

**Hilbre Islands
Local Nature Reserve
Draft Management Plan
Appendices**

1st September 2003

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Review of 1983 Draft Management Plan

The management plan compiled in 1983 was a comprehensive 60-page document.

It was written in 3 parts,

- part 1 - a very detailed description of the reserve,
- part 2 - a detailed evaluation of the reserve,
- part 3 - a much less detailed prescription for the management of the reserve.

The management prescriptions in Part 3 were structured around 8 objectives, and contained ideas of how to manage the reserve in order to meet these objectives; they were:

1. To protect the nature reserve from any development or activity inside or outside the reserve which may adversely affect its ability to support wildlife or spoil its natural character
2. To minimise the effects of erosion by the sea without spoiling the natural character of the nature reserve through drawing up and implementing a programme of coastal protection work.
3. To manage the recreational, educational and scientific use of the reserve so as to minimise human interference with flora and fauna in general and with roosting and migrating birds and sensitive plant communities in particular.
4. To draw up and implement an ecological management programme so as to conserve and encourage the further development of desirable plant and animal communities and discourage the encroachment of undesirable plant and animal communities.
5. To draw up and implement a policy for estate management governing the design, use and maintenance of all buildings, walls, fences, tracks, footpaths, boundaries, notice-boards, litter-bins and other structures.
6. To co-ordinate research into the natural history of the nature reserve and to monitor changes on a systematic basis.
7. To promote greater understanding of the ecological value and significance of the reserve.
8. To minimise the risk of injury to the public and to ensure that adequate rescue facilities are provided.

Part 1 and most of part 2 needed very little work to update them as this aspect of the reserve changes little. They are included as an appendix, with an extract of the more important information included within the main body of the management plan.

It has been thought for a while that part 3 lacks a lot of detail on what needs to be done. This has arisen from the objectives being written as broad areas of concern rather than measurable targets. In order to address this problem, the new plan will have a two tiered system, i.e. general Aims, and more detailed, and measurable Objectives.

The matrix below shows where the old objectives fit in with these new aims.

Aim in the new 2003 plan	Objective from the old 1983 plan
To protect and enhance the wildlife of the reserve, both its biodiversity and its contribution to regional, national and international biodiversity. To protect the geological importance of the reserve	1 (Protection), 4 (Ecological), 6 (Research),
To conserve the landscape character and historic value of the reserve	1 (Protection), 5 (Estate work), 2 (Coastal protection)
To reduce the consumption of natural resources and adverse impacts on the Local and Global Environment in the management and use of the reserve	Previously uncovered
To provide opportunities for people to develop their enjoyment, understanding and appreciation of the reserve that draw on and are consistent with its natural character	3 (Visitor management), 7 (Understanding/interpretation), 8 (Safety)

It has also been obvious that much of the wording of part 3 has been negative, and with a lot of use of the word 'should'. It is rewritten with positive statements of what is to be done, (i.e. projects) with a rationale of how they will deliver benefits; and is more likely to result in the objectives being met.

Detailed Site Description

1 General

1.1 Location

The Hilbre Islands are in the Metropolitan Borough of Wirral in the County of Merseyside. They are situated at the mouth of the Dee Estuary approximately one mile from the Hoylake-West Kirby shoreline, as shown in Map 1 in appendix 12. The grid reference of the centre of Hilbre Island, which is the largest of the three islands, is SJ 185 879.

1.2 Description

Hilbre Island is also occasionally known simply as Hilbre. It has an area of 13.5 acres (5.4 hectares) at Mean High Water and a plateau area of about 8 acres (3.2 hectares). Middle Eye, also known as Middle Island or Little Hilbre has an area of 5.5 acres (2.2 hectares) at Mean High Water and a plateau area of 2.5 acres (1 hectare). Little Eye has an area of 6 acres (2.4 hectares) at Mean High Water and a plateau area of only 0.05 acres (0.02 hectares). The Local Nature Reserve also includes some 95 acres (38 hectares) of tidal rocks below Mean High Water. The total area of the Local Nature Reserve is about 120 acres (49 hectares).

The high tide surrounds and separates the three islands from the mainland and from each other for approximately five hours out of every twelve. At low tide the islands form part of the Hoylake-West Kirby foreshore and are accessible on foot and by authorised vehicles from the mainland. Little Eye is nearest the mainland and is still accessible for a time when the other islands are surrounded by water. During the smallest neap tides it is accessible at all times.

The formal declaration of the Islands as a Local Nature Reserve took place on 26th July 1983.

The whole of the Local Nature Reserve is contained within the Dee Estuary Site of Special Scientific Interest (SSSI) This is because of the large numbers of wading birds and wildfowl it supports in winter, the islands providing an important high tide roost for these birds. The Islands are also within the Dee Estuary Special Protection Area (SPA) and Ramsar Site, notified in July 1985. The reason for these two designations is the large numbers of wading birds and wildfowl that the estuary supports. The latest designation is the Dee Estuary candidate Special Area of Conservation (cSAC), which was declared on February 2001. Hilbre's significant contribution to the cSAC are the vegetated Sea Cliffs.

1.3 Tenure

The three Hilbre Islands and the surrounding foreshores are the freehold property of the Metropolitan Borough of Wirral. A number of areas and properties on Hilbre Island are leased by the Council to private individuals, the Hilbre Bird Observatory and the Mersey Canoe Club.

1.4 Map Coverage

OS Map 1:50,000 scale sheet 108
OS Map 1:25,000 scale sheet SJ 08/18
OS Maps 1:2,500 scale Metropolitan Borough of Wirral Sheet Nos. 61a and 75a

2 Detailed Description

2.1 Physical

2.1a Geology

The Hilbre Islands consist of a ridge of Bunter sandstone of the Triassic period (180 million - 225 million years old). The ridge continues to the south and is visible at low tide at the Tanskeys, Seldom Seen Rocks and Caldys Blacks on the West Kirby and Caldys foreshore. Around the cliffs of the islands a number of small "faults" can be observed and there are numerous interesting features such as "cross bedding" and "pebble beds". The pebble beds contain fossils from a much earlier date (up to 259 million years old) which give geologists an indication of how rocks of the Triassic period were formed. Hilbre Island is the most northerly exposure of pebble beds with these types of fossils.

When the Ice Age ended about 25,000 years ago, the islands were probably attached to the mainland of Wirral. As the climate became warmer and the ice caps continued to melt the sea level rose. The islands were probably separated from the mainland around 5500 BC at about the same time as the British Isles were separated from the continent.

2.1b Geomorphology

The topography of the Hilbre Islands can be attributed to a combination of the underlying geology of the area and the effects over several thousand years of continuous erosion by the sea. The islands themselves consist of low plateaux with a maximum height on the West side of Hilbre Island of 56 feet (17 metres) above mean sea level. The plateaux reflect the underlying layers of Bunter sandstone rock, which dip in an easterly direction at an angle of about 10°.

The islands are known from historical and archaeological records to have reduced considerably in size in the last 2,000 years due to erosion by the sea. Bearing in mind that the islands were only separated from the mainland some 7,500 years ago, it seems fair to speculate that the next thousand years could witness the virtual disappearance of the islands. The revetment works of the past 150 years and the construction of the former Lifeboat Station have done much to prevent erosion at the north end of Hilbre Island. However, Little Eye has now been almost completely eroded away.

The process of erosion by the sea creates many features of geomorphologic interest such as cliffs, caves, stacks, wave-cut platforms and small sandy beaches. Much of the erosion is caused by the waves undercutting soft seams in the rock on the west sides of the islands, eventually causing the cliffs to fall. Fresh water draining through the rock to the east sides also gives rise to erosion and cliff falls aided by frost action in severe winters.

2.1c Meteorology

There are no reliable weather records for the Hilbre Islands, but Meteorological Office records are available from 1945 to 1970 for Ashton Park, West Kirby. Ashton Park has an average annual temperature of 9.9°C ranging from a monthly average of 3.8°C in January to 16.1°C in July and August. It has an average of 4.03 hours sunshine per day ranging from 1.41 hours per day in December to 6.94 hours in June. The average annual rainfall is 29.1 inches (740mm). In relation to the North West of England in general, West Kirby is warmer, sunnier and drier than average. It is also relatively snow and frost free.

As the islands are only two miles or so from Ashton Park, the weather there should be similar. There may be slight differences, however, due to the influence of the sea, which for five hours in twelve surrounds the islands. The temperature of the sea at this part of the coast ranges from 8°C (46°F) in February to 14°C (57°F) in August. In Winter, therefore, temperatures on the islands may be slightly higher than at West Kirby and extremely low temperatures may be less frequent due to the warming influence of the sea. The islands may have a relatively long growing season for plants compared with inland areas but they are exposed to strong winds, sea spray and air-borne salt. These conditions seriously limit the range of plants that can grow on the islands.

An alternative source of weather information is from the Proudman Oceanographic Laboratory, Bidston Observatory, Birkenhead, Wirral CH43 7RA. Tel 0151 653 8633 www.pol.ac.uk/appl/met.htm
This weather data from Bidston will be similar to that at Hilbre and West Kirby.

2.1d Hydrology

Apart from two small, plastic lined ponds, a well and an artificially created pond of uncertain age on Hilbre Island, the islands probably have little hydrological interest due to their small size.

2.1e Soils

The soil on Hilbre Island is, for the most part, a free draining very sandy loam. Although a detailed survey has not been carried out, the distribution of plant species indicates a wide range of pH values.

The soil on Middle Eye has been the subject of more detailed study, particularly in relation to pH and conductivity. It consists in part of well drained sandy loam and in part a poor draining much peatier soil. The range of pH is between pH 4.0 and pH 8.4. This variation partly accounts for the great diversity of plant species found in such a relatively small area.

The soil on Little Eye consists of almost pure blown sand with low humus content and a limited range of plant species.

2.2 Biological

2.2a Flora

The vegetation of the islands consists of open grassland plant communities that vary in composition according to variations in exposure to the sea and wind, soil characteristics and human interference. The extent to which the land had been grazed in the past is also an important factor (NB grazing is currently restricted to enclosed areas).

Patches of heath vegetation exists in places comprising species such bell heather (*Erica cinerea*) and common heather (*Calluna vulgaris*). On the western sides of Hilbre Island and Middle Eye the grassland and heath gives way to cliff-top vegetation characteristic of sub-maritime heaths found in Western Britain. Typical species include thrift (*Armeria maritima*), buck's horn plantain (*Plantago coronopus*), Danish scurvygrass (*Cochlearia danica*) and rock sea-spurrey (*Spergularia rupicola*).

Hilbre holds about 10% of the world population (one of only 10 sites) of a rock sea lavender subspecies (*Limonium britannicum ssp. celticum*), this is an endemic and a Red Data Book species. Sea spleenwort (*Asplenium marinum*) is a regionally scarce species. Locally important plants such as field mouse ear (*Cerastium arvense*), slender trefoil (*Trifolium micranthum*), and pellitory-of-the-wall (*Parietaria judaica*) are present. Many species of plants, which had been recorded in the past, were found to be absent. These may have been lost due to erosion or grazing but in some cases the plants may have been artificially introduced and may have failed to naturalise.

What the vegetation of the islands would have been like without the influence of man is a matter of speculation. The "native" or "climatic climax" vegetation of the British Isles evolved in the period 5500 BC to 3000 BC following a gradual improvement in climatic conditions after the Ice Age. The climatic climax vegetation of much of mainland Britain was mixed oak woodland. Because of its proximity to the sea, however, the Hilbre area probably would have supported a sub-maritime heath with possibly some scrubby woodland in more sheltered parts. However, since man may have inhabited the Hilbre area since 8000 BC or earlier (see section 1.2.3a) and the islands were not separated from the mainland until 5500 BC (see section 1.2.1a) the islands may never have developed a truly "natural" vegetation free from human interference.

The islands are also important for marine life supported by the 38 hectares (95 acres) of tidal rocks. There are very few examples of rocky shore in the long coastline of sand and mud flats of North West England and North Wales. Although species diversity has decreased here this century (partly attributed to an increase in silt deposition and sediment scour around the islands), the Hilbre shore still possesses a great variety of microhabitats such as crevices, gullies, rock pools, vertical faces and overhangs, each of which tends to support a different kind of seaweed community. In all 150 species of algae have been recorded, some of these being regionally, and in one case nationally, rare.

2.2b Fauna

The Hilbre Islands, particularly Little Eye and Middle Eye, are a roost site for internationally important wading birds wintering in the Dee Estuary. The most common species are knot, dunlin, redshank, turnstone, sanderling and oystercatcher. Most of the wading birds feed on the plentiful supply of invertebrates concentrated in the alluvial sediments of the estuary. A few waders, however, notably the purple sandpiper, feed on invertebrates from the seaweed covered rocks surrounding the Hilbre Islands. These islands become particularly important roost sites on high spring tides and in storm conditions when other roost sites in the estuary (beach and saltmarsh) are completely covered. The islands can be carpeted with waders at these times.

The islands are also an important staging post for migrating passerine (i.e. perching) birds during both spring and autumn. These feed on the invertebrate population of the island plateaux before setting off on the next leg of their journeys. As with the waders, the main attraction of the islands is probably their strategic position and the fact that the birds are relatively undisturbed.

The Hilbre Bird Observatory was formed in 1957. Detailed observations of birds have been made since that time and about 1,000 birds are ringed annually. In all, 223 species have been recorded on the islands.

Full details of observations including frequencies of sightings are given in the annual Hilbre Bird Observatory Reports and Chapter 12 of Hilbre, The Cheshire Island edited by J.D. Craggs (1982).

Despite the large numbers of birds observed on the Hilbre Islands there have only been five species which have nested regularly on the islands in recent years. These are skylark, meadow pipit, starling, linnets and shelduck. Whilst these species are all fairly common the islands do present an interesting opportunity for the study of isolated breeding colonies. Skylark and Linnets are National Biodiversity Priority species. A detailed study has been made of the house sparrows on the island. pied wagtail, wren and robin

The islands contain one of the most studied populations of invertebrate fauna in the North West of England. There are over 700 species (mainly insects). The distribution of species is related to the vegetation type, tolerance of sea spray and the incidence of occasional inundation by waves. Some of the species found in the heath and open grassland plant communities are regionally rare but most of those in the paddock and garden areas are locally common. The spider and harvestmen populations are similar to those found on mainland heaths, such as Thurstaston Common, whilst the land molluscs are common or garden varieties.

The only mammals that regularly breed on the islands are field voles. Many other mammals have been observed, having crossed from the mainland, these include rabbits, hedgehogs, foxes, stoats, rats, mice, otters, a grey squirrel and even a fallow deer which was thought to have crossed the River Dee from North Wales.

The Hilbre Islands are of particular interest as a platform from which to observe grey seals, either swimming around the islands or on the West Hoyle Bank to the west of Hilbre Island which the seals have used as a haul-out site for the last 70 years. The colony which numbers over 500 at their annual maximum, spends most of the year around the mouth of the Dee and is considered to be of regional interest. Most return to their breeding grounds in Autumn. One of the possible breeding grounds is thought to be Ramsey Island off the coast of Pembrokeshire. Additionally rare sightings are made on occasions of common seals and species of porpoises, dolphins and whales. The Dee Estuary is also estimated to support 93 species of fish including the uncommon anadromous fish, smelt, *Osmerus eperlanus*.

The status of the marine fauna is consistent with that of the marine flora, see above.

2.2c Ecological Relationships

These islands represent the only natural hard rocky coast within the estuary and are the only examples of this habitat between the limestone cliffs of the Creuddyn Peninsula in North Wales and the sandstone cliffs of St Bees Head in Cumbria. The supporting vegetation i.e. maritime heathland/grassland and hard cliff/ledge vegetation are thus of significant interest.

The ecological communities on the islands include two major and largely separate habitats. One is a form of dry maritime heath and grassland on the plateau areas and the other is the tidal rocky shore. They can in turn be sub-divided into numerous micro-habitats where different species of flora and fauna predominate in response to variations in the degree of exposure to sea, salt, wind, trampling and (on the plateaux) grazing and cultivation. In both habitats the invertebrate fauna and mollusc populations appear to be closely related to the types of plant communities present.

The islands' only resident land mammal, the field vole, is commonly found in rough ungrazed grasslands. Its numbers were found to fall during one recent period of intensive stock grazing. Another controlling factor has been the arrival of kestrels on two occasions when the vole population has become abundant. The kestrels disappear again when the vole population falls. The resident bird population of shelduck, skylarks, blackbirds, meadow pipits, pied wagtails, starlings and linnets are also suited to the island habitat, but they are limited by their resilience to human interference and availability of food.

The wading birds that use the islands as a high tide roost feed mainly on invertebrate fauna in the tidal sands of the estuary. Their relationship with the ecology of the islands is not fully understood.

Similarly, it is not clear what effect, if any, the large numbers of migrating passerine birds have on the flora and other fauna of the islands. To the waders and the migrating passerines the islands are primarily a resting place for which purpose the islands are strategically located and relatively free from human disturbance.

The seals that use the West Hoyle Bank as a haul-out site feed on the fish of the Irish Sea and the Dee Estuary. The West Hoyle Bank has probably been selected for the accessibility it affords to their feeding grounds, shelter from the prevailing westerly winds and its relative safety from human interference.

It is difficult to determine precisely the influence of man in the ecology of the islands. He has had some influence on the islands for as long as 10,000 years. He has farmed and grazed the islands with stock for over 1000 years and has visited the islands in large numbers for 100 years. Even those areas that appear at first glance to be "natural" are in fact the result to a certain extent of earlier farming or grazing practices.

Through the building of the Lifeboat Station and extensive revetment work, man has prevented some parts of Hilbre Island from erosion by the sea. Conversely, by the quarrying of other areas the erosion process has been accelerated.

By growing various crops, grazing various animals and gardening, man has influenced the range of plants that grow on the islands. Some species of flora and fauna have been deliberately introduced, whilst others have arrived accidentally.

Overgrazing and excessive trampling by visitors in sensitive areas can cause the destruction of vegetation and accelerate erosion, while the disturbance of roosting birds, by recreational users can deplete the birds' energy reserves and reduce their ability to survive the Winter.

2.3 Cultural

2.3a Archaeology

Archaeological finds from the Hilbre Islands and from the mainland at Hoylake and Meols suggest that man was already present in this area during the period 8000 BC to 5000 BC. Numerous "finds" have been made on the islands, mainly by chance excavations or through the action of erosion by the sea, although no systematic survey has been conducted. The most thorough excavation was conducted by Professor Newstead of Liverpool University in 1926 and consisted of ten small trenches dug on Hilbre Island.

A full list of archaeological finds on the islands is given below in section 5. The most notable finds include a bronze axe-head found on Middle Eye and thought to be of Irish origin and a Saxon or Norman burial ground covering a quarter of an acre on Hilbre Island.

2.3b Land Use History

Hilbre Island is known to have had religious associations from an early date. A stone cross-head and grave cover found in the mid nineteenth century are considered to date from the late tenth or early eleventh century. A pilgrim shrine may have existed at an even earlier date, dedicated to St Hildeburgh or St Edburge, a seventh century Mercian Saint.

In 1066, Hilbre Island was part of the manor of Caldy, held by the Englishman Leofnoth. William the Conqueror gave Leofnoth's lands to Hugh of Avranches who passed them on to his follower Robert of Rhuddlan. Some time prior to 1081 he, in turn, gave them to the Abbey of St Evroul in Normandy.

In 1140 St Everoul transferred Kirby and Hilbre to their Benedictine Brethren at St Werburgh's, Chester and a Benedictine cell of monks was maintained on the island until its dissolution in 1538.

During the later years of the Benedictine cell it is known that two monks lived on Hilbre Island with their servant. They had one or two small boats and fished for herrings and they had a miniature farm on the island with horses, cattle and sheep and they may have grown herbs for medicinal use.

In 1538 the islands passed to the Dean and Chapter of Chester Cathedral and remained under this ownership until 1856. It was no longer a place of worship but simply a piece of property which was leased to various people over the years.

In the sixteenth and early seventeenth century Hilbre Island was an important anchorage for shipping in the Dee Estuary. Most of the trade was with Ireland (usually Dublin). Outward cargoes included various types of cloth, manufactured articles such as nails, knives, cups, wooden plates, small quantities of sugar, raisins, pepper and occasionally coal from the Deeside seams. The return cargoes consisted predominantly of hides for Chester's flourishing leather industry.

Hilbre Island was also used as an embarkation point for shipping troops, horses and equipment to Ireland during Elizabeth 1's Irish wars and again during Cromwell's Irish campaign. During this period the island probably contained an inn and one or two houses. The residents probably kept a pony, a cow and some sheep.

From the early seventeenth century onwards the importance of Hilbre island as an anchorage declined. This was partly due to the increasing size of boats used for trade and partly due to the gradual silting up of the channel between Hilbre Island and Hoylake.

In 1692 there was a scheme to produce salt on Hilbre Island. This probably involved boiling in seawater quantities of Cheshire rock salt brought to the island via the River Dee. The scheme was short-lived but may well have left some traces in the form of depressions in the ground outside the present bird observatory. In 1755 there was a proposal to establish an oyster fishery around the island but this was opposed by a combination of Liverpool Corporation, traders, shipowners, fishermen and pilots and the proposal was dropped.

The island's inn "The Seagull Inn" was first recorded in 1793. Its patrons were "the crews of some small vessels which find a harbour under one side of the Island".

A traveler recorded in 1813 the local gossip about the Hilbre innkeeper and his wife that "their riches have been gained principally by wrecking, for which business their situation is said to be admirably calculated".

In the 1820's Thomas Telford and his associates produced a scheme to construct a "Floating Harbour" along the entire length of the North Wirral coast with two sea ports, one in the mouth of the Dee and one in the mouth of the Mersey. Hilbre Island would have become the pierhead of the Dee port, linked via Middle Eye and Little Eye to the mainland by an embankment and road. A further embankment from Red Rocks to the northern tip of Hilbre Island with an opening 300 feet wide would have turned the sands between the islands and the mainland into a 50-acre tidal harbour. Needless to say this scheme and a contemporary scheme to build a ship canal from Hoylake to Wallasey Pool were never implemented.

In 1828 the Trustees of Liverpool Docks acquired the lease to the islands and established Hilbre Island as a telegraph station for communicating semaphore messages from Holyhead to Liverpool. The line of stations ran through Port Lynas, Puffin Island, the Great Orme, Llysfaen near Abergele, Foel Nant above Prestatyn, Hilbre Island and Bidston Hill. The system enabled the sighting of a ship off Anglesey to be transmitted to Liverpool within minutes. The record, set in clear weather, was claimed to be 23 seconds, but in poor visibility and at night the system was unusable. In 1861 the semaphore system was replaced by an electric telegraph system.

Hilbre Island as it appears today is almost completely the creation of the Dock Trustees and the Dock Board (the successor body after 1858) during the mid-nineteenth century. The Trustees were responsible for the building of Telegraph House (with the exception of the southern part which is thought to be the oldest building on the island) and the lookout station in 1841 and 1842. The lifeboat house and slipway were built in 1849 and the tide gauge was constructed in 1852. The Trustees also carried out all the major revetment work around the island and probably built most of the stone walls on the island. A detailed list of the dates of construction of all the buildings on Hilbre Island is given in Section 6.

The Dock Trustees sub-leased part of the island to Trinity House, who built the house and store adjacent to Telegraph House in 1850 to accommodate a Buoy Store and keeper who was charged with the job of maintaining buoys in the Dee estuary. These buildings were erected and certain associated quarrying activities took place without the permission of the owners, the Dean and Chapter of Chester Cathedral. This led to ill feelings over the leasing arrangements and in 1856 the Trustees purchased the islands outright.

The Telegraph keepers of Hilbre Island all appear to have kept a horse or pony for transport and sheep and some kept a cow, a pig and poultry. The sheep are said to have been kept in order to keep the grass short rather than for profit.

Hilbre Island and Middle Eye were also divided into fields and corn was grown on the south end of Hilbre Island. Hay was cut in the paddocks and vegetables were grown in the garden.

With the growth in population of Hoylake and West Kirby towards the end of the nineteenth century and more particularly the completion of the Liverpool to West Kirby railway in the 1880's Hilbre Island became a popular destination for day-trippers. The following is an extract from R Anderson's chapter on the history of the Hilbre Islands in Hilbre, The Cheshire Island, edited by J D Craggs (1982):-

"As early as 1885, solicitors acting for an anonymous client with an eye to the new possibilities created by the railways attempted to purchase the property 'to form a Marine Establishment on Hilbre Island for the purposes of recreation, boating and bathing, and to connect the same with Hoylake Railway by means of a tramway'. A similar scheme was put forward by a Mr. Henry Summers, an Architect, a decade later; his ideas focused on the Little Eye, and involved 'the formation of a Promenade Pier constructed upon light iron stanchions or pillars starting from a station on the mainland.' The pier was to run to the Eye, where there would be 'suitable and ornamental pavilion buildings comprising assembly room, reading and refreshment rooms... (and) well-constructed sea-water bathing accommodation'."

The Dock Board resisted these ambitious schemes and more modest ones to extract rock and minerals from the islands, although it did approve another oyster-farming scheme which was short-lived. The property built by Trinity House was leased to a succession of individuals after the buoy store was

discontinued in 1876. A lease was granted for the construction of a clubhouse for the Mersey Canoe Club in 1896 and leases were also granted for the construction of holiday bungalows in 1897, 1905, 1908 and 1923.

The Dock Board and their various tenants became increasingly concerned at the number of day-trippers. August Bank Holiday of 1911 brought 2,000 visitors. There were a number of attempts to prevent public access but the public outcry was such that the Dock Board eventually settled on a method of controlling the number of visitors by issuing tickets that had to be obtained in advance. Even this system was not introduced without local opposition. As an aid to control, iron railings and gates were erected around Hilbre Island and Middle Eye in 1911 and a Dock Board Policeman was employed on Sundays to enforce regulations.

During the First World War Hilbre Island was occupied by the Army. During the Second World War it was occupied by the RAF who used the islands as part of a decoy system to try and confuse enemy bombers attacking Liverpool. The use of the lifeboat station and Telegraph Station was continued in 1939, the railings gradually disintegrated from neglect and disappeared and an air-raid shelter was built in the middle of the Island.

In 1945 the islands were sold to Hoylake Urban District Council with a number of covenants designed to safeguard them from undesirable development.

In 1974 when local government was reorganised, Hoylake UDC considered handing over the islands to the National Trust. The newly elected Wirral Borough Council, however, placed on record its determination to pursue a policy safeguarding the islands from undesirable development and to preserve and maintain their character for the enjoyment of the public (Leisure Services Committee Minute 13 - 29.5.1974).

Since 1945 the only developments have been the construction of the former bird observatory hut in 1962 and the adaptation of the lifeboat station in 1975 to make a "sea-watching" hide for ornithologists. The Local Authorities have appointed a succession of Custodians to live in Telegraph House and to look after the interests of the islands. They have kept a variety of animals including a horse, ponies, goats, chickens, geese and turkeys, although there has been no grazing of the unenclosed areas of the islands since 1976.

In 1985 the post of Custodian was changed to Countryside Ranger with wider responsibility for the Dee Estuary.

2.3c **Public Interest**

For over a hundred years the Hilbre Islands have attracted large numbers of visitors each year. Most people visit the islands during the Summer for an afternoon's or even a day's outing. They visit the islands for a walk, to see the sea and the rock pools, to sunbathe or to picnic. Some walk there and back at low tide, whilst others stay on the islands for the high tide and return as the tide recedes.

Many people are attracted to the islands through an interest in natural history and much scientific research has been carried out over the past century on both the marine and terrestrial life of the islands, particularly under the auspices of Liverpool University. Large numbers of primary and secondary school parties also visit the islands in connection with specific projects or for a general educational outing.

The value of the islands for bird watching has long been appreciated but the Hilbre Island Bird Observatory was not established until 1957 and did not acquire permanent premises until 1962. The Observatory is run by a group of keen amateur ornithologists for the purposes of recording and ringing the birds found on and around the islands. There has been a marked increase in the number of bird watchers visiting the islands in recent years. In particular, there has been an increase in the number of large organised parties visiting the islands in Winter. This increase is mostly due to the general growth in popularity of bird watching nationally, but it is also partly due to the existence of the bird observatory and the interest taken in the islands by top professional bird photographers, such as Eric Hoskings.

The energy sources on Hilbre Island have inspired a number of projects in the field of mechanical engineering. The Institute of Oceanographic Sciences and Liverpool University have investigated various aspects of tidal flow, wind energy and solar energy.

During high tides the waters around the islands are popular for sailing, canoeing and windsurfing. The Mersey Canoe Club is the only water sport club with a permanent base on the islands. It has had its present clubhouse on Hilbre Island since 1896.

Some of the local sailing clubs do, however, use the island from time to time in connection with sailing events. There are six sailing clubs based on the Dee and the North Wirral coasts active in this area with a total of about 2,700 members and 816 boats (in 1983).

A regular but fairly small number of people use the surrounding shores for fishing, bait digging and collecting shellfish (mainly cockles, mussels and whelks). An enquiry was made about the possibility of establishing an oyster farm at the north end of Hilbre Island as recently as 1981.

2.3d **Past Management**

No attempt was made to control public access to the islands until the 1870's when a Mr. Brandreth leased the southern part of Hilbre Island from the Dock Board. His attempts were largely ignored by the local residents of West Kirby. In 1888 the following tenant, Mr. Rundell, closed off Hilbre Island by erecting a locked gate across the path. This produced a local outcry. The local residents claimed there was a public right of way across the island that dated back to the existence of the public house and even to the days of mediaeval pilgrimages to the island. The Dock Board refused to recognise the existence of a public right of way but, in response to pressure from the local residents, the Local Authority and the local newspapers agreed to permit the public to visit the island as before.

Over the next few years the numbers of visitors grew to such an extent that the Dock Board itself felt obliged to introduce some measure of control. Litter, broken glass and rowdiness became increasing problems not only for the Dock Board and the inhabitants of Hilbre Island but also for the majority of respectable visitors. Litter bins were provided in 1900 but a request by Hoylake UDC for the Dock Board to provide public toilets in 1910 was turned down. The Board considered closing the islands altogether on Sundays and Bank Holidays but settled instead on the use of tickets which had to be obtained in advance. This system was introduced in 1911 and Hilbre Island and Middle Eye were fenced with iron railings to facilitate enforcement. The Telegraph Keeper was made responsible for checking tickets but had assistance from Dock Board Police on busy Sundays and Bank Holidays.

Despite initial complaints from local residents, the ticket system of control was generally accepted as being in the public interest. The system has continued, with slight modifications, up to the present day. The twin system of annual permits for individuals and groups of up to 5, and day permits for groups of over 5 but no more than 50 was modified in the early 1990's, when the individual or annual permit was abandoned, but the group day permit was retained. At the present time, a group permit which is valid for one day only and covers a maximum of 50 people is required. More than one group may visit the island on any one day provided the total number of people visiting in groups does not exceed 50. Permits are available from Wirral Country Park Visitor Centre, Thurstaston. Permits are no longer available from West Kirby Concourse, although an outlet in West Kirby is still considered to be the ideal location for the permits to be issued in the future. (See Appendix 4)

It is almost impossible to estimate how many visits were made without permits. In 1975 153 group permits and 452 individual permits were issued.

In 1981 104 group permits were issued. The total number of visitors in these groups was 2,750. The average party size was therefore 26. The number of individual permits issued was 470. As these permits are valid for a calendar year and for groups of up to five people, it is impossible to estimate accurately how many authorised visits were made without further research. There has likely been a fall in the number of visits over this period.

Vehicles are only authorised on the islands or the foreshore under special circumstances. The unauthorised use of motor vehicles, including motorbikes on the foreshore has increased in recent years.

3 Bibliography

- Brownbill J. West Kirby and Hilbre (1928)
- Coward T.A. The Vertebrate Fauna of Cheshire and Liverpool Bay 1910)
- Craggs J.D. Hilbre, The Cheshire Island (Editor) (1982)
- The Dee Estuary Conservation Group The Dee Estuary - A Surviving Wilderness (1973)
- The Dee Estuary Conservation Group The Conservation of the Dee Estuary,
A Contribution to a Planning Strategy (1979)
- Ellison N.F. The Wirral Peninsula (1955)
- Gamlin H. Twixt Mersey and Dee (1897)
- Hewer H.R. British Seals (1974)
- Hosking E. An Eye for a Bird (1970)
- Hume A. Ancient Meols (1863)
- Mersey Docks & Harbour Board Minutes of Meetings
(1855-1935)
- Mersey Docks & Harbour Board Mersey (Staff Magazine)
Vols. 1 - 3
- Simms E. Birds of the Air (1976)
- Varley W.J. Cheshire Before the Romans (1964)
- Wirral Borough Council Report on the Islands of Hilbre (1976)
Dept. of Leisure Services
- Young H.E. Perambulation of the Hundred of Wirral in the County of Chester (1909)

For a more detailed bibliography of literature concerning the Hilbre Islands see Hilbre, The Cheshire Island, edited by J.D. Craggs (1982).

4 Register of Scientific Research

ANDERSON S.S., BONNER W.N., BAKER J.R. and RICHARDS R. Grey Seals, *Halichoerus grypus*, of the Dee Estuary and observations on a characteristic skin lesion in British Seals. J. Zool., Lond. (1974)174.

BAILEY, P.W. and W.J.
Lepidoptera Catches on Hilbre Island using a Mercury Vapour Lamp. Proc. Liverpool Naturalists Field Club (64-69).

CRAGGS, J.D.
Population Studies of an isolated colony of House Sparrow (*Passer domesticus*).
Bird Study 3/67

CRAGGS, J.D. and ELLISON, N.F.
Observations on Seals of the (Welsh) Dee Estuary.
Proc. Zool. Soc. London (1960) 135

ELLISON, N.F.
The Reptiles and Amphibians of Hilbre

Proc. Liverpool Naturalists Field Club (64-69)

ELLISON, N.F.
The Land and Marine Animals of Hilbre
Proc. Lancs. & Chesh. Fauna Soc. 1970

FENTON, C.
Spiders and Harvestmen of Hilbre
Lancs. & Chesh. Fauna Soc. 1972 No. 61

HARDING, P.T.
A collection of Woodlice and Beetles on Hilbre
Hilbre Island Bird Report 1968

HARRIS, J.H. & YOUNG J.O.
The invertebrate Fauna of the Pond on Hilbre
Hilbre Island Bird Report 1972

HILBRE BIRD OBSERVATORY Reports 1957 - 2000

McMILLAN, N.F.
A Kitchen Midden on Hilbre
Proc. Liverpool Nat. Field Club 1942
McMILLAN, N.F.
Marine Mollusca of Hilbre
Proc. Liverpool Nat. Field Club 1941

McMILLAN, N.F.
An Island Fauna (Hilbre, Chesh)
Journal of Conchology (1964) 25

MEREDITH, S.S.
A Study of *Cragnon Vulgaris* in the Liverpool Bay Area
Proc. Liverpool Biol. Soc. (1950-52) LV 111

RUSSEL, G.
Algal Vegetation of Hilbre
Hilbre Island Bird Report 1968 and 1970

RUSSEL, G.
Phytosociological Studies on a two zone shore.
J. Ecol (1972) 60

TAYLOR, G.H.
Flowering Plants and Ferns of Hilbre
Hilbre Island Bird Report 1971-1972

A more comprehensive and up to date register of research work on the flora and fauna of the Hilbre Islands can be found in Hilbre, The Cheshire Island, edited by J.D. Craggs (1982).

5 Archaeology

The reported archaeological finds from the Islands are arranged below by period based on information supplied by the Liverpool Museum. The 19th century writers were rarely precise about where objects were found and some more recent writers have attributed earlier discoveries to the wrong island.

As far as possible all the references have been checked. The majority of the objects found went to the Cheshire Archaeological Society's collections (The Grosvenor Museum, Chester).

See end for bibliography. 'No location' means present whereabouts are not known.

Prehistoric Period

Hilbre Island:

- a) Neolithic stone axehead reported found in 1950's. No details and no location.
- b) Neolithic flint arrowhead (TrHS 25).
- c) Flint arrowheads and flakes found by C Potter mid-19th century, now in the Grosvenor Museum.

Middle Eye:

- a) Bronze socketed axe found in 1926, probably Irish and one of very few from the north west. No location. (Varley fig. 20, N & TrHS 78).
- b) Fragments of a bucket-shaped urn found in 1965 where part of the cliff had collapsed, now in the Grosvenor Museum.

Little Eye:

- a) A possible Mesolithic working platform, the flints 'are washed out from the remains of a rapidly diminishing bank ... & in the face of which examples may at times be found protruding'. No location. (TrHS 23p. 127)
- b) Three Neolithic arrowheads and nine scrapers. (TrHS 25p. 127)
- c) Ten Neolithic arrowheads and scrapers, possibly Irish, with waste material (TrHS 24p. 142).

Roman Period

(All finds from the Roman Period onwards are said to be from Hilbre Island).

- a) Sherds of 3rd and 4th century pottery found in 1926 by Newstead, at Grosvenor Museum (TrHS 78p. 136)
- b) Two bronze brooches, bronze buckles and glass beads, probably to Liverpool Museum but unlocated. (TrHS vol 23p. 20).
- c) H E Smith records himself as first to recognise Roman objects on Hilbre. He does not detail them but says many were picked up by the telegraph keeper. (TrHS 20p. 101).

Saxon Period

- a) Anglo-Norse crosshead found in 1853, early 11th century, now in Grosvenor Museum (TrHS 23p. 29; TrHS 15p. 233; TrHS 78p. i).
- b) Some of the items described as Roman in TrHS sound more likely to be Saxon in date, no location. (TrHS 18p. 210, 20p. 106 and 115, 23p. 127).

Medieval Period

- a) In 1864 a late 11th or early 12th century grave slab discovered. Now in Charles Dawson Museum attached to St Bridget's West Kirby. (TrHS 23p. 30). There were also said to be a number of burials nearby.
- b) Kitchen midden of 14-15th century (North Western Naturalist 1953-54 p. 388).
- c) Elizabethan coin, Irish 1602, Grosvenor Museum.
- d) Medieval lead object inscribed AVE MARIA, to Liverpool, but unlocated. (TrHS 20p. 121).

- e) Medieval pottery (TrHS 21p. 215).
- f) Two 16th century reckoning counters (TrHS 26p. 102-3).

Post-Medieval Period

- a) Midden site of late 18-19th century (N.W. Nat. 1953-54)
- b) Clay pipes of 17th and 18th centuries, now in Liverpool Museum.
- c) The Lifeboat House, Lighthouse and self-registering tide gauge etc.

Other Items

- a) Three flints from Hilbre beach (TrHS 18); Two arrowheads (TRHS 20) and 23 worked flints with 10 flakes (TrHS 25p. 128) all said to be from the beach.
- b) 13th century lead pilgrim's badge from France, to Liverpool Museum but unlocated (TrHS 23p. 31).
- c) There was a light on the Islands somewhere from at least Henry III's reign (1216 - 1272) because the Earl of Chester had to contribute ten shillings a year for its upkeep.

Objects or Structures of Uncertain Date

Hilbre Island

- a) Burial ground of about .25 acre, presumably associated with the Saxon or Norman chapel.
- b) Kitchen Midden (NW Nat. 1953-54 p.388)
- c) Salt workings (TRHS 20p. 126)
- d) Well 40 feet deep
- e) Circular buildings possibly associated with the salt workings (TrHS 21p. 216).
- f) Unglazed pottery, probably Roman or Medieval. (TrHS 25p. 134).
- g) Rock-cut feature. (TrHS 23p. 219 and TrHS 78p. 141)

Middle Eye

Field boundaries of unknown date can be made out although the banks are being rapidly eroded. These may be associated with Bronze Age settlement, or with the religious foundation.

Little Eye

A kitchen midden reported by Newstead (TrHS 78).

Bibliography

References to Hilbre Island occur in the following volumes of the Transactions of the Historical Society of Lancashire and Cheshire (TrHS); 15; 16; 18p. 205 and p. 210; 20pp. 101, 104, 106, 115, 121, 126; 21p. 215 and 216; 23pp. 13-46 and 127; 24p. 142 and 143; 25p. 127; 26p. 102-103; 27p. 95; 78p. 136 - 143; and also Trans. Lanc's and Cheshire Archaeological Soc. vol. 68 (1958), 1-9.

7 Nature Conservation Designations of the Dee Estuary

Hilbre Islands LNR is part of the Dee Estuary, and as such is covered under a number of Nature Conservation Designations. The descriptions/citations of the following designations are available from English Nature, or the Ranger on request

Dee Estuary Site of Special Scientific Interest (SSSI)
 Dee Estuary Special Protection Area (SPA),
 Dee Estuary candidate Special Area of Conservation (cSAC),
 Dee Estuary Ramsar Site

English Nature has a number of objectives for the SSSI.

The following summarises those relevant to the Hilbre Islands LNR.

'To maintain the habitats and the associated plants and animals that make the Dee Estuary of special interest.'

- Maintain the internationally important populations of wintering and migratory birds by:
 - Preventing the reduction due to human activities in the size of the populations for which the SPA has been classified, as measured by rolling 5 year peak mean and average counts for the site carried out for the site under the Wetland Bird Survey scheme (WeBS)
 - Ensuring no significant loss in area, distribution or capacity of habitats which are part of the area which supports internationally important bird species, due to human activities.
- Maintain the range of plant communities and rare plant and invertebrate species.
- Maintain and safeguard the geological interest of the Hilbre Islands.

8 Summary Data of Important Fauna

Figures are peak counts

		1998	1999	2000	2001	2002	Mean
Breeding birds	linnet						
	skylark					0	
	shelduck						
	wren						
	mallard						
	pie wagtail						
	meadow pipit						
	robin						
	swallow						
Non Breeding birds	knot						
	dunlin						
	redshank						
	bar-tailed godwit						
	oystercatcher						
	ringed plover						
	purple sandpiper						
	grey plover						
	turnstone						
	sanderling						
	curlew						
	brent goose						
cormorant							
Mammals	field vole						
	atlantic grey seal	394	476	579	547		

Non breeding birds (eg. passage and wintering birds) will have annual counts from August/September in the year indicated up to and including March/April in the following year. These counts are a combination of High Water counts from Hilbre and Middle Eye only; and Low Water counts, which will include birds from the entire WeBS (Wetland Bird Survey) Cell, which includes Little Eye and Tanskey Rocks.

9 Constraints of Tenure

The Metropolitan Borough of Wirral owns the Freehold title to the three Hilbre Islands and the tidal foreshore within the Local Nature Reserve as shown in appendix XXX. The three Hilbre Islands were purchased by Hoylake Urban District Council from the Mersey Docks and Harbour Company on 18th December 1945 subject to the following covenants.

“The purchaser hereby covenants with the Vendor that the Purchaser and its successors in title will henceforth observe and perform the conditions following:

- a) not use nor permit the use of the property for any industrial purposes or for the provision of entertainment by means of swings, roundabouts, sideshows or similar or other amusements of a fairground character;
- b) use, hold and administer the property for recreational purposes to the end that the property may be preserved for the enjoyment of the public under proper control and regulation and for no other purposes whatsoever;
- c) make and enforce or cause to be made and enforced byelaws for the regulation of the property and for the preservation of order and the prevention of nuisance thereon;
- d) not erect nor permit to be erected on the property any buildings or structures except such as may be reasonably necessary to provide facilities for the public for shelter, bathing, boating, refreshment and sanitation, all such buildings or structures to be of suitable permanent construction and of a character unlikely adversely to affect the amenities of the district;
- e) maintain and keep the property including all buildings and structures erected thereon at all times in good order and condition.

Provided always that the Purchaser or its successors in title shall not be precluded from temporarily closing the property to the public for such period as it shall think fit for purposes connected with the better preservation of birdlife.”

The Mersey Docks and Harbour Board retained the right to keep on the islands a survey mark (now taken over by the Proudman Oceanographic Laboratory), navigation light (now the responsibility of Trinity House Lighthouse Authority), a Tide Gauge and any necessary buildings in connection with them. The Board also retained the right to visit the islands at any time in order to maintain or repair these facilities.

The foreshore surrounding the northerly part of Hilbre Island approximately north of a straight line between Hilbre Point and the Lighthouse at Point of Ayr (see maps in appendix 12) is subject to certain Crown reservations. Among other things these reservations effectively give the public “full and free right to walk or otherwise, pass to and fro over and to fish and bathe upon and to gather seaweed or ware and to land thereon goods and passengers from vessels and boats and to embark therefrom goods and passengers in vessels and boats

The public originally also had the “full and free right to ride (or) drive over this area of foreshore, but this right was withdrawn in 1980 with the consent of the Crown Estate Commissioners. This was to prevent people claiming the right to drive motor vehicles over the foreshore.

The foreshore to the south of a straight line between Hilbre point and the lighthouse at Point of Ayre, (ie. Bounding the southern end of Hilbre Island and surrounding Middle Eye and Little Eye) is not subject to any Crown reservations or covenants.

A number of areas and properties on Hilbre Island are leased by the Council to private persons and associations. These areas are shown on Maps in appendix 12.

Evaluation of the features and potential of the site

Habitats

FEATURES	STATUS			
	International	National	Regional	Local
<u>PHYSICAL:</u> Geology; fossils, faults, pebble beds, crossbedding Geomorphology; cliffs, stacks, caves, wave-cut platform		MBW	MBW	
<u>HABITATS:</u> Estuary (including mud/sand/shingle/cobbles/boulders/rocks, both intertidal and above the HW mark)	EN	EN		
Maritime cliff & slope (including maritime heathland/grassland and hard cliff/ledge vegetation)	EN	EN		
Brackish pond			TCI	
Paddocks and gardens				TCI
Rock pools			TCI	
High tide roost for wading birds	EN			
Stopping-off point for migrating passerine birds		EN		
Observation point for grey seals			EN	
<u>CULTURAL:</u> Archaeological finds Historic buildings		LM	GM	CDM MBW

AUTHORITY:

EN: English Nature

TCI: Based on the relevant chapter of Hilbre, The Cheshire Island edited by J D Craggs

MBW: Metropolitan Borough of Wirral

LM: Liverpool Museum

CWT: Cheshire Wildlife Trust

GM: Grosvenor Museum, Chester

CDM: Charles Dawson Museum, St. Bridget's Church, West Kirby

Species

FEATURES	STATUS			
	International	National	Regional	Local
<p><u>MARINE ALGAE:</u></p> <p><i>Chlorococcum submarinum</i> (a species of microscopic green algae found in a cave)</p> <p>N.B. Many of the remaining 80 or so species of algae known to be present are of regional importance.</p>		TCI *	*	
<p><u>LAND MOSSES:</u></p> <p>In general the few species of moss found on the islands are common varieties. Most are found in man-made habitats such as gardens and walls</p>				*
<p><u>LAND FLORA:</u></p> <p><i>Cerastium arvense</i> (fieldmouse ear) <i>Trifolium micranthum</i> (slender trefoil) <i>Limonium britannicum ssp. celticum</i> (rock sea lavender) RDB <i>Asplenium marinum</i> (sea spleenwort) <i>Parietaria judaica</i> (pellitory -of-the-wall)</p> <p>N.B. Many other species of flora are of local significance.</p>	CWT	CWT		CWT CWT CWT *
<p><u>LAND INVERTEBRATES:</u></p> <p><i>Bledius unicornis</i> (small horned staphylinid beetle) <i>Hadena rivularis</i> (champion moth) <i>Hadena confusa</i> (marbled coronet moth) <i>Eupithecia venosata</i> (netted pug moth) <i>Caenopsis waltoni</i> (weevil) <i>Polyxenus lagurus</i> (small bristly millipede) <i>Dytiscus circumflexus</i> (brackish water diving beetle) <i>Telmatoscopus amiguus</i> and <i>labeculosus</i> (moth midges) Montane Bee</p> <p>All remaining species are common or of local importance only.</p>		TCI TCI TCI TCI TCI	TCI TCI TCI TCI	*

FEATURES	STATUS			
	International	National	Regional	Local
<p><u>LAND MOLLUSCS:</u></p> <p>The island mollusc population is similar to the Wirral mainland with the superimposition of garden varieties</p>				*
<p><u>MARINE INVERTEBRATE FAUNA:</u></p> <p>Many of the resident marine invertebrate fauna of the rocky shores are of regional interest <i>Sabellaria alveolata</i> reefs</p>		EN	CWT	
<p><u>MARINE MOLLUSCS:</u></p> <p>Many of the Marine Molluscs are of regional interest</p>			CWT	*
<p><u>FISH:</u></p> <p>Those found around the Hilbre Islands are representative of the Irish Sea and the Dee Estuary in general. The presence of <i>Osmerus eperlanus</i> (smelt) is of note.</p>				*
<p><u>BIRDS:</u></p> <p>The eight resident Hilbre bird species are all common varieties but a large number of regionally rare species and a number of nationally rare species have been observed from the islands</p>	*	*	*	
<p><u>LAND MAMMALS:</u></p> <p>The only resident land mammal, the field vole, is common in grassland areas</p>				*
<p><u>MARINE MAMMALS:</u></p> <p><i>Halichoerus grypus</i> Fabricus (grey seal)</p>			*	

AUTHORITY:

TCI: Based on the relevant chapter of Hilbre, The Cheshire Island, edited by J D Craggs

CWT: Cheshire Wildlife Trust

EN: English Nature

* indicates the general status of categories of flora and fauna

Hilbre Permit Scheme

The Hilbre Permit scheme was codified in the 1986 Bylaws for Hilbre, see Appendix 8 for details. Initially all visitors to the Hilbre Islands Local Nature Reserve were required to have a permit; this was amended in the early 1990's, because of problems for casual visitors obtaining a permit. In the long term, the solution proposed was to be to issue permits at an Information Centre at Dee Lane Slipway, West Kirby, however in the short term it was decided that individuals and groups of up to 5 persons would not be required to have a permit. Groups of between 6 and 50 persons would require a permit for their particular day, available from Wirral Country Park Visitor Centre at Thurstaston. Groups of over 50 persons not allowed to visit the reserve.

All individuals and groups of up to 5 persons, although no longer requiring a permit since 1992, are still bound under the bylaws to adhere to the Conditions

A Code of Conduct is displayed on the Noticeboard at Dee Lane Slipway. This code summarises the main conditions of the permit and the bylaws for visitors.

Hilbre Islands LNR – Guidelines for issuing Permits

Any group of over 5 persons needs a permit to visit any part of the reserve.

Area covered by the permit.

The reserve is defined as all THREE islands and the rocks and rockpools surrounding them and the sand in between (see maps in appendix 13); it therefore includes the Little Eye and Middle Eye.

50/30 person limit.

At any one time, only 50 persons are to be given a permit. This allows two or even three groups of 50 to visit the reserve provided their visits do not overlap in time.

For groups comprised mostly of children, e.g. school, youth or church groups, we STRONGLY advise a maximum of 30 per group, as these require closer supervision. Ask them to contact the Hilbre Ranger about their visit even if they say they don't require a Ranger.

Ranger days off.

Do not book groups consisting predominantly of children on the Hilbre Rangers day off unless another Ranger is available to cover.

Visits over high water.

Dissuade groups of mostly children visiting over high water; most get bored which can create problems. Don't book groups in over high water on tides over 9.5 metres before clearing it with the Hilbre Ranger.

Photography/Hide bookings

Refer these straight to the Hilbre Ranger.

Overnight stays.

These are not allowed.

Exceptions.

It may be possible in some circumstances to issue a permit in addition to those allowed above. This depends on the planned activity, and others visiting that day. Take their details and contact the Hilbre Ranger, or suggest they speak to the Hilbre Ranger before making their booking. Explain the value of the permit, that it allows us to manage the groups visiting the reserve so that we can better protect the reserve against excessive disturbance, erosion, damage etc. and it is required by the Bylaws.

Watersports Code of Conduct

A Watersports Code of Conduct would help deliver Objective 4.1 and Objective 1.3. Project 4.1.2 specifically targets the development of such a code. At the moment the following summarises the present state of development of a Watersports Code of Conduct.

In order to minimise the potential disturbance between the watersports use of the area around Hilbre and the Wildlife value of the reserve, the following information was drawn up in consultation with representatives from all sides of the issue.

This information is made available in the form of posters and flyers at those times of year most appropriate. The advice to sailors to avoid disturbing the seals is normally circulated around sailing clubs in late April. The advice on avoiding disturbance to birds is distributed mostly from September to the end of March. It must be noted that no specific code of conduct relating to landing on Hilbre outside the bird roosting season exists at the moment, this is something that may need clarifying when the codes of conduct are re-assessed.

It is envisaged that the former Dee Estuary Recreation Users Group if re-established, would play a key role in the future when these codes need re-assessing and publicising.

**THANK YOU
FOR AVOIDING WEST KIRBY BEACH,
LITTLE EYE & THE HILBRE ISLANDS
FROM SEPTEMBER TO MARCH
- it helps to save birdlife**

The Dee Estuary is one of the North-West's last surviving wildernesses. Its 10,000 acres of wet sands and mudflats support large populations of wading birds and wildfowl, particularly from September to March, making it a site of international importance.

The pursuit of watersports on tidal waters is exciting. However, enthusiasts are unintentionally harming wading birds by disturbing them at their rest areas over high water.

Wading birds are vulnerable to disturbance. In winter the impact of flying unnecessarily can be severe, such is their need to build up and conserve energy. (They can even die, if a day of unnecessary flying, instead of feeding and resting, is followed by a cold and windy night.) In spring and autumn, constant disturbance can result in birds being too weak to migrate successfully.

If you are interested in finding out more about the Dee Estuary and its wildlife or have any comments you wish to discuss, please contact Lynne Greenstreet, Coastal Ranger, Tel: (0151) 678 5488.



**Metropolitan
Borough of Wirral**



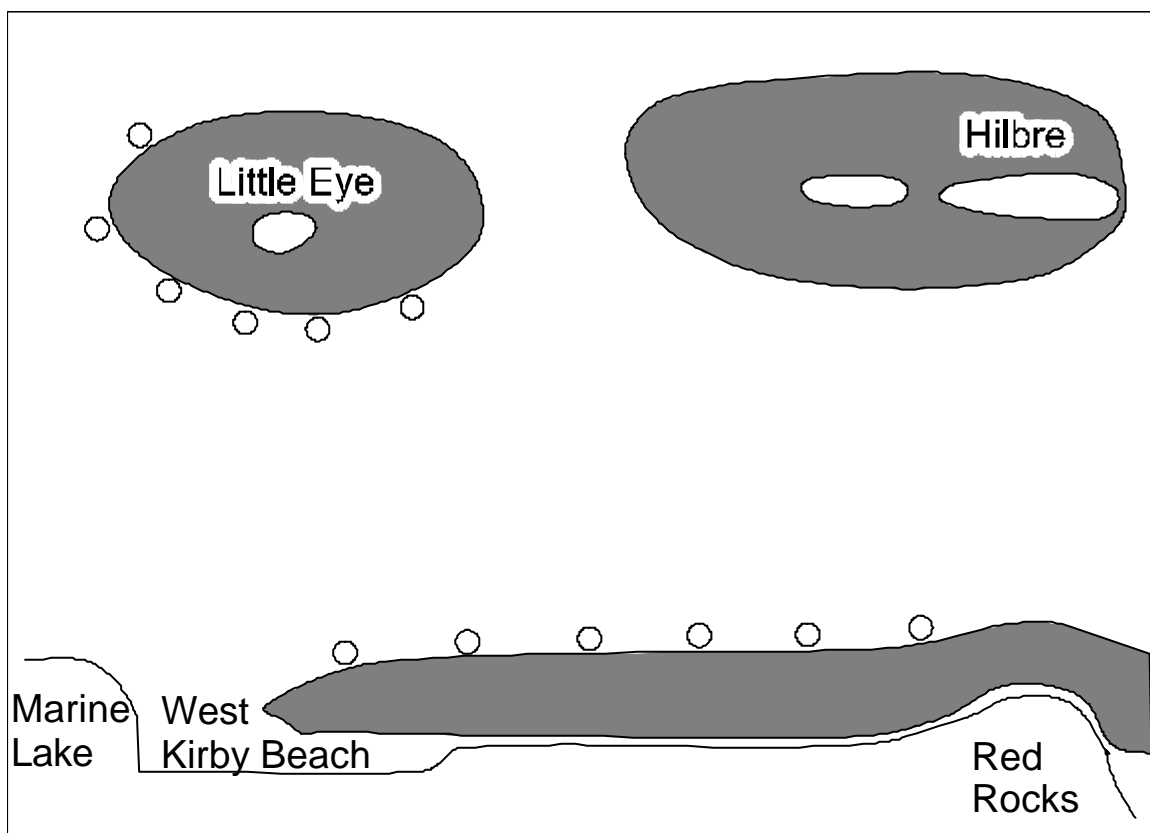
*Dee Estuary
Voluntary
Wardens*

Bird Protection Zones

Please keep clear of the Hilbre Islands, Little Eye and West Kirby beach when sailing, windsurfing, kite-boarding, canoeing or jet-skiing on the tide.

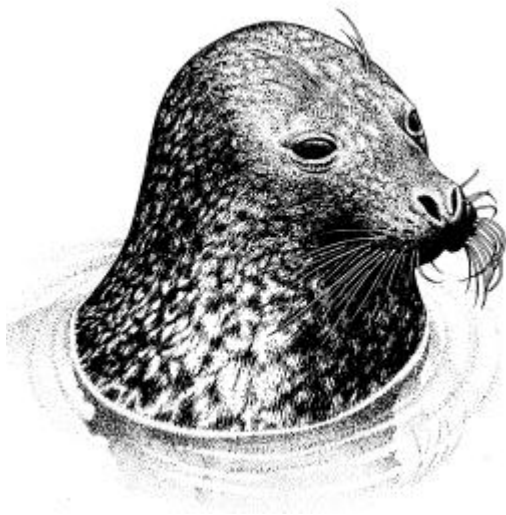
Yellow buoys mark the closest points of approach (200 metres).

It is vital that wading birds are not disturbed in Autumn and Winter.



NB.

As this Management Plan was being finalised for public consultation, the bird protection zones were being extended due to an increase in disturbance, in particular by kite-surfers. Initial proposals are to extend the zones out to 500 metres, with a review following one winter season to determine if this has been effective.



Seals and Boating in the Dee Estuary

The Dee Estuary by the Hilbre Islands is home for a colony of Atlantic Grey Seals. Up to 500 individuals can regularly be seen in the area, especially as most haul out over low water on the south east corner of the West Hoyle Bank near to the green buoy (HE4).

Visitors to the area, sailors included, look forward to seeing them, and one can get quite close because they are tolerant of boats provided they are slow moving and not too close.

The seals are not tolerant of people walking up to them on the sand bank, (you may have seen pictures of this on TV but they have been filmed on the breeding grounds when the adults stay to defend their young.)

Once disturbed the seals will usually not haul out for the remainder of the tide, and so others are denied the chance to see them, also they become wary and so cannot be approached as closely by boat in future.

We are asking for your co-operation when you visit the area to prevent unnecessary disturbance to the seals. **If you wish to view the seals the best view can be had by standing well off in your boat, not to land; and if you wish to land on the West Hoyle Bank, then please do so at a reasonable distance out of sight of the seals.**

Thank you for your co-operation.



Metropolitan
Borough of Wirral

If you have any enquiries regarding this matter, please telephone Wirral Country Park on 0151 648 4371/3884; or the North Wirral Coastal Park on 0151 678 5488.

Bird Photography - Conditions and Code of Conduct

The Hilbre Islands were made famous as a venue for wading bird photography by Eric Hosking in days when tens of thousands of waders frequented the Dee Estuary. Since then, numbers of birds have dropped dramatically and great efforts are being made to reduce all forms of recreational disturbance to wader roosts. All three of the Hilbre Islands are designated as a Local Nature Reserve. Under the bylaws, written permission from the Director of Education and Cultural Services, Metropolitan Borough of Wirral is required before a hide can be erected. Permission will be given to individuals for each winter season, who can comply with the following:

1. The individual should be an experienced natural history photographer (and accustomed to spending 5 hours in a hide in the cold!). Please write giving a brief outline of experience to, The Dee Estuary Ranger, Telegraph House, Hilbre Island, c/o P.O. The Crescent, West Kirby, Wirral, Merseyside. CH48 4DA.
2. The individual should be familiar with the reserve, bird movements, possible hide positions and tidal information. Please ring Hilbre Island on 0151-632-4455 for advice or to contact a Ranger, who could make a site visit with the photographer.
3. Two hides will be permitted on the Little Eye and two on Hilbre for each tide, Please ring 0151-632-4455 to book. Hides are not permitted on Middle Eye to ensure waders have a retreat within the mouth of the Dee Estuary. (Large roosts have now built up on Middle Eye since 1992)
4. Photographers are asked to follow a code of conduct to protect wading birds from disturbance and to prevent erosion of the islands:-
 - a) Only set up a hide on a suitable tide: for Little Eye 9.2 - 9.8m in calm weather, and Hilbre 8.8 - 9.5m in calm weather.
 - b) No hides to be set up in freezing conditions or when winds are blowing or forecast at force 4 or above.
 - c) If the light or weather is poor for photography, reschedule your visit to avoid unnecessary potential disturbance.
 - d) The hide should be attached to existing bolts or weighted with rocks. Pegs must not be used.
 - e) The hide should be sturdy and not flap in the wind. (Cross-bracing of the sides and top are recommended).
 - f) The hide should be completely erected and the photographer inside 2 1/2 hours before high water.
 - g) The photographer should remain in the hide until 2 hours after time of high water - or longer if the roost remains. If birds are disturbed and fly off during the 4 hour high water period it is important that the photographer stays in the hide as the birds may need to return.
 - h) Photography should not be attempted until the roost is settled. Waders are especially wary while a roost is forming.
 - i) Please do not visit the islands more times than necessary to obtain your photographs, (no more than two visits per-photographer, per-season).

These conditions and code of conduct have been drawn up with the assistance of the Hilbre Bird Observatory and the R.S.P.B. I hope you will find them valuable.

Howard Cooper, Director of Education and Cultural Services

(First formulated - September 1992)

Guidance for School Visits

Visits by schools deliver the needs of Objective 4.2, promoting greater understanding of the value and importance of the reserve. There are however many considerations to make in order to ensure a visit's potential is realised. Project 4.2.13 calls for the production and circulation of a schools visit procedure; until this is drawn up, the following information will form the basis of the guidance given to schools planning a visit.

- Educational group visits will be limited to a maximum of 30 pupils (rather than the normal limit of 50 for all Hilbre groups.)
- Visits by Infants (Years 1, 2 & 3) are inappropriate because of the Health and Safety Risks outweighing the potential benefits.
- Schools will be met by the ranger on the main island, following their walk out from West Kirby.
- Visits will be targeted over low water, when there is more space to undergo activities, eg. pool dipping, cave exploration, beach games. Visits over high water are only appropriate for less active groups, eg birdwatching, and involve a stay away from the mainland of about 6 or 7 hours
- Activities involving the capture of live animals will be managed carefully to reduce the harm done to the wildlife, to teach respect for the wildlife, and to promote observation and understanding of the habitat and ecosystem. This will normally be achieved by keeping the group size to 15 or limiting the number of nets to 10, and limiting the time to 45 minutes. This allows more individual attention and helps deliver the above targets.

Bylaws

The Metropolitan Borough of Wirral in exercise of the powers conferred upon them by Sections 20, 21 (4) and 106 of the National Parks and Access to the Countryside Act, 1949, and in accordance with Section 236 of the Local Government Act, 1972, hereby make the following Byelaws for the protection of the Hilbre Islands Local Nature Reserve in Wirral in the County of Merseyside.

1. In these Byelaws "the Reserve" means the pieces or parcels of land containing in the whole 49 hectares or thereabouts and situated in the Metropolitan Borough of Wirral declared to be managed as a Nature Reserve by the Metropolitan Borough of Wirral on the 26th day of July 1983, in pursuance of Section 21 of the National Parks and Access to the Countryside Act, 1949, and the Reserve is for the purpose of identification shown as nearly as may be in the map annexed to these Byelaws and therein coloured pink.
2. Throughout these Byelaws the expression "the Council" means the Metropolitan Borough of Wirral.
3. "Firearm" shall have the same meaning as in Section 57 of the Firearms Act, 1968.
4. An act necessary to the proper execution of his duty in the Reserve by an officer of the Council or by any person or servant of any person employed or authorised by the Council shall not be deemed an offence against these Byelaws.
5. No person shall be allowed access to the Reserve without a permit issued by the Director of Leisure Services and Tourism for the time being of the Council.
6. No person under the age of 16 shall be allowed access to the Reserve unless accompanied by a person aged 16 or over who has been issued with an appropriate permit.
7. Within the Reserve the following acts are hereby prohibited, except insofar as they may be authorised by the written permission of the Director of Leisure Services and Tourism for the time being of the Council, or insofar as they may be in accordance with Byelaw 4 above;
 - i) Taking, molesting or intentionally disturbing, injuring or killing any living creature;
 - ii) Taking or intentionally disturbing or destroying the eggs, larvae, pupae or other immature stages, or the place used for the shelter or protection of any living creature;
 - iii) Spreading or using any net, or setting or using any lamp or other instrument, or any snare or lure, for the taking, injury or destruction of any living creature;
 - iv) Intentionally removing any material from any area of the Reserve;
 - v) Intentionally removing, displacing, damaging or defacing any tree, shrub, plant, fungus or part thereof, or any unfashioned mineral including water;
 - vi) Intentionally bringing or permitting to be brought into the Reserve any living creature, or the egg of any living creature, or any plant, or any seed or any other part of any plant, in such circumstances that it is likely that such creature or plant will reproduce or propagate itself, or such egg will hatch, or such seed will germinate;
 - vii) Driving, riding, propelling or leaving any mechanically propelled vehicle (including hovercraft);
 - viii) Bringing into or permitting to remain any animal. Provided that this Byelaw shall not apply to any dog kept on a lead and under proper control and effectively restrained from injuring or disturbing any person, animal or bird or damaging or defacing any tree, shrub, plant, fungus or part thereof;
 - ix) Erecting, occupying or using any tent, shed, hide, van or other structure;

- x) Lighting any fire, stove, heater, firework or other appliance capable of causing fire or discarding or throwing any lighted match or lighted substance in a manner likely to cause a fire;
- xi) Boating, bathing or wading in any water body other than the sea;
- xii) Any act which pollutes or is likely to pollute any water;
- xiii) Intentionally or recklessly removing or displacing any notice board, notice, fence, barrier, post, boardwalk, bridge, hide or other structure;
- xiv) Being in possession of a firearm, catapult, bow and arrow or a crossbow;
- xv) Discharging a firearm, catapult, bow and arrow or a cross bow;
- xvi) Flying any model aircraft or sailing any model boat in any water body other than the sea;
- xvii) The use of any apparatus for the transmission, reception, reproduction or amplification of sound, or images by electrical or mechanical means, except apparatus designed and used to aid defective hearing, in such a manner as to cause annoyance to or interfere with the quiet enjoyment of the Reserve by any other members of the public or to cause harm to any living creature or plant in the Reserve;
- xviii) Intentionally obstructing any officer of the Council or any person or the servant of any person employed or authorised by the Council in the execution of any works, including research or scientific work connected with the laying out, maintenance or management of the Reserve;
- xix) Intentionally leaving items in a place other than a receptacle provided by the Council for deposit of litter or refuse;
- xx) Entering at any time any part of the Reserve where notice to keep out has been posted by order of the Council;
- xxi) Turning out any animal or poultry to feed or graze;
- xxii) Landing any aircraft except in emergency;
- xxiv) Using any device designed or adapted for detecting or locating any metal or mineral in the Reserve;
- xxv) Riding any bicycle, tricycle or similar machine elsewhere than in a place indicated by a notice as being available for the purpose.

8. i) The Director of Leisure Services and Tourism for the time being of the Council may give written permission authorising any person or persons to do any act or class of acts (subject to general legislation in force at the time of issue), within the Reserve or any part thereof which would otherwise be unlawful under these Byelaws.

ii) Any such written permission shall be given subject to such conditions as may from time to time be laid down by the Director of Leisure Services and Tourism for the time being of the Council and shall include the following conditions:

a) that such written permission be carried whenever a visit is made to the Reserve by the person or persons specified therein and produced for inspection when required by any officer of the Council, or by any other duly authorised person, and

b) that it may be revoked by the Director of Leisure Services and Tourism for the time being of the Council at any time.

9. Any person who offends against any of these Byelaws shall be liable upon summary conviction to a fine not exceeding level 2 on the standard scale, and in the case of a continuing offence to a further fine not exceeding £5. for each day during which the offence continues after conviction therefore.

10. Every person who shall infringe any Byelaw for the regulation of the Reserve may be removed therefrom by any officer of the Council, or by any constable, in any one of the several cases hereinafter specified, that is to say:-

i) Where the infraction of the Byelaw is committed within the view of such officer or constable, and the name and residence of the person infringing the Byelaw are unknown to and cannot be readily ascertained by such officer or constable;

ii) Where the infraction of the Byelaw is committed within the view of such officer or constable and, from the nature of such infraction, or from any other fact of which such officer or constable may have knowledge, or of which he may be credibly informed, there may be reasonable ground for belief that the continuance in the Reserve of the person infringing the Byelaw may result in another infraction of a Byelaw, or that the removal of such person from the Reserve is otherwise necessary as a security for the proper use and regulation thereof.

THE COMMON SEAL OF METROPOLITAN BOROUGH OF WIRRAL was hereunto affixed this 15th day of December 1986 Seal No. 15937 in the presence of:

J T Goodacre
Authorised Officer

Please note that the Post of Director of Leisure Services and Tourism no longer exists. The Head of Department is now the Director of Education and Cultural Services.

Engineers Report

ENGINEER'S REPORT ON HILBRE ISLAND EXISTING COASTAL WORKS AND EROSION OF THE N.W. SANDSTONE CLIFFS

1.0 Introduction

1.1 Officers of Leisure Services & Tourism requested an updated report on the coast protection issues affecting the islands.

1.2 This request follows concerns for the natural and man-made structures on the north west side of Hilbre Island.

2.0 Report Parameters

2.1 The survey area is limited to the area between the old lifeboat station and the steps below the navigation tower on the west side, a distance of approximately 270m.

2.2 The report is limited to the impact of erosion on natural and man-made structures. erosion mechanisms, wave impacts, condition of coastal structures and details related to these processes.

2.3 The general issues of the islands is not included.

3.0 Previous Reports

3.1 Various reports have been on the subject of coast protection and other issues relating to the islands.

3.2 Report on the island of Hilbre, dated Oct 1976 (42 page) by Brian Barnes (Director Leisure Services) to Council. Gives a very good general background and includes under item 5.3 engineering works to repair or replace damaged blockwork.

3.3 Report on the Coast Protection structures by the Borough Engineer dated 14th December 1983.

3.4 Invitations to tender for works to repair masonry on the north west side of the island, several contractors submitted tenders in the range £7,000 - £9,490 -contract not issued.

3.5 Various letters and Hilbre Island management committee reports relate to the ongoing erosion problems.

4.0 General Outline

4.1 The islands lie approximately 1700m west of Red Rocks, Stanley Road on the north western tip of Wirral.

4.2 The area of the islands taken from a 2nd Sept 1999 aerial survey show the plateau area of each island as:-

Hilbre Island	40,975 m ² (10.125 acres)
Middle Island	9,397 m ² (2.322 acres)
Little Eye	180 m ² (0.0445 acres)

The total length of the chain, including the connecting ridges, submerged at high tide, is 2220m.

4.3 The visible footprint of Hilbre Island and Middle Island including the rocky littoral zone around and between these two islands equate to 281,000 m² (69.44 acres) at 2nd Sept 1999.

4.4 The islands represent the most northerly tip of a ridge running south east and includes the offshore outcrops of Tansky rocks, Seldom Seen and Caldys Blacks The sandstone ridge continues into South Wirral, Burton Point being the next coastal exposure of sandstone

5.0 Geology

5.1 The geology has been included within this report, as the general geological make-up of the islands lends itself to the erosion problems besetting the islands.

5.2 The geological drift map (No. 96. reprinted 1975) shows the islands to be formed from False bedded red and yellow bunter sandstones, with a 300mm thick bed of breccia (gravels, pebbles or angular stones cemented by lime etc).

5.3 The report of 1976 also states that “the sandstones dip eastwards at an average 100 , resulting in higher cliffs on the western side and a larger rocky littoral zone to the east”.

5.4 This tilt exposes the breccia beds on the west side to erosion from hydraulic forces explained in section 7. Furthermore, rainfall is induced to drain through the rock to the east giving rise to some erosion and cliff falls.

5.5 The sandstone is very soft and easily weathered, as witnessed on the day of the survey (section 8.0). The cliff to the right of the access ramp to Hilbre was showing recent signs of rock falls and the Ranger reported recent falls on Middle Hilbre.

6.0 History

6.1 There are numerous references to the size of Hilbre Islands in documents, charts and sailing directions. Most suggest that Hilbre was substantially larger. Some suggest that there was only one large island, others state that the islands were originally attached to Cheshire. It is certain, the islands have been eroding for possibly 10,000 years.

6.2 Mersey Docks & Harbour Co took possession of the islands in 1856 as part of the telegraph link between Holyhead and Liverpool.

6.3 The large sandstone masonry to the north west side was constructed by MDHCo to protect the telegraph station and navigational aids from the serious undercuts on this side of the island. There are also several smaller masonry supports to undercuts on the east side of Hilbre

6.4 There are several undated masonry pillar supports to the undercuts around the centre of Shell beach, although these are in poor condition due to further undermining.

6.5 Maintenance works are carried out by the Ranger Service, sometimes with volunteer assistance. This is limited to making good joints in the masonry or replacing small amounts of displaced blockwork.

6.6 During an earlier survey by the Engineers, a local potholer volunteered to enter breather hole No. 2 in the masonry blockwork to survey the interior. He confirmed a small chamber with sound roof and walls with a small amount of shells and sand on the floor. The others were all blind ports.

6.7 The islands passed to local authority control in 1945 (HUDC).

7.0 Erosion Mechanism

7.1 The maximum fetch available to the islands is from the north west, where there are 117 nautical miles of open, uninterrupted water to Dundalk Bay in Southern Ireland. Therefore, the maximum wave height possible in deep water will be “fetch limited”.

7.2 It is theoretically possible to have 10m high waves approaching the coast from the north west, but due to shallowing water and the reef seawards of the cliffs, a more realistic wave height of 3m impacting the cliff could be expected in winter months.

7.3 The nature of Shell Beach conspires to worsen this scenario. Stones, shells and sand act as an abrasive within the waves.

7.4 Entrapped air within the sandstone is pressurised and weakens the adjacent rock. The shock of the impacting wave brings down previously fractured rock, the breccia (Sec. 5.2) layer is easily eroded, forming deeper or new undercuts.

7.5 Rainwater, spray, frost, ice and people, further conspire to erode the sandstone. The east side shows the effects of some of these mechanisms as the loose rock is not swept away so quickly by wave action. The rock displays a dark crumbly appearance, easily removed by hand, whereas the aggressive wave activity on the west side removes all loose rock and bright red or yellow sandstone is frequently exposed.

8.0 A survey undertaken on 5th June 2000, indicates the problems previously addressed by MDHC and the current problems affecting MBW.

8.1

Chainage

- 0 Foot of steps below navigation mark
- 15 Man made structures supporting/reinforcing cliffs commence
- 46 Overhang protrudes beyond man made structure
- 73 First drainage port through man made structure
- 88 Corner into Shell Beach
- 91 Blockwork repairs 4m above beach level required
- 94 Blockwork repairs 0-2.5m above beach level required
- 100 2nd drainage port through man made structure
- 100 Overhang protrudes 3m beyond man made structure
- 104 SE corner of Shell Beach 3m overhang ditto
- 116 3rd drainage port through man made structure
- 120 Overhang protrudes 2.5m beyond man made structure
- 132 Man made structure ends (main works)
- 153 Overhang protrudes 2m beyond natural rock face
(man made structure at an upper level)

- 167 Overhang protrudes 4.1 m beyond natural rock face plus an
erosion of the breccia layer 1.3m deep equating to max undercut of 5.4m.
- 176 Overhang of natural rock 1.5m
- 195 Overhang of natural rock 4.0m
(includes undercut into breccia erosion)

- 204 Overhang of natural rock 3.5m
- 210 Masonry blockwork support pillar supporting overhang
- 225 Overhang ends
- 240 Vertical sandstone wall to end of island at 270m
- 270 North end of island
(NB. man made structure is dressed sandstone blockwork)

8.2 Various photographs were taken of the main elements of this survey. They do not form part of the report, but are available if necessary.

9.0 Options

9.1 The Shoreline Management Plan identifies the problems on Hilbre, under Section AI, Issues, section CP2 on page 170.

9.2 The options available in the Shoreline Management Plan are:

- a) Do nothing
- b) Advance the line
- c) Retreat
- d) Hold the line

9.3 The accepted option for the area under consideration is Hold the line. However the other options are considered for economic and aesthetic reasons.

9.4 Do nothing

Accept that the cliff erosion will continue at an approximate rate of 100mm per annum. Further erosion and rock falls will cut off the old lifeboat station, viewing hide and tide recording station. The timescale is dependent on wave activity and tide height. The island is approximately 20m wide at the north end and given say 100mm P/A erosion on the west side coupled with say 50mm P/A on the east side, it will take theoretically 133 years to completely fail. However as the sandstone dips 10 degrees to the east. The erosion will expose the breccia at lower levels, which will then be exposed to a greater number of tides and hence exponential failure.

Increased tide depth will have a further impact, current MAFF guidelines are 4mm per annum increase in general sea levels for NW England.

9.5 Hold the line/Advance the line -Rock Armour

Reinforce the section CH 132 to CH 270 with imported rock armour. This could be sourced from Arklow in Southern Ireland and shipped to the north end of Shell Beach and side tipped for recovery at low water and placed up-against the present undercuts to break up wave energy.

The main advantages are that:

- a) the basalt is less conspicuous than the limestone of North Wales
- b) delivery is easier than truck movements across the foreshore of West Kirby
- c) Relatively cheap

9.6 Hold the line - Insitu concrete infill and support

Clear out all the undercuts by machine and high pressure water to remove marine growth, sands and silts.

Shutter faces and fill with concrete dyed with iron oxides to replicate a sandstone coloured finish. All materials and equipment would need to be imported via West Kirby with the resultant impact on safety, finances and the public.

9.7 Hold the line - Gunite (sprayed concrete)

Similar to 9.3 above, but there would be less local impact on access as vehicle movements would be substantially less.

9.8 Hold the line - Existing blockwork and joint repairs

It is imperative that on-going repairs to blockwork joints is continued. The present ranger/volunteer arrangement is adequate if well funded. If the blockwork is allowed to deteriorate, the results will be beyond present measures.

9.9 None of these options address the issue of aesthetics. It is assumed that marine growth will recolonise the concrete or rock armour protection and mask the protection. Access to Shell Beach would be necessary, unless plant and equipment could be craned down to the working area.

10.0 Funding

10.1 No estimates have been prepared for this report

10.2 A recent Ministry of Agriculture, Fisheries and Food letter, received 10th April 2000, ref - Flood Defence and Coast Protection 2000-01 to 2003-04, Capital Expenditure profiles and summary documents, item 6 states:-

'The indicative threshold priority scores will apply to all authorities, with exceptional treatment afforded to: 6B where necessary, to accommodate funding measures to protect internationally important wildlife sites. The only such local authority scheme identified so far is that at Walney Island, Cumbria and consideration of exceptional treatment will be given when a relevant study has been undertaken.'

This may have possibilities, due to the islands being within the Dee Estuary and designated as a RAMSAR site, under the conversion for wetlands of international importance; also a special protection area (SPA) under EEC Directive on conservation of wild birds and the islands themselves, being a Local Nature Reserve (LNR).

11.0 Conclusion

11.1 A do nothing option will leave the islands to be remodelled until the assets of the tide recording station, north slipway (already damaged) and the bird observatory will be isolated and finally become untenable.

11.2 An issue directly related to a do nothing option, is the safety of the public using Shell Beach and other areas with overhung arches. It would be a wise precaution to erect signage and warn the public of the risk of rockfalls.

11.3 From a structural engineering viewpoint, option 9.5 would be the most effective and probably the cheapest, with on-going repairs as noted in section 9.8.

E A WILLIAMS
JUNE 2000

List of Contacts and Partners

Metropolitan Borough of Wirral:

Mr Jim Lester, Senior Inspector - Cultural Services, Metropolitan Borough of Wirral, Education and Cultural Services, Hamilton Building, Conway Street, Birkenhead, Wirral CH41 4FD

Mr Dave Cowling, Head of Parks and Open Spaces, Metropolitan Borough of Wirral, Education and Cultural Services, Solar Campus, 235 Leasowe Road, Wallasey, Wirral CH45 8RE

Mr Martyn Jamieson, Head Ranger, Wirral Country Park Visitor Centre, Station Road, Thurstaston, Wirral CH61 0HN

Mr Adam King, Senior Coastal Ranger, North Wirral Coastal Park, Leasowe Lighthouse, Pasture Road, Moreton, Wirral CH46 4TA

Mr Dave Cavanagh, Ranger, Telegraph House, Hilbre Island, c/o Post Office, The Crescent, West Kirby, Wirral CH48 4DA

Mr Tony Jones, Beach Lifeguard Service, Albion Street, New Brighton, Wirral

Mr Malcolm Alexander, Assistant Director, Drainage and Coastal Protection, Engineering and Highway Services Department, Town Hall, Bebington, Wirral CH63 7PT

Caroline Reid, Local Agenda 21 Officer, Town Hall, Wallasey

Other Public Organisations:

Dr Martin Bailey, Maritime Conservation Officer, English Nature, North West Region, Pier House, Wigan Pier, Wigan, Lancashire

Mr Bob Lloyd, Hydrographic Surveyor, Marine Operations, Mersey Docks and Harbour Company, Maritime Centre, Port of Liverpool, CH21 1LA

Dr Ian Wallace, Liverpool Museum, William Brown Street, Liverpool L3 8EN

Private Individuals and Organisations

The addresses of the following are not included here on the grounds of privacy

Mrs Barbara Greenwood, Cheshire Wildlife Trust (Wirral Members Group),

Mr Chris Mahon, Conservator - Cheshire Wildlife Trust

Ms Juliet Whiteley, Hilbre Tenants

Mr Colin Wells, Royal Society for the Protection of Birds

Mr Peter Williams, Hilbre Bird Observatory

Dr Karen Leeming, Dee Estuary Voluntary Wardens

Ms Susan Craggs, The Friends of Hilbre

Other Consultee Organisations

Environment Agency Wales,
Northern Wales Area Office, Ffordd Penian, Bangor, Gwynedd LL57 4DE

Dee Estuary Strategy (currently dormant)

Dee Estuary Recreation Users Group (currently dormant)

Dee Estuary Conservation Group

North Western and North Wales Sea Fisheries Committee,
University of Lancaster, Lancaster, Lancs LA1 4YY

Maritime and Coastguard Agency, Hall Road West, Crosby, Liverpool L23 8SY

Projects

Project Code	1.2.1											
Project Title	Encourage the spread of the maritime flora (e.g. heather, scurvy grass, thrift, and sea plantain).											
Description	Initially in a trial plot, then extend if successful.(Hilbre and Middle)											
Action by...	HiR											
Method	Mow areas of long grass adjacent to existing maritime flora on Hilbre and Middle Eye.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004					Y							
2005					Y							
2006					Y							
2007					Y							

Project Code	1.2.2											
Project Title	Increase floristic diversity in the paddocks.											
Description	Maintain sheep grazing or use mowing in the paddocks to reduce sward height. Ensure level of grazing does not significantly reduce nesting bird populations											
Action by...	HiR & TOF											
Method	No Grazing or Mowing between 15 th March and 15 th July. Fence off small area to monitor effects of no grazing/mowing. Removal of cuttings due to mowing may be advisable.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							Y	Y	Y	Y	Y	Y
2004	Y	Y	Y				Y	Y	Y	Y	Y	Y
2005	Y	Y	Y				Y	Y	Y	Y	Y	Y
2006	Y	Y	Y				Y	Y	Y	Y	Y	Y
2007	Y	Y	Y				Y	Y	Y	Y	Y	Y

Project Code	1.2.3
Project Title	Propagate heather species on western cliff tops.
Description	
Action by...	HiR & EN, FoH, Liu
Method	Use seed collected on Hilbre and/or cut heather and wire featherings down for 3 months as a windbreak. (this works effectively alone without seeding) Do not import heather as it may be infected with heather beetle. Contact Rob Maris of Liverpool University for advice.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004			Y									
2005			Y									
2006			Y									
2007			Y									

Project Code	1.2.4
Project Title	Encourage birdlife and dragonflies by maintaining open water habitats.
Description	Hilbre's 3 ponds (1 large and 2 small) help maintain the bird and dragonfly populations.
Action by...	HiR & HiBO
Method	Monitor and repair leaks. Refill smaller ponds when necessary (due to evaporation).

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	1.2.5											
Project Title	Retain soil and vegetation along cliff-tops.											
Description	The low cliff-top walls along the west side and north end of Hilbre need maintaining and extending to help prevent loss of soil and vegetation through wave erosion. Of particular importance are the Rock Sea Lavender populations.											
Action by...	HiR & FoH, vols											
Method	<p>Use small blocks of sandstone and mortar. Trial an area using breeze block faced with sandstone</p> <p>If the area loses bio-diversity, e.g. becomes dominated by coarse grasses, the area should be allowed to flood with seawater in storm conditions, by removing a small section of wall, this will reduce the vigour of the coarse grass, and allow the specialised maritime flora to flourish.</p> <p>Study different methods/causes of erosion and use different methods of protection accordingly. i.e. to divert sea spray away from vegetation rather than directly support the soil.</p> <p>When constructing the low retaining walls, in order to reduce the amount of walling (for aesthetic reasons as well as to reduce the amount of material needed) corners should be cut, even if small amounts of vegetation are left unprotected. In some cases the wall will be built lower and in front of the vegetation, the space behind can then be infilled with ground-up rock allowing the vegetation to re-establish.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	1.3.1											
Project Title	Maintain present shelter for the benefit of perching birds (passerines).											
Description	Garden fences and the trees and shrubs they protect are important shelter for the resident and visiting perching birds.											
Action by...	HiR & HiBO											
Method	Repair and replace wood when necessary The fence alongside the main track is subject to the most wind damage and needs the posts renewing, and buttresses added to existing posts.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003			Y									
2004			Y									
2005			Y									
2006			Y									
2007			Y									

Project Code	1.3.2											
Project Title	Introduce artificial bird nesting sites.											
Description	Nesting shelduck currently use the eastern cliff edge. Creating artificial nest sites could increase breeding numbers.											
Action by...	HiR & HiBO, Proudman											
Method	Wooden nesting boxes with a viewing trapdoor to be placed on ground after removing any turf, then covered in sand bags and soil and returfed.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003										Y		
2004										Y		
2005										Y		
2006										Y		
2007										Y		

Project Code	1.3.3											
Project Title	Maintain field vole population.											
Description	Maintain field vole populations in areas of long grass.											
Action by...	HiR & MS											
Method	<p>Manage grassland to include large areas of long grass in addition to the short grass favoured by the maritime flora.</p> <p>Identify areas where grass/vegetation is to be left to grow long as habitat for voles.</p> <p>Shelters of sheet metal or preferably wood to be used to monitor the population.</p> <p>Contact Mammal Society for further advice.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	1.3.4											
Project Title	Maintain atlantic grey seal population.											
Description	Seals from the Dee Estuary Colony of Atlantic Grey Seals regularly visit Hilbre.											
Action by...	SAR & HiR, EN, CCW											
Method	<p>Agree a code of conduct with English Nature/CCW</p> <p>Distribute annually the code of Conduct in Appendix 5 relating to the Seals</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y								
2004				Y								
2005				Y								
2006				Y								
2007				Y								

Project Code	1.3.5
Project Title	Maintain bristly millipede population.
Description	The bristly millipede population is restricted to the areas of Sea Rush.
Action by...	HiR & Wp
Method	Measure area of sea rush by annual survey. Take appropriate measures if Sea Rush shows decline.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003						Y						
2004						Y						
2005						Y						
2006						Y						
2007						Y						

Project Code	1.3.6
Project Title	Maintain montane heath bee population.
Description	
Action by...	HiR & LiM, HiBO
Method	Contact Dr Gavin Broad at HiBO and Carl Clee at the Liverpool Museum for advice.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y								
2004												
2005												
2006												
2007												

Project Code	1.4.1											
Project Title	Maintain maritime heath and grassland communities by control of bracken.											
Description	Remove the bracken on Hilbre, except for the south-east corner of the main island and most of the east side of Middle Eye, where it acts as a nurse species for the bluebells and a linnet nesting area. Priority to be given to the west side of Middle Eye and the old Gazebo garden.											
Action by...	HiR & FoH, vols											
Method	Bracken to be pulled where possible. Dense rhizomes to be raked and removed. Where not possible to pull, break tops of young bracken with log dragged by two ropes. As a very last resort, weed-wiping with herbicide to be done by licensed ranger only. Special care taken to avoid ground water transportation to the sea spleenwort population, No spraying by herbicide to be done. Leave most of the bracken east of the path on Middle Eye as a nurse species for the bluebells but reduce the area by 25-50%.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					Y	Y	Y	Y				
2004					Y	Y	Y	Y				
2005					Y	Y	Y	Y				
2006					Y	Y	Y	Y				
2007					Y	Y	Y	Y				

Project Code	1.4.2											
Project Title	Control of invasive plant species.											
Description	Removal of the following invasive species from all areas except the fenced off gardens & along the Eastern clifftop adjacent to gardens:- Duke of Argyle's tea plant Alexanders Removal of Ragwort from grazed areas											
Action by...	HiR & vols											
Method	Duke of Argyle's tea plant by pulling and or weed-wiping with herbicide. Alexanders by digging up in March and or weed-wiping with herbicide. Removal of ragwort spp. by pulling in June (advice needed because of possible detrimental effect on Cinnabar Moth Population). Precautions against poisoning from the Ragwort are needed, waterproof gloves essential											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003			Y			Y						
2004			Y			Y						
2005			Y			Y						
2006			Y			Y						
2007			Y			Y						

Project Code	1.4.3
Project Title	Control of Invasive shrubs.
Description	Removal of blackthorn except in the vicinity of the lower funnel traps where it provides shelter for perching birds.
Action by...	HiR & vols
Method	Stumps to be dug out The possibility of stumps being treated with Garlon-4 is ruled out because of the possibility of the herbicide being translocated to the blackthorn thicket in the Lower Bird Trap.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003											Y	Y
2004											Y	Y
2005											Y	Y
2006											Y	Y
2007											Y	Y

Project Code	1.4.4
Project Title	Removal of Pest Mammal Species.
Description	Rats are a significant Pest Mammal. It can have a devastating effect on nesting bird populations. Other species are only occasionally a nuisance.
Action by...	HiR & WBC-PC
Method	Baited traps or concealed poison boxes. Concealed poison boxes to be used only for rats and mice. Baited traps to be used for foxes, rabbits and squirrels.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y	Y								Y	Y	Y
2004	Y	Y								Y	Y	Y
2005	Y	Y								Y	Y	Y
2006	Y	Y								Y	Y	Y
2007	Y	Y								Y	Y	Y

Project Code	1.5.1											
Project Title	Compile a list of Research Needs.											
Description	A list of research needs can be given to potential researchers, by circulating to universities and colleges.											
Action by...	HiR & SAR, HiMAG, EN											
Method	Projects should only be authorised on condition that a copy of the results will be sent to Wirral Council on completion of the project. Projects that are likely to be damaging to the reserve should not be authorised; contact English Nature if in any doubt. Funding to be applied for, in order to attract a greater number of potential researchers, including those with higher qualifications and experience.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												Y
2004												Y
2005												Y
2006												Y
2007												Y

Project Code	1.5.2											
Project Title	Carry out a National Vegetation Classification survey.											
Description	A National Vegetation Survey (NVC) is the recognised standard for mapping of plant communities.											
Action by...	HiR & EN											
Method	This must be carried out by a trained NVC surveyor, therefor funding is required.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004					Y							
2005												
2006												
2007												

Project Code	1.5.3											
Project Title	Monitor populations of significant and important species of terrestrial flora.											
Description	See Method for a list of Species.											
Action by...	HiR & Vols & HiBO											
Method	<p>Rock sea lavender (RDB) (annual distribution). Sea spleenwort (annual distribution). Common centaury (annual distribution).</p> <p>Forward the data to Steve McWilliam at the Local Record Centre.</p> <p>Instigate a recovery programme if any species shows significant decline.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003						Y						
2004						Y						
2005						Y						
2006						Y						
2007						Y						

Project Code	1.5.4											
Project Title	Monitor populations of significant and important species of birds.											
Description	See Method for a list of Species.											
Action by...	HiBO											
Method	<p>All breeding birds especially skylark (RDB) and linnet (RDB). Also shelduck, starling, meadow pipit, lackbird, pied wagtail, kestrel, house sparrow and wren.</p> <p>Roosting and Passage Migrants including Low Tide counts, on at least three occasions annually (advice from Colin Wells, RSPB)</p> <p>Forward the data to Steve McWilliam at the Local Record Centre.</p> <p>Instigate a recovery programme if any species shows significant decline.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	1.5.5											
Project Title	Monitor populations of significant and important species of Mammals.											
Description	See Method for a list of Species.											
Action by...	HiBO & HiR											
Method	<p>Atlantic Grey Seals (weekly counts). Field Vole.</p> <p>Forward the data to Steve McWilliam at the Local Record Centre.</p> <p>Instigate a recovery programme if any species shows significant decline.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	1.5.6											
Project Title	Monitor populations of significant and important species of terrestrial invertebrates.											
Description	See Method for a list of Species.											
Action by...	HiBO & HiR, FoH, vols, Wp											
Method	<p>Butterflies by weekly transect and casual observation. In consultation with Butterfly Conservation, and Dr Roger Dennis of Manchester Museum.</p> <p>Forward the data to Steve McWilliam at the Local Record Centre.</p> <p>Instigate a recovery programme if any species shows significant decline</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y	Y	Y	Y	Y	Y			
2004				Y	Y	Y	Y	Y	Y			
2005				Y	Y	Y	Y	Y	Y			
2006				Y	Y	Y	Y	Y	Y			
2007				Y	Y	Y	Y	Y	Y			

Project Code	1.5.7												
Project Title	Monitor populations of other significant and important species of the Marine and Littoral community.												
Description													
Action by...	HiR & HiBO, FoH, vols												
Method	<p>The priority species is the honeycomb reef forming worm, <i>Sabellaria alveolata</i>.</p> <p>It will be useful to monitor sediment levels around the islands in conjunction with any study of the littoral community.</p> <p>Forward the data to Steve McWilliam at the Local Record Centre.</p> <p>Instigate a recovery programme if any species shows significant decline.</p>												
Timetable													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2003	Y												
2004													
2005													
2006													
2007													

Project Code	1.5.8												
Project Title	Monitor populations of other significant and important species identified within the Wirral Biodiversity Action Plan.												
Description													
Action by...	HiR & HiBO, FoH, vols												
Method	<p>Instigate a recovery programme if any species shows significant decline.</p> <p>See Wirral Biodiversity Plan for list of additional Projects.</p>												
Timetable													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2003	Y												
2004													
2005													
2006													
2007													

Project Code	2.1.1											
Project Title	To keep the use of Hilbre as a Nature Reserve.											
Description	To prevent any development that would damage its value as a nature reserve.											
Action by...	WBC-PD											
Method	Through the planning process											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.2.1											
Project Title	Draw up a programme of planned preventative maintenance for all buildings under Council management.											
Description	This project compliments a number of other projects, which also seek to keep the buildings maintained.											
Action by...	HiR & WBC-BM											
Method	Whenever possible the repairs should be sympathetic to the character of the buildings, and use contractors that have a proven track record in historic buildings, and an understanding of the scale of work appropriate on Hilbre.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.2.2											
Project Title	Record and designate, all the structures of historic and archaeological interest.											
Description	The structures of historic and archaeological interest on Hilbre are: the Lifeboat station, Telegraph House, Buoy-masters buildings, well, salt-works, pool and sluice gate.											
Action by...	HiR & WBC-CO, FoH											
Method	Map and Photograph. Apply for designation.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							Y					
2004							Y					
2005							Y					
2006							Y					
2007							Y					

Project Code	2.2.3											
Project Title	Maintain exterior masonry of the Telegraph House group of buildings.											
Description												
Action by...	HiR & vols, contractor											
Method	Use Scutch hammers to remove loose surface of paint and spalling masonry. Repaint white. If funding available use contractors.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					Y	Y	Y	Y				
2004					Y	Y	Y	Y				
2005					Y	Y	Y	Y				
2006					Y	Y	Y	Y				
2007					Y	Y	Y	Y				

Project Code	2.2.4
Project Title	Restore Telegraph Station Lookout.
Description	This will include the repair of the wind-vane, windowsill and external steps.
Action by...	HiR & FoH, HiBO
Method	Wind-vane is being repaired by HiBO. External steps are being repaired by HiR &/or contractor. Building being repaired & repainted internally & externally by FoH.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003		Y	Y	Y	Y	Y	Y					
2004					Y							
2005					Y							
2006					Y							
2007					Y							

Project Code	2.2.5
Project Title	Replace Buoymasters Workshop door lintel.
Description	
Action by...	HiR & contractor
Method	Funding required

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004												
2005												
2006												
2007												

Project Code	2.3.1
Project Title	Review bungalow leases.
Description	
Action by...	HsC
Method	Review bungalow leases every 10 years, and renew where they can be shown to have a positive benefit to the reserve.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003			Y									
2004			Y									
2005			Y									
2006			Y									
2007			Y									

Project Code	2.3.2
Project Title	To maintain use of the Telegraph House group of buildings as the Rangers domestic residence, office and workshop.
Description	
Action by...	WBC
Method	The occupation of Telegraph House is a condition of the post of Hilbre Ranger.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.4.1
Project Title	Maintain main track.
Description	
Action by...	HiR & HiBO, vols
Method	Dig out, fill and level potholes in main track. Use 'Top Trek' recycled material if this proves suitable

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					Y	Y						
2004					Y	Y						
2005					Y	Y						
2006					Y	Y						
2007					Y	Y						

Project Code	2.4.2
Project Title	Maintain cliff top fences.
Description	These fences serves both as safety fences protecting people from falling, and as a sight barrier to prevent disturbance to the high water bird roosts in Niffy Bay.
Action by...	HiR & vols, Wp
Method	Replace missing slats in Niffy Bay fence; and replace and buttress posts when necessary. Paint metal posts of cliff top fence adjacent to mast when necessary

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003						Y	Y	Y				
2004						Y	Y	Y				
2005						Y	Y	Y				
2006						Y	Y	Y				
2007						Y	Y	Y				

Project Code	2.4.3
Project Title	Replace bench seats in picnic area.
Description	
Action by...	HiR & SD
Method	Replacement seats must be substantial and anchored to prevent vandalism.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004				Y								
2005												
2006												
2007												

Project Code	2.4.4
Project Title	Maintain gates and field boundary fences.
Description	
Action by...	HiR & vols
Method	Repair or replace if beyond repair.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.4.5											
Project Title	Repair, re-point and where appropriate repaint field boundary walls.											
Description												
Action by...	HiR & FoH, vols											
Method	Contact Vicky Morgan (nee Seager) for information on wall dwelling spiders. Use wire brushes to remove loose paint.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.5.1											
Project Title	Renovate the 'Gazebo' site.											
Description												
Action by...	HiR & SAR, CT, HiBO											
Method	Remove left over building debris.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y	Y	Y						
2004				Y	Y	Y						
2005												
2006												
2007												

Project Code	2.6.1											
Project Title	Maintain existing sea walls.											
Description	Major repairs e.g. underpinning are covered in project 2.6.2.											
Action by...	Contractors & Vols											
Method	<p>Repair and re-point existing sea walls in keeping with their historic character. Small scale repairs can be done by volunteers. Major re-pointing and replacement of lost stonework to be done by contractors.</p> <p>Funding needed.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.6.2											
Project Title	Investigate options regarding underpinning of sea walls.											
Description												
Action by...	Borough Engineers, EN, contractors											
Method	<p>It has been agreed that materials other than sandstone can be used below the MHWM because it will soon be disguised with algal and barnacle growth. Funding needed. The loss of Marine Habitat especially <i>Sabellaria</i> reefs is an issue that needs to be resolved before plans can be finalised.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	2.6.3
Project Title	Monitor all 3 islands by annual fixed-point photography.
Description	
Action by...	HiR & Wp
Method	See file in Hilbre Office for locations.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003							Y					
2004							Y					
2005							Y					
2006							Y					
2007							Y					

Project Code	3.1.1
Project Title	Compile a list of suppliers who can provide an environmental audit of their goods that demonstrates they have a low environmental impact.
Description	In order to purchase goods with the least environmental impact.
Action by...	HiR & LA21, Po-C&D
Method	Use local and re-cycled resources wherever practicable. Update list on an annual basis.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004		Y										
2005		Y										
2006		Y										
2007		Y										

Project Code	3.2.1											
Project Title	Minimise tipping, sewage, air & noise pollution.											
Description												
Action by...	HiR & Po-C&D											
Method	Recycle as much of the materials brought onto Hilbre as practicable. Ensure present septic tank is dipped regularly and emptied in good time. Investigate feasibility of a composting toilet or septic tank for public use. (see project 4.1.4.) Minimising use of the diesel generator. (see project 3.2.3)											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	3.2.2											
Project Title	Reduce impact of riverbourne & marine pollution.											
Description	Expand information network & skills training that deal with these external pollution sources.											
Action by...	HiR & EA,MCA,CCW,EN,MCS,NWNWFFC											
Method	Keep close working relationship with above partners. Inform through this network, of any actual or potential pollution threats. Maintain database on how to deal with various forms of pollution.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	3.2.3
Project Title	Provide power from renewable resources for Council owned buildings.
Description	Investigate feasibility of installing a wind turbine and solar panels to power Telegraph House, proposed Study Centre and Information Centre. Install if feasible.
Action by...	HiR & SAR, HdR, LA21, P, RSPB, HiBO, Proven, BWEA
Method	Research feasibility of placing a turbine and solar power on Hilbre. Options include: - large (<3Kw) turbine. - small (<1Kw) turbine. - solar panels to link into system. Gain quotes for both material & fitting taking into account after sales care. Acquire planning permission. Source funding.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003									Y			
2004												
2005												
2006												
2007												

Project Code	3.3.1
Project Title	Minimise use of motor vehicles.
Description	Keep to a minimum the number of journeys to & from Hilbre.
Action by...	HiR & WBC
Method	Authorise only those journeys necessary on the grounds of safety or management of the reserve. The barrier at Dee Lane slipway can be locked shut to prevent vehicular access to the beach. Authorised vehicles will be issued with keys.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	3.4.1
Project Title	Encourage people to take litter home.
Description	
Action by...	HiR
Method	Include in written information, both in handouts and on noticeboards, that there is no litterbin and people should to take their litter home.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	3.4.2
Project Title	Remove litter regularly.
Description	Monitor the reserve for litter and remove.
Action by...	HiR
Method	Litter sweep all three islands (at least weekly in summer in high use areas). Bag all litter and remove it to the mainland. Volunteer groups are useful as they can cover a large area.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	3.4.3
Project Title	Complete & implement an environmental audit.
Description	Audit waste, recycling, and energy use and identify practical measures to reduce environmental impact.
Action by...	HiR & LA21, Po-C&D
Method	Monitor annually.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003											Y	
2004											Y	
2005											Y	
2006											Y	
2007											Y	

Project Code	4.1.1
Project Title	Operate a visitor permit scheme.
Description	
Action by...	HiR & WCP
Method	See appendix 4.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.1.2											
Project Title	Produce & promote a general code of conduct for visitors to the reserve.											
Description												
Action by...	HiR & SAR,											
Method	<p>Develop the code of conduct which will encapsulate the points outlined in Objective 4.1 of the Management Plan. It is envisaged that this document would compliment and supplement the Permit Conditions, and will be promoted widely through notice-boards etc.</p> <p>It will incorporate advice on the control of dogs on the reserve.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003						Y						
2004												
2005												
2006												
2007												

Project Code	4.1.3											
Project Title	Produce & circulate a watersports code of conduct.											
Description	Develop the code of conduct for watersports around the reserve.											
Action by...	HiR & SAR, DEVW, EA, WSC, DSC, PP, DERUG											
Method	<p>See appendix 5.</p> <p>Develop the code of conduct which protects the reserve, West Kirby foreshore, the Atlantic grey seal colony and the general publics enjoyment of the reserve whilst also enabling watersports to continue around the reserve.</p> <p>Promote the code of conduct via Dee Estuary Recreation Users Group.</p> <p>The Watersports code of Conduct will include details of the sensitive zones around Hilbre in the Winter 6 months, when access will be discouraged.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003									Y			
2004												
2005												
2006												
2007												

Project Code	4.1.4
Project Title	Improve toilet facilities.
Description	Improve general toilet facilities and improve toilet access for those with special mobility needs where practicable.
Action by...	SAR & HiR, Po-C&D
Method	Two options are currently being evaluated: <ul style="list-style-type: none"> - Build a composting toilet and improve access to the present chemical toilet. - Partition off part of the Goat shed and install chemical toilet for bunkhouse use only.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003									Y	Y	Y	Y
2004												
2005												
2006												
2007												

Project Code	4.1.5
Project Title	Disperse Erosion and Trampling Pressure.
Description	Maintain main paths and picnic area by mowing and re-seeding.
Action by...	HiR
Method	Mow main paths on Hilbre and Middle Eye to a maximum width of 3 metres, (tapering down to 1 metre where necessary) and re-seed with grass on eroded areas (Perennial Rye Grass from native provenance can be used as it can withstand greater trampling). Where the path is by necessity narrow, and trampling pressure is too high to retain rye grass, surface with shells. Mow also, the main picnic area. Diversions to be signposted with wooded hurdles and roped off where needed.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y	Y	Y	Y	Y	Y	Y		
2004				Y	Y	Y	Y	Y	Y	Y		
2005				Y	Y	Y	Y	Y	Y	Y		
2006				Y	Y	Y	Y	Y	Y	Y		
2007				Y	Y	Y	Y	Y	Y	Y		

Project Code	4.2.1											
Project Title	Maintain a Ranger resident on Hilbre Island.											
Description	The primary duty of the Ranger will be contact with visitors in order to deliver the aims of the Management Plan											
Action by...	WBC											
Method	Funding currently from Wirral Council.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.2											
Project Title	Update & circulate the low-cost information & interpretative leaflet.											
Description	This leaflet has information on how to get there, safety and history.											
Action by...	HiR & SAR, WCP, WSC, TiC											
Method	<p>Review & revise leaflet to ensure information is correct and up to date.</p> <p>Maintain supply of leaflets at Visitor Centres, Wirral Sailing Centre and TiC's.</p> <p>Ensure the leaflet is displayed in the noticeboard at Dee Lane.</p> <p>Fit a self-service leaflet dispenser near the notice board at Dee Lane.</p> <p>This leaflet currently sells for 20 pence.</p> <p>A version printed on thicker paper will be needed for the leaflet dispenser at West Kirby in order to prevent jamming in the damp conditions.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.3											
Project Title	Produce a low cost wildlife leaflet.											
Description	This leaflet has information on how to get there, safety and wildlife.											
Action by...	HiR & SAR, WCP, WSC, TiC											
Method	Research and design leaflet. Source funding. Produce leaflet. Review & revise leaflet to ensure information is correct and up to date. Maintain supply of leaflets at Visitor Centres, Wirral Sailing Centre and TiC's. Ensure the leaflet is displayed in the noticeboard at Dee Lane.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004		Y										
2005												
2006												
2007												

Project Code	4.2.4											
Project Title	Produce an interpretative booklet.											
Description	The booklet will be more detailed than the low cost leaflet.											
Action by...	HdR & HiR, LHG											
Method	Work with various 'expert' groups. The booklet will include sections on History, Natural History, Geography & Geology.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004										Y		
2005												
2006												
2007												

Project Code	4.2.5											
Project Title	Maintain a file of more in depth information enabling prompt response to specialised enquiries.											
Description												
Action by...	HiR & SAR, FoH, HiBO											
Method	<p>Transcribe important documents to electronic format. Update web-site with downloadable files of specialised information where appropriate. Transcribe HiBO annual report statistics, with their permission. Collate press cuttings and news reports. Students carrying out academic work on the reserve will be asked for a copy of their final report. A species list for the reserve should be kept available and updated regularly.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.6											
Project Title	Produce a geology information sheet.											
Description	A low cost Geology information sheet to compliment the low cost history and wildlife leaflet.											
Action by...	HiR & SAR											
Method	<p>Produce a double-sided A4 document. The leaflet will Highlight Hilbre's status as a R.I.G.S. (Regionally Important Geological and Geomorphologic Site.)</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004											Y	
2005												
2006												
2007												

Project Code	4.2.7											
Project Title	Increase awareness of Hilbre as an educational resource for schools.											
Description	Produce schools packs.											
Action by...	HiR & SAR, WCP											
Method	Produce 2 school packs for: <ul style="list-style-type: none"> - primary schools, - secondary schools and further education establishments. Draft to be completed by April 2004, to be finalised for circulation by September 2004. Primary Schools pack will include advice that visits by infants are inappropriate because the health and safety risks outweigh the potential benefits. Pack will contain information relevant for a visit to the island as well as resources for pre-visit & follow up work. Supply to all schools and colleges throughout Wirral.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004				Y					Y			
2005												
2006												
2007												

Project Code	4.2.8											
Project Title	Provide information accessible via the web.											
Description	Hilbre is the subject of many web sites, a high quality council managed website on Hilbre will enable the official message to be widely seen.											
Action by...	SAR & HiR											
Method	The site should include : <ul style="list-style-type: none"> -safety and how to get there information -webcam pictures -history and natural history information -links to other sites such as Proudman Oceanographic Laboratories 											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.9											
Project Title	Promote the creation of the visitor Information Centre at West Kirby Beach.											
Description	Visitors need to get information on safety, wildlife etc. before visiting the island. This is best achieved by providing an information point at West Kirby Beach. Until this centre is operational, Wirral Country Park Visitor Centre at Thurstaston will continue to act as the main source of information on Hilbre.											
Action by...	WBC											
Method	This would be equipped with information posters and interpretative displays and act as a distribution point for leaflets, information packs etc. and would have staff on duty to answer the many enquiries from the public.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.10											
Project Title	Provide the main access on Hilbre with a small noticeboard											
Description	This will convey to visitors that they are in a Nature Reserve											
Action by...	HdR & HiR, ABS											
Method	The noticeboard will be approximately 1.2m by 0.8m It will contain information on safety including tides, codes of conduct and seasonal interpretation of wildlife including a message about Hilbre's fragility and the need to keep to the paths and away from the cliff tops.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y	Y							
2004												
2005												
2006												
2007												

Project Code	4.2.11											
Project Title	Develop a Study Centre on Hilbre.											
Description	The Buoymasters complex has been identified as the ideal venue for the Study Centre. Courses will be based on the island wildlife and scenery, and will include birdwatching, photography and painting. It could also be used as accommodation by students on placement or fixed term contracts carrying out research, practical or educational work as identified in the management plan.											
Action by...	HdR & HiR, ABS											
Method	The building has been surveyed and the following work needs to be carried out before the Study Centre can be used: <ul style="list-style-type: none"> - Investigate links with proposed Telegraph House wind turbine - Have gas lighting tested and extended - Gain costing for a Calor gas cooker & 3 multifuel stoves - Get quotation for roof repairs - Identify internal and external repair and decorating needs - Repair and paint windows and doors - Acquire decorating material & decorate internally including room across bridge - Acquire furniture, kitchen units, carpets, crockery etc. - Improve toilet facilities - Repair water collecting system, supply and drainage - Source funding 											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.12											
Project Title	Provide a small island based Centre for interpreting Hilbre.											
Description	Develop the Telegraph Station Lookout into an Interpretation Centre.											
Action by...	HiR & FoH, SAR											
Method	Improve security of the building. Design and manufacture display units. The Telegraph Station Lookout Interpretation Centre will only be opened when a Ranger or a trained member of the Friends of Hilbre is in attendance. Alternatively a group, which has previously asked to see inside the Interpretation Centre when they booked their permit, will be able to pick up a key from the Wirral Sailing Centre. They can then unlock the Interpretation Centre to see inside, then lock it again when they leave. The group will be made aware at the time of booking that they are responsible for reporting any damage to the Interpretation Centre when they return the key to the Wirral Sailing Centre.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003		Y	Y	Y	Y	Y	Y	Y	Y			
2004			Y	Y								
2005			Y	Y								
2006			Y	Y								
2007			Y	Y								

Project Code	4.2.13											
Project Title	Produce and circulate a schools visit procedure document.											
Description												
Action by...	HiR & SAR, WCP											
Method	<p>Include in the document details of :</p> <ul style="list-style-type: none"> - group size limitations (30) - suitable activities - equipment needed <p>Activities involving the capture of live animals will also be regulated, as it is against the bylaws unless carried out with authorisation.</p> <p>A maximum group size of 15, or a maximum of 10 nets at any one time.</p> <p>Activities involving the capture of live animals will usually be led by a Ranger, although exemptions can be made where a teacher can demonstrate experience using the procedures, in order to promote care for the animals caught.</p> <p>Send document with the schools pack (Project 4.2.6) to all schools.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												Y
2004												
2005												
2006												
2007												

Project Code	4.2.14											
Project Title	Manage School & College visits to the reserve.											
Description												
Action by...	HiR & SAR, WCP											
Method	<p>Ensure each school on the Wirral has a schools pack (once produced), to encourage the full scope of opportunities within the reserve. (Project 4.2.6)</p> <p>Ensure the group leader is fully aware of the procedures and hazards within the reserve. (Project 4.2.17)</p> <p>Aid/guide the group leader wherever possible.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.15											
Project Title	Organise programme of events for the general public.											
Description	Programme should include general walks & more specialised events.											
Action by...	HiR & SAR, local 'experts'											
Method	<p>Check through tide table for suitable tides for sunset walks and weekend guided walks. Source names of willing 'experts' to lead specialised events, e.g. on History, Archaeology, Geology and Marine Biology. Liaise with these experts taking into account:</p> <ul style="list-style-type: none"> - their availability - tides - public holidays - other local and Authority-wide events - staffing needs <p>Develop/confirm programme with SAR. Send to Events & Activities Leaflet Editor for compiling and publishing biannually.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y						Y		
2004				Y						Y		
2005				Y						Y		
2006				Y						Y		
2007				Y						Y		

Project Code	4.2.16											
Project Title	Provide pre-booked guided walks to visiting groups.											
Description	Groups booking a visit to Hilbre often request a guided tour. This will be given when possible.											
Action by...	HiR											
Method	<p>When a guided walk is requested, check diary and tidetable for suitability. If a permit has been acquired, confirm time and place of meeting.</p> <p>If a permit has not been applied for, explain the permit process. If possible, provisionally book time and place of meeting. Confirm time and place of meeting on receipt of permit. Always note name and number of the person requesting the guided walk, as it may not be the same as on the permit.</p> <p>Where appropriate, arrange to meet the group on Hilbre rather than leading the 2 hour return walks from West Kirby.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.17											
Project Title	Provide an introductory talk to visiting groups.											
Description	A short introductory talk will be given to every group which hasn't pre booked a guided walk (when possible).											
Action by...	HiR & CRT											
Method	Identify heavy use periods for Hilbre. Timetable duties to allow more time out on the island during these times.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.18											
Project Title	Provide talks to local groups & schools off Hilbre Island.											
Description												
Action by...	HiR											
Method	Design a general Hilbre talk for adult & community groups. Design talks specifically targeted at primary and secondary schools. Inform schools of the availability of the Hilbre Ranger for talks using the schools information leaflet (project 4.2.17). Limit the talks to a max. of 2 per month in order to reduce the time the Ranger is off the island.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.2.19
Project Title	Produce & circulate a press and media information sheet.
Description	Standard important information must be given to the press and media.
Action by...	HiR & SAR, HdR, P&PRO
Method	Produce an information sheet with standard important information e.g. nature reserve, safe crossing times etc. to ensure the press and media promote the aims of the reserve. Filming on the reserve will only be authorised if it meets the aims and objectives of the reserve. Confirm details with the Press & Public Relations Office. Circulate to local newspapers and keep copies to distribute annually.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					Y							
2004					Y							
2005					Y							
2006					Y							
2007					Y							

Project Code	4.3.1
Project Title	Risk Management
Description	Standard risk assessments must be completed for all activities that are assessed as having significant risk.
Action by...	SAR & HiR, So
Method	Copies will be kept on Hilbre and by the safety officer.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.2											
Project Title	Display tide information in the Dee Lane Noticeboard.											
Description	Safe crossing times to be changed daily.											
Action by...	HiR & CRT											
Method	Tide table to be changed at the start of every month. Mark for special attention any tide above 9 ½m. Hilbre Ranger or covering Ranger to change the recommended crossing times as early as possible each day. Due to operational necessity it may occasionally be appropriate to put two days tide times up at once.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.3											
Project Title	Display information on safety & the importance of the reserve at beach access points.											
Description	Although primarily fulfilling a safety role, these will also provide information on the nature conservation importance of the reserve											
Action by...	SAR & CRT											
Method	Notice boards to be sited at the following beach access points: <ul style="list-style-type: none"> - Sandy Lane - Dee Lane - Riversdale Road - Stanley Road - Kings Gap Devise warning notices specific for each site.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.4
Project Title	Update & circulate general pre-visit FREE information sheet.
Description	This leaflet will have important safety & 'how to get there' information.
Action by...	HiR & SAR, WCP
Method	Review & revise leaflet to ensure information is correct and up to date. Take special note of any safety or 'how to get there' information. Maintain supply at Visitor Centres, Wirral Sailing Centre and TiC's.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003			Y									
2004			Y									
2005			Y									
2006			Y									
2007			Y									

Project Code	4.3.5
Project Title	Maintain lifesaving equipment.
Description	
Action by...	HiR & SAR, BLS
Method	Lifebelts with lanyards to be provided at the following locations: <ul style="list-style-type: none"> - Hilbre North End (2) - Hilbre South Beach (1) (bracket to be secured to concrete block) - Hilbre East Slipway (1) - Hilbre Telegraph Lookout (1) - Middle Eye (1) Lifebelts and lanyards to be inspected weekly by Rangers and Beach Patrol. Any defect to be immediately reported to Beach Patrol, and Head Ranger via incident report forms.

Timetable

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.6
Project Title	Provide First Aid cover.
Description	The Hilbre Ranger must hold a first aid certificate.
Action by...	HiR & SAR
Method	An internal, four-day first aid course must be applied for on acceptance of the Hilbre Ranger post. On completion, the course must be renewed every 3 years.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004											Y	
2005												
2006												
2007											Y	

Project Code	4.3.7
Project Title	Provide 24 hour emergency contact for the Hilbre Ranger.
Description	
Action by...	HdR & WBC, SAR, HiR
Method	A mobile phone and a mains and in-car charger will be provided. This will allow 24-hour emergency contact with the Ranger as well as 24-hour contact between the Ranger and the emergency services. This connection with the Ranger must be used for emergencies only, and the number must not be given out to the public.

Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.8											
Project Title	Encourage and support the Rangers work as an auxiliary coastguard.											
Description												
Action by...	HiR & MCA											
Method	<p>Ranger to be equipped and trained by Maritime & Coastguard Agency (MCA). Ranger to attend coastguard training when applicable.</p> <p>Coastguard incidents must take precedence over normal Ranger duties.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.9											
Project Title	Provide Lifeguard cover for the reserve.											
Description												
Action by...	WBC & BLS											
Method	<p>To be implemented by the Beach Lifeguard Service.</p> <p>This service should be targeted to cover the particular dangers due to the flooding tide in the channels to the east of the islands and around Little Eye.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003			Y	Y	Y	Y	Y	Y	Y			
2004			Y	Y	Y	Y	Y	Y	Y			
2005			Y	Y	Y	Y	Y	Y	Y			
2006			Y	Y	Y	Y	Y	Y	Y			
2007			Y	Y	Y	Y	Y	Y	Y			

Project Code	4.3.10											
Project Title	Provide firefighting equipment to all buildings with overnight accommodation.											
Description												
Action by...	HdR & SAR, Po-C&D, MFB, WBC-SO/BI											
Method	Water misting system to be fitted in : <ul style="list-style-type: none"> - Telegraph House - Bunkhouse - Study Centre (Misting systems in Telegraph House and the Bunkhouse were fitted in 2001) Fire extinguishers or blankets to be maintained under direction of the Departmental Safety Officer/Building inspector.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.3.11											
Project Title	Provide Firefighting training for the Hilbre Ranger.											
Description												
Action by...	HiR & SAR, WBC, MFB											
Method	An external, one day Basic Firefighting Skills course must be applied for on acceptance of the Hilbre Ranger post. On completion, the course must be renewed every 2 years.											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003											Y	
2004												
2005											Y	
2006												
2007											Y	

Project Code	4.4.1											
Project Title	Encourage public involvement in the care & management of Hilbre.											
Description												
Action by...	HiR & FoH, DEVW											
Method	<p>Involvement of small groups, or individuals in the care & management of Hilbre can be organised directly through the Ranger, or via the Friends of Hilbre. Organised groups who wish to help the island in a practical way can be accommodated in the Bunkhouse, and can carry out practical work under supervision of the Ranger.</p> <p>There are a limited number of weekends available, and groups that have demonstrated appropriate skills should be given priority, although some weekends should be left for groups new to Hilbre. Some groups may not wish to stay overnight, and can therefore be booked during the 6 weekends in the summer when a placement is in residence in the Bunkhouse.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

Project Code	4.4.2											
Project Title	Support the Friends of Hilbre group.											
Description												
Action by...	HiR & SAR											
Method	<p>The Friends of Hilbre were set up during 2001. The Metropolitan Borough of Wirral, through the Ranger service has been working in partnership with the group.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	Y											
2004												
2005												
2006												
2007												

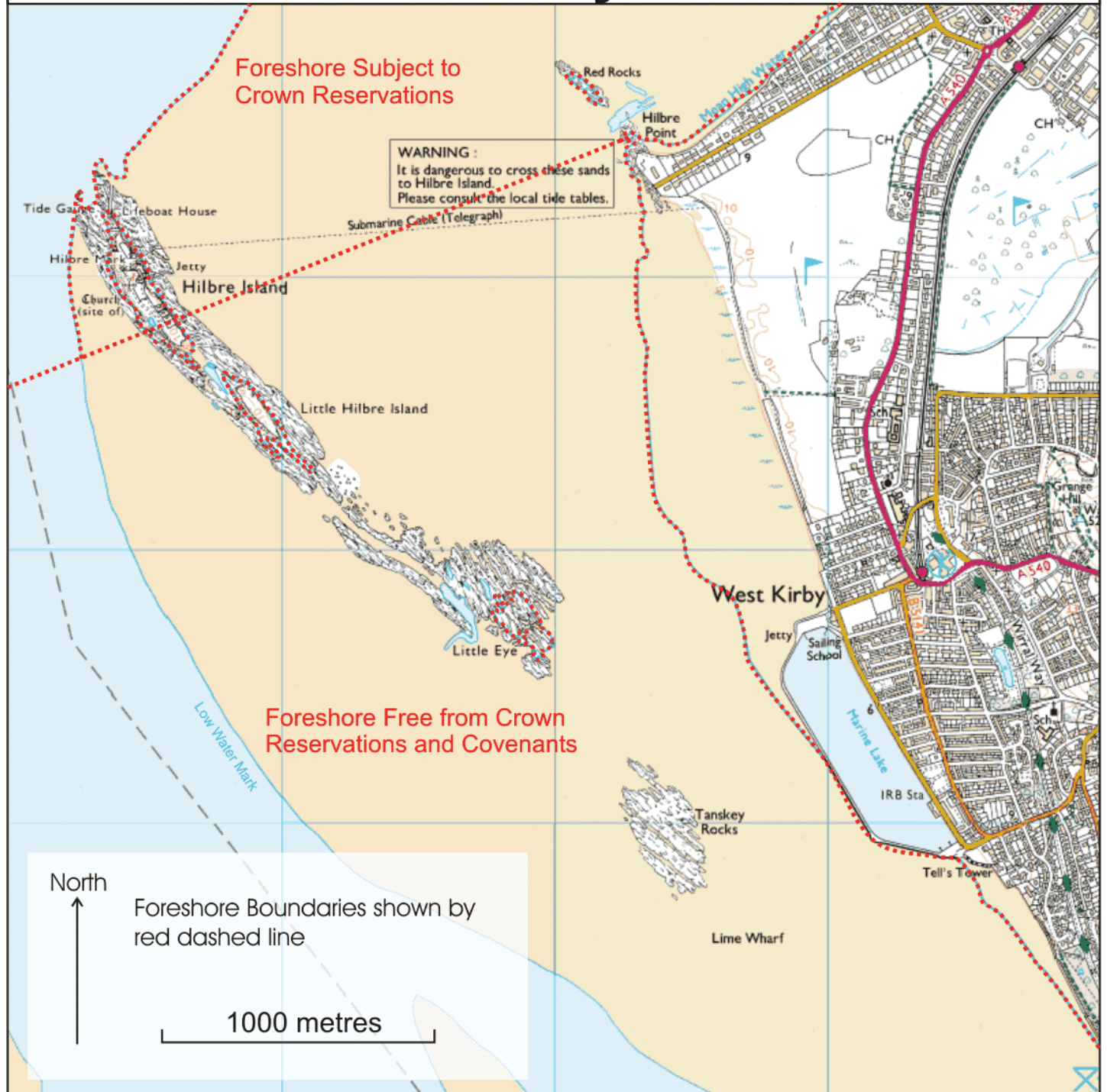
Project Code	4.4.3											
Project Title	Organise a seal-watching group.											
Description	A Seal watching group will carry out low tide seal counts & provide information to visitors.											
Action by...	HiR & FoH											
Method	<p>Training sessions such as use of telescope, seal counting and dealing with the public must be taken by anybody who wishes to become a seal watching member.</p> <p>A list of trained seal watchers will be kept.</p> <p>A seal-watching rota will be devised using the names from the trained seal watchers group.</p> <p>A free seal information leaflet/handout is to be written.</p> <p>Equipment such as a telescope, noticeboard & information handouts will be made available to the group.</p> <p>Information, such as seal numbers, weather, time of count, disturbances, numbers of public spoken to etc. will be kept on file.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					Y	Y	Y	Y				
2004					Y	Y	Y	Y				
2005					Y	Y	Y	Y				
2006					Y	Y	Y	Y				
2007					Y	Y	Y	Y				

Project Code	4.4.4											
Project Title	Providing accommodation for volunteer working parties.											
Description	Continue the use of the Bunkhouse.											
Action by...	HiR & WCP											
Method	<p>Weekends when the Bunkhouse can be made available need to be identified at the start of each year.</p> <p>When contacted, book groups into the bunkhouse using those weekends identified</p> <p>Ask for written conformation, which must include the details of the group leader.</p> <p>Give details of items they must bring to the bunkhouse – water, sleeping bags etc.</p> <p>Send, via Wirral Country Park, a Bunkhouse information leaflet (Project 4.4.5) to the group leader.</p> <p>Access will be improved where practicable for those with special mobility needs.</p>											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003				Y	Y	Y			Y			
2004				Y	Y	Y			Y			
2005				Y	Y	Y			Y			
2006				Y	Y	Y			Y			
2007				Y	Y	Y			Y			

Project Code	4.4.5											
Project Title	Produce a Bunkhouse Information Leaflet.											
Description	A leaflet will be sent out to all groups who book the bunkhouse.											
Action by...	HiR, SAR, WCP											
Method	Include in the document : <ul style="list-style-type: none"> - information on the importance of the reserve - safety information - the group leaders responsibility whilst on the reserve - The Fire certificate permits a maximum of 10 people to stay overnight. - information about the amenities on Hilbre - a list of items which are provided by the Local Authority - a list of items the group must provide for themselves - contact numbers 											
Timetable												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003												
2004		Y										
2005												
2006												
2007												

Abbreviations used in Project List	
BLS	Beach Lifeguard Service
BWEA	British Wind Energy Association
CCW	Countryside Commission for Wales
contractor	Contractor used for project
CRT	Coastal Ranger Team
DERUG	Dee Estuary Recreation Users Group
DEWV	Dee Estuary Volunteer Wardens
EA	Environment Agency
EN	English Nature
FoH	Friends of Hilbre
HdR	Head Ranger
HiBO	Hilbre Bird Observatory
HiMAG	Hilbre Islands LNR Management Advisory Group
HiR	Hilbre Ranger
HsC	Hilbre sub-committee
LA-21	Local Agenda-21 Officer
LHG	Local History Group
LiM	Liverpool Museum
LiU	Liverpool University
MCA	Maritime & Coastguard Agency
MCS	Marine Conservation Society
MFB	Merseyside Fire Brigade
MS	Mammal Society
NWNWFFC	North Western & North Wales Sea Fisheries Committee
Po-C&D	Principal officer-Client & Development
PP	Peninsular Paddlers
P&PRO	Press & Public Relations Office
RSPB	Royal Society for the Protection of Birds
SAR	Senior Area Ranger
SD	Star Design
TiC	Tourist information Centres
TOF	Tam O'Shanter Urban Farm
vols	Volunteer groups
WBC	Wirral Borough Council
WBC-BI	Wirral Borough Council-Building Inspector
WBC-BM	Wirral Borough Council-Building Maintenance
WBC-CO	Wirral Borough Council-Conservation Officer
WBC-PC	Wirral Borough Council-Pest Control
WBC-PD	Wirral Borough Council-Planning Department
WBC-SO	Wirral Borough Council-Safety Officer
WCP	Wirral Country Park
Wp	Work placement
WSC	Wirral Sailing Centre

Foreshore owned by Wirral Council



Hilbre Island Tenancies

