

# Atlantic Coast (Wester Ross) Project

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Topic Paper:

## Development opportunities

### 1. Introduction

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This paper is one of a series which has been prepared to help inform the future use and development of the coast and inshore waters of Loch Broom, Little Loch Broom, the Summer Isles and Gruinard Bay. The Atlantic Coast project aims to develop and test an integrated coastal zone plan for this area which can help in the evaluation of development proposals, guide investment, and minimise conflicts of interest. It aims to promote a balanced approach: one that can safeguard the area's core natural assets and sustain or enhance its productivity over the longer term.

This paper outlines ideas for potential future developments in the project area, based on suggestions and information gathered through public meetings and discussions. It is intended to stimulate discussion, and to identify some of the supporting factors and potential constraints associated with the various development ideas. However, it does not attempt to make recommendations or to promote particular developments at this stage.

### 2. Development opportunities

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#### 2.1. Fisheries-related: management and enhancement, processing etc

##### **2.1.1. Lobster stock enhancement project**

*[Proposed by Highland Shellfish Management Organisation, with support of local creel fishermen]*

##### *Outline*

A carefully selected area would be restocked with captive-reared lobsters. The area would be selected to provide the best available habitat. The restocked area would be protected from fishing to allow the stocked lobsters to grow and breed.

It might also be possible to extend and enhance any area of suitable habitat through the creation of an artificial reef. However, there are arguments against using artificial reef in areas where sufficient good-quality habitat already exists.

##### *Justification*

Lobsters are found at low densities in the project area, where they were once much more abundant. This development has the support of local creel fishermen and would be seen as a positive, value-adding intervention. It would also demonstrate and build confidence in local involvement in active fisheries management. The beneficiaries of the project would be local creel fishermen.

### *Constraints*

Lobsters take seven years to reach maturity, during which time many factors could influence the success of the project.

### *Impacts*

Expected positive impacts would be an increased local lobster population, improved creel catches of lobsters, and protection of the core restocked area with benefits for other species as well as lobsters.

Possible negative impacts could stem from the use of artificial reef. Steps would have to be taken to ensure that the materials used would not leach or degrade in any way which could have negative environmental impacts.

### *Monitoring*

The project would require close monitoring to establish what, if any, benefit was being seen, in terms of local lobster populations, lobster catches, and other species' abundance within the protected area.

### *Role of the Atlantic Coast Project*

If this project were to go ahead, it would fall within the remit of the Highland Shellfish Management Order (if the proposed Regulating Order is granted). The role of the Atlantic Coast Project would be to assist in clarifying appropriate locations for the restocking project, and possibly also in facilitating funding.

## **2.1.2. Establishment of a fish buying/processing/selling facility in Ullapool**

### *Outline*

Fishing boats operating in the project area target shellfish, but finfish are caught alongside prawns in trawls, and at present there is no facility for buying, processing or selling locally-caught fish in the area. In addition to processing fish to be sold fresh to local restaurants or through a local shop, the produce could be supplied to a local smokehouse, and by-products could be processed for the production of fishmeal.

### *Justification*

Although many fishing boats land their catch to Ullapool, and local buyers exist for shellfish, there is no local buyer for finfish. Fish caught in trawls alongside prawns must be sold to the east coast, and often deteriorate in transit leading to lower value on arrival.

### *Constraints*

The quantities of fish landed are unlikely to be sufficient to support a business, but if sufficient value could be added, and the produce marketed locally it could be an option worth consideration.

### *Impacts*

Expected positive impacts would be an increase in value of sales.

### *Monitoring*

The project would require monitoring to establish what, if any, benefit was being generated.

### *Role of the Atlantic Coast Project*

If this project were to go ahead, it could be supported by Seafish initiatives. The role of the Atlantic Coast Project could be to assist in clarifying legislative aspects and possibly also in facilitating funding.

## **2.2. Aquaculture-related**

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### **2.2.1. Seaweed mariculture**

#### *Outline*

Seaweeds are popular in East Asian cuisine and were traditionally eaten in Scotland. Today seaweed extracts are widely used in cosmetics, foods, soaps and a range of household products. Seaweeds can be cultivated effectively on rafts or longlines, requiring little input and no food, fertiliser or other chemical treatments. The potential for seaweed culture in the project area has not been explored.

#### *Justification*

Seaweed culture is an environmentally sound means of using the marine environment, requiring relatively low levels of management and no chemical inputs. Seaweeds have been harvested traditionally around the Scottish coast for a variety of different uses, but harvesting from the wild raises concerns over sustainability. These concerns are removed if the seaweed is cultivated.

#### *Constraints*

Although cultivated widely in the Far East, and traditionally harvested in the UK, seaweed culture has not taken off in Scotland. It is possible that there is only a limited market, or that costs would mean that the enterprise would be unable to compete with Asian producers.

#### *Impacts*

The visual impact of seaweed farming would have to be taken into account in selecting suitable locations, and there could be conflicts with other users over access to sheltered locations. Environmentally, seaweed culture should not have any negative impacts, and indeed could prove beneficial as growing seaweeds provide a habitat for many other species.

#### *Role of the Atlantic Coast Project*

The Project's role in relation to seaweed mariculture development would be the identification of suitable sites, avoiding conflicts with other users of the area.

### **2.2.2. Shellfish farming**

#### *Outline*

There are possibilities for farming mussels, oysters and scallops in the project area, and more unusual species such as urchins could also be considered. It is not yet clear why existing shellfish farming leases are not being utilised.

#### *Justification*

Shellfish farming is an environmentally sound, non-polluting means of using the sea, provided installations are well-sited and designed, not too large, and markets for shellfish are growing.

#### *Constraints*

The visual impacts of shellfish farms would need to be taken into account. In the past, efforts to farm mussels and scallops in the area have been frustrated by problems with toxic algal blooms, and this may cause problems in the future. However, in general the water quality in the area is good. Predation of mussels by eider ducks has caused problems for mussel farmers in the area in the past.

### *Impacts*

There may be conflicts with other users of the area, over visual impacts or access to sheltered locations. Environmentally, shellfish farming is generally perceived more positively than finfish farming. The introduction of innovative or non-native species for culture would require careful consideration.

### *Role of the Atlantic Coast Project*

The main role of the Project would be the identification of suitable sites, where conflicts with other users could be avoided and some investigation of why existing or former leases are not used.

## **2.3.3. Alternative technologies for fish farming**

### *Outline*

A number of alternative technologies for fish farming have been, or are in the process of being, developed. These range from self-contained land-based tanks with water-purification systems, to seabed cages for bottom-feeding species, to larger and more robust systems for use in more exposed locations.

### *Justification*

Fish farming has faced a number of difficulties in recent years associated with fish health, escapes, water quality impacts, impacts on native salmonid populations, nutrient loading of the seabed below cages, and visual impacts. As new technologies are developed it may be able to reduce or avoid some of these impacts.

### *Constraints*

There are expenses involved in moving to a new technology, and these may be prohibitive. In addition, the impacts of the new method would have to be considered very carefully to ensure that it was not introducing new problems of its own.

### *Monitoring*

Close monitoring of any new installation would be needed to ensure that it was proving effective, and that any negative effects were recognised and dealt with promptly.

### *Role of the Atlantic Coast Project*

The main role of the Project would be the identification of suitable sites, where conflicts with other users could be avoided.

## **2.3. Conservation**

### ***2.3.1. Establishment of a voluntary marine reserve or network of protected sites.***

#### *Outline*

There is currently a proposal from the Wester Ross Marine Reserve Partnership to establish a marine reserve in Little Loch Broom, Cailleach Head and Annat Bay, where fishing with active gear and finfish aquaculture would be prohibited. The proposal is in the very early stages and is currently focusing on gathering supporting baseline data from the area.

There have been other suggestions for voluntary marine reserves in the project area, possibly linked with protection of popular dive sites such as wrecks, or linked with initiatives to enhance fish stocks such as the lobster stock enhancement project

suggestion above. To justify the establishment of any such reserves it would be important for them to have clear and agreed objectives based on discussion with the various interest groups, suitable locations, and effective monitoring arrangements.

#### *Justification*

There is increasing interest nationally and globally in marine reserves as tools for both conservation and fisheries management. Such reserves can be used to protect sensitive habitats or important areas for fish stocks such as spawning locations. They can provide a refuge for fishery species where they can grow and breed. However, site selection needs to be backed up by good information to ensure the reserve is well located to achieve its aim.

#### *Constraints*

Voluntary marine reserves can only work if they are respected by all parties. This requires agreement from all which can be difficult to achieve in the early stages. However, support for the concept may well increase over time if there are demonstrable gains, particularly for the wider community.

#### *Impacts*

The establishment of a marine reserve would impose certain restrictions on activities which could be carried out in that area, with economic implications for those excluded from operating in the area. In the longer term, improved habitat quality and increasing stocks within the protected area would have positive consequences for local fishermen, but such effects might take some while to materialise.

#### *Monitoring*

Monitoring of the species and habitats in the area, and of catches from surrounding areas, both before and in the years following the establishment of the reserve, would be crucial to ensure that the reserve was proving effective. Compliance with the restrictions imposed would also require monitoring.

#### *Key players*

If the Regulating Order is granted, the Highland Shellfish Management Organisation would play a key role in the development of any marine reserve. SNH could also play an important advisory role. The Wester Ross Marine Reserve Partnership could also have a significant role to play if it is successful in its efforts.

#### *Role of the Atlantic Coast Project*

The Project's role in any such development would be in helping to establish an appropriate and acceptable location for any reserve(s), and possibly in establishing a management and monitoring programme in association with other relevant groups.

## **2.4. Tourism, recreation and awareness**

### ***2.4.1. Establishment of a marine visitor centre***

#### *Outline*

There have been a number of suggestions for development of a marine visitor centre. These variously include a sealife centre/aquarium, a hatchery for salmon and sea trout (and possibly fully marine species such as Lobster) for reintroduction locally, a research and education facility, and scuba or snorkel 'trails' with interpretation of the species and features encountered.

#### *Justification*

A resource incorporating all or some of the above features would be a significant tourist attraction for the area, bringing with it financial benefits and providing a

number of jobs in running and maintaining the centre. It would also be an important resource for raising awareness - locally and among visitors - of the richness of the coastal environment, the ways in which it is used, and the threats it faces.

#### *Constraints*

Any development of this size would be very expensive, and would need to be able to sustain itself through the winter period when visitor numbers would be low.

#### *Role of the Atlantic Coast Project*

The role of the project could be to provide some case studies of similar facilities in the UK or abroad and to facilitate links with existing centres.

### **2.4.2. Interpretation initiative**

#### *Outline*

An interpretation project has been suggested, focusing on production of distributable materials such as posters, leaflets, guide books or videos. These could cover, for example, marine wildlife, dive sites, coastal archaeology, coastal walks and rock climbs, and raise awareness of the local marine environment

#### *Justification*

The goal of a project such as this would be to provide locally relevant information which improves public understanding of the value and importance of the marine resource and the threats and challenges it faces

#### *Role of the Atlantic Coast Project*

The role of the project could be to provide some case studies of similar facilities and projects.

### **2.4.3. Improvement of sea access and moorings for local and visiting boats**

#### *Outline*

A number of shore access points in the project area are in need of upgrading, repair or maintenance. Community groups have already drawn up plans for upgrading of Laide Jetty and Am Pollan slipway in Ullapool. A wider project could raise funds for these projects and others, possibly including Ardmair and Coigach, allowing local community groups to upgrade and manage the access points for use by local and visiting boats. A project such as this was successfully implemented at Inverasdale on Loch Ewe.

A second project could focus on the provision of public moorings for visiting boats in Ullapool and possibly other locations, following the formation of a local moorings association.

A more ambitious project would be the development of pontoons for visiting and local boats in Ullapool, protected by a breakwater.

#### *Justification*

There is a need throughout the project area for improved access to the sea for locals and visitors. There are few public access points, many are in poor condition, and there are very few places where it is possible to launch a boat. There are at present no public moorings in the project area. Given the importance of tourism to the local economy, and the popularity of the area for boating, improvement of access to the sea is increasingly urgent.

### *Constraints*

There are considerable costs involved in any of the above projects. There are concerns over how ongoing maintenance costs would be covered, and who would be responsible for maintenance.

### *Role of the Atlantic Coast Project*

To work with existing groups to identify possible projects and to provide information on suitable funding sources.

## **2.4.4. Improved shore facilities for watersports**

### *Outline*

There is a need for improved facilities for visiting yachts, including showers and toilets, drinking water and fuel, while local boat-users need changing rooms, equipment storage facilities and winter boat storage. These facilities could be developed in areas where they are lacking, or signed better in areas such as Ullapool where some of these facilities already exist.

However, a more ambitious suggestion has been to develop a watersports centre if a suitable location could be found, with facilities for locals and visitors including equipment hire, training or tuition, information, and facilities such as air-fills for divers.

### *Justification*

The project area has a lot of potential for watersports, and is relatively accessible compared to other parts of the west coast of Scotland. A development such as this could attract increased numbers of visitors to the area, as well as lead to increased access to the sea and marine activities for locals.

### *Constraints*

There would be considerable costs associated with any such development, and thorough feasibility studies would be needed. Any development would have to be sensitive to the landscape and local environment.

### *Role of the Atlantic Coast Project*

To work with existing groups to identify possible projects and to provide information on suitable funding sources.

## **2.4.5. Development of an accreditation scheme for wildlife tour boats.**

### *Outline*

There are a number of existing schemes for accrediting tour and cruise boats as 'wildlife friendly'. Such schemes teach boat operators techniques and good practice for approaching wildlife such as seals and cetaceans without causing serious disturbance, and can be beneficial both environmentally and for marketing.

### *Justification*

There have been no reported incidents of poor practice in the project area, but there have been a number of incidents around the coast, and as marine wildlife tourism grows it will become increasingly important for operators to be able to prove that they are taking a responsible approach.

### *Constraints*

There are a number of existing codes and accreditation schemes and conflicting background information. Policing of voluntary codes has proved difficult in the past.

#### *Role of the Atlantic Coast Project*

The project could assist local tour operators in identifying an appropriate scheme to join, or in the development of a locally-appropriate scheme.

#### **2.4.6. Improvement of coastal access and interpretation.**

##### *Outline*

There are many fine coastal paths, view points and beaches in the project area. It has been suggested that these could be promoted better through improved signage, interpretation, maps and leaflets, as well as provision of better facilities such as car parking and toilets.

##### *Justification*

There are several coastal paths in the area which are not mapped, having developed unofficially from sheep paths rather than being established routes, but which offer fine views and opportunities for marine wildlife watching. Also some of the established paths are in poor condition and are dangerous in places. Some very popular sites such as Reiff and Gruinard Bay have insufficient parking space.

##### *Constraints*

There would be significant costs associated with any such development, and thorough feasibility studies would be needed. Any developments would have to be sensitive to the landscape and local environment.

#### *Role of the Atlantic Coast Project*

To work with existing groups to identify possible projects and to provide information on suitable funding sources.

## **2.5. Renewable energy**

There are no plans at present for renewable energy generation within the project area, although there may be potential for wave, tide and offshore wind energy generation. However, recent studies of the suitability of the Scottish inshore waters for wave, tide and offshore wind energy have all classified the project area as having relatively low potential for the application of these technologies at present. Wave energy generation is likely to be focused to the west of the Western Isles. Tidal energy is being considered for areas such as the Firth of Lorn and the Pentland Firth. Offshore wind energy developments are focusing on areas where developments can be sited relatively far offshore to minimise visual impact, such as the east coast firths.

These are early days for marine renewables, and new projects are likely to be focused on the areas of greatest potential. However, as technologies develop and are tested around the country it may become more realistic to consider their potential in the project area and other similar areas of the west coast.

There is currently a proposal for an undersea cable from Lewis to service the proposed new windfarm there. If this project goes ahead, the cable may come ashore either at Ardmair or at the head of Loch Broom, although alternative routes via the Pentland Firth to connect to the grid at Dounreay or directly to the Central Belt have been proposed. In any case the cable will be laid along the seabed. Further detailed studies are being undertaken into the effect of renewable power generation and should be published during the life of this project.

### *Impacts*

The visual impacts of any development would have to be taken into account, as would the potential for damage to seabed/coastal habitats during installation, operation and maintenance. Efforts would have to be made to ensure that the area occupied by any such development would not exclude fishing vessels from important fishing grounds.

### *Constraints*

Any interconnection to the grid would create significant landscape issues requiring expensive engineering solutions. Development would require proper Environmental Impact Assessment.

### *Monitoring*

The environmental impacts of any development would require close monitoring.

### *Role of the Atlantic Coast Project*

The role of the Atlantic Coast Project would be to assist in clarifying appropriate locations (if any) for renewable energy generation, and, in the case of the undersea cable, to assist in selection of a route which could minimise environmental impacts and any adverse interactions with local activities such as fishing.

## **3. Comments and additional information**

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Information and ideas in this paper were gathered from published documents, agency records, and local individuals and organisations. If any of the information in the paper is factually incorrect, or if you would like to offer comments on any of the development opportunities discussed above or suggest additional opportunities, please contact the Atlantic Coast Project Officer at the address below. A follow-up report will be produced in 2006 which will take account of any comments received.

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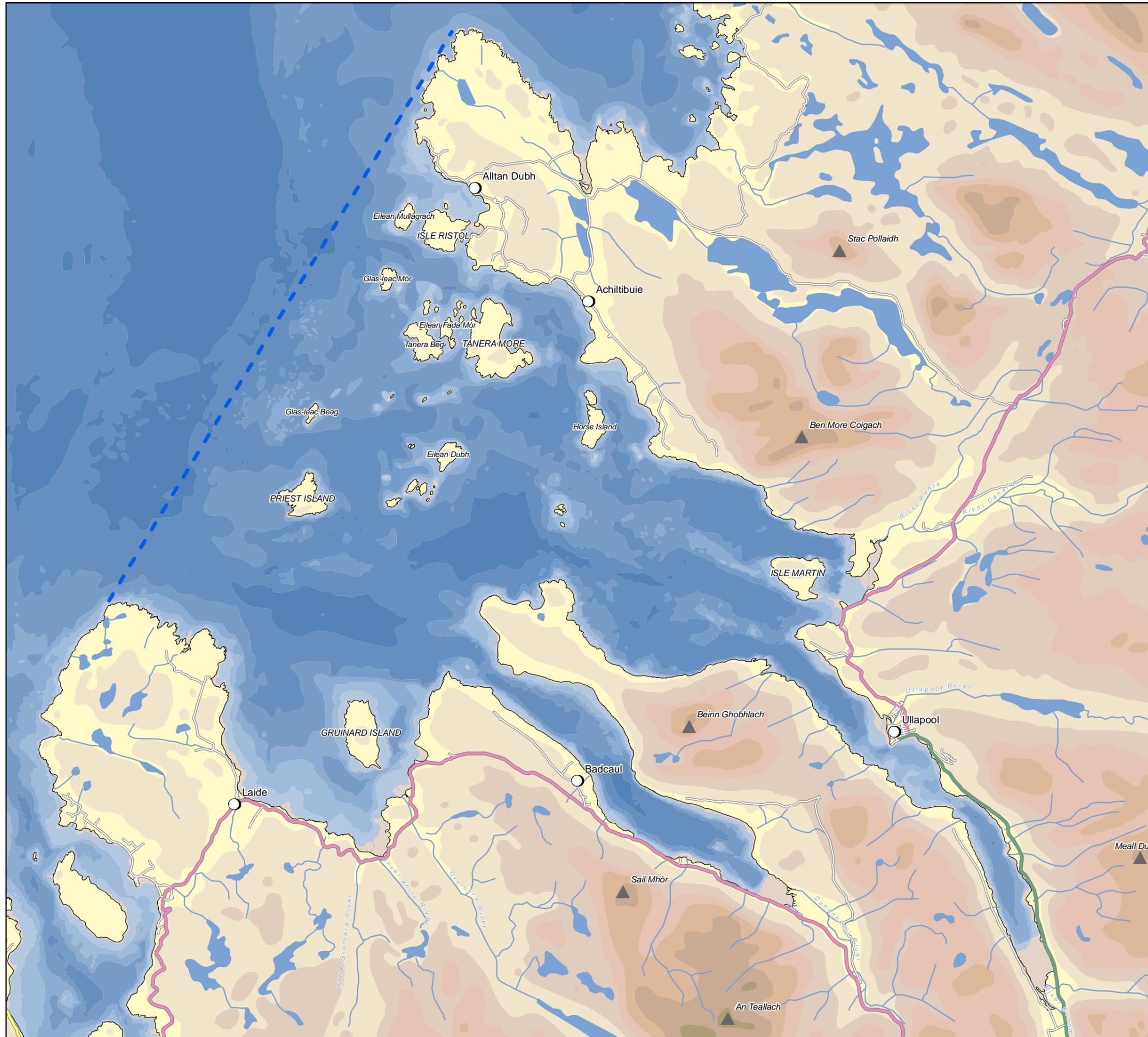
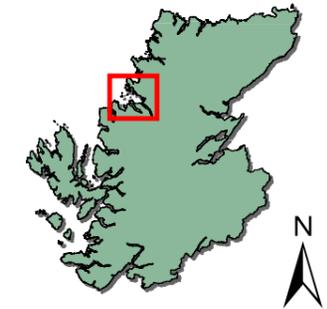
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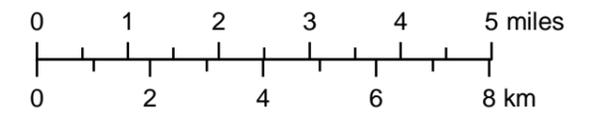
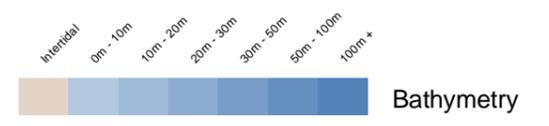
# Atlantic Coast (Wester Ross) Project

## Project Area



### Legend

- |                                      |                                  |
|--------------------------------------|----------------------------------|
| <b>Topic:</b><br><i>Project Area</i> | <b>Topic:</b><br><i>Map Base</i> |
| Project Area                         | Settlement                       |
| Seaward Boundary                     | Main Peak                        |
|                                      | Trunk Road                       |
|                                      | A Road                           |
|                                      | B Road                           |
|                                      | Other                            |



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