06516:010:00	G'ariff-Cargan Road
9161	Railway bridge	06516:047:00	G'ariff-Cargan Road
9187	Evishacrow siding: Bridge	06516:010:01	G'ariff-Cargan Road
9191	Railway bridge	06516:048:00	G'ariff-Cargan Road
9192	Railway bridge	06516:049:00	G'ariff-Cargan Road
9193	Railway bridge	06516:050:00	G'ariff-Cargan Road
9194	Railway bridge	06516:051:00	G'ariff-Cargan Road
9195	Railway bridge	06516:052:00	G'ariff-Cargan Road
9198	Railway bridge	06516:055:00	Retreat-Cargan Road
9202	Railway bridge	06516:058:00	Retreat-Cargan Road; MW
9203	Railway bridge	06516:059:00	Retreat-Cargan Road
7328	Cargan siding	06516:014:00	DG
8673	Dungonnell Reservoir	07682:000:00	DG
6841	Glenariff ironstone works	06605:000:00	GF [Cloghcor] largely obscured by forest cover
6765	Glenariff mineral railway	06527:000:00	GF
	Roadside quarry, Dungonnell	-	by Dungonnell Reservoir
	Roadside quarry, Cloghcor	-	by Dungonnell Reservoir

Refer to Appendix B for further information.



*(Figure 17.) Clockwise from left: Glenravel mines and spoil heaps; Retreat-Ballymena railway line and bridge near Cargan; Retreat Station.*



Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Research consultancy services, including image sourcing and reproduction permissions	£1,500	
	Design services:		
	brief development and content planning	£1,250	
	content development: script, audio track and voiceover	£5,500	
	architecture: user journeys, functionality, screen wire frames	£1,500	
	visual design	£2,000	
	prototype development and testing	£4,000	
	complete app building and testing	£3,000	
	launch and publication to app store	£1,000	
	Maintenance contract: 24 months to ensure compatibility (optional)	£5,000	
Volunteer costs	5 volunteers x 2 workshops for planning, prototype testing and complete app testing	£750	
<b>Total Costs</b>		<b>£25,500</b>	
<b>Total Volunteer Contribution</b>		<b>£750</b>	<b>3%</b>

Issues or barriers to development:

- Inconsistent mobile coverage in the area requires thoughtful design solutions
- If extending existing waymarked ways, failure to secure permissive path agreements with private landowners
- Lack of co-operation from the Forestry Service to improve links into Glenariff Forest
- Continuing deterioration of the surviving monuments
- Failure to market the app successfully to ensure widespread use
- Ability to ensure the apps are sustainable in terms of ongoing maintenance and improvement

### 8.3 Murlough Bay to Ballycastle Bay walking trail mobile app

Aim: To enhance existing hill walks by drawing attention to the shore from Murlough Bay to Fair Head to Ballycastle Bay. Route would predominantly follow the cliff top, but more ambitious walkers would also be able to drop down to the shore to explore Carrickmore Port and associated monuments.

Rationale: The area around Fair Head boasts magnificent scenery and is popular with walkers, rock climbers and day-trippers. It features a number of important industrial sites, some of which are among the earliest post-medieval industries in the Glens. They range from coal mines, ironstone mines, lime kilns, kelp kilns and salt works to piers and landing places (fig.19). It would also be worthwhile to draw visitors' attention to the distinctive flora and fauna of this route. This project supports a number of key objectives in the Coast and Glens Tourism Area Action Plan. Moyle District Council are currently planning to develop walks in this area and the National Trust would be keen to explore this potential over the next few years.

Target audience:

- Hill walkers
- Outdoor pursuits and rambling groups
- Overseas and domestic visitors to Ballycastle and Murlough
- Local residents

Links to LPS programmes:

- Programme C: Access and Learning

Potential links to Geology Action Plan:

- Investigate the feasibility of developing the "Ballycastle Coal Trail" linking this with the Causeway Coast Way, future Appalachian Trail and the proposed Marconi's Cottage to Fairhead Trail
- Create a written and visual historical archive of mine workings at Ballycastle
- Produce a new walk series for the CCG area based upon the "Landscapes from Stone"
- Incorporate geodiversity interpretation into all Trail development recommendations for the Heart of the Glens Landscape Partnership programme

Identified partners: Moyle District Council, National Trust, walking/outdoor activity groups



**Sites include** (Refer to Appendix B for further information):

MIA number	Site	IHR reference	Note
8693	Murlough lime kiln	07714:000:00	Bighthouse
9047	Murlough lime kiln	07716:000:00	Torglass
4818	Murlough colliery	0375900000	
	Portdoo ruins	-	
	Carrickmore Port	07666:000:00	
4819	Carrickmore ironstone mine	0376:000:000	Cross
	Carrickmore kelp kilns	-	Two well preserved kilns at port
4816	Gobb colliery	03757:000:00	
	Ballyvoy Pier	0764:000:000	
	Tornaroan salt pans	-	MRA:009012 <sup>1</sup>
	Coal Yard	07708:000:00	Walls of yard only
4810	North Star colliery	03751:000:00	Adit entrance near dyke
4808	White Mine Colliery	03749:000:00	Rear of caravan park
4806	Pans rock saltworks	03747:000:00	Broughanlea
4807	Salt Pans Colliery	03748:000:00	



(Figure 19.) Clockwise from left: Bighthouse lime kiln, Murlough colliery adits entrance, Carrickmore port and kelp kiln

<sup>1</sup> MRA: Maritime Record for Antrim

## Other archaeological sites of interest:

Drumnakill Church (SMR: ANT005019)

Crannog, Lough na Cranagh (SMR: ANT005011)

Lough Doo passage tomb (SMR: ANT005006)

Doonmore Fort (SMR: ANT005007)



(Figure 20.) Sites included in the proposed Murlough to Ballycastle Bay project

Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Research consultancy services, including image sourcing and reproduction permissions	£1,500	
	Design services:		
	brief development and content planning	£1,250	
	content development: script, audio track and voiceover	£5,500	
	architecture: user journeys, functionality, screen wire frames	£1,500	
	visual design	£2,000	
	prototype development and testing	£4,000	
	complete app building and testing	£3,000	
	launch and publication to app store	£1,000	
	Maintenance contract: 24 months to ensure compatibility (optional)	£5,000	
Volunteer costs	5 volunteers x 2 workshops for planning, prototype testing and complete app testing	£750	
<b>Total Costs</b>		<b>£25,500</b>	
<b>Total Volunteer Contribution</b>		<b>£750</b>	<b>3%</b>

Issues or barriers to development:

- History of contention over landownership in the area
- Failure to secure permissive path agreements with private landowners
- Failure to market the apps successfully to ensure widespread use
- Ensuring walkers are fully aware of the challenging nature of some aspects of the route
- Erosion of the surviving monuments and access routes due to adverse weather and climate change
- Ability to ensure the apps are sustainable in terms of ongoing maintenance and improvement

## 8.4 MacDonnell trail

Aim: To increase awareness and appreciation of diverse historic sites across the Glens associated with the MacDonnell family, the Earls of Antrim. A series of innovative augmented reality mobile apps designed to weave a selection of sites into a coherent storyline, highlight the unique stories related to each site and encourage visitors to explore the area further.

Rationale: The project will capitalise on existing interest and financial commitments to developing a MacDonnell trail, which will incorporate a variety of monuments and historic buildings (see recommended list below). Only a small number of these are related to industrial heritage, but these are among the earliest post-medieval industries in the Glens. Many of the sites are along or in close proximity to the Causeway Coastal Route.

Moyle District Council hope to deliver the project in three phases; firstly from Glenarm to Ballycastle, then expanding to between Carrickfergus and Derry and finally incorporating the Western Isles of Scotland. Only the first phase is relevant to the aims of the Heart of the Glens Landscape Partnership. NIEA have already committed staff time for research development and financial resources to update interpretive signage at some of the state-owned sites. NIEA are also developing plans for a major capital project at Dunluce Castle, which will dramatically improve interpretive and visitor services at the site. Glenarm Estate wishes to improve its links with other sites associated with the McDonnell family, particularly Dunluce Castle. The history of the family and their impact on the landscape is currently being investigated by members of the University of Ulster Centre for Maritime Archaeology, which is also hoping to secure funding for a major excavation of the post-medieval salt works (see Appendix F).

An innovative new approach to heritage mobile apps called 'History Space' has recently been developed through a partnership between the University of Ulster and Big Motive ([www.bigmotive.com](http://www.bigmotive.com)), which uses an augmented reality concept to interpret historic sites in exciting new ways (see Appendix B for more information). The development of a series of History Space apps relating to key McDonnell sites would be one of the first of its kind and its innovative approach would exceed the aims and objectives of the Coast and Glens Tourism Area Action Plan.

Target audience:

- Overseas tourists
- Domestic visitors to the area
- Clans interest groups



- Heritage interest groups
- Educational groups

#### Links to LPS Programmes:

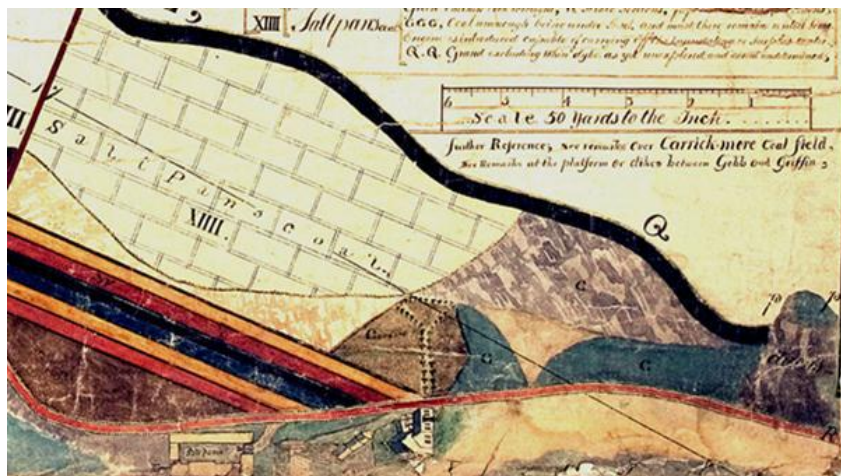
- Programme C: Access and Learning

Identified partners: Northern Ireland Environment Agency, Moyle District Council, Larne Borough Council, Glenarm Castle, University of Ulster Centre for Maritime Archaeology.

#### **Recommended Sites:**

Site:	Ownership/access:	SMR Reference:
Dunluce Castle	State care	ANT002003
St Cuthbert's Church	Local Authority	ANT002005
Dunseverick Castle	National Trust	ANT003011
Kinbane Castle	State care	ANT004004
Tornaroan salt works	Private	MRA009012
Ballyreagh salt works	Private	MRA009015
White Mine	Private	IHR03749:000:00
Bonamargy Friary	State care	ANT009003
Slaght Standing Stones	State care	ANT014004
Bruce's Castle, Rathlin	Private	ANT001013
Ballycarry Mound, Rathlin	Private	ANT001052
Dunineeny Castle	Private	ANT004001
Glenarm Castle	Antrim Estate	HB0602001 (listed)
Castlecarra, Cushendun	National Trust	ANT015014
Red Bay Castle	Private	ANT020010

Refer to Appendix B for further information.



(Figure 21.) Detail of Salt Pans mine and salt works from Ayre's map of 1817



Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Research consultancy services, including image sourcing and reproduction permissions	£5,000	
	Design services:		
	brief development and content planning	£1,250	
	content development: script, audio track and voiceover	£10,000	
	architecture: user journeys, functionality, screen wire frames	£1,500	
	visual design	£2,500	
	prototype development and testing	£5,000	
	complete app building and testing	£6,000	
	launch and publication to app store	£1,000	
	Maintenance contract: 24 months to ensure compatibility (optional)	£5,000	
Volunteer costs	16 volunteers x 3 workshops for planning, prototype testing and complete app testing	£2,400	
<b>Total Costs</b>		<b>£39,650</b>	
<b>Total Volunteer Contribution</b>		<b>£2,400</b>	<b>6%</b>

These costs cover the development of a History App zone for each of the eight publicly accessible sites in the recommended list above. It is recommended that the project be developed on a single platform deployment; preferably this would be iOS in order to maximise innovation opportunities, with an Android port being developed in a second stage supported by additional funding. If both platforms are required at the same time it would add 30% to the overall cost.

Issues and barriers to development:

- Failure to secure support for the project from the principle stakeholders
- Failure to identify and secure sufficient match funding to deliver the project
- Failure to market the apps successfully to ensure widespread use
- Ability to ensure the apps are sustainable in terms of ongoing maintenance and improvement



(Figure 22.) Sites included in the proposed MacDonnell trail

## 8.5 Community Archaeology

Aim: Partnership with Queen's University Centre for Archaeological Fieldwork (QUB CAF) and Glens of Antrim Historical Society (GAHS) to deliver 5 year community archaeology programme, training volunteers to survey and document sites across the glens and giving volunteers, community groups and schools opportunities to participate in archaeological excavation.

Rationale: There is already a strong interest in archaeology within the Glens communities and a willingness to engage with archaeological research. The wealth and diversity of historical sites within the Glens provides an opportunity to explore a wide range of archaeological periods and themes. However, there are a large number of sites related to industrial heritage that have either not been fully documented or simply not recorded at all. Therefore, an industrial heritage focus would provide a unique opportunity to make a substantial contribution to the national Sites and Monuments Record and significantly improve our understanding of the archaeological landscape of the Glens. Exploring the more recent past may also be more engaging for many local community groups and volunteers, who will be able to discover more about the people who lived and worked at these sites through historical research. The team at the Centre for Archaeological Fieldwork at Queen's University have a proven track record in delivering community archaeology projects of this type and have an established relationship with the Glens of Antrim Historical Society, who have a strong existing volunteer base. There will be a wide range of other community groups interested in engaging with the project and there are opportunities to develop links with larger regional groups, such as the Ulster Archaeological Society and Young Archaeologists Club.

### Project Outline:

- Delivered through partnership agreement with QUB CAF and GAHS
- Year 1: Volunteer Survey training weekend and monthly survey days with results of fieldwork processed and reported to NIEA
- Years 2-4: Volunteer survey training weekend, monthly survey days, and three week excavation with results of fieldwork processed and reported to NIEA, as well as a programme of talks/tours/workshops with community groups and schools and a small touring exhibition for local community venues
- Year 5: Final three week excavation with results of fieldwork processed and reported to NIEA, with larger talks/tours/workshop programme and a one day seminar highlighting the achievements of the whole project

Target audience:

- archaeological and historical societies/interest groups
- other community groups
- schools

Links to LPS Programmes:

- Programme A: Conserving and Enhancing the Natural and Built Heritage
- Programme B: Increasing Community Participation
- Programme C: Access and Learning
- Programme D: Heritage Skills and Training

Other identified partners: Northern Ireland Environment Agency, University of Ulster Centre for Maritime Archaeology, Ulster Archaeological Society, Young Archaeologists Club

**Industrial themes / Sites recommended for investigation:**

a) Maritime Glens

Prior to the construction of the coast road, travel by sea was a crucial means of accessing the Glens. Industrial sites of relevance include harbours and landing places, store houses, ice houses and fishing facilities, kelp kilns, drying walls and boat shelters / houses. Projects which include identification and survey of sites would be appropriate under this strand.

b) Industrial homes

A number of residences listed in the IHR were occupied by workers involved in local industries, in some cases these were provided for them by the operators (fig. 23). These are predominantly associated with mining activity – coal, ironstone and lime. They provide an opportunity for exploring the social conditions miners lived under and understanding their standards of living and material environment. Many of the homes have not been subject to survey and this could be followed by focused excavation work to address some of the themes mentioned above.

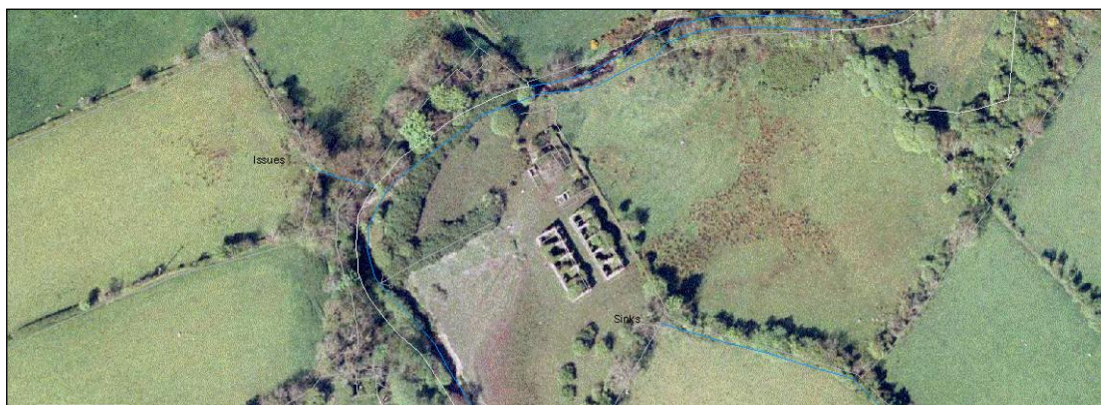
Some suggested sites for exploration include:

<b>MIA number</b>	<b>Site</b>	<b>IHR reference</b>	<b>Note</b>
4899	Colliers Row	03842:000:00	Ballyreagh Lower coal miners [Access: 1]
9153	Tullyoughter lime	07612:002:00	Ballyvaddy [Access: 2]



	miners house		
	Portdoo		Knockbrack – said to be Miners houses (Hamond 1991, 76) [Access: 2]
8675	Binvore Cottage (Iron / Aluminium Mine Leasees House)	07684:000:00	Evishacrow [Access: 2]
9030	Parkmore or Aganlane miners housing	07644:000:00	This site has gone though it is easily accessible and may be appropriate for excavation [Access: 1]

Refer to Appendix B for further information.



(Figure 23.) Top: Tullyoughter miners houses (limestone works); Bottom left: Colliers' Row, near Ballyvoy; Bottom right: Portnoo miners' house (coal), Murlough Bay.





(Figure 24.) Industrial homes appropriate for investigation by a community archaeology project

Estimated Costs:

Year One			
Staff Costs	1 CAF staff x 5 days project preparation	830.90	
	2 CAF staff x 3 days fieldwork training	997.08	
	2 CAF staff x 5 days survey fieldwork	1,661.80	
	1 CAF staff x 5 days processing results and preparing report	830.90	
Staff expenses	Accommodation and food for training school	300.00	
Transport costs	Minibus hire and fuel x 3 days training	400.00	
	Minibus hire and fuel x 5 days fieldwork	900.00	
Equipment and materials	Consumables	300.00	
Volunteer time	6 volunteers x 3 days training school	900.00	
	6 volunteers x 5 days survey fieldwork	1,500.00	
	2 volunteers x 3 days processing results and preparing report	300.00	
<b>Total costs:</b>		<b>8,920.68</b>	
<b>Total volunteer contribution:</b>		<b>2,700.00</b>	<b>30%</b>
Years Two to Four			
Staff Costs	1 CAF staff x 5 days project preparation	830.90	
	2 CAF staff x 3 days fieldwork training	997.08	
	2 CAF staff x 5 days survey fieldwork	1,661.80	
	1 CAF staff x 5 days processing survey results and preparing report	830.90	
	3 CAF staff x 15 days excavation	7,478.10	
	1 CAF staff x 15 days post excavation report	2,492.70	
	2 CAF staff x 3 days talks/tours/workshops	997.08	
	1 CAF staff x 5 days exhibition development	830.90	
Staff expenses	Accommodation and food for training school	300.00	
	Accommodation and food for excavation	1,350.00	
Transport costs	Minibus hire and fuel x 3 days training	400.00	
	Minibus hire and fuel x 5 days fieldwork	900.00	
	Minibus hire and fuel x 15 days excavation	2,700.00	
	Minibus hire and fuel for talks/tours/workshops	600.00	
	Fuel allowance for talks/tours/workshop programme	150.00	
Equipment and materials	Consumables	600.00	
	Site infrastructure	450.00	

Volunteer time	6 volunteers x 3 days training school	900.00	
	6 volunteers x 5 days survey fieldwork	1,500.00	
	2 volunteers x 3 days processing results and preparing report	300.00	
	6 volunteers x 15 days excavation	4,500.00	
	2 volunteers x 5 days post excavation report	500.00	
	2 volunteers x 3 days talks/tours/workshops	300.00	
	2 volunteers x 2 days exhibition development	200.00	
Printed resources	Design and print of touring exhibition panels	3,000.00	
	Exhibition/talks/tours/workshop flyer	300.00	
<b>Total costs for each year:</b>		<b>35,069.46</b>	
<b>Total costs for three years:</b>		<b>105,208.38</b>	
<b>Total volunteer contribution for three years:</b>		<b>24,600.00</b>	<b>23%</b>
<b>Year Five</b>			
Staff Costs	1 CAF staff x 5 days project preparation	830.90	
	3 CAF staff x 15 days excavation	7,478.10	
	1 CAF staff x 15 days post excavation report	2,492.70	
	2 CAF staff x 10 days talks/tours/workshops	997.08	
	1 CAF staff x 5 days exhibition development	830.90	
	1 CAF staff x 5 days seminar preparation	830.90	
	3 CAF staff x 1 day seminar	498.54	
Staff expenses	Accommodation and food for excavation	1,350.00	
Transport costs	Minibus hire and fuel x 10 days excavation	2,700.00	
	Minibus hire and fuel for talks/tours/workshops	2,000.00	
	Fuel allowance for talks/tours/workshop programme	500.00	
Equipment and materials	Consumables	300.00	
	Site infrastructure	450.00	
Volunteer time	6 volunteers x 15 days excavation	4,500.00	
	2 volunteers x 5 days post excavation report	500.00	
	2 volunteers x 10 days talks/tours/workshops	1,000.00	
	2 volunteers x 3 days exhibition development	300.00	
	5 volunteers x 2 days seminar preparation	500.00	
	20 volunteers x 1 day seminar	1,000.00	
Printed resources	Design and print of touring exhibition panels	5,000.00	
	Exhibition/talks/tours/workshop flyer	300.00	
	Seminar flyer	300.00	
Seminar	Room hire and refreshments for 50 people	2,000.00	

<b>Total costs:</b>	<b>36,659.12</b>	
<b>Total volunteer contribution:</b>	<b>7,800.00</b>	<b>21%</b>

<b>Total costs for 5 year programme</b>	<b>150,788.18</b>	
<b>Total volunteer contributions</b>	<b>35,100.00</b>	<b>23%</b>

Issues and barriers to development:

- Breakdown of partnership relationship with CAF and GAHS
- Lack of sufficient volunteers
- Limited available time volunteers are able to commit
- Suitable training and monitoring of volunteers to ensure quality of survey and excavation fieldwork
- Lack of support from NIEA for survey and excavation licence agreements
- Lack of interest in the project outputs in the wider community

## 8.6 Learning Resources for Schools

Aim: Develop curriculum-based resources that will enhance teachers' heritage skills and increase pupils' understanding and appreciation of local heritage. The resources should be aimed at the Key Stage 1 and 2 World Around Us Curriculum focussing on human exploitation of our natural landscape through time.

Rationale: The new Northern Ireland Curriculum provides the opportunity and flexibility to explore local heritage to a much greater degree. Many of the primary schools in the Glens already engage with local heritage in a variety of ways but teachers can find it difficult to access relevant information and visual resources etc. This project would be designed to work in partnership with local teachers to develop a range of learning resources for the Key Stage 1 and 2 curriculum which are adaptable to individual teachers' needs and teaching programmes and available for download from the CCGHT Learning Zone. The resources should be designed to support the development of pupils' learning skills and deliver on all areas of the World Around Us Curriculum, including history, geography and science, as well as other curriculum areas such as maths, literacy and the arts. The project will improve awareness and appreciation of industrial heritage and increase access to archives and collections relating to that heritage. It should also include a one or two year programme of facilitated talks, tours and workshops designed to give local teachers unfamiliar with this aspect of local heritage the knowledge, skills and confidence to use the resources.

Target Audience:

- Primary schools in the Glens

Links to LPS Programmes:

- Programme B: Increasing Community Participation
- Programme C: Access and Learning
- Programme D: Heritage Skills and Training

Identified Partners: North Eastern Education and Library Board

**Recommended themes:**

- a) Human exploitation of our natural resources

Resources exploring the processes involved in different periods of history in extracting natural resources from the Glens, processing them and exporting them to market, including:



- Stone quarrying
- Fishing
- Mining
- Flint and porcellanite
- Flax/linen production



*(Figure 25.) Red laterite exposures in the Glenravel mines*

The resources should identify sites which a school could visit and explore as part of their learning, perhaps carrying out some basic survey work that would link with the community archaeology programme. The resources should also make suggestions for active learning opportunities within the classroom exploring the properties of materials found in the landscape, e.g. limestone, iron ore, coal, flint, and what they are used for.

#### b) Construction of the Antrim Coast Road

Resources exploring the engineering feat of constructing the Antrim Coast Road, identifying sites where bridges have been built over rivers, road has been built over bog, or cliffs have been blasted to create a road on the shore below. Schools may wish to engage with basic survey and mapping exercises that could link with the community archaeology programme. The resources should include suggestions for active learning opportunities within the classroom, for example experiments and problem solving activities relating to the engineering challenges of constructing the road.

Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Research consultancy services, including image sourcing and reproduction permissions	£4,000	
	Writing and editing learning resources	£7,500	
	Design of online/pdf resources	£5,000	
	Facilitation fees for prep and delivery of 1 year workshop programme with schools	£5,000	
Other	Image copyright and reproduction fees	£2,000	
Transport Costs	Minibus hire for 20 workshops	£3,000	
Staff costs	Teacher sub-cover for working group sessions @ £157 per day	£4,710	
Volunteer costs	Teacher's working group, 10 teachers @ £157 per day x 3 days	£4,710	
	<b>Total Costs</b>	<b>£35,920</b>	
	<b>Total Volunteer Contribution</b>	<b>£4,710</b>	<b>13%</b>

Issues and Barriers to Development:

- Lack of interest from local primary school teachers
- Lack of available time for teachers to commit to engaging with the development of the resources
- Lack of available school funds for sub-cover and transport

## 8.7 Supporting community initiatives

Aim: To support a range of initiatives led by other organisations in the area through providing expert advice and/or financial resources and encouraging sustainable approaches to improving conservation, learning and participation in heritage.

### **Recommended projects:**

The following are a small list of identified projects in need of additional support with a direct link to industrial heritage. There will of course be other projects of this nature related to other themes within the Heart of the Glens Landscape Partnership Scheme. It is recommended that a range of these projects be chosen according to available resources, geographical spread and range of themes.

### 8.7.1 Glenarm Regeneration Plan

#### **a. Whiting Mill**

Rationale: The mill has been identified in the master plan as a key landmark in the village and earmarked for restoration, but no definite future use has been found (fig. 26). The village is in need of a 'neutral' community venue, and as a major industrial landmark on the Coast Road at the first of the 9 Glens, there is potential to develop heritage interpretation and visitor facilities in the building. It is recommended that Glenarm Village Committee is supported in their desire to see the building preserved and restored by commissioning a Business Plan for sustainable future use of benefit to the community.

#### Target Audiences:

- Overseas visitors to the Causeway Coastal Route
- Domestic visitors to the area
- Local residents
- Historical societies/interest groups

#### Links to LPS Programmes:

- Programme A: Conserving and Enhancing the Natural and Built Heritage

Identified Partners: Glenarm Village Committee, Glenarm Buildings Preservation Trust, Glenarm Estate, Larne Borough Council, Prince's Foundation for the Built Environment

Estimated costs:

Cost Heading	Description	Cost	
Professional Fees	Business planning consultancy services	£10,000	
Volunteer costs	Community consultation programme - 20 volunteers x 1 day	£1,000	
	<b>Total Costs</b>	<b>£11,000</b>	
	<b>Total Volunteer Contribution</b>	<b>£1,000</b>	<b>9%</b>



(Figure 26.) Glenarm Whiting Mill

Issues and barriers to development:

- Continuing contention between the principal stakeholder groups in the village
- Substantial restoration work required to the Whiting Mill to make it fit for future use
- Identifying a sustainable future use for the Whiting Mill
- Identifying and securing the necessary funding to complete the project

### **b. Limestone tramway restoration and interpretation**

Rationale: Enhancing the existing trails in the village developed as part of the regeneration plan by restoring and interpreting a surviving railway tunnel that brought limestone by cart to the harbour. The project involves clearing the tunnel, restoration work to the stonework, re-instating a section of trackway and installing a restored or replica cart. The labour involved can be undertaken by Glenarm Village Committee volunteers with minimal financial support.

#### Target Audience:

- Domestic and overseas visitors to Glenarm
- Local residents
- Historical societies/interest groups

#### Links to LPS Programmes:

- Programme A: Conserving and Enhancing the Natural and Built Heritage
- Programme B: Increasing Community Participation:
- Programme C: Access and Learning
- Programme D: Heritage Skills and Training

Identified partners: Glenarm Village Committee

#### Estimated costs:

Cost Heading	Description	Cost	
Training for volunteers	2 day course in restoration techniques	£1,000	
Equipment and materials	Tools and building materials for restoration of tunnel	£2,000	
	Tools and materials for restoration/building railway cart	£1,000	
Professional Fees	Design, manufacture and installation of interpretive sign	£1,000	
Volunteer costs	5 volunteers x 10 days	£2,500	
	<b>Total Costs</b>	<b>£5,000</b>	
	<b>Total Volunteer Contribution</b>	<b>£2,500</b>	<b>50%</b>

#### Issues and barriers to development:

- Suitable training of volunteers and monitoring of the restoration work to ensure against damage to the historic fabric
- Failure to secure sufficient volunteer commitment



### 8.7.2 Carnlough Mineral Path

Rationale: Interpretive panels for the Mineral Path, starting at Carnlough Harbour and extending to Cranny Falls, were installed some years ago by Larne Borough Council. They are outdated and tired, have suffered from vandalism, and compete with two other sets of interpretive signage in the village, one of which promotes the AONB and is also a little worn, and one very recently installed set promoting tourism in Larne Borough Council. In some cases these signs repeat similar information and create visual disharmony in this attractive and historic village and landscape. It is recommended that through working with Larne Borough Council and Carnlough Community Association a more coherent interpretive strategy for the village and mineral path is developed and a number of these signs are removed or replaced. Opportunities for better promotion of this walk through online resources should also be explored.



*(Figure 27.) The mineral path as it leaves the harbour area for Gortin quarry, just visible in the top right.*

#### Target Audiences:

- Local residents
- Walking and rambling groups
- Domestic and overseas visitors to Carnlough

#### Links with LPS Programmes:

- Programme A: Conserving and Enhancing the Natural and Built Heritage
- Programme C: Access and Learning

Identified Partners: Larne Borough Council, Carnlough Community Association

Estimated Costs:

Cost Heading	Description	Cost
Professional Fees	Research and writing of interpretive panels, including image sourcing and reproduction permissions	£2,000
	Design, manufacture and installation of up to 6 new interpretive panels and online marketing material	£15,000
Other costs	Image copyright and reproduction fees	£2,000
<b>Total Costs</b>		<b>£19,000</b>

Issues and barriers to development:

- Stakeholder objections to removing existing signs
- Competing interpretive aims may obstruct a coherent approach

### 8.7.3 Glenariff Parish Hall

Rationale: Originally a railway engine shed serving the line transporting ironstone from Glenariff to the sea, Glenariff Parish Hall has recently been closed due to health and safety concerns in relation to the structure of the building. Obviously a sustainable use for the building is already in place, and perhaps could be broadened by including other potential community uses. The Parish Church currently lack the resources to carry out the necessary work to the building, but with the right support and advice it could be restored to public use and the original features of the building enhanced for the benefit of both the local community and visitors to the area. This would be particularly beneficial in relation to the development of the proposed industrial heritage trail projects as the hall is clearly visible from the Antrim Coast Road.

Target Audiences:

- Glenariff Parish congregation
- Other local community groups
- Overseas and domestic visitors to the area using the proposed mobile heritage trail apps

Links with LPS Programmes:

- Programme A: Conserving and Enhancing the Natural and Built Heritage
- Programme C: Access and Learning
- Programme D: Heritage Skills and Training

Identified Partners: Glenariff Parish Church, Glenariff Improvement Group, Moyle District Council

#### Estimated Costs:

It is anticipated that the principle resources required to support this project would simply be staff time, in order to advise to Glenariff Parish Church and Glenariff Improvement Group on the appropriate sources for conservation advice, restoration funding and enhancing community support and participation. An appropriate allocation of staff time to this project would be approximately 20 days over several months, depending on successful relationship being developed with the local community and suitable sources of funding being identified.



(Figure 28.) Tow River railway viaduct, Ballycastle

#### Issues and barriers to development:

- Failure to establish successful partnership between key stakeholders
- Failure to identify and secure necessary funding for restoration
- Extent of the deterioration of the building makes restoration costly and impractical
- Inappropriate restoration works that affect the historical integrity of the building
- Current owners unwilling or unable to increase and diversify uses of the building

#### 8.7.4 Ballycastle railway trail

Rationale: The Ballycastle Town Partnership would like to enhance the Ballycastle Town Trail by extending the Tow River path to join the tracks of the old narrow gauge railway and continue up towards the entrance to Ballycastle Forest. It also has the ambition to restore the Old Railway Station House, but it is not clear as yet what the future use of the restored building might be. This project is at a very early stage in development and no assessment of the restoration needs of the Station House have yet been made, nor have any plans or estimated costs been developed for the necessary works to create suitable pathways. cursory examination of the derelict Station House carried out as part of this project has demonstrated that attention would need to be paid to the roof, wooden floors, internal fixtures and fittings, all wooden door surrounds and damage sustained by vandalism. It is also located in an inaccessible position, surrounded by steep sloping land and obstructed by the Translink station. Ballycastle Town Partnership require access to expert advice in order to take this project forward, specifically to make a realistic assessment of the engineering works and costs involved in resolving access issues, carrying out the restoration of the Station House and identifying a viable future use for the building.

#### Target Audiences:

- Local residents
- Walking and rambling groups
- Domestic and overseas visitors to Ballycastle
- Railway enthusiasts

#### Links to LPS Programmes:

- Programme A: Conserve and Enhance the Natural and Built Heritage
- Programme B: Increase Community Participation
- Programme C: Access and Learning

Identified Partners: Ballycastle Town Partnership, Moyle District Council

#### Estimated Costs:

Cost Heading	Description	Cost	
Professional Fees	Development consultancy services, including architectural, engineering, conservation and business planning expertise	£6,000	
Volunteer costs	Community consultation programme - 20 volunteers x 1 day	£1,000	
	<b>Total Costs</b>	<b>£7,000</b>	
	<b>Total Volunteer Contribution</b>	<b>£1,000</b>	<b>14%</b>

Issues and barriers to development:

- Ruinous condition of the Station House and overgrown nature of the site
- The logistics of accessing the site of the Station House will require major construction works to negotiate the steep surrounding drops and boundary of the Translink depot
- Physical proximity to unsympathetic or overbearing elements, specifically the fence of the Translink depot, which partially obstructs the original line of the railway
- Area is vulnerable to vandalism
- Permissive path agreements will be required with private landowners to instate a path along the line of the railway and connect it with the Tow River Path and Ballycastle Forest
- Identifying and securing the necessary funding to complete the project



## Appendices

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### A. References

#### Historical and archaeological:

Collins, A. E. P. (1978) Excavations at Ballygalley Hill, County Antrim. *Ulster Journal of Archaeology* 41, 15-32.

Hamond, F. (1991) *Antrim Coast and Glens: Industrial Heritage*. HMSO, Belfast.

McCutcheon, W.A. (1980) *The Industrial Archaeology of Northern Ireland*.

Rynne, C. (2006), *Industrial Ireland 1750-1930: an archaeology*. Collins Press, Cork.

Irvine, J. (1973), 'The Old Coast Road', *The Glynnns*, pp.16-20

Harper, D. (1974), 'Kelp Burning in the Glens', *The Glynnns*, pp.19-24

Dallat, C.A. (1974), 'Ballycastle's Glass Industry', *The Glynnns*, pp.28-32

Dallat, C.A. (1975) 'Ballycastle's 18<sup>th</sup>-century Industries', *The Glynnns*, pp.7-13

McSparran, M. (1976) 'The Mills of the Middle Glens', *The Glynnns*, pp.17-24

Irvine, J. (1977) 'Carnlough Harbour Development Scheme, 1856-1866', *The Glynnns*, pp.22-31

Robertson, J.E. (1978), 'The Red Bay – Campbeltown Ferry', *The Glynnns*, pp.39-40

McAuley, P. (1979), 'The Big Bridge', *The Glynnns*, pp.18-19

O'Hagan, K.J. (1980), 'The Iron Mines of Glenravel', *The Glynnns*, pp.5-10

McNeill, L. (1980), 'The Sulphate of Ammonia Co. Ltd. – Carnlough', *The Glynnns*, pp.37-40

O'Hagan, K.J. (1987), 'The Cargan to Red Bay Wire Tramway: A Unique Photograph', *The Glynnns*, pp.59-62

McSparran, Malachy (2001), 'Blacksmiths of the Middle Glens and their Families', *The Glynnns*, pp.23-29

McBrinn, J. (2005), 'The Cushendall and Ballycastle Toy-making Industries, 1901-1914', *The Glynnns*, pp.122-126

Roberts, D. (2007), 'The Port of Cushendun: Trade and Smuggling to and from Kintyre', *The Glynnns*, pp.1-11

McGill, D. (2007), *Col Hugh Boyd's Ballycastle*, Teachers Resource Booklet published by the Causeway Museum Service

#### Tourism development:

Causeway Coast and Glens Tourism Partnership (2012), *Causeway Coast and Glens Tourism Area Action Plan, 2012-2017*

NITB (2010), *The Signature Project Experience - How Well Do They Deliver: Goant's Causeway, Antrim and Causeway Coast*

PLB Consulting Ltd. (2008), *Causeway Coastal Route Master Plan for Interpretation: Final Report*

Community development:

Prince's Foundation for the Built Environment (2010), *Glenarm Regeneration Strategy*

Carnlough Community Association (2011), *Carnlough Village Plan*

Moyle District Council (2008), *The Glenn Airbh Plan: Glenariff and Waterfoot Village Plan*

Existing trails and walks:

Larne Walks booklet, Larne Borough Council

Ballymena Walks booklet, Ballymena Borough Council

Ballycastle's Heritage and Town Guide, Moyle District Council

Ballycastle Heritage Trail leaflet, Moyle District Council

## B. Gazetteer of industrial sites related to the project proposals

### Antrim Coast Road

White Bay quarry (no IHR record)

Approaching the Glens from Ballygalley limestone mining becomes increasingly obvious on the west side of the road – quarried back here to accommodate the road and provide bedding materials for it (though only marked on OS maps from the early 20<sup>th</sup> century).

Parishagh quarries (07530:000:00)

Although mainly covered in vegetation, a quarry has been in place since the 1830s on the hillside to the north of Glenarm. A substantial modern quarry to the west of the original site provides a striking modern equivalent.



*Modern limestone mining to the west of Parishagh quarry above Glenarm.*

Glenarm limestone quarry (06701:000:00)

The 'town' quarry sits near the roadside on the southern edge of Glenarm – bare walls of limestone can still be viewed with the whiting mill (below) and a range of machinery to the inside.



Glenarm whiting mill (06699:000:00)

The modern mill is a concrete and iron structure in a rather dilapidated though evocative state on the roadside. Some ancillary offices and machinery can also be seen at the site. The building sits on the site of the mid-19<sup>th</sup> century mill.



*Top – interior of Glenarm whiting mill, bottom – part of the town quarry and machinery to the rear of the mill.*

#### Glenarm harbour (06698:000:00)

A handsome limestone harbour, particularly along the river frontage and to the southern side. Established in the 1860s for the export of limestone and iron ore. Some quay furniture still remains and a modern marina extension has been added further east.



*Part of the harbour and site of former factory in Glenarm*

#### Glencloy bridge (06620:000:00)

A twin arched bridge of limestone and sandstone, constructed in the 1830s.

#### Carnlough mineral railway (06614:000:00)

Standard gauge rail line that ran between the limestone quarries at Gortin for 1.5km to Carnlough Harbour. Built in 1854 it ran across High St and Shore St carried by a limestone bridge to the harbour. The original line has been lifted and it is now used as a path to the quarry and Cranny Falls.

#### Carnlough harbour (06617:000:00)

Dating to the mid-1850s this limestone built harbour is one of the most picturesque in Ulster. Associated with the limestone industries at nearby Gortin, Creggan and Tullyoughter, it was used for transporting the limestone to waiting boats. Although now used for recreation, some elements of the harbour fabric are in need of restoration. Also of note is the boat house on the north end which previously functioned as a kelp store.





*Carnlough mineral railway bridge and harbour*

Gortin (07528:001:00) and Creggan (07528:002:00) limestone quarries

Above Carnlough on a south facing slope are the extensive remains of two adjacent quarries running for almost a mile. Substantial spoil heaps, mine adits and kiln remains can still be seen on site.

Coastguard cottages (07695:000:00)

A terrace of cottages on the seaward side of the road, associated with the lookout station on Garron Point, and quay to the south. Constructed of dressed basalt, they are currently occupied.



*Coastguard cottages, Galboly*

Water / Engine company (06532:000:00)

Dressed basalt pump house erected in 1854 to lift water to the residence of the Londonderrys (now St MacNissi's college). The small building features mullioned windows and housed the pump apparatus. The supply stream for freshwater is supposedly one of the shortest in Ireland – 130 yards.

Ardclinis bridge (06530:000:00)

The ruined remains of a twin-arched bridge lie to the seaward of the modern road bridge. The latter is single arched basalt construction dating to the 1830s.



*Ardclinis road bridge and older twin-arched bridge*

#### Waterfoot railway - White Arch (06527:001:00)

The terminal for the mineral railway descending from Glenariff, which carries the line over the coast road to Milltown pier (of which only fragments remain). The white arch bridge is constructed of dressed limestone – only the piers remain.

#### Engine House (06527:003:00)

Close to the white arch is a limestone building formerly used to house the locomotives. A number of arched windows can be seen, as well as the blocked arched entrance for the train. However the building has been reused as a parish hall, has been amended and partially rendered. It is currently closed.



*Left: White arch and embankment. Right: Milltown Pier.*





*Left: Engine House. Right: Miners housing.*

#### Miners housing (07608:000:00)

A handsome terrace of c.8 houses fronting the road near the white arch. Constructed in the 1870s of limestone and red brick window and door surrounds they are still occupied. Marked on maps as 'Seaview Terrace'.

#### Waterfoot bridge (05694:000:00)

Twin arched bridge constructed in rubble stone over the Glenariff River.



*Waterfoot bridge*

Red Arch (07507:000:00)

Parabolic arch spanning the coast road allowing access through the sandstone headland. Constructed by Francis Turnley in 1817 to improve the road between Waterfoot and Cushendall. Now lined by concrete.

Red Bay pier (06525:000:00)

Built in 1849 and used to export ore being mined in the Cargan district. This basalt pier was linked by an aerial ropeway to the Glenravel mines for a time in the 1870s. The construction of the Ballymena-Retreat line in 1876 had an adverse effect on its fortunes. Also of note is a fine basalt built warehouse on the site.

Cushendall bridge (06521:000:00)

Twin arched bridge of dressed sandstone carrying the coast road over the Dall River.

Glendun viaduct (03928:000:00)

One of the most striking bridges in the Glens, it carries the coast road over the Glendun River. The viaduct was designed by Charles Lanyon, the notable architect responsible for Queens University and Botanic Garden's Palm House. It is 80ft high and comprises a large central arch flanked by two smaller arches. Constructed in sandstone it was completed in 1839 (a date stone is present on the downstream parapet).



*The Glendun viaduct*



A series of bridges on the Cushendun-Ballycastle road

A number of streams running off Carneighaneigh and Crockaneel are crossed by bridges all constructed as part of the new coast road in 1834. Most of these feature date stones and in one case (Coretavy) the name of the engineer, William Bald.

Constructed in basalt, they are single span bridges:

Craigcat bridge (03934:000:00)

Coretavy bridge (03854:000:00) – the most notable, both for the name of the engineer and its height, accommodating the Ballypatrick forest drive below.

Bushburn bridge (03852:000:00)

Altheela bridge (03853:000:00)

Altdreen bridge (03850:000:00)

Ballynagard bridge (03843:000:00)

Bonamargy bridge (03835:000:00) – three span bridge across the Margy at Ballycastle



*Top – Coretavy bridge with William Bald engineer inscription. Bottom: Altheela bridge with Bushburn bridge in the distance.*



### Ballycastle overview

It would be appropriate on leaving or approaching Ballycastle to summarize its special position within the industrial story of the Glens. While not all sites are extant or accessible from the coast road mention should be made of its collieries, glassworks, salt pans etc.

### **Further archaeological sites that could be incorporated:**

Ballygalley flint mine [SMR: ANT035039]

Evidence of open cast flint mining and flint working (Neolithic) was found in the area of a promontory scarp (excavated by Collins, 1978). May be associated with Neolithic occupation site (ANT 035:017).

Ballygalley castle/bawn [SMR: ANT 035015]

Built in 1625 by James Shaw of Greenock, with additions c.1760. Castle and bawn now converted to a popular hotel.

Ardclinis church and graveyard [SMR: ANT 020001]

Medieval parish church situated at the foot of a steep scarp on fairly level shoulder (old shore line) above sea . A crozier of probable 12th century date is traditionally associated with this site, and the crozier's hereditary keepers lived in this area.

Tievebulliagh porcellanite mine [SMR: ANT019012]

An east facing basaltic escarpment with interbasaltic layers of porcellanite visible along the upper rocky ledges. Open cast workings are visible towards the north of the escarpment. On the screes below this quarry are many porcellanite flakes and fragments, the debris of axe production.

Carnanmore Passage Tomb [SMR: ANT010001]

A Neolithic Passage Tomb can be seen from the road as a mound on Carnanmore mountain. This is a possible location for the 'Scots Warning fire', shown on maps of the late 16<sup>th</sup>/early 17<sup>th</sup> century. This beacon or bonfire was used by the MacDonnells to call for their kinsmen in Kintyre during periods of attack and demonstrates well the close maritime contact this region had with Scotland as well as the predominance of sea travel prior to the road system.

## Ore Mining in the Glens

(note the following denote sites in proximity to walking trails: DG: Dungonnell Way; MW: Moyle Way; GF: Glenariff Trails; Dr: Drum Wood)

Newtown Crommelin iron ore smelter (05701:000:00)

Built in the 1840s by Nicolas Crommelin in an early attempt to start an iron ore industry in Glenravel. The venture was not a success but the basalt built furnace still stands with small access holes around its square base. A ruined corn mill (06602:000:00) is nearby.



*Newtown Crommelin iron ore smelter*

Tuftarney bridge (06599:000:00) DG, Dr

Single span basalt bridge carrying the road over a stream. Sited by the car park to Drum Brae.

Ballynahavla Bridge (06598:000:00) DG

Very similar to Tuftarney bridge – a single span basalt bridge.

Glenravel and Ballynahavla ironstone mines (06591:000:00 and 06590:000:00) DG  
Established in 1866 by James Fisher, the open cast mine was in operation until 1913. It is one of the largest and earliest mines in the area, extending for almost a mile. The site comprises extensive spoil heaps, and one adit or air shaft, currently blocked by a gate. It was served by Parkmore siding.



*Glenravel spoil heaps and pits*

Drum Brae winch and inclined plane (no IHR no.) DG; Dr  
Inclined plane and windlass on a hillside above Cargan Water and rail line. The site was used to lower ore wagons down a 1:10 slope (evidenced by a cutting). Above the windlass an embankment leads up to the Glenravel mine. The remains of the windlass comprise two parallel walls on a plinth that housed the winding drum. A nearby ruin of a dwelling may be associated with its operation.



*Drum Brae windlass and embanked rail line*

Crommelin siding: engine house remains (06516:012:02) DG

Ruined remains of a basalt-built engine house and chimney below Tuftarney mine. The foundations of a further ruined building is to the north.

Parkmore siding: bridge (06516:008:01) DG

Small rail bridge facilitating the Parkmore siding from the ore mine. Constructed from rubble abutments and girders.



*Parkmore siding (06516:008:00) and bridge (06516:008:01) in the foreground with Ballynahavla mine (06590:000:00) in the background.*

Parkmore siding: bridge (06516:008:02) DG

Earthen embankment forming a bridge for Parkmore siding. More recently a drainage pipe has been inserted through it surrounded by rubble.

Agan bridge (06597:000:00) DG

Single span basalt bridge with parapets carrying the road over a stream.

Essathohan bridge (07648:000:00) DG; MW

The current road bridge comprises a single span, dressed basalt bridge with parapets.



Bauxite workings (06511:000:00)

The remains of bauxite mining dating to the 1890s on the eastern slopes of Trostan. The works are evidenced by spoil heaps above the mineral tramway track.



*L – Trostan siding and bauxite mines; R – Parkmore Station*

Essathohan railway bridge (06516:004:00) DG; MW

A single arch railway bridge immediately east of the current road bridge at Essathohan, featuring segmental arches.



*Essathohan railway bridge (06516:004:00) to the left, the current road bridge to the right (07648:000:00). In the distance are the abutments of bridge (06516:059:00).*



Parkmore Station (06516:007:00)

Close to the Cushendall Road is a derelict pre-cast concrete railway station. Dating to 1921, it replaced the original 1888 station as part of the tourist service to Glenariff. It is nevertheless one of the earliest pre-cast structures to survive on Irish railways.

Retreat Station (06516:001:00)

The terminus station for the Retreat-Ballymena line, which operated between 1876 and 1937. The site comprises a two-storey dwelling house (possibly being renovated for occupation); the walls of a yard, a loading platform and the sidings stretching in both directions (the extension downhill into Glenballyeamon was never completed due to the steep gradients). Nearby is the ruined remains of 'Retreat Castle', which does not appear to be of any great antiquity.

Parkmore siding (06516:008:00) G'ariff-Cargan Road

A horse-drawn tramway constructed in the 1860s linking the Glenravel ore mines to the road near the later Parkmore Station. Ore was originally carted to Red Bay pier, and later taken away via the Retreat rail line. It is best viewed under the Glenravel - Ballynahavla mines.

Evishacrow Mine (Ironstone / Bauxite) (06593:000:00) G'ariff-Cargan Road

A series of spoil heaps on the southern face of Binvore hill mark the location of iron ore and bauxite mining. Exposures of red laterite are still visible.

Evishacrow railway siding (06516:010:00) G'ariff-Cargan Road

A mile long siding serving Evishacrow and Ballynahavla mines. It can be traced leaving the main line near Evishacrow and around much of the hill.



*Evishacrow railway siding with bridge (06516:010:01) to Evishacrow Mine (06593:000:00)*

Evishacrow siding: Bridge (06516:010:01) G'ariff-Cargan Road

Small bridge with rubble abutments supporting girder span to facilitate tramway.

A series of railway bridges are found over the Retreat – Ballymena railway line between Parkmore and Cargan village. The line follows the modern road and both it and the bridges can be seen from the road, although they are best viewed on foot. Most are simple girders set on basalt abutments and they are in varying states of repair. They include:

Railway bridge (06516:047:00)

Railway bridge (06516:048:00)

Railway bridge (06516:049:00)

Railway bridge (06516:050:00)

Railway bridge (06516:051:00)

Railway bridge (06516:052:00)

Railway bridge (06516:055:00)

Rubble built single span bridge with ruined parapets at the junction of the Retreat-Cargan / Cushendun roads at the top of Glenballyeamon.

Railway bridge (06516:058:00) MW

Rubble built single span bridge to the east of Essathohan.

Railway bridge (06516:059:00)

Two basalt abutments remain of a bridge over the Retreat-Ballymena line to the west of Essathohan bridge – a substantial railway cutting leads through the forest south-westward here.

Cargan siding (06516:014:00) DG

This siding served the Cargan and Dungonnell mines and was almost two miles long. It can be viewed from the road as an embankment or cutting only.

Dungonnell Reservoir (07682:000:00) DG

Dungonnell Dam and reservoir were created in the 1970s to supply water to Ballymena. It was the first dam in Ireland or Britain to be waterproofed using an asphaltic lining on its upstream face.

Glenariff ironstone works (06605:000:00) GF

In Glenariff Forest Park (Cloghcor) by the Inver River are the remains of ironstone mines dating to the 1870s and 1880s. A series of spoil heaps on the east side of the valley are largely obscured by forest cover.

Glenariff mineral railway (06527:000:00) GF

Constructed in 1873 to serve the Glenariff ironstone mines to the pier and Milltown. The six mile track was the first narrow gauge railway in Ireland. Parts of the line can still be traced and it is associated with Milltown pier, the White Arch bridge and engine shed on the coast (See Coast Road project).



*Glenariff mineral railway*

Roadside quarry, Dungonnell

A substantial quarry for basalt set back from the road near Dungonnell dam and likely was mined for its construction.

Roadside quarry, Cloghcor

A roadside quarry for basalt between the Dungonnell dam and the back of Glenariff forest.



*Roadside quarry, Cloghcor*



## Murlough Bay to Carrickmore walking trail

Murlough lime kiln (07714:000:00)

Rubble-built kiln in Bighouse townland sited by the road into Murlough Bay. The kiln is associated with a small limestone quarry immediately to the rear. Substantially intact and an attractive example of its type, it features an arched drawhole with prominent keystone and a string course.

Murlough lime kiln (07716:000:00)

Dressed stone kiln in Torglass townland sited by the path at the bottom of Murlough Bay. Smaller than the Bighouse example, it features an arched drawhole and an embanked pathway providing access to the top of the kiln and the area above. This area also has the remains of a cottage which may be associated with the kiln.



*Torglass lime kiln*

Murlough colliery (0375900000)

The most obvious remains of the colliery is the twin arched adits at the bottom of the path leading from the upper car park. The laneways in the area are also obviously part of the infrastructure – a cutting marks the position of an earlier routeway toward the port facility, evidenced by a laneway and iron mooring rings (though any formal landing stage has gone).

### Portdoo ruins

To the south-east of the arched colliery entrance is the remains of an extended dwelling range of at least five apartments (see Industrial Homes below). A further enigmatic building lies to the south – this was two-storey and likely was used as a store house. Its walls are substantially damaged. Both ruins appear on the 1<sup>st</sup> edition OS as unroofed and by the second edition are roofed and extended.

### Carrickmore Port (07666:000:00)

This port is principally associated with the local mining of ironstone in the late 19<sup>th</sup> century, however kelp burning was also carried out in the area. The landing place comprises a section of stone-built revetment that originally supported an iron pier. To the rear a substantially embanked laneway can be found.

### Carrickmore ironstone mine (0376:000:000)

Marked on the 2<sup>nd</sup> edition OS map as 'Iron Mine' above the cliff at the eastern edge of Cross townland. The remains are terraces of spoil and calcine waste on the shore below the cliffs.



*Looking west from the area near Lough Doo cairn to Ballycastle; a series of monuments are found – in the foreground Carrickmore Port, kelp kilns and ironstone mines, then a series of collieries, salt pans in the middle and far distance.*



### Carrickmore kelp kilns

Two well preserved kelp kilns are situated to the rear of Carrickmore port. The rectangular troughs have been constructed of stone in the above ground manner. They likely date to the 19<sup>th</sup> century.

### Gobb colliery (03757:000:00)

Around the headland east of Carrickmore is the Gobb colliery. Most of the area with its spoil heaps are now covered in vegetation. There are the remains of the embanked laneway into the area that serviced the mine.

### Ballyvoy Pier (0764:000:000)

A substantial stone built landing stage that once supported a metal superstructure allowing ore to be exported. Dating to the later 19<sup>th</sup> century it is now badly damaged by storm action on the east side.

### Tornaroan salt pans (MRA:009012<sup>2</sup>)

A shallow intertidal 'bucket pot' and rock-cut channel to low water mark allowing sea water to enter. There was presumably a sluice gate originally. The site sits at the north-eastern corner of the coal yard wall (see below). The sea water was boiled to produce salt and the site is one of two in this area that was in existence in the mid-17<sup>th</sup> century.



*Tornaroan salt pans, with the coal yard walls (07708:000:00) above and modern dwelling.*

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<sup>2</sup> MRA: Maritime Record for Antrim

Coal Yard (07708:000:00)

Only the walls remain of the coal yard marked on the 1<sup>st</sup> edition OS map. The interior has been altered by a modern house. The site itself was likely originally used to produce salt (see above) but by the 19<sup>th</sup> century was employed to store coal before removal by road or sea (the footing for a raised quay structure can be seen on the adjacent intertidal rocks).

North Star colliery (03751:000:00)

A roadside adit with archway of dressed stone is clearly visible from the road near the North Star dyke.

White Mine Colliery (03749:000:00)

To the rear of a caravan park, one adit is still visible. In use from the 1730s.



*Broughanlea saltworks, the site of which is in the background – in the foreground rock-cut steps to the bucket pot.*

Pans rock saltworks (03747:000:00)

The most recent salt-making site is in Broughanlea, behind a line of houses fronting the Carrickmore Road, but accessible via the beach. In use from the 18<sup>th</sup> century the site of salt making is largely obscured by the rear gardens of the houses, however the shoreline rocks feature a natural bucket pot called the 'Devils

Churn' with rock-cut steps, housings for the seaward sluice gate and an abandoned tunnel. NB to the east of the mis-named 'Pans Rock'.

Salt Pans Colliery (03748:000:00)

On the opposite side of the road from the saltworks in Broughanlea, the colliery is now largely obscured by vegetation. This site, being near sea level was always prone to flooding.

### **Other archaeological sites of interest:**

Drumnakill Church (SMR: ANT005019)

In a spectacular location in Murlough Bay, almost on the edge of a headland which falls 15-20m to the sea. The church is a simple rectangular structure aligned east-west. No visible trace of the graveyard survives, but a curvilinear terrace around the church was probably used for burials.

Crannog, Lough na Cranagh (SMR: ANT005011)

Crannagh Island lies in the centre of Lough na Cranagh. The crannog is oval in shape, 30m x 25.5m across. The outer edge of the crannog has been faced with a drystone wall in modern times.

Lough Doo passage tomb (SMR: ANT005006)

Situated on plateau overlooking Rathlin Island to the north. Grassed, round cairn containing a central chamber of 5 basalt slabs approached by short north facing passage. A slab within the chamber and another lying outside may be displaced roofstones.

Doonmore Fort (SMR: ANT005007)

Possibly a motte, the site is on a high, rocky knoll, with extensive views all round. The knoll has been levelled to create a platform. Excavation found stone walls and remains of a tower and Anglo-Norman era artefacts.

## Industrial Homes

### Colliers Row (03842:000:00)

Single-storey terrace of back-to-back houses in Ballyreagh Lower. Constructed for miners working at Carrickmore ironstone mine in the 1860s, although the name would suggest coal was also a concern. The cottages are roofless and derelict with the exception of the north end, which is still in use. The site is very close to the road.

### Tullyoughter Row (07612:002:00)

Two parallel single-storey ranges of at least five apartments in Ballyvaddy. They were constructed in the 1890s for limestone miners working in nearby Tullyoughter quarry. The buildings are roofless and trees have intruded on the remains. Access would be by a walk through the fields.

### Portdoo

Near Murlough colliery, Knockbrack. A single-storey extended range with at least five apartments – said to be miners' houses (Hamond 1991, 76). Now roofless, the walls are in varied states of repair. Access is via the path from the car park.

### Binvore Cottage (07684:000:00)

Iron / aluminium mine leasees house in Evishacrow. The house was owned by Edward Benn, who granted iron mining rights to James Fisher in the 1860s. The site comprises two structures – the eastern one survives only as a gable wall, the rest has been replaced by an agricultural shed. The western building is ruined but less disturbed. It is T-shaped, and features a yard wall to the north and a series of small lean-tos. The plaque described by Hamond (1991, 81) has now gone. Access is via a laneway.



*Binvore Cottage*



Parkmore or Aganlane (07644:000:00)

The site of a row of late 19<sup>th</sup> century miners housing opposite Parkmore Mine. The houses have gone and are mainly evidenced by outlines of walls covered in vegetation. A more substantial exposure is at the southern end where part of the exterior gable can clearly be seen. The site is easily accessible from the road and it may be appropriate for excavation.



*Miners housing, Parkmore Mine*



## C. Causeway Coast and Glens mobile app

An enhanced and expanded version of the Causeway Coast and Glens mobile app is currently being developed by The Appsolute Guide To ([www.theappsoluteguideto.com](http://www.theappsoluteguideto.com)).

Version 2 will be developed either as a standard mobile app or as a responsive dynamic mobile website, which would increase the cost of development, but also the flexibility and functionality of the mobile solution.

All screens and functionality have been coded to utilise the tourism database used by all tourist organisations in the North of Ireland. A synchronisation system has been written that ensures any updates made to the TidiNet data system are automatically reflected in the mobile solution. Administrators of the mobile solution will also be provided with a separate content management system, enabling them to control content currently unavailable within their data system.

The main functionality now and proposed is:

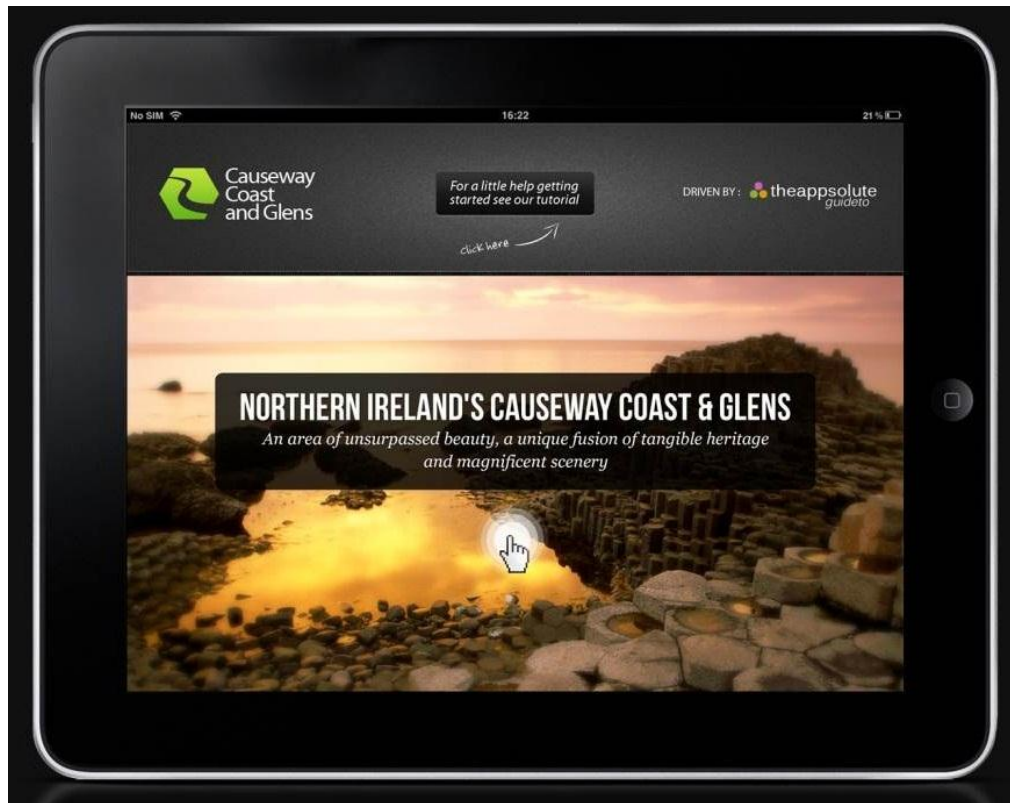
- a) A fully categorised and searchable list of:
  - activities
  - accommodation
  - attractions
  - events
  - special offers

Each of these listings will include full information, contact details and multiple images from the Tidinet system.

- b) A "Myths & Legends" tour with images and possibly video.
- c) A "Game of Thrones" overview to build upon the success of the HBO television series shot on the north coast. Again this will be an interactive facility.
- d) A customer controlled voucher system providing discounts on products, services and attractions.

The Appsolute Guide To are aiming to create a "best of breed" solution that other tourist organisations will acknowledge as the preferred platform for their own mobile content delivery.

Below are some screen shots from the Causeway Coast and Glens mobile app, as currently in development.



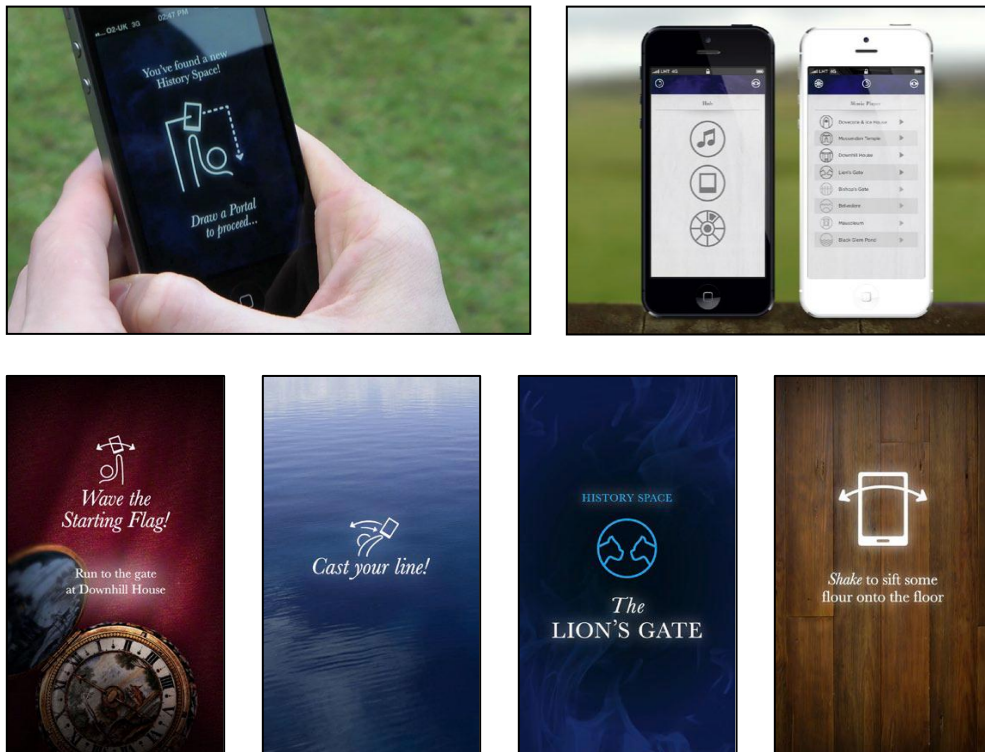


## D. 'History Space' by Big Motive

History Space is a mobile app tourist guide initially developed for the Downhill Demesne National Trust property. It is built around a central interface that connects the content and games to real world locations using an Augmented Reality interface. Users explore the location, unlocking each real-world point in their journey by solving story-linked puzzles and ultimately uncover the legends and history of the place through a uniquely interactive experience.

The key concept in History Space is that app creates the illusion of doorways into the past. Users receive a message from the app when they are close to a History Space and can then 'look through' their smartphone to view content, play a game or explore further. A central character from history (in the case of Downhill, this is Earl Bishop Hervey) speaks to the user through pre-recorded, site-specific audio clips guiding them through puzzles and explaining other historical content. The puzzles themselves all relate to an important aspect of the history of the site, and as with the rest of the app, have been designed to work well in an outdoor, or onsite scenario in which varying weather, ambient noise and light affect the user experience. History Space has been designed and developed to be used for any historical site, or network of sites subject to the creation of new, relevant content.

For more information contact Big Motive ([www.bigmotive.com](http://www.bigmotive.com)). To see a preview video on the Downhill History Space go to <http://vimeo.com/58101893>



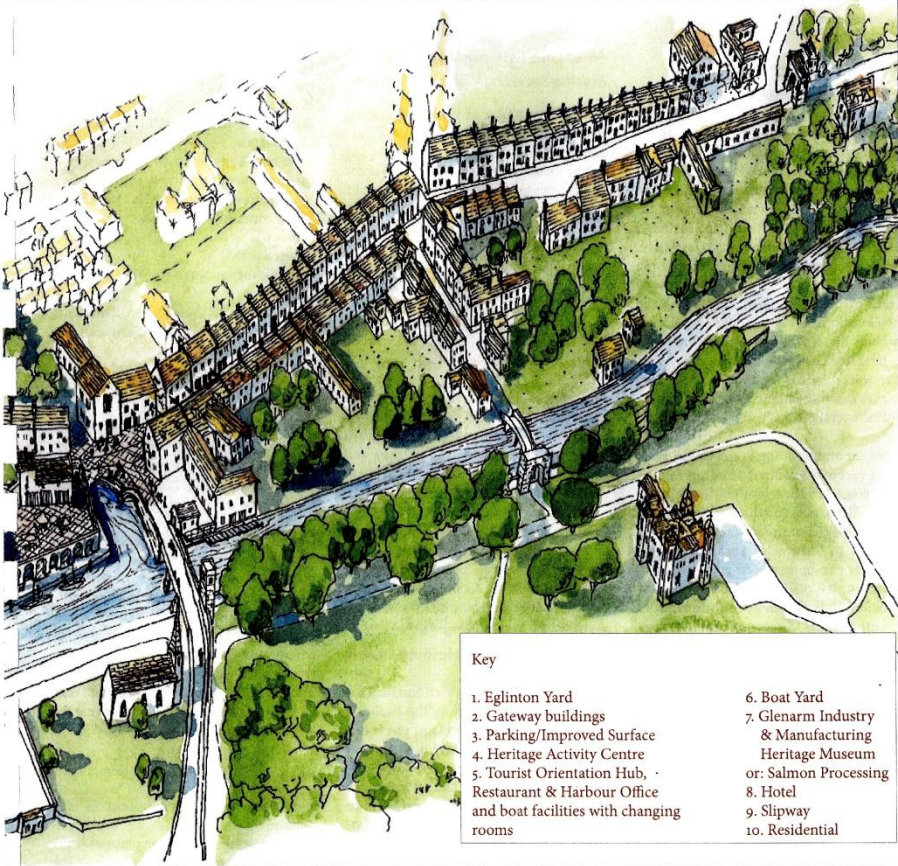
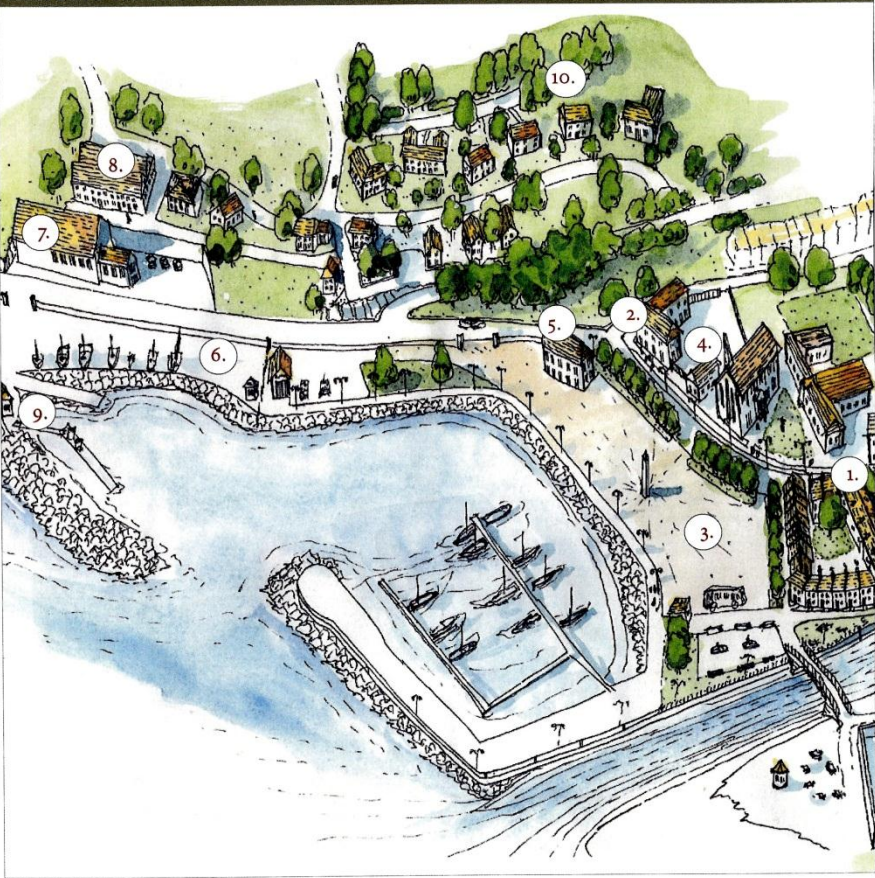


# E. Glenarm Regeneration Plans

## Path to Regeneration

The notion behind dividing Glenarm into regeneration 'action areas' is to allocate achievable tasks that can be managed and brought forward by small implementation groups. By doing so, the community can then take initiative in this process and feel ownership of the changes in the village.

BIRD'S EYE VIEW OF GLENARM INCLUDING ILLUSTRATIVE DESIGN SCHEME



## Path to Regeneration



### Phasing Strategy

The following phasing strategy refers specifically to the illustrative design scheme of the core development area only. This is because these Action Areas are linked to one another in terms of the necessary exchange of resources and relationships to enable successful regeneration. It may be helpful to consider the implications of phasing on these adjacent areas.

#### Projects currently underway

LBC is in the process of developing a proposal for funding from the NITB to support two initiatives known as the Tourism Interpretation Project and The Tourism Infrastructure Project, set to be implemented by March 2011. The PFBE has provided LBC with a proposal for signage throughout the village included in the Interpretation Project Initiative. The signage proposal, in the form of the Glenarm Treasure Hunt, is a heritage walk through Glenarm identifying the key locations in the village incorporating a brief history about each site and an interactive challenge to engage those on the walk. In this proposal, PFBE also makes recommendations for the Tourism Infrastructure Project.

The Glenarm Building Preservation Trust have recently acquired funding for the first stage of redevelopment to Seaview Hall. The vision for this hall is to serve Glenarm as 'community facilities' where a range of businesses and community services can be accessed and provided. Community offices will be located at Seaview Hall as well as multifunctional meeting rooms to accommodate heritage lectures, seminars and exhibitions. This project reflects the collaboration of the community, investors and public funders to achieve redevelopment for the benefit of the community and represents the first tangible step towards the regeneration of Glenarm. Until the introduction of the Orientation Tourist Hub at the harbour car park, introduced in phase two, the Heritage Activity Centre will serve temporarily as the local and regional tourist information centre. It will alert

tourists as they enter Glenarm, of the services provided in the village even before Eglinton Yard is developed. The Treasure Hunt proposal, if adopted, and in place by March 2011, would link well with the Heritage Activity Centre, providing two completed regenerative projects before phase one commences.

#### Phase One: Eglinton Yard/Retail, Marina Services, Waterside Housing

As the first phase of the development, Eglinton Yard will require significant collaboration from both the private and public sector to improve the environment of the area for the community's benefit. Creating spaces for local food and crafts will help showcase the 'Taste of Glenarm'. Activating the yard will provide jobs, encourage footfall, and attract outside commerce. Visibility of the activity at Eglinton Yard from the Coastal Road is essential for enticing tourists to stop. A small parking area will be included adjacent to the Yard this stage.

Eglinton Yard would link the Marina back into the village, allowing visitors to wander up Toberwine Street toward the forest. We believe, the revenue and investment generated by this initial phase will fuel regeneration of the area.

Development of waterfront loft apartments and housing would create a new pedestrian lane that links the pedestrian bridge to Eglinton Yard's frontage on the A2. Another pedestrian lane could run along the side of the housing development.

#### Phase Two: Tourism, Harbour Park & Public Realm

To complement Eglinton Yard and increase the ease of accessibility to the harbour, marina and core of the village, phase two will include a thoughtfully designed car park which coaches, motor bikes, cycles and cars can turn into as they approach the village. The harbour car park will be simply landscaped to create appropriate space for the public to stop and enjoy the marina's spectacular views. Included in

this scheme is a Tourist Orientation Hub for Glenarm and the region. It is crucial that the orientation centre be provided next to the main car park so it is clear and accessible for visitors. There is also an advantage of locating the Harbour Office and boat facilities with changing rooms on the ground floor with the Orientation Hub. A restaurant serving quality local dishes placed strategically on the first floor of the building would be enjoyed by both the local and visiting communities. With the coordination and support of the Tourist Board and Larne Borough Council, the placement of the Harbour Park and Tourist Orientation Hub will ease and encourage visitor movement:

- to and from the Seaview Hall for heritage and community activities
- the waterfront for views and water based activities
- to Eglinton Yard for the 'Taste of Glenarm'
- into the core of the village to 'Experience Glenarm' and its natural heritage

#### Phase Three: Toberwine Street, Altmore Street

The historic core of Glenarm is what gives the village its authentic character. This third phase of the scheme focuses on restoring the physical appearance of Toberwine Street. As it stands, visible dereliction and vacant buildings discourage people from exploring an otherwise unspoilt historic village. It is possible to improve the appearance of the street by simply painting and repairing the facades of the buildings. A more attractive high street would create interest, encouraging visitors to wander up the street, increasing footfall in this area. These basic improvements combined with phases 1 & 2 would help to regenerate the activities along the street.

#### Phase Four: Boat Yard

The boat yard development is not dependent on the phasing timescale. However, it falls logically in place after the refurbishment of the harbour park. The

at yard will provide a lively space for at maintenance and activity that can be served by visitors. Boat storage for the nter months would be introduced to rease the attractiveness of the marina boat owners.

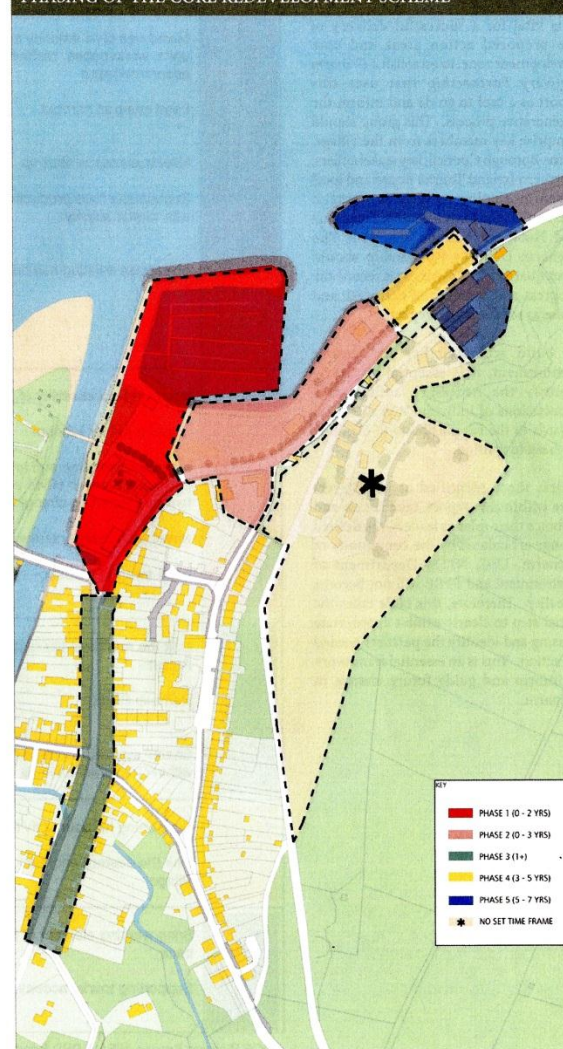
#### Phase Five: Hotel/Glenarm Industrial Manufacturing Heritage Museum Salmon Production at the Old Mill

The fifth phase of the core development includes the slipway and the refurbishment of the Whiting Mill. The boat slipway ready provides direct access to the water and would provide storage for the Yard or the Museum, or those accessing the water. The refurbishment of the Old Whiting Mill could become the Industrial Manufacturing Heritage Museum for the Village or accommodate the relocation of the Salmon Processing Plant. The placement of a museum at the entrance of the village will help entice visitors to stop and investigate. Also, the industrial museum will have a strong relation to the Heritage Activity Centre just down the road and the marine life just across the road. The hotel, featuring spectacular views and cliff walks will support rising demand for interesting places to stay within the region.

#### Set phasing required: Quarry development, Caravan parking cycle centre

The development 'on the quarry' is not impacted by the phasing scheme. Instead, can be brought forward at any time to create value as an economic driver for Larne Borough Council. Incorporating residential units in this portion of the scheme could help alleviate housing needs and also fund other regenerative initiatives in Glenarm. The development must be sympathetic and in strict accordance with the Conservation Area Guide and Design Guide for Glenarm. The location of this development could complete the structure of the village and frame the harbour as the 'cond arm' of the village.

### PHASING OF THE CORE REDEVELOPMENT SCHEME





### Delivery

It is vital for a successful delivery of the proposed action areas and core development zone, to establish a *Glenarm Delivery Partnership* that uses this report as a tool to guide and inform the regenerative process. This group should comprise key members from the village, Larne Borough Council, key stakeholders, Northern Ireland Tourist Board and local Glenarm employers such as Antrim Estates Co., the Omya Quarry, Steenson's and Northern Salmon Co. Ltd. The Glenarm Delivery Partnership should meet quarterly to discuss and record the progress and specifics of each task and phase as set out in this report.

To build accountability and ensure commitment, it is essential to clearly identify the necessary actions and expectations of individuals/groups with regards to the responsibility of bringing set tasks to fruition.

Unless those identified as key players here within this report, take action and embrace their roles as leaders, the desired change articulated by the community of Glenarm, LBC, NITB, Department of Environment and PFBE will not become a reality. Therefore, this table takes the initial step to clearly exhibit appropriate phasing and identify the partners needed for action. This is an essential framework to inform and guide future change in Glenarm.

Phase	Key Themes	Stakeholders Required
1.	Mixed use civic amenity space, retail units, workspaces, residential accommodation  Land swap at harbour  New businesses start up  Sustainable food production coupled with tourist activity  Showcase existing businesses	Larne Borough Council (Mid & District Council)  Liam O' Neill LBC  DETI  DARD Antrim Estates NITB  The Steensons Antrim Estates Salley's Coffee Shoppe  Glenarm Village Committee
2.	Improving accessibility of the water  Capture net for tourism  Provide orientation and information point with harbour office and boat facilities including changing rooms.  New harbour-side restaurant  Land swap at harbour	Larne Borough Council (M&EA)  Glenarm Building Preservation  Northern Ireland Tourist Board Larne Borough Council (M&EA)  Restaurant Operator/Agent  Liam O'Neill Larne Borough Council (M&EA)
3.	Link the marina to the historic village & Forest  Remove Blight  Enable sympathetic redevelopment within Conservation Area	Larne Borough Council (M&EA)  NIEA Local Community  Planning Service
4.	Supporting harbour activities  Link the eastern end back into the village	Larne Borough Council (M&EA)
5.	Bring working element of the harbour back  Supporting tourist accommodation	Northern Salmon Company Ltd  NIEA

\* DOE Planning Service, NIEA & DRD Road Service have a continued role throughout the regeneration and fundamental aim of protecting and enhancing a sustainable future for Glenarm.

	Role	Responsibility
st Antrim	Landowner and Developer	Coordinate and redevelop the site as per masterplan and recommendations.
	Landowner	Agree to land swap old fish factory for residential scheme proposed in masterplan
	Landowner	Value and propose appropriate land swap to gain ownership of the fish factory
	Funder	Provide funding and support to start up businesses
	Local food production support	Support start up businesses
	Local Business	Support local agriculture and food production.
	Tourism Authority	Promotion and marketing of agricultural tourist focus
	Local Business owner(s)	Market opportunity
	Community Organisers	Attract craftspeople and market traders for farmers market
	Landowner and developer.	Develop harbour park and coordinate local tourism strategy
	Seaview Hall landowners	Coordinate redevelopment with harbour park.
	Regional Tourist Authority	Coordinate tourist organisations and develop tourist strategy for NI & Glens for Glenarm. Funding for Tourism Development Scheme
	Landowner	
	Restaurant tenant	Promote and market opportunity
	Landowner	Swap land on site as part of Phase 1 agreement
	Local Authority	Encourage and support streetscape and building maintenance improvements.
	Listed Buildings	Listed building advice
	Property owners	Demonstrate civic pride through maintenance and upkeep of the village
	Planning Authority	Enforce Conservation Area Guidance
	Local Authority	Invest revenue from previous phases into harbour facilities.
	Quality food producer	Extend business back to the harbour and create tourist interest
	Contaminated Land & building control	Guidance and support for land remediation

process and into the future to ensure any subsequent planning applications in Glenarm compliment the strategy

### Glenarm Local Tourism Strategy

Finally, this broader proposal for Glenarm pertains to developing a stronger tourism strategy. Expanding the regional strategy to incorporate more of the local features requires an understanding of the local characteristics and resources. This will require a synchronised strategy both at a local and regional level.

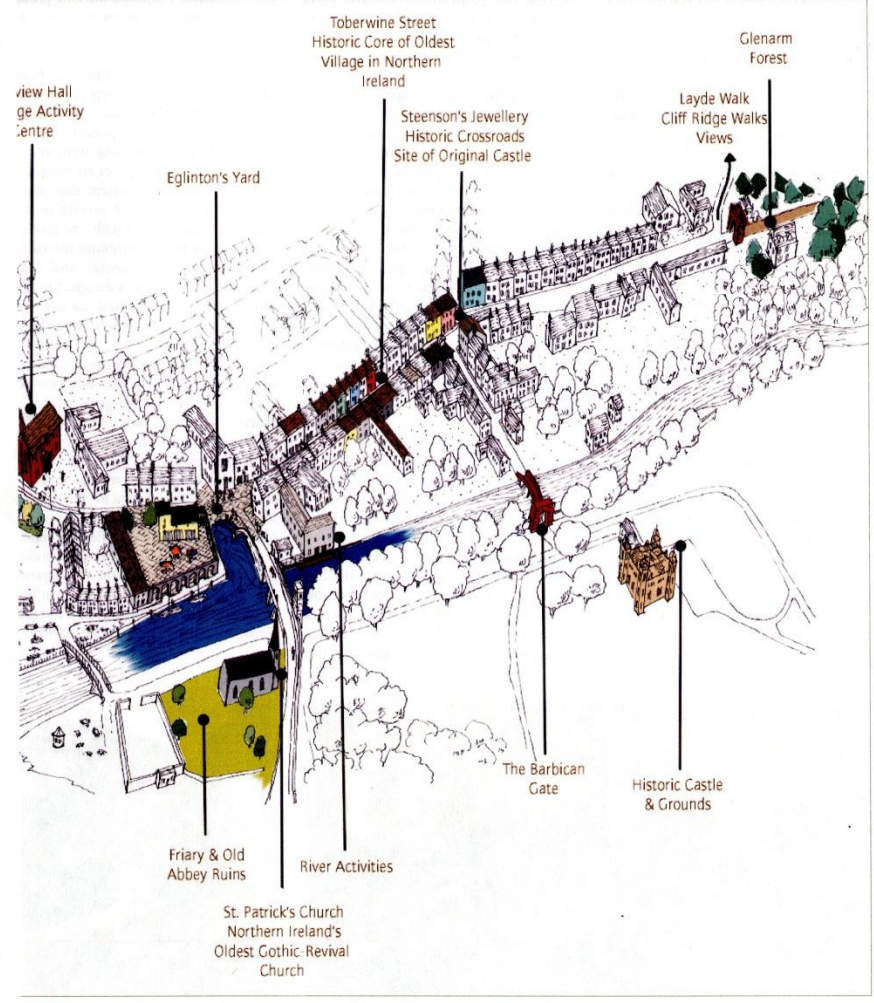
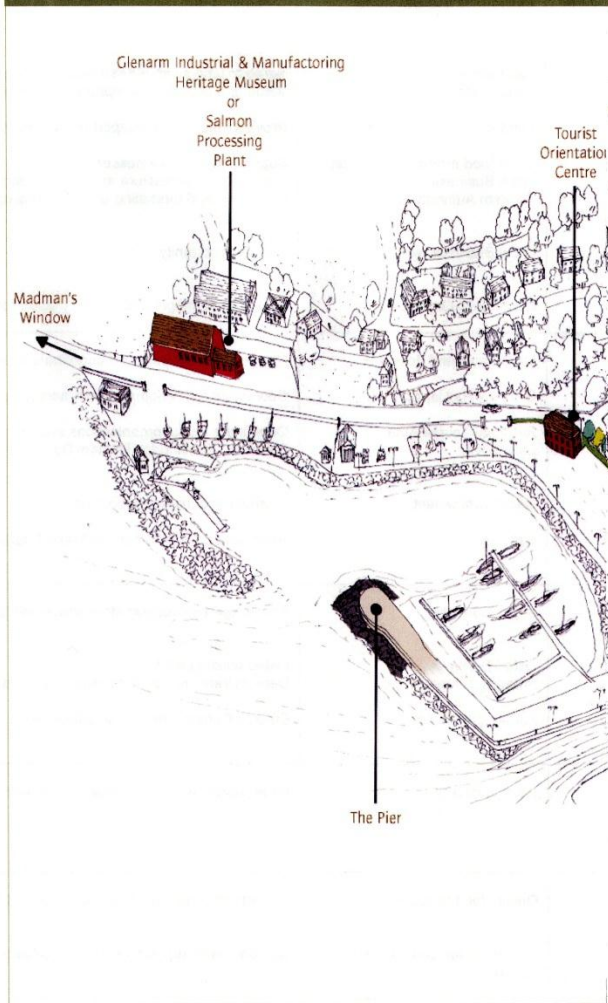
For example, Glenarm, one of the oldest and best preserved villages in Ulster, making it a significant asset to the region. Unfortunately, within the context of the regional tourism strategy, Glenarm has suffered from a lack of planning and economic investment due to its perceived placement and role as a 'gateway' in the region rather than an important destination in its own right.

However, upon further analysis of the regional tourism scheme and the village, it was discovered that Glenarm embodies a historical narrative, as a microcosm of the region, offering diverse historical, natural and cultural assets. The core themes as shown in the 'Treasure Hunt' diagram support the fact that Glenarm is a destination in its own right and would weave into a coordinated, coherent regional tourist strategy that compliments the local strategy. Please reference Appendix VII for a detailed analysis of NI Regional Tourism Strategy.

PFBE proposes placing storyboards or plaques around the village that provide a detailed description of the site. The boards should be intentionally placed throughout the village so one can venture from point to point, gaining insight about the village whilst having a meaningful experience. Also, PFBE is collaborating with Larne Borough Council on the Interpretation Project-analysing methods of improving parking, creating better links within the village and providing lighting and street furniture. Please reference Appendix VIII for a detailed proposal of this strategy.

In sum, the regional tourism strategy's purpose is to increase the profile of Glenarm as the 'oldest village in Northern Ireland' and 'gateway to the Glens.'

### GLENARM 'THE TREASURE HUNT'





## F. Ecosal Atlantis Project

The following article was published on the Ecosal Atlantis Project website (<http://ecosal-atlantis.ua.pt/>) following a visit by leading academics to the salt works at Ballycastle. The main objective of the ECOSAL ATLANTIS project, “Ecotourism in saltworks of the Atlantic: a strategy for integral and sustainable development”, is the development of joint, integral and sustainable tourism based on the cultural and natural heritage of traditional Atlantic saltworking sites.

### ECOSAL Visit Northern Ireland

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*By ecosaladmin - Posted on 09 July 2012*

From 17 to 21 June 2012, the UK ECOSAL team of Mark Brisbane, David Cranstone and Michael Fradley visited former salt working sites around the coast of Northern Ireland and held meetings and discussions with leading local historians, archaeologists and other experts about the industrial heritage of this part of the UK.

Starting along the north coast near Londonderry and working their way around via Coleraine, Portstewart, Portrush and Portballintrae to Ballycastle, the team saw the surviving evidence for 17th, 18th and 19th century salt production sites. This included the well-preserved features at Ballycastle where local historian Danny McGill has put together a very good case for carrying out archaeological investigations followed by preservation and presentation of the remains through the ECOSAL Salt Route and other means. Working with Wes Forsythe of the Dept of Maritime Archaeology at the University of Ulster at Coleraine, an archaeological survey of the features associated with Colonel Boyd’s salt works and coal mine at Ballycastle is now underway. This will include the recording of one of the only iron salt pans surviving in situ in the UK (see photo).

The team went on to look for evidence of other sites (some known only through historical documents) at Glenarm, at sites to the east of Bangor, and along the coast east of Strangford Lough as well as at sites around the Lough itself, such as at Portaferry. Another site visited was the medieval castle of Dundrum, which according to documents had a salt works in the nearby bay below the castle in the early 13th century. Unfortunately, no traces of the exact site of these salt works survive.

The team also visited Queen's University in Belfast to discuss the evidence for medieval and post-medieval salt production in Northern Ireland with leading experts including Professor Mark Gardiner.

The visit was highly successful and added yet more evidence to the increasing number of salt working sites around the Atlantic coast of the UK that are being recorded in the ECOSAL database. The number of sites recorded now exceeds 500.

The visit also provided an important opportunity to discuss the aims and objectives of the ECOSAL Project with potential supporters and to develop ideas about 'Traditional Salt Working - the Atlantic Route', how it will be implemented and maintained, and which sites could be included on the Route.



Photo 1: On a rather wet day, David Cranstone, Wes Forsythe, Mark Brisbane, Michael Fradley and Danny McGill examine the remains for one of the salt works at Ballycastle, Northern Ireland. Photo by Niven Taggart.



Photo 2: Examining the very well preserved remains of the iron pan used for salt boiling at the Ballycastle salt works. Photo by Niven Taggart



Photo 3 and inset (4): The probable location of the former salt works at Portballintrae. Aside from traces of wall possibly associated with an 18/19th century salt works, there is also the tell-tale evidence of the name of the house on the left (see inset). Photo by Mark Brisbane