



# Reenagross Park, Kenmare, Co. Kerry

## Baseline Ecological Surveys and Biodiversity Conservation Plan

Dr Patrick Crushell & Dr Peter J. Foss  
Wetlands Surveys Ireland

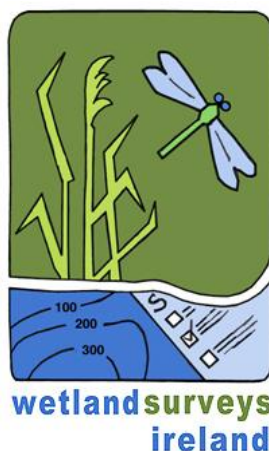
Report prepared for Kenmare Tidy Towns Committee  
October 2010

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Prepared on behalf of



by

**Dr Patrick Crushell & Dr Peter J. Foss**

**Wetland Surveys Ireland**  
[www.WetlandSurveysIreland.com](http://www.WetlandSurveysIreland.com)

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#### **Report cover images:**

Mature stand of Sessile Oak (*Quercus petraea*) woodland in Reenagross Park, Kenmare, county Kerry (Photograph: P. Foss).

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## Executive Summary

- Reenagross Park is located adjacent to the town of Kenmare, County Kerry. The site is a proposed Natural Heritage Area as defined by the National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government.
- This project evaluates the natural heritage value of the park and its surroundings with the objective of preparing a biodiversity conservation plan. This plan recommends practical measures aimed at conserving and enhancing the natural heritage and biodiversity value of the site.
- In addition, issues relating to the visitor use of the park, public access and opportunities for the development of educational and interpretative facilities at the site are explored and recommendations are made on possible improvements.
- Reenagross Park comprises a diverse variety of woodland, marine, brackish and freshwater habitats, which makes the site a haven for biodiversity with a high number of species of flora and fauna recorded during the survey.
- A total of 14 habitat types were recorded at Reenagross Park, of which the native Oak-Birch-Holly woodland and mixed deciduous woodland, estuarine and mudflat habitats are considered to be the most important for species diversity.
- A total of 303 species of the trees (both native and exotic), flowering plants and ferns, mosses, lichens, fungi, seaweeds, birds, mammals, insects and fish were recorded during the present survey. This includes 143 species of plants (the majority native); 34 exotic tree and shrub species planted in an Arboretum area; 5 moss species; 5 lichen species; 6 types of seaweed; 2 fungi; 86 species of birds; 19 mammals; 2 butterflies and 1 species of fish.
- Of the terrestrial habitats present, the Oak-Birch-Holly woodland (Fossitt habitat code WN1) and mixed deciduous woodland at the site is the most important. The quality of this important habitat type has, however, been seriously degraded by the invasion of *Rhododendron ponticum*.
- Unless measures are taken to eradicate *Rhododendron ponticum* which is an invasive, non-native species, (together with some other exotics species which also occur in the woodland) the long term biodiversity value of the woodland will continue to decline and may in the long term be lost.
- Specific measures to improve the biodiversity value of the Reenagross woodland and associated terrestrial habitats are included in the recommendations section of this report.
- Reenagross Park is currently used an important visitor amenity resource by the local community in Kenmare. Due to lack of clear access and signage, due to this, the parks potential as a visitor amenity is not fully realised.
- This study has identified a requirement for improved access and the development of interpretation focused on the natural heritage of the area for visitors.
- Interpretation and understanding by the general public of the value of the woodland, the coastal and estuarine habitats at Reenagross should be a priority for the management group in its future plans for the park.
- Measures are recommended to improve access to the park, interpretation of the habitats present and work being undertaken by the local community within the park, and knowledge of the biodiversity value of Reenagross Park. However, the naturalness of the park should be maintained and over development avoided.

- Ownership is a vital ingredient in the success of maintaining a community project such as the Reenagross Park project. Local volunteer input to the project will be required to ensure its long term success and provide a focus of pride for the local community. These issues are addressed in the recommendations section.
- To ensure a coordinated approach to the management of the site for biodiversity, and the development of user facilities and interpretation, it is recommended that a management group be established to oversee the future protection and management of the park. A priority for this group should be the development of a long term biodiversity management plan for the site and a separate interpretation plan for the park, which should address the need of both the natural environment and all user groups of the park.
- Kenmare Tidy Towns Committee, the local residents of Kenmare, Kerry County Council together with other interest and user groups, all have a role to play in the success of the Reenagross Park project.

# 1 Introduction

## 1.1 Background

Reenagross Park is a valuable asset to the heritage town of Kenmare, having over 3.2 km of pathways through a semi-natural wooded and coastal landscape situated only 300 meters south of the town centre. The park contains excellent examples of semi-natural habitats including broadleaved woodland, salt marsh, rocky shore and estuarine mudflats which all host a good representation of our native flora and fauna. The proximity of the park to the town adds to the value of the site as both a recreational and educational amenity. The site provides excellent opportunities to:

- inform visitors (and local residents) of our native flora and fauna
- instill an appreciation of our natural landscape and the value of conserving our natural heritage

## 1.2 Project Aims

The main aim of this project was to assess and evaluate the natural heritage of the park and its surroundings with the objective of preparing a biodiversity conservation plan. This plan recommends practical measures aimed at conserving and enhancing the natural heritage of the area. In addition, opportunities for the development of educational and interpretative facilities at the site were to be explored.

In drawing up the plan the following was undertaken:

- An appraisal of the natural heritage of the area to determine the key biodiversity features of the park. This included field surveys and reference to any previously published or unpublished material.
- An assessment of the current pressures that impact on the ecology and biodiversity of the park
- An assessment of the interpretative and educational facilities of the park
- An evaluation of visitor facilities of the site including access, signage, paths and benches

Following the completion of the above objectives, recommendations are made in relation to:

- Conservation and enhancement of the natural heritage at Reenagross
- Interpretation and visitor facilities
- Kerry County Council proposed improvement measures
- Public Involvement
- Resource allocation

## 2 Site Description

Reenagross Park comprises an area of approximately 9 hectares of woodland and marsh located 300 metres South of Kenmare (see Figure 1). The site forms a peninsula of land surrounded by Kenmare Estuary to the East, West and South. The estuary in this area is shallow, with extensive mud-flats revealed when the tide retreats. The Park Hotel and the Kenmare Golf Course border the northern part of the site. Access to the Park is gained via one of four entrances (see Figure 3):

- Sound Road: Pedestrian entrance to western end of site via well maintained path from the main N71, opposite the turn off for Kenmare Pier.
- Golf Course: A pedestrian entrance to north-eastern end of the site via the Golf Course, adjacent to the 16th Hole.
- Mahony's Height: An unmarked pedestrian entrance to north-eastern end of site from the Golf Course car park.
- Park Hotel: A private pedestrian entrance for guests of the Park Hotel.

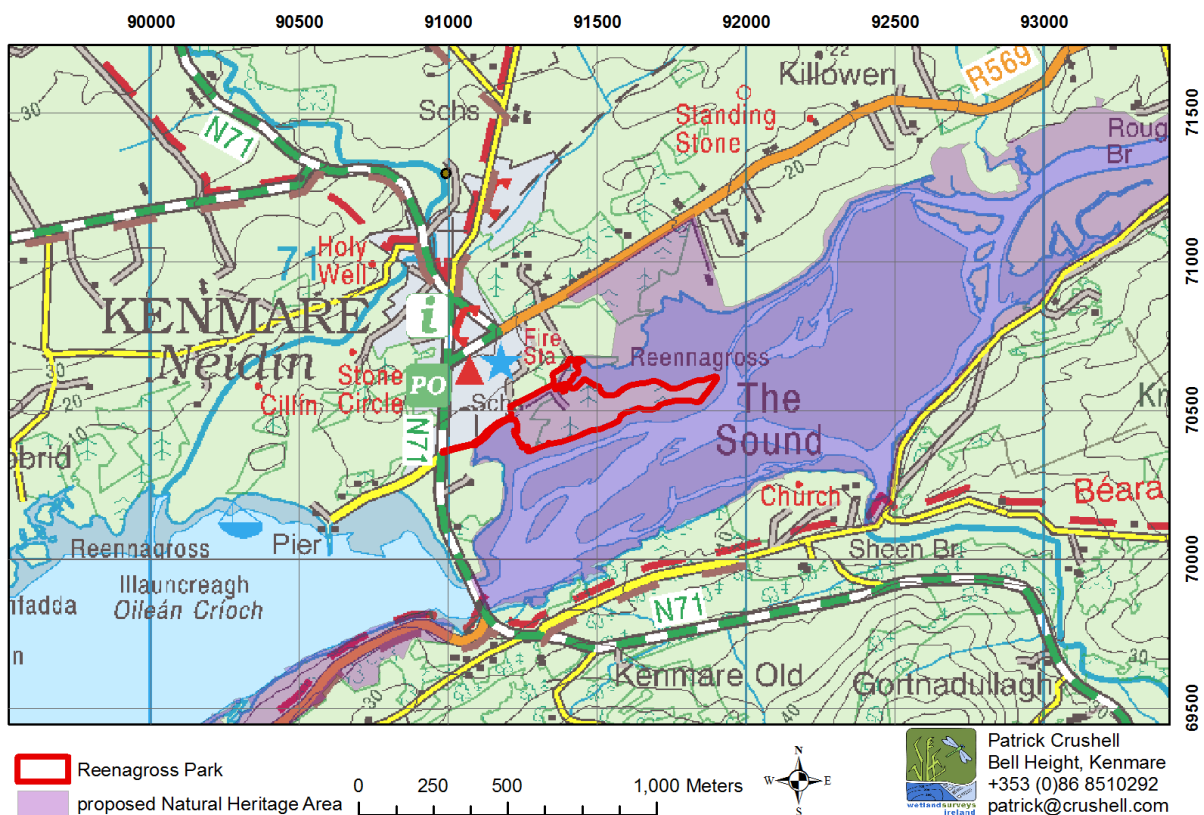
The woodland occurs on undulating topography up to 20 metres above sea level at the highest points. The underlying geology of Reenagross Peninsula is Old Red Sandstone, laid down approximately 400



million years before present, during the Devonian period. This sandstone is siliceous in nature and has acid characteristics. In contrast, to the North of the peninsula, Carboniferous limestone occurs along the Kenmare Valley. This rock formation is slightly younger in age (approximately 350 million years before present), and is calcareous in nature and has alkaline characteristics. The subsoil of the Reenagross Peninsula is a glacial till derived from Devonian Sandstone, while the surface soil has been described as a surface water gley (Teagasc soil and subsoil maps available at [www.epa.ie](http://www.epa.ie)). The underlying geology and soils influences the vegetation that occurs throughout the site, being most suitable for acid-loving plants. To the North of the peninsula where limestone is the underlying geology, the vegetation is more typical of alkaline conditions.

The low-lying and coastal areas of the site comprise marshy ground which is occasionally flooded by spring tides. Many of the plants that occur in these areas are specialised species capable of tolerating the brackish (high salt) and more waterlogged conditions.

The more exposed southern shoreline has a rocky character, with an abundance of seaweeds and associated marine fauna, while the intertidal areas to the East and West of the site comprise intertidal mud flats that are home to a host of marine invertebrates. These areas in particular provide an important food source to coastal birds.



**Figure 1:** The location of Reenagross Park in relation to Kenmare town, Co Kerry. The extent of the Natural Heritage Area as proposed by National Parks and Wildlife Service is also indicated.

## 2.1 Past and Recent History of Reenagross Park

The name Reenagross is derived from the Irish 'Reen na gCross' which translates as "The Headland of The Crosses" or "The Muddy Point". Reenagross was developed as a private park by the second earl of Shelburne (later first the marquess of Lansdowne) and is likely to have been planted with hardwoods some time towards the end of the eighteenth century when large scale plantations were being developed in the vicinity of Kenmare (Lyne 2001). Lansdowne (1937) mentions that at this time Oak and Scots Pine (of Scottish origin) were the species predominantly planted in the area, both of which are still well represented at Reenagross. On a map of 'Nedeem' prepared by John Powell for Sir William Petty in 1764, Reenagross is shown as an un-wooded area of land comprising what

appears to be a mix of pasture (where the woodland occurs today) and marshy ground on the lower lying parts (Smith 2009) (see Figure 2). Due to the existence of an iron smelting industry in the locality set up by Petty, all native woodlands in the area are likely to have been exploited prior to the plantation undertaken by end of the 18<sup>th</sup> century. The general topography of Reenagross appears relatively unchanged since Powell's map was drawn, with the elevated areas clearly illustrated.



**Figure 2:** Part of the map of Nedeen (Kenmare) as prepared by Powell in 1764 for Sir William Petty, reproduced from Smith (2009). Note the Reenagross peninsula which is indicated as being unplanted at the time.

The first edition Ordnance Survey map of the area (surveyed 1841-42) shows that the woodland at Reenagross had become established. By the time the second edition OS map was produced (surveyed 1895), the site appears much like it does today with a network of paths throughout a more extensive woodland area. The boat house and pier at the southern part of the site are also shown.

The presence of a man-made underground passage (possible souterrain) in the woods to the north of Reenagross and an elevated circular wooded enclosure on the northern side of the peninsula has been suggested by Hodd (1998) to indicate a possible medieval settlement in the area. However, this has not been confirmed and these features are more likely to originate from the estate period when the park was established (F. Coyne, *pers. comm.*).

The possible souterrain cannot really be verified as such without excavation. It may prove to be an 'ice house', used for storing ice which was collected in winter. These are common estate features, and were used extensively until the end of the 19<sup>th</sup> century. (F. Coyne, *pers. comm.*).

The circular enclosure is likely to represent a 'tree ring' which is a known feature of the estate period, where trees were planted within an artificially constructed enclosure, usually a ditch and bank. The uniform age and spacing of the oak trees planted around the perimeter of the ring and the absence of any feature on Powell's map suggests that this is the true origin of the feature. (F. Coyne, *pers. comm.*).

Around 1940, the park was leased to the Kenmare Development Association for a nominal rent of ten shillings. More recently, Kerry County Council holds the lease and assumed responsibility for the maintenance of the park. The Lansdowne estate has retained ownership of the site.

The ecological interest of the site has been recognized by its inclusion on a list of proposed Natural

Heritage Areas by the National Parks & Wildlife Service (NPWS), of the Department of the Environment, Heritage and Local Government. These proposed sites have not yet been formally designated, but are protected through the planning process. Once formal designation has taken place, these sites will be protected under the Wildlife Act 1976 (Amended 2000). The draft NPWS site synopsis is presented in Appendix 1.

The birdlife of the estuary that surrounds Reenagross has been monitored during winter as part of Irish Wetland Bird Survey (IWeBS) in recent years (see Section 3.2 below). A list of the species recorded by the IWeBS survey is presented in Appendix 2.

During the late 1990s, the Park Hotel together with Kerry County Council and South Kerry Development Partnership Limited through the LEADER II Programme for Rural Development funded some enhancement and interpretation works at Reenagross. This included the planting of an exotic Arboretum (tree) collection below the Park Hotel, limited planting of amenity woodland in the main woodland area on the peninsula, upgrading of paths and installing signage at a number of places within the site. In addition, an informative visitor booklet was published which included a site map and information on the natural history of the park (Hodd 1998).

Since then, little work has been undertaken to improve or maintain the infrastructure of the park. Kenmare Tidy Towns Committee has carried out some work on the park such as the development of the '*bat house*' and has kept the paths free of litter and encroaching scrub vegetation.

### 3 Natural Heritage of Reenagross Park

This section describes the flora and fauna of Reenagross Park. Surveys of habitats, flora and birds were carried out during the summer / autumn of 2010 to document the natural heritage of the park. In addition, other information on the flora and fauna of the site was obtained from a desk-top review of published and un-published reports as referenced in the text and listed in the bibliography.

#### 3.1 Habitats and flora

Reenagross Park comprises a diverse variety of woodland, marine, brackish and freshwater habitats, which makes the site a haven for biodiversity, reflected in the relatively high number of plant species recorded during the current survey for this small site.

A total of 14 habitat types (after Fossitt 2000, see Table 1 below) were recorded at Reenagross. Of the habitats listed, the Oak-Birch-Holly woodland, saltmarsh and rocky shore littoral areas make up the most important habitats from a biodiversity perspective. Those habitats marked with an (\*) are Annex I habitats under the EU Habitats Directive, as they are deemed to be of international conservation significance. A habitat map showing the location and extent of the key habitats types within the site is presented in Figure 3.

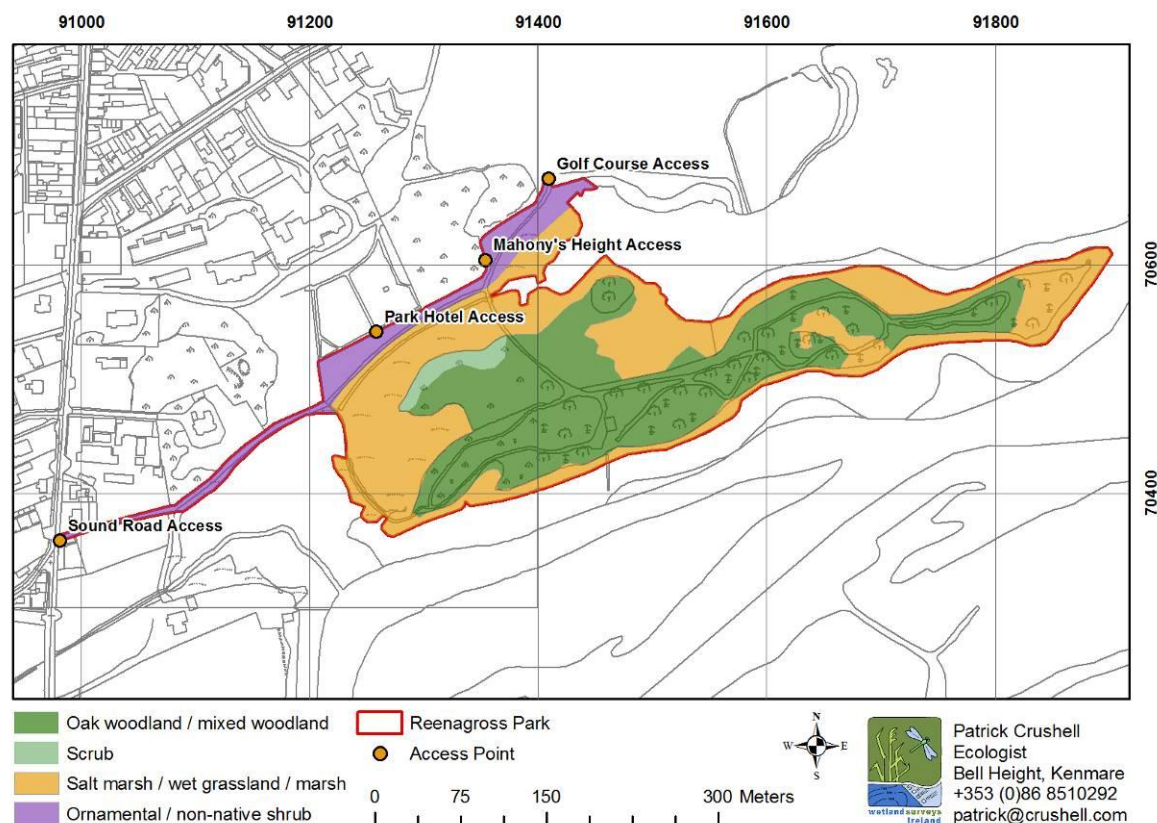
The current survey identified 301 species of flora and fauna as occurring within the habitats present at Reenagross Park as in Appendix 2. This includes 143 species of higher plants (the majority native); 34 exotic trees and scrubs; 5 mosses; 5 lichens; 6 seaweeds; 2 fungi; 86 bird species; 19 mammals; 2 butterflies and 3 species of fish. This list of species is supplemented with previously recorded species reported from the park and immediate surroundings (Hodd 1998; Crowe 2005).

Further surveys conducted at different times of the year, or surveys of specific groups (e.g. mosses, lichens, fungi and invertebrates) are likely to reveal significant numbers of additional species.

The main semi-natural habitats recorded within the site, their dominant vegetation and their potential value to fauna are described in the following sections.

**Table 1:** The main habitat types present on the Reenagross Park peninsula, after Fossitt (2000).

Habitat Type	Fossitt Habitat Code (* denotes Annex I EU Habitat)
<b>Non-Marine Habitats</b>	
<b>1. Freshwater</b>	
Ponds	FL8
Drainage ditches	FW4
Reed and large sedge swamp	FS1
<b>2. Grassland and Marsh</b>	
Wet Grassland	GS4
Marsh (brackish water influence)	GM1
<b>3. Woodland and Scrub</b>	
Semi-natural woodland: Oak-Birch-Holly woodland	*WN1
Highly modified/non native woodland: (Mixed) broadleaved woodland	WD1
Scrub/transitional woodland: Scrub	WS1
<b>4. Cultivated and Built land</b>	
Buildings and artificial surface: Stone Walls, Paths, Bat House	BL3
<b>5. Coastland</b>	
Salt marsh: Upper salt marsh	*CM2
Coastal constructions: Sea walls, piers & jetties	CC1
<b>Marine Habitats</b>	
<b>1. Littoral (intertidal)</b>	
Littoral rock: Sheltered Rocky shores	*LR3
Littoral sediments: Mud shores	*LS4
<b>2. Marine water body</b>	
Estuary	*MW4



**Figure 3:** Habitat map of Reenagross Park, Kenmare, County Kerry. The access points to the park are also indicated.

### 3.1.1 Oak-Birch-Holly woodland (WN1)

Woodlands are composed of a variety of trees and shrubs of differing heights. The layers will normally include a canopy layer of tall trees such as oak and ash, an under storey layer comprising shrubs such as hawthorn, holly and hazel. The ground layer will be made up of a variety of ferns, grasses, sedges and herbaceous plants. This gives woodland a distinct vertical structure and provides a wide variety of habitats which in turn support a diverse range of flora and fauna.

Dead wood and fallen trees provide important micro-habitats within semi-natural woodlands supporting a wide range of specialised insects and fungi. The many layers that comprise woodlands therefore make them very important in terms of biodiversity.

Much of the mature woodland area on the peninsula corresponds to this woodland type (see Plate A1; A2 in Appendix 4). It is typically dominated by Oak (*Quercus petraea*), with an abundance of Holly (*Ilex aquifolium*) and occasional Rowan (*Sorbus aucuparia*) in the shrub layer. Species most frequently recorded in the herb layer include Hard Fern (*Blechnum spicant*), Bracken (*Pteridium aquilinum*), Great Wood-rush (*Luzula sylvatica*) and Honeysuckle (*Lonicera periclymenum*). There is an extensive cover of mosses and other epiphytes occurring on the trees and throughout the ground layer. Although the woodland originates from planting, it can now be considered ‘semi-natural’ as it is re-generating naturally and resembles the potential natural woodland cover of the area. Today true natural or ancient woodland is extremely rare in Ireland.

The habitat varies in quality throughout the site. The better stands of the type occur in the central part of the site, where there is a good cover of native plants in the herb and shrub layer. Dense stands of *Rhododendron* are present in the western part of the site, and locally elsewhere. The occurrence of this species has the effect of shading out all other plants from the shrub, herb and ground layers, with no regeneration of young trees caused by the high shading effect of *Rhododendron* (see Plate B1; B2; Appendix 4).

Non-native trees are common throughout the woodland area with Scot's Pine (*Pinus sylvestris*), Beech (*Fagus sylvatica*) and Sycamore (*Acer pseudoplatanus*) occurring frequently in the tree layer. In places where Beech dominates, the habitat is better classified as Mixed broadleaved woodland (WD1). In general, the woodland habitat is of high value to birds and mammals, providing nest sites, cover and food to many woodland birds and mammals. In addition, the woodland provides valuable roost sites and foraging habitat for a number of bat species.

In places, the woodland edge grades into Willow or Gorse scrub (WS1), this type of semi-natural woodland edge is beneficial to wildlife, as it creates a continuity of habitat and additional structural diversity.

Good examples of Oak dominated woodland corresponds to the EU listed habitat 'old sessile oak woods with *Ilex* and *Blechnum* in the British Isles'.

### **3.1.2 Wet grassland (GS4) / Freshwater marsh (GM4)**

Wet grassland with elements of marsh vegetation occurs at three locations within the site: the eastern part of the site near 'the point', a low-lying area in the central part of the site surrounded by woodland and adjacent to the salt marsh in the western part of the site (see Figure 3; see Plate A6). In general the habitat is poorly developed with few species represented in the sward. The habitat is dominated by grasses including Creeping Bent (*Agrostis stolonifera*) with Purple Moor-grass (*Molinia caerulea*). Other species commonly occurring include Soft-rush (*Juncus effusus*) Creeping Buttercup (*Ranunculus repens*) and False Fox-sedge (*Carex otrubae*).

Freshwater marsh conditions are evident in discrete locations amongst the wet grassland with increased abundance of Yellow Iris (*Iris pseudacorus*), Wild Angelica (*Angelica sylvestris*), Marsh Bedstraw (*Galium palustre*), Purple-loosestrife (*Lythrum salicaria*) and Greater Tussock-sedge (*Carex paniculata*). Common Reed (*Phragmites australis*) forms dense stands near the eastern point and in sheltered locations along the Northern shore stands. In these locations the habitat corresponds to Large Reed and Sedge Swamp (FS1).

In the central area of Wet Grassland / Marsh, there are two small temporary ponds, which tend to dry out periodically during summer. These wetland habitats add to the overall value of the site by providing a refuge to wetland plants and animals. However, the habitat is in relatively poor condition due to the dominance of rank grasses creating a poor diversity of species and a low abundance of flowering plants. This could be improved with a change in management such as the introduction of light grazing or by undertaking autumn mowing, and the excavation of the ponds which have become in-filled with organic debris.

### **3.1.3 Upper salt marsh (CM2)**

This habitat occurs in those areas that are regularly inundated by the sea (see Plate A4; Appendix 1), such as along the upper shore especially along the northern side of the peninsula. The vegetation of the Salt Marsh varies according to how frequently and for how long the area is submerged by the sea. Those areas at the upper end that are only occasionally flooded by the tide are dominated by Rushes and grasses including Sea Rush (*Juncus maritimus*), Red Fescue (*Festuca rubra*) and Creeping Bent (*Agrostis stolonifera*). Species more typical of freshwater marsh conditions also present include Yellow Iris (*Iris pseudacorus*) and Purple-loosestrife (*Lythrum salicaria*). At the sea-ward extent of the habitat, species characteristic of lower salt marsh appear including Sea Plantain (*Plantago maritima*), Sea Arrowgrass (*Triglochin maritima*), Sea Aster (*Aster tripolium*) and Common Scurvygrass (*Cochlearia officinalis*).

The salt marsh that occurs on site is restricted in extent but shows a good transition from upper to lower salt marsh. Excellent examples of the habitat type occur elsewhere within the estuary, especially those areas towards the mouth of the Roughty River. Salt Marsh can provide an important roost site for many coastal birds that occur in the estuary. Saltmarsh is a rare habitat in Ireland, and in the wider context of Europe it is a high priority for nature conservation being listed on the EU habitats directive.

### **3.1.4 Sheltered rocky shore (LR3)**

This habitat occurs along the southern shore of Reenagross, being dominated by brown seaweeds. The main species recorded include Channel Wrack (*Fucus canaliculata*) and Spiral Wrack (*Fucus spiralis*) on the upper shore with Serrated Wrack (*Fucus serratus*) and Bladder Wrack (*Fucus vesiculosus*) occurring further down the shore. Similar to the other intertidal habitats, the rocky shore supports a host of marine invertebrates and provides an important food source to important bird populations.

### **3.1.5 Mud shores (LS4)**

This habitat includes the muddy shores and mud-flats that occur on much of the inter-tidal zone surrounding Reenagross (see Plate A5), It is the dominant habitat of Kenmare Estuary forming extensive raised mud-flats with intervening drainage systems. The flats which are covered at high tide are extremely productive areas which, together with other intertidal habitats, are of great importance to large numbers of birds and fish. They provide vital feeding and resting areas for populations of migratory, overwintering and breeding waders and waterfowl. The ecological value of mud flats is recognised by their inclusion on Annex I of the EU habitats directive.

## **3.2 Birdlife**

The bird survey commenced during August 2010 which is the end of the bird breeding season therefore it was not possible to determine the populations of breeding birds at the site. A list of bird species recorded during the current survey is presented in Appendix 2.

It is likely that a range of common bird species breed within the woodland at Reenagross including Blackbird, Chiffchaff, Long-tailed tit, Blue Tit, Great Tit, Chaffinch, Tree-creeper, Blackcap and Robin. Other species recorded throughout the park include Jay, Swallow, Hooded Crow and Wood Pigeon.

Species recorded feeding on the intertidal zone surrounding the site included Ringed Plover, Curlew, Redshank, Oystercatcher and Black-backed Gull. Other birds associated with the estuary include Mute Swan, Little Egret, Cormorant, Teal and Widgeon.

An interesting observation during the survey was the presence of two White-tailed Sea Eagles on the estuary during late September. These birds were confirmed (by wing tags) as being part of a re-introduction programme currently underway aimed at re-introducing these magnificent birds to the landscape of Kerry. The presence of suitable habitat in the estuary could potentially attract these birds to the area on a regular basis.

During winter significant numbers of waders and wildfowl overwinter on the estuary, these populations are monitored each winter by the BirdWatch Ireland led Irish Wetland Bird Survey (IWeBS). In all eighty six bird species, have been recorded from Reenagross Park and the surrounding estuary.

## **3.3 Bats and terrestrial mammals**

Due to the diversity of habitats at Reenagross Park, in particular the presence of mature oak woodland, mixed deciduous woodland and adjoining scrub, the area is particularly valuable to bat species due to the abundance of suitable foraging habitat and roost sites.

Eight species of bat have been reported to occur within the Kenmare area and all may occur within the site, including Brown Long-eared bat, Daubenton's, Leisler's, Lesser Horseshoe, Natterer's, Whiskered and both Common and Soprano Pipistrelle. A dedicated bat survey of the peninsula should be undertaken in the future and advice sought on suitability of the bat house as a roosting site for these species. All bat species are protected under the Wildlife Act (1976, amended 2000) in Ireland while the Lesser Horseshoe bat occurs only in the West and South-west of Ireland and is of high conservation importance being listed on Annex 2 of the EU Habitats Directive.

Other mammals which have been recorded in the park include Badger, Brown Rat, Fox, Hedgehog, Irish Stoat, Otter, Pigmy Shrew, Rabbit and Wood mouse. Signs and tracks are the best way of determining the presence of mammal species without conducting nocturnal surveys. Little evidence of mammal activity was recorded during the current study. Evidence of Otter was recorded close-by the site and are likely to use the costal habitat. A number of mammal burrows were recorded within the site however many of these appear to be un-used in recent times. Badger and Otter are both listed on

Annex 2 of the EU Habitats Directive.

### **3.4 Invertebrates**

It is likely that the invertebrate fauna of the peninsula is significantly higher than reported in Appendix 2 below, with the mature woodlands, grassland, scrub and marine mudflat areas providing a rich variety of habitats for such faunal groups.

### **3.5 Marine ecology**

The estuary is a rich environment with highly productive habitat present. Seals are regularly recorded passing up and down the estuary. During the current study a Common Seal was observed feeding on a large fish, which appeared to be a Salmon.

There is a good run of Atlantic Salmon each year in both the Roughty and Sheen Rivers. Other fish known to occur include Sea Bass, Sea Trout and Grey Mullet.

In addition to the birdlife referred to above the marine ecosystem is rich in invertebrates, fish and shellfish.

## **4 Review of Ecological Interest of Reenagross Park**

This section evaluates the ecological interest of the site based on the results of surveys carried out and follows methodology outlined by the IEEM (2005) and NRA (2009) to be used in determining the ecological interest of an area. Despite its relatively small size, overall the site and surrounding area is of high ecological value and can be described as being of national nature conservation importance. This conclusion is reached based on the following attributes of the site:

- Its designation as a proposed Natural Heritage Area status given to the site by the Department of the Environment, heritage and local government.
- The occurrence of semi-natural woodland Oak woodland, a habitat that is relatively rare in Ireland and listed for protection under the EU Habitats Directive.
- The presence of other semi-natural habitats of ecological interest including wet grassland, scrub and salt marsh.
- The importance of the site for bat species, including the likely occurrence of Lesser Horseshoe Bat, a species that is especially rare in Western Europe and is of high conservation importance.
- The value of the site and its surroundings for important populations of water birds especially wintering migratory species including the notable presence of significant numbers of Curlew, Black-headed Gull, Widgeon and Teal, Oystercatcher and Redshank.
- The proximity of the site to a significant human population and its value as an educational and recreational amenity adds to the importance of the site.

It is clear however that the site is not reaching its potential biodiversity value as it is under severe pressure from a number of sources (see Section 5 and 6 below). Changes in the management of habitats on the site could greatly enhance its biodiversity value. Should the current management of the site continue, the ecological interest of the site is likely to diminish.



## **5 Review of Current Management Regime**

In relation to the current management activities in the Reenagross Park peninsula the following observations have been made (see below). These observations relate to the brief of the consultants to suggest measures to enhance the biodiversity value of the site and add value to the visitor experience at the site.

### **5.1 Biodiversity management**

To date, little biodiversity management has been undertaken at the site. A number of bird and bat boxes were installed in the past to provide additional nest and roost sites. The boat house has been 'designated' as a bat house and works were carried out on the interior in an attempt to make it attractive as a roost site for bat species (see Plate C3).

Although planting of exotic specimen trees and plants along the Arboretum walk below the park hotel is acceptable and likely to be of interest to many visitors, planting of exotic species within the main woodland on the peninsula, south of the causeway, should not continue. Such planting seriously reduces the ecological value of this semi-natural woodland, and could lead to an expansion of unwanted species within the woodland.

Other than this exotic planting, and some of the general measures referred to in the previous section, it does not appear that any works have been undertaken to enhance the degraded condition of the oak woodland on the site. This is regrettable, as oak woodland is the habitat which gives the site its primary value for wildlife and is probably the main amenity that people come to enjoy when visiting the park.

If the biodiversity value of this native oak woodland area is to be enhanced, it will require on-going commitment by a local management group in co-operation with the County Council. This will require significant commitment of time and financial resources and adherence to clearly defined targets.

A number of recommendations are made below (see section 7.1) on measures that will be required to improve the biodiversity of the oak woodland and the other semi-natural habitats within the site. These woodland regeneration measures are likely to be the most demanding on time and resources.

It is the opinion of the consultants, that if the local management team follow the guidelines and strategies outlined below the nature conservation value of the Reenagross park, and in particular the valuable oak woodland and mixed deciduous woodland that occurs there could be significantly enhanced.

Additionally the management group could use the 'woodland restoration and improvement project' to inform visitors of the park of the valuable work being undertaken at the site to improve its biodiversity value, seek their support and provide informal education and interpretative opportunities for visitors.

### **5.2 Interpretation of natural heritage and public participation**

Reenagross Park is an important natural amenity to the people of Kenmare and its surroundings. On a daily basis the site is used by walkers and joggers, people taking their children to experience nature, dog walkers, and people wishing to experience some time in a tranquil woodland setting. Studies at other woodland sites (Bosbeer 2008) indicate that this type of recreation forms an important element in people's lives.

Despite much work carried out, particularly during the late 1990's, there is little active promotion of the site as an amenity of the town. In particular, signage is poor from the town and within the park itself. For example, there is a finger sign at the entrance of the Golf Course for 'Reenagross Park', however on entering the gate of the golf course there is no further indication of where the park is until you approach the bridge onto the peninsula, despite a number of alternative routes that would lead one away from the park. Similarly, at the Sound Road approach, there is a sign opposite the post office for 'Nature Trail' pointing towards Sound Road, however from here there is no further sign to indicate the entrance to the park making it most unlikely any visitors would succeed in finding the site without local knowledge.

An informative leaflet describing the park was produced during the late 1990's (Hodd 1998), however this leaflet is no longer in print and is not readily available. Past management on the site has included the provision of two interpretive boards about the park and its wildlife, a finger sign at the entrance from the Kenmare Golf Course.

In summary, there does not appear to be a clear strategy regarding the visitor promotion, access to or interpretive signage within the park, which is currently haphazard. A number of recommendations are made below (see section 7.2 & 7.4) that aim to enhance visitor use and enjoyment of the natural heritage of the park. These measures also aim to improve the educational value of the site.

### **5.3 Maintenance of visitor facilities (including plans by KCC)**

In recent times, management has been focused primarily on the maintenance of visitor facilities within the park. The paths have been kept in relatively good condition although there are some areas where erosion of the path has caused the surface to become uneven with protruding tree roots. Also, at a number of locations, paths require upgrading due to wet conditions underfoot and encroachment of surrounding vegetation.

Despite the issues outlined above, the paths fit very well into the woodland environment, meandering through the undergrowth and have not been 'over developed'. Any upgrading of paths should continue to be sensitive to the natural surroundings.

A series of benches have been located throughout the woodland area. Additional annual work appears to be undertaken to clear *Rhododendron* and other scrub species so as to keep paths clear of branches for walkers.

Considerable effort has been spent on the planting and maintenance of the Arboretum walk below the Park Hotel to the north of the peninsula. However, the recent spread of Japanese Knotweed has not been adequately managed (see Plate B3; Appendix 4).

In addition litter removal is regularly undertaken from the Bat House area and from the woodland in general.

During the study, a number of observations were made of inappropriate 'use' of the site including:

- Vandalism of features / facilities within the park including defacement of the walls within the bat house by graffiti, and the removal of a finger sign at Sound Road entrance
- Discarding of rubbish and lighting of fires

Currently, there is little evidence of any measures aimed at preventing such behavior within the site. Future consideration should be given to measures prevent / minimise such behavior within the site as it degrades its attractiveness as a natural amenity and in the case of unsupervised fires, threatens the integrity of the site.

Kerry County Council (KCC 2009) has proposed plans for a number of improvement works to be undertaken at the site over the next 3 years. These plans mainly relate to maintaining and repairing the existing visitor facilities at the site.

No measures are proposed in the County Council plans to conserve or enhance the biodiversity value of the important oak and mixed deciduous woodland on the site. This omission must be addressed if the natural heritage resource, namely oak woodland, on the site is to be conserved and improved for future generations to enjoy.

A number of recommendations and comments are made below (see section 7.3) on the measures proposed by Kerry County Council at the site.

## 6 Threats to Ecological Interest of the Park

At present the marine and estuarine habitats around the peninsula of Reenagross are in excellent condition, and appear to be functioning well.

The same cannot, regrettably, be said for the oak woodland and mixed deciduous woodland habitats present on Reenagross peninsula. These woodland habitats are severely degraded by the spread of invasive *Rhododendron ponticum* which is now choking significant sections of the woodland (see Plate B1 & B2; Appendix 4). Dense growth of *Rhododendron* results in the total loss of the native ground flora and herb layer in the woodland, and in addition prevents the regeneration of native tree and understory shrubs. The site is therefore not performing to its ecological potential, and its value to butterflies, birds, bats and native wild flowers is being significantly compromised. If this situation is allowed to continue, the peninsula will eventually be overgrown by this single species, (*Rhododendron ponticum*) by which time the site will have lost much of its biodiversity and nature conservation value.

Other invasive and exotic species have also been recorded at Reenagross including Japanese Knotweed (*Reynoutria japonica*), Giant Rhubarb (*Gunnera tinctoria*), Shallon (*Gaultheria shallon*), Bamboo (*Arundinaria japonica*), together with a number of tree species, all of which may cause problems for the native flora and fauna as they spread and invade the living space and compete for resources with native woodland species (see Plate B3). Invasion by these exotic species also leads to the loss of food sources for native mammals, birds and invertebrates.

No further exotic planting should be permitted within the woodland area on the main peninsula. This area, which represents the most sensitive and valuable in terms of nature conservation, should be managed primarily for nature conservation. Measures carried out in this ecologically sensitive zone should aim to safeguard and improve the ecological status of the area.

This will require the eventual removal of **all** invasive species, primarily *Rhododendron ponticum* which is the main threat to this area. In addition other exotics which also degrade the conservation value of the area should be removed. These measures should be undertaken without delay. Removal of these species is standard procedure for enhancing the ecological value of woodland sites.

In addition the spread of Giant Rhubarb (*Gunnera tinctoria*) and Japanese Knotweed (*Reynoutria japonica*) to the north of the causeway, along the Arboretum walk below the Park Hotel should be addressed, as both of these species threaten the tree collection which has already been planted here. Japanese Knotweed has spread considerably in recent years and should it proceed onto the island would pose a serious threat to native flora and fauna at the site.

Recently published guidelines on the removal of invasive species including *Rhododendron* and Japanese Knotweed have been issued. These documents outline the current best practice guidelines to deal with these species and should be followed in any future attempt to control their spread (Barron et al. 2009; Kelly et al. 2008; McGuire et al. 2008).

## 7 Recommendations to enhance Reenagross Park

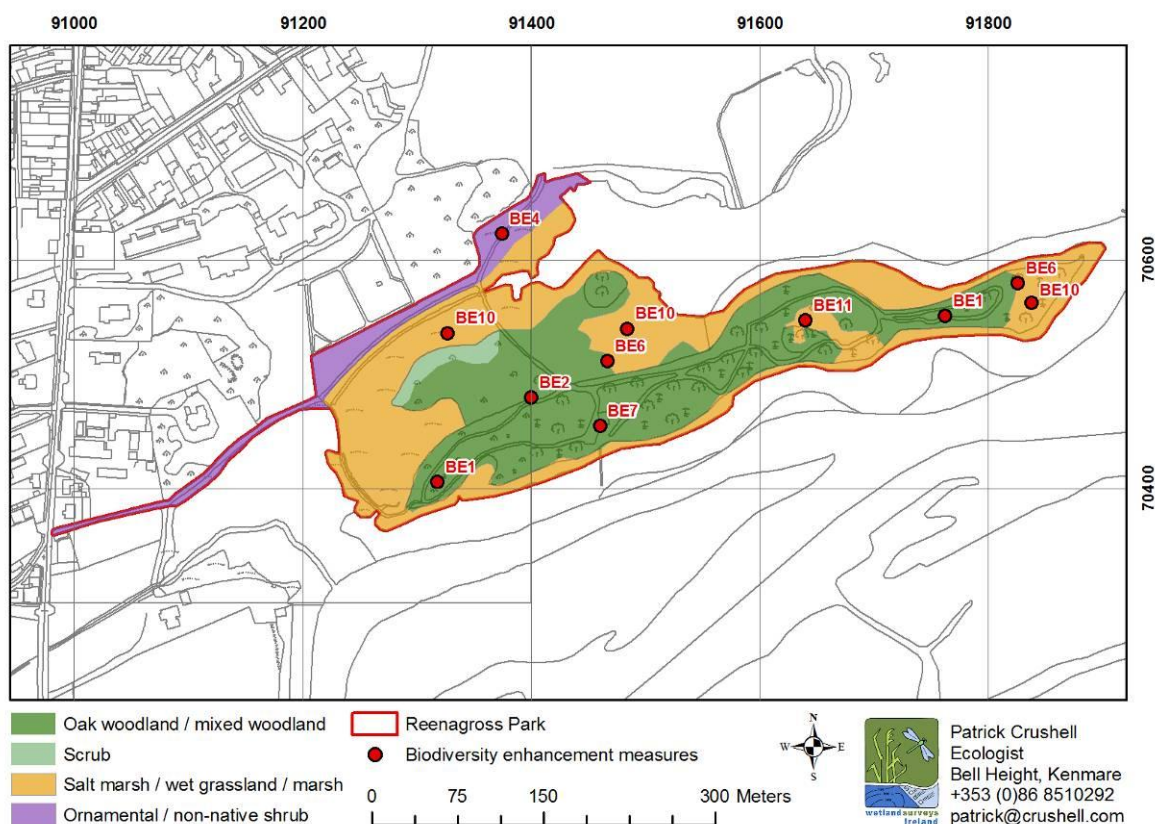
In the section which follows a number of measures are recommendations with the aim of enhancing Reenagross Park that should be considered by the Kenmare Tidy Towns Committee in consultation with other stakeholders. These measures aim to achieve the following management objectives that have been identified:

1. To conserve and enhance biodiversity at Reenagross
2. To Improve interpretation of natural heritage
3. County council proposals - to improve visitor facilities
4. Public involvement
5. Resource allocation

The recommended measures are presented in tables with those measures considered a priority marked by an \* in the first column. Those measures being proposed for specific locations within the site are shown on maps presented in Figures 4, 5 and 6 and labeled according to recommendation code.

In addition, photographs presented in Appendix 4 illustrate some of the habitats, measures and issues which are referred to in the recommendations section.

Reenagross Park includes important oak woodland habitats, mixed deciduous woodland dominated by Beech but also including Sycamore, Ash, Holly and Rowan. The measures outlined below will ensure the future survival of these habitats and enhance areas of the woodland which have been degraded by the expansion of invasive exotic species. Recommendations cover a range of measures, those marked with a \* are regarded as a priority if the biodiversity value of the area is not be to further degraded.



**Figure 4:** The location of biodiversity enhancement measures at Reenagross Park recommended by this report.

## 7.1 Biodiversity enhancement measures

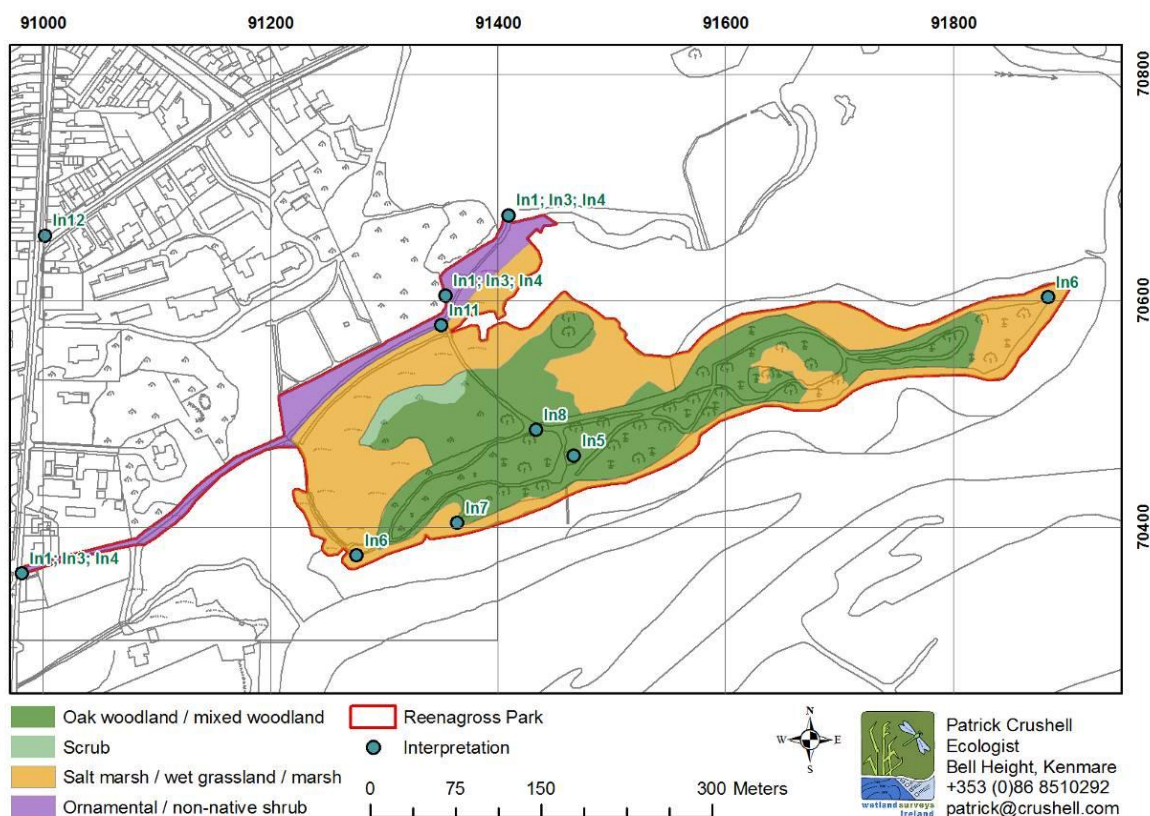
Codes in the second column refer to location numbers shown in Figure 4; while recommendations with a \* are considered priority actions.

Priority	Code	Recommendation
*	BE1	<b>Woodland enhancement – Rhododendron Clearance</b> <i>Rhododendron ponticum</i> must be removed from the woodland area to the south of the causeway at Reenagross. Following Rhododendron removal cleared areas should be under-planted/re-planted with native trees and understory shrubs (e.g. Oak, Ash, Crataegus, Sloe, Spindle Tree) of local provenance. These measures will provide valuable food sources and living space for birds and invertebrates such as butterflies in particular. Cut brush should be shredded and might be used as a path improvement material, while larger logs could be left to degrade naturally (see recommendation on wood log piles below). Any excess cut material should be removed from site and composted.
*	BE2	<b>Woodland enhancement – Replacement (Gradual) of Beech with Oak</b> To enhance the native Oak woodland on the site the gradual replacement of Beech (and other non-native species e.g. Sycamore) in the woodland with native Oak should be undertaken. To facilitate this transition it is recommended that Beech and other invasive tree saplings be removed and where required be replaced with planted native Oak. Ring-barking of more mature trees should be considered. The works should be carried out in particular in the woodland at the western and eastern ends of the peninsula.
*	BE3	<b>Woodland enhancement – No planting of exotic species on peninsula</b> no further planting of exotic trees, shrubs or understory plants should occur in the woodland area south of the causeway, the core of the nature reserve area, and those exotic species already planted there should be removed.
*	BE4	<b>Arboretum enhancement – Removal of Japanese Knotweed and Giant Rhubarb</b> Invasive species, namely Japanese Knotweed and Giant Rhubarb should be eradicated from this area so as to protect the exotic tree collection planted here in the past. Removal of these species from this location will also ensure that they do not expand further and threaten the native woodland on the main peninsula.
	BE5	<b>Woodland enhancement – Log piles and dead wood</b> Any trees which die or fall naturally as a result of death or storms or as part of any tree clearance measures should be left in situ where safely permits as dead wood on the woodland floor to provide habitats for invertebrates and fungi (again these areas will provide valuable food source for birds) and create a dynamic woodland ecology. This will promote associated fungi, invertebrates, hole-nesting birds, and bats.
	BE6	<b>Species enhancement– Creation of butterfly and bird border</b> Butterfly and Bird border areas should be created along woodland edge and adjacent to open wet grassland areas. Planting of Oak, Ash, Hawthorn, Sloe, Spindle Tree) of local provenance is recommended. These measures will provide valuable food sources and living space for mammals, birds and butterflies in particular.
*	BE7	<b>Species enhancement - Bat house</b> Advice should be sought from experts on methods to make the house more attractive to bats as a roosting site as it is presently too open and prone to temperature fluctuations. It is possible that the Annex II species lesser horseshoe use the woodland. A bat survey would determine the presence of this species. In addition all bat species are protected under Irish law and the findings of the survey could have implications for the management of the site such as the timing of works on the buildings within the site and the retention of certain trees identified as bat roosts.
	BE8	<b>Species enhancement– Bat boxes</b> Additional Bat boxes could be located throughout woodland to provide roosting sites for these species. Schwegler woodcrete bat boxes are recommended and these should be sited by a bat specialist. These should be monitored annually for maintenance and to ensure effectiveness. Box suppliers are given in the Appendix 3.
	BE9	<b>Species enhancement– Bird boxes</b> Bird boxes should be located in woodland to provide additional nest sites for a range of species. Different types should be used to suit the range of species that typically occur at Reenagross. Both open fronted and small hole (25-32 mm diameter) boxes would be most appropriate. Initially 20 bird boxes should be erected throughout the woodland. Monitoring of occupation of bird boxes should be carried out the following bird breeding season.
	BE10	<b>Species enhancement - Wildflower meadow creation</b> Much of the wet grassland areas are dominated by rank grassy vegetation, and are relatively species poor. These areas would be greatly enhanced by an annual late summer/autumn mowing and hay

Priority	Code	Recommendation
		removal or by autumn grazing. Mowing of the grassland area should be carried out annually after the main flowering season, in late August / September. This would reduce the choking effect of rank grasses and allow an increase in habitat for the growth of wild flowers. This would provide important food and nectar sources for invertebrates (butterfly, bees, beetles etc.), and feeding areas for birds and bats.
	BE11	<b>Species enhancement– Pond creation</b> The pond situated in the center of the peninsula should be rejuvenation to attract aquatic insects, invertebrates, vertebrates and wild flowers. This could be achieved by excavating organic matter that has built up over time. Safety issues regarding water depth/access should be considered and advise sought on best-practice.
*	BE12	<b>Information and research – Biodiversity register</b> The maintenance of a biodiversity register of all species recorded at the site should be undertaken.
	BE13	<b>Information and research – Surveys of flora and fauna</b> Invite experts groups and individuals to undertake further research and inventory work on selected species groups within the park, e.g. birds, bats, invertebrates, fungi, lichens etc.
	BE14	<b>General management –Litter removal</b> Shoreline clean up of litter should be scheduled regularly as should general litter collection within woodland and around Bat House area in particular.
*	BE15	<b>Habitat management – Long term habitat management plan</b> Prepare a long term (10-20 year) management plan and research programme for Reenagross Park with costings. This should be prepared by the management group for the park. The woodland management plan would include method statements on how to carry out proposed measures.
	BE16	<b>Long term management - Keep a log of works carried out at the site</b>
	BE17	<b>Species enhancement– Planting of night-scented plants for bats</b> Additional planting could include night-scented species to encourage night-flying insects onto the site to act as prey items for bats. A list of suggested plants is given in the appendices.

## 7.2 Interpretation of natural heritage

Interpretation and understanding by the general public of the value of the native woodland, coastal and estuarine habitats at Reenagross should be a priority for the management group at this well-used and popular amenity. Measures that should be considered to improve access to, interpretation of and knowledge of the biodiversity value of Reenagross Park are listed below. The selection of suitable interpretation panels is important along with the use of appropriate graphics and text. It is recommended that professional advice be sought on the selection and design of information panels. Codes in the second column refer to location numbers shown in Figure 5; while recommendations with an \* are considered priority.



**Figure 5:** The location of interpretation and access enhancement measures at Reenagross Park recommended by this report.

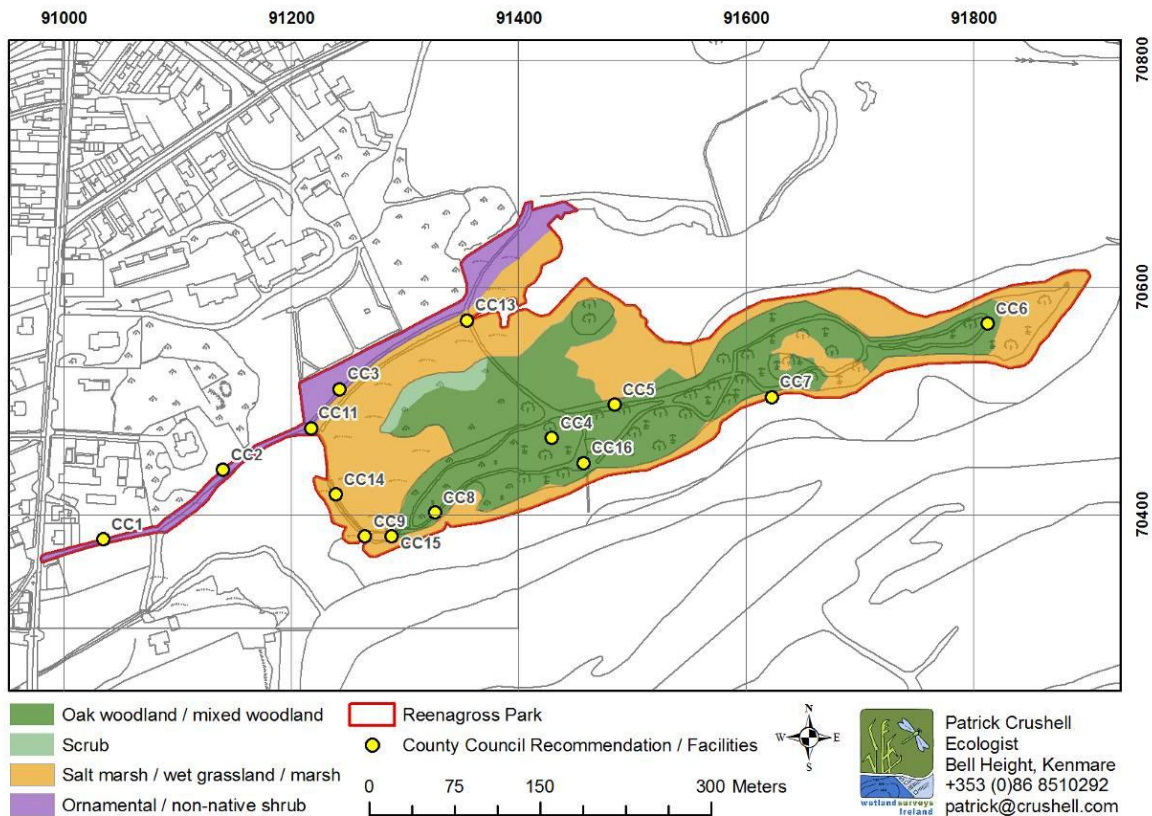
Priority	Code	Recommendation
*	In1	<b>Access to Park – Decide on and promote main park entrance</b> A priority for the park is that the issue of the main access to the park is resolved and decided on. At present public access is possible via Manhony’s Height, Kenmare Golf Club and via the Sound Road.  <b>NB: The access from the Sound Road entrance is particularly dangerous at present. The County Council should be approached and asked to install speed ramps at this location, and improve access (splay the entrance) if this route is to be promoted.</b>
*	In2	<b>Access to Park – Signage network from town centre</b> Improved finger signs to clearly show the entrance to Reenagross Park should be located at the Sound Road and/or Golf Course entrance, based on whichever access route is to be primarily promoted, or at both locations if a dual access route is to be promoted. The entrance to Reenagross from the Golf Club via the hazel woodland is invisible to visitors and the track down the hill is too rough. Signage from the Sound Road entrance is inadequate.
*	In3	<b>Access to Park – Signage at park entrance</b> Improved interpretative sign at the entrance to park. Signage should welcome visitor to the park, provide information on the site and outline the ‘forest code’, based on information content of website should be located at the pier road and/or golf course entrance.
	In4	<b>Walking Routes Panel – Map showing site and alternative walking routes</b> A walking routes panel is required at the main entrance to Reenagross (based on whichever access route is to be primarily promoted, or at both locations if a dual access route is to be promoted).
*	In5	<b>Interpretation Panel – Information on bats</b> Panel is required at the Bat House focusing specifically on Bats and their value within the Park. Such an information panel would have a significant educational value. Examples of such information panels are given in the appendices.
*	In6	<b>Interpretation Panel –Information on birdlife</b> Panel is required on Birds of the estuary. This should be located at the eastern point on the peninsula and/or near the foot bridge on the western end of the peninsula. Such an information panel would have

Priority	Code	Recommendation
		a significant educational value.
*	In7	<b>Interpretation Panel – Marine ecology</b> Panel is required on the value of the estuary and mudflats, as a habitat for birds, invertebrates and the marine ecosystems. This should be located on the southern side of the peninsula to the west of the Bat House. The interpretive panel should explain the habitats that occur along a transect from open water in estuary, through the various seaweed zones, salt marsh up to the terrestrial woodland habitat. Such an information panel would have a significant educational value.
*	In8	<b>Interpretation Panel – Oak woodland</b> Panel is required on the value of native oak woodland at Reenagross, as a habitat for birds, mammals, invertebrates, flora, mosses, lichens, etc. Such an information panel would have a significant educational value. In addition, specimen native and non-native trees should be labeled along main pathways.
	In9	<b>Interpretation – Guided walks and talks</b> Organise a series of events throughout the year to increase knowledge and awareness of the wildlife and conservation value of the park (in conjunction with National events, e.g. Heritage week, national surveys (frogs, butterflies, bats etc.) or as standalone events (e.g. invited expert to lead bat walks; bird walks etc.).
	In10	<b>Public Notices / Interpretation Panel – Information about park management</b> Selected information placard/website elements in the park, focusing on recent work being undertaken (e.g. invasive species removal) or specific groups of plants or animals or habits (e.g. a tree nature trail, bats, shoreline/mudflats, birds in estuary) and the enhancement measures being taken for wildlife (boxes, nest sites etc.) should be considered.
*	In11	<b>Public Notices / Interpretation Panel – Visitor behavior</b> Anti social and environmentally unfriendly practice (e.g. graffiti at Bat House, rubbish and litter removal, setting fires, bike scrambling etc.) should be addressed on interpretive panels and/or may require specific finger signs at the reserve entrance or areas where visitors tend to spend most time (e.g. Bat house area).
	In12	<b>Interpretation / General Promotion – Promotion in Kenmare</b> Promotion of the Reenagross Park should be undertaken through a network of locations in Kenmare town, e.g. Library, Tourist Office, Heritage Center etc. Finger signs located in the town would also inform visitors to the town of the availability of the amenity
	In13	<b>Interpretation / General Promotion – Website</b> Consideration should be given to the development of a Reenagross Park website. Important to ensure maintenance of website be considered and suggested that it could be hosted by an existing site such as Kerry County Council or Kenmare Chamber of Commerce <a href="http://www.kenmare.ie">www.kenmare.ie</a> . This could contain information on the following elements, with downloadable visitor pamphlets and information on specific walks and groups of flora/fauna: <ul style="list-style-type: none"> <li>• Introduction to the park, where it is, how to get there, local contact information</li> <li>• History of the park</li> <li>• Nature conservation value of the park</li> <li>• Management plans for the area and improvement works being undertaken</li> <li>• What you can see in the park throughout the year</li> <li>• A register of species recorded in the park which should be updated annually</li> <li>• Specific down-loadable nature trails targeted at trees, birds, bats, the shoreline etc.</li> <li>• How to get involved and help as a volunteer</li> <li>• Events planned within the park each year, both learning and information programme and volunteer works scheduled</li> <li>• Specific schools programmes</li> </ul>
*	In14	<b>Interpretation Panel – Cultural heritage</b> Brief panel describing the cultural heritage of the area including reference to possible 'tree ring' and other historical features. A suitable location for this panel may be along the main pathway leading to the park from the Sound Road.
*	In15	<b>Long term interpretive strategy for Park</b> Prepare a long term (10 year) interpretive plan for the Reenagross Park with costings, for both new measures and on-going annual maintenance work. This should be prepared by the management group for the park.



### 7.3 County Council proposed measures for visitor facilities

In 2009 Kerry County Council proposed a series of nature trail improvement works in Reenagross to upgrade and repair aspects of the site infrastructure. These are detailed below together with the consultants comments on the specific measures proposed where applicable. In addition three further measures are suggested by the consultants for visitor facility improvement works at the park. Codes in the first column refer to location numbers shown in Figure 6.



**Figure 6:** The location of proposed works to be undertaken by Kerry County Council at Reenagross Park over the next 3 years.

Location / Code	Recommendation by Kerry County Council for Reenagross Park <i>(further explanation by consultants in brackets)</i>	Consultants Comments on work to be undertaken
CC1	Repair wall bowing due to tree roots along access path from Pier entrance	Re-use existing local materials/ or similar to harmonise with existing wall
CC2	Suggestion, benches up against hedges wall looking out over bay	Suggest similar benches as occur in rest of park (split log type)
CC3	Potholes and poor drainage on left hand side. Culvert crossing path. Recondition	
CC4	Cleaning and redefining stepped embankment (to Bat House)	Path should be stepped, finishing off with chipped bark surface to blend with other path surface in the park;
CC5	30 to 40 m section of path could be improved with granular matrix, cover protruding trees roots causing trip hazard and cleaning stepped embankment	Minimal use of granular matrix, finishing off with chipped bark surface to blend with other path surface in the park
CC6	Bench to be stabilised and ground around it to be made level to eliminate trip hazard	
CC7	Tidal damage to beach wall and erosion of part of	Re use existing/similar wall materials in beach wall

	trail	repairs; and local materials to improve trail surface
CC8	Bench, and surrounding area in poor condition (Bench beyond bridge)	Relocate so as not to obstruct the path, straighten; Path should be finished off with chipped bark surface to blend with other path surface in the park;
CC9	Bridge needs resurfacing and strengthening of its underside	
CC10	Surface of path in poor condition leading up to golf course, 10-15 m and drainage	Path should be stepped, finishing off with chipped bark surface to blend with other path surfaces in the park; lower end may need some infill and steps to avoid trip danger from tree roots
CC11	Bollards to be incorporated at main gate	Suggest use of natural stone bollard to harmonise with the existing old gate and stone style.
CC12	Annual trimming of hedges (no indication given of where these measures are to be undertaken)	Confine mainly to Arboretum area; in main woodland section only where trip hazard/path obstruction occurs.
CC13	Concrete surface on main bridge	
	<b>Not referred to in County Council Improvement Works recommendations</b>	
CC14	Path improvement works on section from main gate to bridge at western end of peninsula	Widening should occur to the east of the path, use hardcore and avoid removal of Sloe ( <i>Prunus spinosa</i> ) bushes on the seaward side. Carry out footpath maintenance in a sensitive manner.
CC15	Upgrading of steps leading up slope from bridge path towards the Bat House	Steps should be upgraded to avoid path being braided by walkers; finish with chipped wood to harmonise with existing path
CC16	<b>Seating – Amenity area</b> Picnic tables could be located at Bat House area to improve visitor experience; no litter bins should be provided; and public should be asked to take their litter home.	Choice of materials and style should fit into surrounding natural woodland setting

### 7.4 Public Involvement

Ownership is a vital ingredient in the success of maintenance of a community project such as the Reenagross Park project. Local volunteer input to the project will ensure its long term success and should provide a focus of pride for the local community.

To ensure such involvement the following measures should be considered, possibly in conjunction with a public meeting to gauge interest from various user groups. Those recommendations marked with a \* are considered to be a priority for action:

Priority	Code	Recommendation
*	PI1	<b>Management Structure – Form working group</b> Establish a formal local committee (or sub-committee of the Tidy Towns Group) to oversee the project at Reenagross Park, and undertake the various aspects of the project in relation to fundraising, management works, interpretation and increasing public awareness of the project.  Invite key stakeholders to sit on the committee (County Council, NPWS, Leader representatives etc.)
*	PI2	<b>Local participation – Public meetings</b> Hold public meeting(s) to discuss management proposals, user groups requirements, sources of funding and assistance, available from both national and local groups and organisations/institutions.
	PI3	<b>Local participation – Consult user groups on management of site</b> Seek input to the long term (10-20 year) woodland / park management plan from local groups.
*	PI4	<b>Local participation – Volunteer register</b> Establish a local volunteer network and register to help carry out survey (butterfly monitoring, bats birds, etc), management and restoration works.
	PI5	<b>Local participation - Local school / adult education centre involvement</b>

Priority	Code	Recommendation
		Initiate a nursery partnership scheme with the aid of local schools (or adult education centre) as keepers of seedling and sapling material for restocking Reenagross Park, particularly with slower-regenerating species such as oak. These groups may also be approached with to assist in survey (butterfly monitoring, bats birds, etc), management and restoration works.
	PI6	<b>Local participation – Guided walks and talks</b> See In9 above.
	PI7	<b>Project Information dissemination – Information panels</b> Prepare a travelling exhibition / panels on Reenagross park for display in local libraries, heritage centers etc. throughout the county. This might contain similar elements as contained in the website proposed for the park.

### 7.5 Resource Allocation

To ensure the success of the project funds will be required to carry out management and restoration works, maintain signs and visitor facilities and information dissemination (e.g. website), and conduct further surveys at Reenagross.

The local Reenagross Parks committee should consider the following funding issues for projects planned for the site. Those recommendations marked with an \* are considered to be a priority for action:

Priority	Code	Recommendation
	<b>RA1</b>	<b>Fundraising</b> - Seek out funding sources to meet costs of management plan, and the specific elements identified within the management plan (local fundraising; schemes such as Regional Development Programme (RDP) ; joint co-funding opportunities between Kerry County Council and RDP; Heritage Council Heritage Grant Scheme, etc.)
	<b>RA2</b>	<b>Project costs</b> - Establishment of an annual budget for the project, to meet both on-going annual general costs and project specific funding requirements (new signs, seats, paths etc.) in relation to both woodland management/restoration and interpretive works scheduled.
	<b>RA3</b>	<b>Project costs</b> – address the issue of Public liability and Health and Safety Issues where volunteers work on park projects.

## 8 Bibliography

- Anonymous (2009). Native Woodland Information Notes. In support of the native Woodland Scheme. Woodlands of Ireland, Dublin.
- Anonymous (ca1997). Reennagross Development Works, Visitor Information & Interpretation Plans. Internal Report, Kerry County Council, The Park Hotel, The South Kerry Leader Programme.
- Barron, C., Little, D. (2009). *The control of Rhododendron in native woodlands*. Native woodland scheme information note No 3. The Forest Service and Woodlands of Ireland.
- Bosbeer, S. (2008). Ballyseedy Woods 15 year recreation plan. Final report. Sylvan Consulting Ecologists, report for Kerry County Council. pp. 38.
- Carruthers, T. (1998). *Kerry: A Natural History*. The Collins Press, Cork, pp. 294.
- Challinor, H., Murphy Wickens, S., Clark, J., Murphy, A., 1999, *A beginner's guide to Ireland's Seashore*. Sherkin Island Marine Station Publications, Ireland, pp.208
- Crowe, O. (2005). *Ireland's Wetlands and their Waterbirds: Status and Distribution*. Birdwatch Ireland, pp. 402.
- Dickson, G. (1990). *The Concise guide to Mushrooms and Toadstools of Britain and Europe*. New Holland, London, pp. 103.
- Dourcelle, H. (2000). Fenor Bog Management Plan 2000. Internal report, Irish Peatland Conservation Council, Dublin.
- Fossitt, J., (2000). *A Guide to Habitats in Ireland*. The Heritage Council, Ireland.
- Hodd, T. (1998), *Nature Trails and Woodland Park at Kenmare, Reenagross Woodland Park*. Leaflet, Kerry County Council, The Park Hotel, The South Kerry LEADER II Programme for rural development.
- IPCC (2008). Fenor Bog NNR, Co. Waterford. Conservation Action Plan 2008. Irish Peatland Conservation Council & Móin Fhionnurach Development Association (MFDA).
- Kelly, J., Maguire, C.M. and Cosgrove, P.J. (2008). *Best Practice Management Guidelines Japanese knotweed Fallopija japonica*. Prepared for NIEA and NPWS as part of Invasive Species Ireland.
- Kerry County Council, 2009, Rinn na gCros Nature Trail Improvement Works - 3 year plan. Internal Report, Kerry County Council .
- Landsdowne, (The (6<sup>th</sup>) Marquis of) (1937). *Glenerought and the Petty-Fitzmaurices*. Oxford University Press, London.
- Lyne, G.J. (2001). *The Landsdowne Estate in Kerry under W.S. Trench 1849-72*. Geography Publications, Dublin.
- Madigan, N., (2007). Fenor Bog Nature Trail Guide, Co. Waterford. Irish Peatland Conservation Council, online resource, [www.ipcc.ie](http://www.ipcc.ie).
- Maguire, C.M., Kelly, J. and Cosgrove, P.J. (2008). *Best Practice Management Guidelines Rhododendron Rhododendron ponticum and Cherry Laurel Prunus laurocerasus*. Prepared for NIEA and NPWS as part of Invasive Species Ireland.
- O'Neill, F., Perrin, P. & Barron, S. (2008). Ballyseedy Wood: A 50-Year Management Plan. BEC Consultants for Kerry County Council. pp. 76.
- Perrin, P.M., Martin, J.R., Barron, S.J., O'Neill, F. McNutt, K. & Delaney, A. (2008). National Survey of Native Woodland in Irelands 2003-2008. Vol. I: Main Report. Report for National Parks & Wildlife Service, Dublin, pp. 82.
- Phillips, R. (1980), *Grasses, Ferns, Mosses & Lichens of Great Britain and Ireland*. Pan Books Ltd., London.
- Poutsma, J. (1999). Fenor bog vegetation survey and management plan. Internal Report, Irish Peatland Conservation Council, Dublin.
- Smith, W. (2009). Powell's 1764 map of Nedeem. In: Crowley, J. and Sheeran, J. (eds.), *The Iveragh Peninsula: A Cultural Atlas of the Ring of Kerry*. Cork University Press, Cork. pp. 181-183.
- Webb D.A., Parnell, J. & Doogue, D. (1996). *An Irish Flora*. Dundalgon Press Ltd., Dundalk.

**Appendix 1: National Parks & Wildlife Service Proposed Natural Heritage Area site description (unpublished)**

**National Parks & Wildlife Service**

**SITE SYNOPSIS**

**SITE NAME: ROUGHTY RIVER ESTUARY**

**SITE CODE: 002092**

Situated at the head of Kenmare River approximately 1 km south-east of the town of Kenmare, this site comprises the estuary of the Roughty River and those parts of the river under tidal influence.

While most of the area of the NHA comprises mudflats and estuarine channels, smaller areas of saltmarsh, woodland and damp grassland occur within the NHA and add to its diversity.

Although not recently re-surveyed, it is known that this site supports wintering waterfowl with regionally to locally important populations of Mute Swan (11), Wigeon (194), Teal (62), Mallard (32), Scaup (7), Oystercatcher (46), Dunlin (60), Curlew (57), Redshank (60), Greenshank (7).

Counts for each species are average peaks over one season (1984/85-86/87).

**Appendix 2: Species recorded on the Reenagross Park peninsula in September 2010**

Species marked Hodd are additional species listed in 1990's visitor leaflet to site; Species marked IWeBS are additional species listed in the Irish Wetland Bird Survey for the site.

<b>Higher Plants (No. species: 143)</b>	
Noble Fir	<i>Abies procera</i>
Sycamore	<i>Acer pseudoplatanus</i>
Yarrow	<i>Achillea millefolium</i>
Horse-chestnut	<i>Aesculus hippocastanum</i>
Creeping Bent	<i>Agrostis stolonifera</i>
Common Bent	<i>Agrostis capillaris</i>
Silver Hairgrass / Hodd	<i>Aira caryophyllea</i>
Alder	<i>Alnus glutinosa</i>
Scarlet Pimpernel	<i>Anagallis arvensis subsp. arvensis</i>
Wild Angelica	<i>Angelica sylvestris</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Strawberry-tree	<i>Arbutus unedo</i>
Balearic Sandwort / Hodd	<i>Arenaria balearica</i>
Sea Pink, Thrift	<i>Armeria maritima</i>
Black Spleenwort / Hodd	<i>Asplenium adiantum-nigrum</i>
Rusty-back fern / Hodd	<i>Asplenium ceterach</i>
Wall-rue fern / Hodd	<i>Asplenium ruta-muraria</i>
Maidenhair Spleenwort	<i>Asplenium trichomanes</i>
Sea Aster	<i>Aster tripolium</i>
Lady-fern	<i>Athyrium filix-femina</i>
Common Orache	<i>Atriplex patula</i>
Downy Birch	<i>Betula pubescens</i>
Hard-fern	<i>Blechnum spicant</i>
Sea Club-rush	<i>Bolboschoenus maritimus</i>
False-brome	<i>Brachypodium sylvaticum</i>
Butterfly-bush	<i>Buddleja davidii</i>
Ling Heather / Hodd	<i>Calluna vulgaris</i>
False Fox-sedge	<i>Carex otrubae</i>
Greater Tussock-sedge	<i>Carex paniculata</i>
Remote Sedge	<i>Carex remota</i>
Wood-sedge	<i>Carex sylvatica</i>
Sweet Chestnut	<i>Castanea sativa</i>
Common Knapweed	<i>Centaurea nigra</i>
Red Valerian	<i>Centranthus ruber</i>
Chamomile / Hodd	<i>Chamaemelum nobile</i>
Creeping Thistle	<i>Cirsium arvense</i>
Marsh Thistle	<i>Cirsium palustre</i>
Traveller's-joy	<i>Clematis vitalba</i>
Common Scurvygrass	<i>Cochlearia officinalis</i>
Pignut	<i>Conopodium majus</i>
Field Bindweed	<i>Convolvulus arvensis</i>
Hazel	<i>Corylus avellana</i>
Wall Cotoneaster	<i>Cotoneaster horizontalis</i>
Hawthorn	<i>Crataegus monogyna</i>
Montbretia	<i>Crocsmia x crocosmiiflora</i>
Broom	<i>Cytisus scoparius</i>
Cock's-foot	<i>Dactylis glomerata</i>
Hay-scented Buckler Fern / Hodd	<i>Dryopteris aemula</i>
Broad buckler-fern / Hodd	<i>Dryopteris dilatata</i>
Male Fern	<i>Dryopteris filix-mas</i>
Scaly Male Fern	<i>Dryopteris affinis</i>

Great Willowherb	<i>Epilobium hirsutum</i>
Field Horsetail	<i>Equisetum arvense</i>
Bell Heather	<i>Erica cinerea</i>
Spindle / Hodd	<i>Euonymus europaeus</i>
Beech	<i>Fagus sylvatica</i>
Red Fescue	<i>Festuca rubra</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Ash	<i>Fraxinus excelsior</i>
Cleavers	<i>Galium aparine</i>
Marsh-bedstraw	<i>Galium palustre</i>
Heath Bedstraw	<i>Galium saxatile</i>
Shallon, Salal	<i>Gaultheria shallon</i>
Shining Cranesbill / Hodd	<i>Geranium lucidum</i>
Dove's-foot Crane's-bill	<i>Geranium molle</i>
Herb-Robert	<i>Geranium robertianum</i>
Sea-milkwort	<i>Glaux maritima</i>
Giant-rhubarb	<i>Gunnera tinctoria/manicata</i>
Common Ivy	<i>Hedera helix</i>
St John's Wort / Hodd	<i>Hypericum perforatum</i>
Cat's-ear	<i>Hypochaeris radicata</i>
Holly	<i>Ilex aquifolium</i>
Yellow Iris	<i>Iris pseudacorus</i>
Jointed Rush / Hodd	<i>Juncus articulatus</i>
Soft-rush	<i>Juncus effusus</i>
Sea Rush	<i>Juncus maritimus</i>
Meadow Vetchling	<i>Lathyrus pratensis</i>
Lax-flowered Sea-lavender	<i>Limonium humile</i>
Perennial Rye-grass	<i>Lolium perenne</i>
Honeysuckle, Woodbine	<i>Lonicera periclymenum</i>
Great Wood-rush	<i>Luzula sylvatica</i>
Purple-loosestrife	<i>Lythrum salicaria</i>
Crab-apple / Hodd	<i>Malus sylvestris</i>
Black Medick	<i>Medicago lupulina</i>
Purple Moor-grass	<i>Molinia caerulea</i>
Hemlock water dropwort / Hodd	<i>Oenanthe crocata</i>
Parsley water dropwort / Hodd	<i>Oenanthe lachenalii</i>
Wood-sorrel	<i>Oxalis acetosella</i>
Winter Heliotrope	<i>Petasites fragrans</i>
Common Reed	<i>Phragmites australis</i>
Hart's Tongue Fern / Hodd	<i>Phyllitis scolopendrium</i>
Scots Pine	<i>Pinus sylvestris</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Greater Plantain	<i>Plantago major</i>
Sea Plantain	<i>Plantago maritima</i>
Smooth Meadow-grass	<i>Poa pratensis</i>
Southern Polypody / Hodd	<i>Polypodium cambricum</i>
Common Polypody	<i>Polypodium vulgare</i>
Soft shield fern / Hodd	<i>Polystichum setiferum</i>
Silverweed	<i>Potentilla anserina</i>
Selfheal	<i>Prunella vulgaris</i>
Blackthorn	<i>Prunus spinosa</i>
Bracken	<i>Pteridium aquilinum</i>
Sessile Oak	<i>Quercus petraea</i>
Pedunculate Oak	<i>Quercus robur</i>
Meadow Buttercup	<i>Ranunculus acris</i>

Lesser Celandine / Hodd	<i>Ranunculus ficaria</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Japanese Knotweed	<i>Reynoutria japonica</i>
Rhododendron	<i>Rhododendron ponticum</i>
Dog-rose	<i>Rosa canina</i>
Bramble	<i>Rubus fruticosus</i> agg.
Wild Raspberry	<i>Rubus idaeus</i>
Common Sorrel	<i>Rumex acetosa</i> subsp. <i>acetosa</i>
Wood Dock, Redvein Dock	<i>Rumex sanguineus</i>
Rusty Willow	<i>Salix cinerea</i> subsp. <i>oleifolia</i>
Elder	<i>Sambucus nigra</i>
Sanicle	<i>Sanicula europaea</i>
Grey Club-rush	<i>Scirpus lacustris</i> subsp. <i>tabernaemontani</i>
Wood Club-rush	<i>Scirpus sylvaticus</i>
English Stonecrop	<i>Sedum anglicum</i>
Common Ragwort	<i>Senecio jacobaea</i>
Sea Campion	<i>Silene vulgaris</i> subsp. <i>maritima</i>
Goldenrod	<i>Solidago virgaurea</i>
Smooth Sow-thistle	<i>Sonchus oleraceus</i>
Rowan	<i>Sorbus aucuparia</i>
Greater Sea-spurrey	<i>Spergularia media</i>
Hedge Woundwort	<i>Stachys sylvatica</i>
Devil's-bit Scabious	<i>Succisa pratensis</i>
Dandelion	<i>Taraxacum officinale</i> agg.
Wood Sage	<i>Teucrium scorodonia</i>
Sea Arrowgrass	<i>Triglochin maritima</i>
Scentless Chamomile	<i>Tripleurospermum maritima</i>
Colt's Foot / Hodd	<i>Tussilago farfara</i>
Goose	<i>Ulex europaeus</i>
Wych Elm	<i>Ulmus glabra</i>
Pennywort	<i>Umbilicus rupestris</i>
Common Nettle	<i>Urtica dioica</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Heath Speedwell	<i>Veronica officinalis</i>
Tufted Vetch	<i>Vicia cracca</i>
Bush Vetch	<i>Vicia sepium</i>
Common Dog-violet	<i>Viola riviniana</i>
<b>Mosses</b> (No. species: 5)	
Moss	<i>Brachythecium rutabulum</i>
Moss	<i>Isoetecium myosuroides</i>
Moss	<i>Polytrichum</i> spp
Moss	<i>Rhytidiadelphus loreus</i>
Moss	<i>Thuidium tamariscinum</i>
<b>Lichens</b> (No. species: 5)	
Lichen	<i>Cladonia fimbriata</i>
Lichen	<i>Lobaria pulmonaria</i>
Lichen	<i>Parmelia glabratula</i>
Lichen	<i>Parmelia</i> spp.
Lichen	<i>Usnea</i> pp.
<b>Seaweeds</b> (No. species: 6)	
Seaweed	<i>Ascophyllum nodosum</i>
Seaweed	<i>Fucus serratus</i>



Seaweed	<i>Fucus spiralis</i>
Seaweed	<i>Fucus vesiculosus</i>
Seaweed	<i>Laminaria</i> spp.
Seaweed	<i>Pelvetia caniculata</i>
<b>Fungi (No. species: 2)</b>	
Puff Balls Fungi	<i>Lycoperdon pyriforme</i>
Fungus	<i>Oudemansiella mucida</i>
<b>Introduced species &amp; ornamental planting in the Arboretum (No. species: 34)</b>	
Bamboo	<i>Arundinaria japonica</i>
Black Locust	<i>Robinia pseudoacacia</i>
Bull Bay	<i>Magnolia grandiflora</i>
Coral bark Maple	<i>Acer 'Senkaki'</i>
Cordaline Palm	<i>Cordaline australis</i>
Cotoneaster	<i>Cotoneaster</i> spp.
Daisy Bush	<i>Oleraria semidentata</i>
Darwin's Barberry	<i>Berberis darwinii</i>
Dawn Redwood	<i>Metasequoia glyptostroboides</i>
European Hornbeam	<i>Carpinus betuloides</i>
Field Maple	<i>Acer campestre</i>
Hiba Cypress	<i>Thujopsis japonica</i>
Holm Oak	<i>Quercus Ilex</i>
Japanese Rowan	<i>Sorbus commixta</i>
Judas Tree	<i>Cercis siliquastrum</i>
Lace Bark	<i>Hoheria sexstylosa</i>
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>
Linden	<i>Tilia</i> spp.
Loquat	<i>Fitzroya japonica</i>
Macedonian Pine	<i>Pinus peuce</i>
Maidenhair Tree	<i>Ginkga biloba</i>
Monteray Pine	<i>Pinus radiata</i>
Myrtle	<i>Myrtus</i> spp.
Northern Red Oak	<i>Quercus rubra</i>
Pin Oak or Swamp Spanish Oak	<i>Quercus palustris</i>
Portugal Laurel	<i>Prunus wsitanica</i>
Sacred Bamboo	<i>Nandina domestica</i>
Silver Birch	<i>Betula alba</i>
Snake Bark Maple	<i>Acer capitles</i>
Snow Gum	<i>Eucalyptus niphophylla</i>
Swamp Cypress	<i>Taxodium distichum</i>
Sweet Gum	<i>Liquidamber styracifula</i>
White Birch	<i>Betula jacquemontii</i>
Whitebeam	<i>Sorbus aria</i>
<b>Fauna - Birds (No. species: 86)</b>	
Arctic Gull	IWeBS
Bar-tailed Godwit	
Blackbird	
Blackcap	
Black-headed Gull	
Blue Tit	
Bullfinch	
Chaffinch	

Chiffchaff	
Coal Tit	Hodd
Common Gull	IWeBS
Common Sandpiper	Hodd
Common Tern	Hodd
Cormorant	IWeBS
Cuckoo	Hodd
Curlew	
Curlew Sandpiper	IWeBS
Dunlin	IWeBS
Duncock	Hodd
Fieldfare	Hodd
Glaucous Gull	Hodd
Goldcrest	Hodd
Goldeneye	IWeBS / Hodd
Goldfinch	
Great Black-backed Gull	IWeBS
Great Crested Grebe	IWeBS
Great Northern Diver	IWeBS
Great Tit	
Greenfinch	Hodd
Greenshank	IWeBS / Hodd
Grey Wagtail	Hodd
Grey Heron	
Grey Plover	IWeBS
Herring Gull	IWeBS
Hooded Crow	Hodd
House Martin	Hodd
Jackdaw	Hodd
Jay	Hodd
Iceland Gull	IWeBS
Kestrel	Hodd
Kingfisher	
Lapwing	IWeBS
Lesser Black-backed Gull	IWeBS
Linnet	Hodd
Little Egret	IWeBS / Hodd
Little Grebe	IWeBS
Long-tailed Tit	
Magpie	Hodd
Mallard	IWeBS
Meadow Pipit	Hodd
Merganser	Hodd
Mistle Thrush	Hodd
Moorhen	Hodd
Mute Swan	IWeBS
Oystercatcher	
Pheasant	Hodd
Pied Wagtail	Hodd
Raven	Hodd
Red Breasted Merganser	IWeBS
Redpoll	Hodd
Redshank	
Redwing	Hodd
Ringed Plover	IWeBS

Robin	Hodd
Rook	Hodd
Sand Martin	Hodd
Sandwich Tern	Hodd
Shelduck	IWeBS
Shoveler	IWeBS
Siskin	Hodd
Skylark	Hodd
Snipe	IWeBS
Song Thrush	Hodd
Sparrowhawk	Hodd
Spotted Flycatcher	Hodd
Starling	Hodd
Swallow	Hodd
Swift	Hodd
Teal	IWeBS / Hodd
Tree-creepers	Hodd
Turnstone	IWeBS / Hodd
White-tailed Sea Eagle	
Wigeon	Hodd
Wood Pigeon	IWeBS / Hodd
Willow Warbler	Hodd
Wren	Hodd
<b>Fauna - Mammals (No. species: 20)</b>	
Badger	Hodd
Brown Long-eared Bat	Hodd
Brown Rat	Hodd
Common Pipistrelle	
Common Seal	
Daubenton's Bat	Hodd
Fox	Hodd
Grey Seal	Hodd
Hedgehog	Hodd
Irish Stoat	Hodd
Leisler's Bat	Hodd
Lesser Horseshoe Bat	Hodd
Natterer's Bat	Hodd
Otter	
Pigmy Shrew	Hodd
Pipistrelle Bat	Hodd
Rabbit	Hodd
Soprano Pipistrelle	
Whiskered Bat	
Wood Mouse	Hodd
<b>Other Fauna (No. species: 3)</b>	
Red Admiral	
Speckled Wood	
Salmon	

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### Appendix 3: Useful contact groups for advice on funding, management and conservation measures.

**Bat Conservation Ireland**, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. Tel: 046 9242882.  
Web site: [www.batconservationireland.org](http://www.batconservationireland.org)

**BirdWatch Ireland**, Unit 20, Block D, Bullford Business Campus, Kilcoole, Co. Wicklow, Ireland. Tel: 353 (0)1 2819878 .

**Coillte Teoranta**, Newtownmountkennedy, Co. Wicklow. Tel: ++353 1 2011111

**Cork County Bat Group**. Spring Lane, Carrigagulla, Ballinagree, Macroom, Co. Cork. Tel: 021 7339247 or 087-2980297 E-mail: [conorkelleher@eircom.net](mailto:conorkelleher@eircom.net) Web site: [www.corkcountybatgroup.ie](http://www.corkcountybatgroup.ie)

**Irish Peatland Conservation Council**, Comhairle Chaomhnaithe Phortaigh na hÉireann, Bog of Allen Nature Centre, Lullymore, Rathangan, Co Kildare. Tel: +353 - (0)45 860133.

**Irish Wildlife Trust**. Sigmund Business Park, 93A Lagan Road, Dublin Industrial Estate, Glasnevin, Dublin 11 Tel: 01-8602839 Fax: 01-8308914 Email: [enquiries@iwt.it](mailto:enquiries@iwt.it) Web site: [www.iwt.ie](http://www.iwt.ie)

**Móin Fhionnurach Development Association (MFDA)** – Fenor Bog, Rita Byrne, Fenor, Co Waterford.

**National Parks and Wildlife Service**, 7 Ely Place, Dublin 2. Tel: +353-1-8882000.

**Sonairte**, The Ninch, Laytown, Co. Meath, Ireland. Tel: 041 982 7572.

**The Heritage Council**, The Heritage Council, Áras na hOidhreachta, Church Lane, Kilkenny, Ireland.  
Tel: (056) 777 0777.

**Tree Council of Ireland**, Seismograph House, Rathfarnham Castle, Rathfarnham, Dublin 14.  
Tel: 00353 1 493 1313

**The Woodland League**, c/o East Clare Community Co-op, Main St., Scarriff, Co. Clare  
Tel: +353-(0)87-9933157

**Woodlands of Ireland**, Declan Little, Woodlands of Ireland, Seismograph House, Rathfarnham Castle, Dublin 14. Tel: 087-6685823 Fax: 44-7006-007-231 E-mail: [woodsofireland@iol.ie](mailto:woodsofireland@iol.ie)

**Forest Service**, Head Office, Agriculture House, Kildare St. Dublin 2. Lo-call: 1890 200 510  
Tel: 01 607 2000 <http://www.agriculture.gov.ie/forestservice/grantandpremiumschemes/>

#### **Forest Service: Neighbour Wood Scheme**

The Neighbour Wood Scheme provides grant aid for local authorities, private landowners and others to develop attractive local woodland amenities - or 'Neighbour Woods' - in and around villages, towns and cities, specifically for public access and enjoyment. The scheme is currently (Nov 2010) accepting applications for this scheme, although the availability of future funding is uncertain. This grant scheme is cost based and funding is available under three separate elements:

#### **Element 1: Enhancing existing woodland**

The 1st installment grant is cost based, is equivalent to 75% of total grant and is payable on completion of the project with the remaining 25% payable 4 years after completion subject to satisfactory maintenance of the woodland, to a maximum cumulative of €5,000.00/ha. No premiums are available with this element.

**Element 2: Establishing new woodland**

The 1st installment grant under Element 2 is cost-based up to the maximum grant level of €5,259.25/ha. It covers the cost of establishment. The 2nd instalment is payable in year 4 subject to the satisfactory maintenance of the woodland to a maximum grant level of €1,660.82/ha. NeighbourWood Establishment, premiums may be available to a maximum of €573.86/ha Farmer rate, and €211.73 non-Farmer rate, for applicants who fulfill the eligibility criteria as set out in the Afforestation Grant and Premium Scheme.

**Element 3: Facilities**

The grant payable under Element 3 is cost-based up to the maximum grant level of €4,500.00 per hectare for the first 10 hectares of forest-area submitted and €3,000.00 per hectare for all subsequent area submitted, up to a maximum of 40 hectares. No premiums available with this element.

**Forest Service: Native Woodland Scheme**

The Native Woodland Scheme is an innovative package aimed at protecting and expanding Ireland's native woodland resource and associated biodiversity. The Native Woodland Scheme is a key biodiversity measure within Ireland's national forest policy. It also supports a wide range of other benefits and functions arising from native woodlands, relating to landscape, cultural heritage, wood and non-wood products and services, the practice of traditional woodland management techniques, environmental education, and carbon sequestration. There are two elements under the scheme, each with its own grants levels and premiums.

**Alternative bat roost suppliers**

Alana Ecology Ltd.,  
The Old Primary School,  
Church Street,  
Bishop's Castle,  
Shropshire SY9 5AE  
UK.  
Telephone: 0044-1588-630173  
Fax: 0044-1588-630176  
Email: [sales@alanaecology.com](mailto:sales@alanaecology.com)  
Web site: [www.alanaecology.com](http://www.alanaecology.com)

'Schwegler' bat boxes – 2F design

Jacobi, Jayne & Co.,  
Living with Birds,  
Wealden Forest Park,  
Herne Bay CT6 7LQ  
UK.  
Telephone: 0044-800-0720130  
Email: [enquiries@livingwithbirds.com](mailto:enquiries@livingwithbirds.com)  
Web site: [www.jacobijayne.co.uk](http://www.jacobijayne.co.uk)

**Bird box supplier**

It is recommended that bird boxes be purchased locally, local wood workers would be able to provide these at a reasonable cost.

Examples of different types and commercial suppliers include:

[www.nestbox.co.uk](http://www.nestbox.co.uk)

[www.birdwatchireland.ie](http://www.birdwatchireland.ie)



**Appendix 4: Photographs illustrating the main habitat types; management issues that need to be addressed; and location of interpretation recommendations at Reenagross Park, Kenmare, County Kerry.**

(Photographs copyright Peter Foss unless otherwise stated).

## **Plates A. Habitats at Reenagross**



**Plate A1:** Native Oak woodland at Reenagross Park, Natural Heritage Area. This woodland type is particularly important for many moss, lichen, fungal, bird and invertebrates. This woodland type is an Annex I habitat under the EU Habitats Directive because of its diverse and rich flora, most notably their bryophytes (mosses and liverworts). Large areas of this woodland type can support up to than 5,000 species.



**Plate A2:** Mixed deciduous Beech and Oak woodland at Reenagross Park, Natural Heritage Area.





**Plate A3 i:** An area of scrub, dominated by Sloe (*Prunus spinosa*) at the eastern end of the Reenagross park. These and similar scrub areas occur at a number of locations adjacent to the native Oak woodland and mixed deciduous Beech woodland at Reenagross Park, Natural Heritage Area.



**Plate A3 ii:** An area of scrub, dominated by Willow (*Salix cinerea*) on the northern side of the Reenagross Park peninsula.



**Plate A4:** View of salt marsh and sea weed zone on the southern side of Reenagross Park, Natural Heritage Area.



**Plate A5:** A view of one of the many mudflat areas surrounding the Reenagross Park, Natural Heritage Area. These area are important feeding habitats for many bird species.



**Plate A6:** A view of one of the open wet grassland and marsh areas in the Reenagross Park, Natural Heritage Area.

**Plate A7:** The stone wall along the estuary at near the Pier entrance to Reenagross Park. This natural stone wall provides a habitat for a number of species specialised that are able to grow on bare rock crevices including English Stonecrop (*Sedum anglicum*) and Maidenhair Spleenwort (*Asplenium trichomanes*).



## Plates B. Pressures & Threats at Reenagross



**Plate B1:** *Rhododendron ponticum* forming a closed canopy under a section of native oak woodland on the eastern end of the Reenagross peninsula. Dense growth by *Rhododendron* completely shades out native species that would be found in the understorey and herb layer of this woodland, significantly reducing its biodiversity value.



**Plate B2:** A view under the *Rhododendron ponticum* closed canopy under a section of native oak woodland on the eastern end of the Reenagross peninsula. Dense growth by *Rhododendron* completely shades out native species that would be found in the understorey and herb layer of this woodland, significantly reducing its biodiversity value. In addition no new tree seeding can germinate, effectively destroying the woodlands ability to regenerate.



**Plate B3:** The expansion and invasion of other exotic species (Giant Rhubarb - *Gunnera tinctoria/manicata*; Bamboo - *Arundinaria japonica*; Japanese Knotweed - *Reynoutria japonica*) also threatens the biodiversity value of the woodland habitats on the site. It is recommended that all examples of these species be removed from the woodland south of the causeway. In addition Japanese Knotweed should be eradicated from the Arboretum area to the north of the causeway which threatens this area.



**Plate B4:** Examples of human pressure caused by visitors at the Reenagross Park. Interpretation and information signs should be erected addressing these issues and asking visitors to the park to remove their rubbish, not set fires or disturb wildlife (inter alia.).



**Plate B5:** One of the smaller pond areas in the wet grassland and marsh area at the eastern end of the Reenagross Park peninsula. These ponds have become infilled and choked with organic debris. Excavation of this material would increase water depth and provide additional freshwater/brackish water wildlife habitats.



**Plate B6:** An area of rank grassland (foreground) at Reenagross Park, which is relatively species poor. Annual mowing or light grazing of such areas would reduce the density of grasses and open the turf allowing flowering plants to colonise the area. These species would provide additional feeding and nectar sites for a range of birds and insects. This would enhance the biodiversity of these grassland areas.

### **Plates C. Interpretation & Access at Reenagross**



**Plate C1:** Access point from the Kenmare Golf Club, where other than the finger sign at entrance gates there is no indication for visitors on how to make their way to the Rennagross park. It is recommended that signage and access be improved.



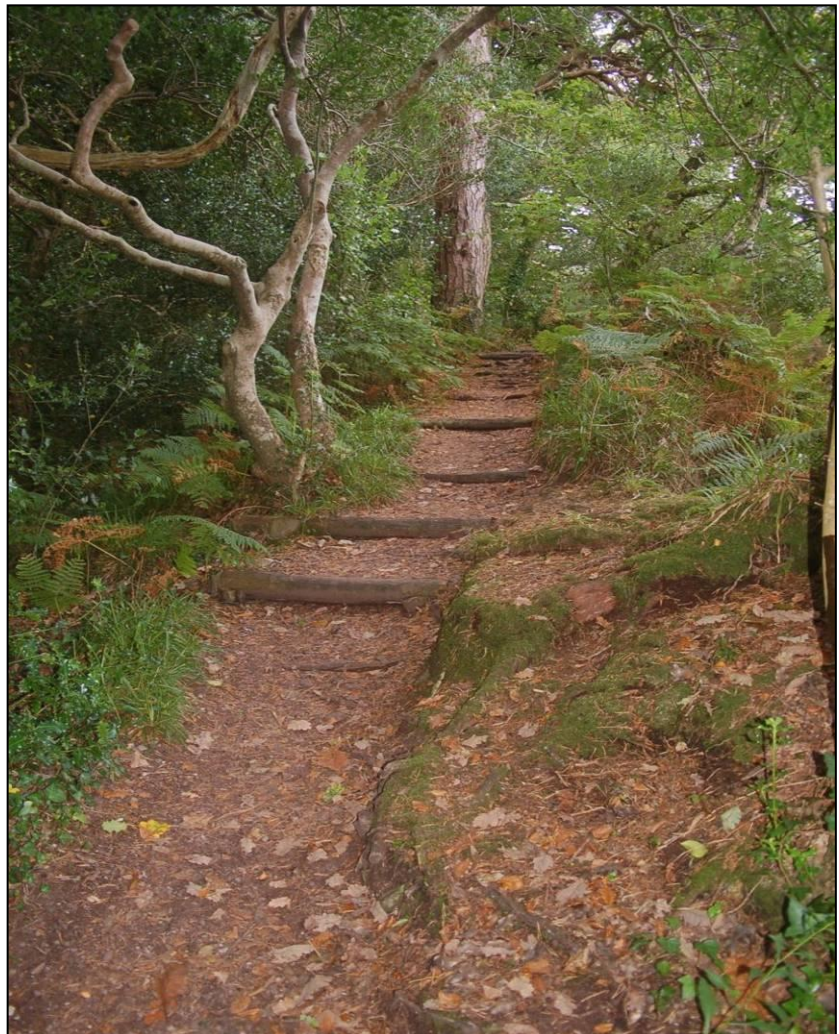
**Plate C2:** Access point from the Pier road is particularly dangerous at present. The County Council should be approached and asked to install speed ramps at this location. In addition no signage exists to indicate entrance to the park at this location. It is recommended that signage and access be improved.



**Plate C3:** View of the Bat House and adjacent open area, where interpretation panels focusing specifically on the importance of bats could be installed, and where visitor seating and picnic area could be created.



**Plate C4:** Steps on the southern edge of the peninsula in the mixed deciduous woodland area where brading of the path has occurred due to poor condition of the adjacent steps. Upgrading of the steps is recommended.





**Plate C5:** View of shoreline area on the southern edge of the peninsula showing transition from terrestrial to saltmarsh, and marine habitats. It is recommended that an interpretive panel at this location should explain the habitats that occur along a transect from open water in estuary, through the various seaweed zones, saltmarsh up to the terrestrial woodland habitat. A separate panel on birdlife in estuary should also be erected here (or at footbridge location, see below).



**Plate C6:** Footbridge and path area at western end of the peninsula require upgrading. An interpretive panel on birdlife in estuary could be erected here.



**Plate C7:** The most eastern point of the Reenagross peninsula where an interpretive panel on birdlife in estuary could be erected, and where visitor seating could be improved.