The Ribble
Portrait of an Estuary

Foreword
County Councillor George Slynn
Chairman of the Ribble Estuary Advisory Group

Blackpool, Lytham St. Anne's and Southport are household names as popular leisure and holiday resorts the length and breadth of the land. Their location at the mouth of the estuary of the River Ribble is much less well known, yet this same estuary is of paramount importance to both the economy and the environment of North West England. Indeed, the Ribble Estuary is of international importance for interests as diverse as wintering and migrating wild birds on one hand to the modern aerospace industry on the other.

Here, as elsewhere, we are becoming aware of links between a healthy and attractive environment and a healthy economy. The Ribble Estuary Partnership is working with other groups across the Ribble catchment to publicise and improve both the image and reality of this section of our coast for residents and visitors alike. This booklet, produced by the Partnership, tells something of its history, natural riches and the stories of some of those who depend on and value the Estuary today.

George Slynn
The Ribble Estuary
The Ribble is one of the longest rivers in North West England. From its source near Ribblehead in the spectacular limestone country of the Yorkshire Dales, it flows south-west into Lancashire along a broad, scenic valley.

West of Preston, the Ribble meets the Irish Sea in a funnel-shaped estuary, 16 km across at its mouth, the influence of which extends as far as Rossall Point in the north and Formby Point to the south.

The Ribble Estuary evolved as the sea-level rose rapidly at the end of the Ice Age, 10,000 years ago, when an existing valley was flooded.

The sea carried with it large quantities of sand and mud. Coupled with material brought down the river, this began to silt up the Estuary, a natural process which continues today.

Low tide in the Estuary reveals the extensive mud and sandflats, giving an impression of a desolate wasteland, devoid of life.

In reality, the mudflats are enormously productive, supporting multitudes of small burrowing creatures - up to 100,000 per square metre - which in turn provide food for tens of thousands of birds.
Saltmarshes form when sheltered sand and mudflats remain exposed long enough between tides for salt-tolerant plants to colonise the surface. These plants trap silt from the tides and so the mudflats grow upwards.

Rolling sand-dunes develop on the less sheltered fringes of the Estuary. Here, the breaking of the waves prevents saltmarsh forming but sand exposed at low-tide can be blown up the shore and is then trapped by hardy grasses, such as marram, to form dune ridges. In places, the Sefton Coast sand dunes are over 2 km wide, creating one of the finest examples of a sand dune system on the North West coast.

The thriving holiday resorts of Lytham St. Anne's, Blackpool and Southport dominate the Estuary's fringes. Activities ranging from fishing and farming to recreation and industry take place on or near the Estuary.
The Estuary of Old

The area around the Ribble Estuary has been home to humans for at least 10,000 years, stone tools of Mesolithic (Middle Stone Age) hunter-gatherers having been found on the Fylde and in Sefton. Settled farmers of the Neolithic (New Stone Age) began to clear the forests for their crops and livestock about 6500 years ago. Bronze Age (2000 - 750 BC) finds during the excavation of Preston Dock include a bronze spear-head, two dug-out canoes and the remains of what seems to have been a wooden lake-dwelling.

Romans, Anglo Saxons and Vikings all invaded and settled in the region. Western Europe's largest hoard of Viking silver was buried in the river bank at Cuerdale, just east of Preston, in about 905 AD and uncovered in 1840. Worth £300,000 in modern currency, it included 7,500 coins.

The Domesday Book (1086 AD) shows that the land around the Ribble was thinly inhabited. Then, and throughout the Middle Ages, it was "A place of forest and marsh, a few small towns and a scattering of villages held together by a primitive framework of feudal overlords and widely scattered churches..." (Keith Parry, 1983)

Fishing has always been important to local people. Fisheries were owned by the lords of the manor and leased out. Salmon and sea trout were the most esteemed catch but flounders ('flukes') were also taken on the estuary.

Commercial fisheries on the inner Ribble declined in the 19th century, though they continued in the outermost parts of the Estuary.
The Estuary of Old (cont.)

From earliest times, the Ribble saltmarshes have been used for grazing cattle and sheep. Some were enclosed by earth banks, known locally as 'cops', and used for growing crops. Major reclamation began from about 1840, taking advantage of the training of the river channel which prevented it meandering and eroding land either side.

Each time an area was embanked, further saltmarsh growth was stimulated outside the bank so, within a few years, the process could be repeated. Around 2320 hectares of saltmarsh - a football pitch is approximately 1 hectare - have been reclaimed from the Ribble.

The River Ribble and its estuary have long been an important highway. Vikings used the Ribble Valley as their main route from the west coast inland, and there are written records of ships visiting Preston for commerce as early as 1360.

By the early 19th century, the unpredictable nature of the estuary channels and poor facilities for unloading cargoes led to proposals to straighten and deepen the river channel and create a dock in Preston. The construction of training walls either side of the navigation channel began in the 1840s. The Albert Edward Dock opened in 1892; at the time it was the largest single dock in the country. Declining trade and increasing costs from the late 1960s led to port closure in 1981, the dockland being redeveloped for a marina and housing.

The Estuary of Old (cont.)
The Estuary of Old (cont.)

A Lifeboat Station was first established at Lytham in 1851, followed by one at St Anne's in 1881. The latter closed in 1928 and the station was renamed Lytham St Anne's in 1931. The Ribble Estuary is important to us as our centre of operations, though we also cover up to 50 miles offshore. On average, our volunteer crews answer about 40 calls a year to all manner of incidents, many of them life-threatening. 

Frank Kilroy, Lytham St Anne's Lifeboat Station.

Southport did not exist before 1792 when William Sutton erected a crude driftwood shanty on the beach to accommodate bathers from Churchtown. This was rebuilt in 1798 and christened the South Port Hotel.

Lytham has a much older medieval and manorial origin but St. Anne's is Lancashire's newest resort, being purpose-built from 1875 onwards.

"From a waste of blowing sand, unprettied beach and a not ever-clean, swaying village, it has, within a man's lifetime, become one of the pleasantest, cleanest and well-sited little towns in all England."
Lytham Times, 1882.

Sea-bathing became popular in the early 1700s. Despite its remoteness, the tiny fishing village of Black Pool was the first to take advantage of this activity, with "accommodations" being provided in the 30 primitive cottages strung out on the edge of the beach. The first hotel was built in 1755 and, by 1787, the resort was well established.
I have always maintained my connection with the river, being a founder member of the Ribble Cruising Club and Head Launcher of the Lytham Lifeboat for 24 years. I had my own boat up to 1997.” Arnold Broxup, Ansdell.

"Our family lived in the Guides House area at the end of Guides Lane, Warton, a place now unknown to anyone under 60 as it was taken over by the Air Ministry during World War II to be used as an American air base.

The river itself was the playground for me, my brother and several other local lads.

We made and sailed boats, swam in the river, picked samphire, caught flukes when the tide was out and, in later years, went wildfowling.

It was a thoroughly unrestricted life; no bird sanctuaries, pollution scares and, to my recollection, more wild birds, including vast flocks of Starlings which would take 20 minutes to go over to roost on Longton."
"The Ribble Estuary is important to us for agriculture. The Hesketh family has been farming here for at least 150 years and has been instrumental in development and reclamation over this period. Providing full-time employment for over 20 people, we also do business with approximately 100 firms in ancillary industries, including suppliers, contractors and professional people.

It was through the late Henry Hesketh senior that a bird sanctuary was created in the early 1950s at Hutton Marsh."  W. Hesketh, Farmer.
Reclaimed land on the south side of the Estuary includes some of the most productive farmland in the country, and is particularly noted for its high value vegetable and salad crops.

Some land remains unploughed and is used as pasture, as with the saltmarshes which are also grazed, an exception being the outer section of Crossens Marsh.

The Lancashire coast presents a unique challenge to fishermen. As well as the changing elements they must tackle its treacherous sands, constantly shifting channels, and tides that race in from the open sea.

In the middle part of the Estuary, salmon are netted from small open boats. Offshore, beyond the mouth of the Estuary, larger boats from Fleetwood and Liverpool fish for valuable flatfish using trawls.

In between, a fleet of smaller boats fish for a variety of species, both commercially and for pleasure.

The unique character of the Ribble fisheries is seen most clearly among those fishermen who fish from the shore, rather than the sea.

On the southern side of the Estuary the shrimp fishermen realised long ago that boats are a liability in shallow channels, and instead used horses to haul their nets. Today, tractors and converted lorries have replaced the horses.
"To fish for the Salmon, the king of all fish
Is no longer a living, but a way of life.
And come the day when I leave the river the sea,
I will sit with men that were men when I was a boy
And drink and talk of Thee my Lord, The Salmon, the king of all fish.
The estuary once provided a good living for many fishermen.
We, the six salmon men and a few shrimpers are all that remain,
and are diminishing every year."

Jack Wilkinson, Salmon Netsman for 23 years.
The vast intertidal sands of the Ribble are also home to large populations of cockles. These are gathered by hand, but cockle fishermen also use vehicles to travel out to the cockle beds, which may be far from the high water mark.

Several organisations work to protect fish stocks in the Estuary. Salmon fishing is governed by the Environment Agency, and fishing for sea fish is regulated by the local North Western & North Wales Sea Fisheries Committee as well as the Ministry of Agriculture Fisheries & Food.

"The estuary is highly valued by our club for recreational boat angling. There are numerous species of fish to be caught, also seals and birdlife to be enjoyed while fishing."

Bob Deacon, Southport Boat Angling Club.

A particular feature to watch out for is a wreck that is partly uncovered at low water. I think it is that of the Zelander, locally known as the "Mugship". It is a haven for marine life but is also a danger to those who do not know it is there; it could take the bottom out of any craft and needs to be buoyed."

Bob Deacon, Southport Boat Angling Club.
A major industry on the Ribble is BAE Systems (formerly British Aerospace) based at Warton Aerodrome, which was originally built during World War II. BAE Systems are the largest industrial employer in Lancashire with over 6000 people employed at Warton in the manufacture of military and commercial aircraft and components.

BNFL Springfield, the UK's largest manufacturer of nuclear fuel, is situated on the northern edge of the Estuary. One of the largest landfill sites in Lancashire is situated at Clifton Marsh, while next-door is Preston's state of the art wastewater treatment works (WwTW). Sludge created at the WwTW is disposed at the landfill site creating a functional link between the two.

"Sandwinning has taken place on the Ribble Estuary at Horse Bank near Southport for more than 30 years. Some 200 000 to 300 000 tonnes are extracted annually. The unique properties of the industrial sand are essential to the Pilkington glass grinding and polishing operations in St. Helens and Doncaster. They have no alternative sources and are under intense competition from Japanese producers, the only other manufacturers of glass of this quality. If sand from Southport for the glass grinding process was no longer available, it would make it impossible to compete and result in the loss of business and employment."

Gwilym Jones, William Rainford (Holdings) Limited.
"BAE Systems at Warton have been keen supporters and guardians of the Ribble Estuary for many years. We have introduced an Environmental Management System which ensures that our employees are aware of the impacts our company makes on the environment and how these can be minimised. As well as infrastructure investment to reduce or eliminate environmental hazards, we have also established key relationships with the Environment Agency, Tidy Britain Group and the RSPB through various clean-up operations involving our employees and members of the local community."

David Glennon, BAE Systems, Health, Safety & Environment, Warton.

Blackpool is Britain's premier resort with 17 million visits per year. Top attractions include the Pleasure Beach, the Tower, the Sandcastle, and the Sealife Centre, while the Illuminations extend the season into the autumn. Southport relies more on its 19th century charm, shopping facilities, gardens and annual flower show.

One of the major recreations of the area is links golf with six out of the top 25 golf courses in the country on the Fylde and Sefton coasts. Another traditional activity on the Estuary is wildfowling, the sport being carefully regulated with large sanctuary areas.

Sailing is also popular, with marinas at Preston Dock and Hesketh Bank and facilities on the marine lakes at Fairhaven and Southport. St. Anne's North Beach is internationally famous for sand-yachting.

Finally, one of the most rapidly growing leisure pursuits is bird-watching, including organised events run by the RSPB at its Fairhaven Discovery Centre and Marshside Nature Reserve.
"To walk along the promenade from the Land Registry, past Lytham Green to the far end of Fairhaven Lake is a delight. When the tide is out and the sun low and shining through clouds, the reflections on the wet sands are worthy of a Turner painting; yet, when the tide is up and the sun is high, it is a Shakespearean "silver sea". Nature is not always so kind and there are days when the wind howls; the sand blows; and the water is black. Mankind can also be unpleasant in the form of mad, silent cyclists roaring past at heart-stopping speeds to the distress of those taking the air. Yet the positive delights of the two-mile promenade overcome its disadvantages for thousands of pedestrians." F.G. Fallows, Federation of Lancashire Civic Societies.

Water from a large part of Lancashire drains into the Irish Sea through the Ribble Estuary. Although some of the bathing waters on the coastal beaches still do not meet European standards, there has been a steady and significant improvement in the Estuary's water quality. To tackle the problem, North West Water Ltd has invested over £500 million in one of Europe's largest environmental clean-ups. They continue to make further investment, while the Environment Agency undertake research and monitoring of the estuary.

Water quality is influenced by such diverse factors as agriculture, storm water, urban runoff, industry, wildlife, and algae.
Discovering the degree to which each one, or a combination of these influences can affect water quality is a difficult task, but one which many organisations are working on together.

"Fylde Borough Council in partnership with the RSPB, has established the Ribble Discovery Centre at Fairhaven Lake, which is enjoyed by thousands of visitors and school groups every year.

In summer, the dunes are a riot of colour from the many wild flowers, including rare species such as orchids. Guided walks feature the natural history of the dunes and the shorebirds of the nearby St Anne’s beach which is the most important in Britain for the Sanderling.

Unaffected by local sand-yachting activity, these tiny waders run up and down the beach with the ebb and flow of each wave like so many clockwork toys.”
Dave Joy, Head of Tourism and Leisure, Fylde Borough Council

"It was an unpromising, uncompromising coast, yet it produced a string of towns whose main aim was to please, give delight and relaxation. That is their common heritage." Keith Parry, 1983.
A Wildlife Wonderland

The Ribble Estuary is of immense importance for wildlife. There are many wildlife habitats present including intertidal mud and sandflats, saltmarsh, freshwater marsh, pools and river channels. Burrowing worms, snails, shellfish and crabs live in the mud and sand, fish swim into the Estuary at high tide and wildflowers grow on the saltmarshes. Each winter some of Europe's largest flocks of birds migrate to the Estuary from their breeding grounds further north. Others, wintering further south, stop in the Estuary to feed for a few days during the spring and autumn before continuing on their journeys. Many species of bird also nest and raise chicks around the Estuary.

Flights of waders to and from the roosts are one of our greatest natural spectacles. Flocks twist and turn together like distant smoke - a remarkable sight which attracts bird-watchers from far and wide.

The Estuary regularly supports internationally important numbers of 20 different species of waders and wildfowl (see page 27), more than any other British wetland. Of particular significance are the wigeon flocks, the largest numbers on any estuary in the country. Salt and grazing marshes are also a haven in winter to pink-footed geese. A wide variety of other birds also use the saltmarshes including flocks of the nationally declining skylark, together with buntings, finches and pipits. These and the waterfowl attract birds of prey, particularly merlin, peregrine, and hen harrier in winter. The Ribble Estuary is also nationally important for breeding birds with large nesting colonies of gulls and common terns.
"The value of the Ribble Estuary lies in its exceptional bird populations. Up to a quarter of a million birds may be present at any one time and millions pass through in a year.

The estuary is internationally important, both for its wintering flocks and as a key "refuelling" stop for birds migrating to and from sub-Arctic regions."

Tony Baker, RSPB Marshside.
Redshank breeds on both the saltmarshes and the reclaimed grazing-marshes.

Special plants here include the nationally scarce brackish water-crowfoot and marsh orchids.

"To me the Ribble Estuary is one of the wildlife jewels in Lancashire's crown. A spectacular place for wild birds in its own right, taken together with the Mersey and Morecambe Bay, it makes up one of the best places in Europe to see vast numbers of waders and wild-fowl. But I am always mindful of the less obvious wildlife that lives between the tides and beneath the waves. That includes young Sea Bass and flatfish, Common Cockles, Baltic Tellins and Peppery Furrow-shells, and the wriggling, writhing, biting Common Ragworm. Without these and more, there wouldn't be the food supply to attract and sustain all those hungry birds. And spare a thought for the lonely bristle-worm, Ophelia bicornis. It spends its life entirely buried in the loose, mobile sand of the outer estuary. Though...

(continued on page 25)
The Ribble Estuary is a priority site for English Nature and one which deserves particular conservation effort to ensure that its wildlife treasures will be sustained and so enjoyed by future generations. Thanks to the foresight of our predecessors, English Nature now has a marvellous National Nature Reserve and a ‘Spotlight’ one at that, at the heart of the estuary. We manage it on behalf of the nation and in partnership with others, as we continually seek to enhance its value to the waders, wildfowl and other wildlife for whom it is home and for all of us to appreciate and enjoy. Through the summer grazing of 700 cattle on the NNR, to maintain the habitat for birds, there is a direct link with the farming community. Likewise, through close working with the wildfowling clubs, including the management of a sanctuary and, water and wildfowl populations are flourishing.

Our efforts are not restricted to the NNR alone. English Nature is the government agency which promotes nature conservation throughout England & including the entire Ribble Estuary. We are working in partnership with private land owners, wildfowlers, fishermen, local communities, local planners, regional bodies and other government agencies to secure protection and appropriate management for wildlife throughout the Estuary. It is for this reason that English Nature is directly involved in initiatives such as the Ribble Estuary Strategy, the Ribble Estuary Citizen Committee and the Shoreline Management Plan. The Wildlife of the Ribble Estuary matters to everyone.

Dr Will Williams, 
North West Team Manager, English Nature
A Wildlife Wonderland (cont.)

"The alarm goes off in the middle of the night. Anticipation is still there, even at 62 years of age, and it gave me a poor night's sleep.

I set off in the car, hoping that the imminent rain will hold off. The wind is increasing as we head for the sea wall in the dark along the wet, slippery path. There is a hint of dawn in the sky but it will be another 30 minutes before the flight starts. The westerly wind is nearing gale force and, crossing many muddy gutters, we will have to watch out for the tide pushing in early. The sky lightens as dawn breaks; clouds race across the sky, the black lower clouds contrasting with the beautiful, deep pink upper ones, picking up the early morning rays of the sun.

If this was a painting, you would not believe the colours. As daylight takes hold, the loneliness and wildness of the estuary become apparent; not a place for the faint-hearted, but nature at its very best. Packs of Wigeon and the occasional Teal and Pintail flight out to the shore. We manage to shoot the odd one but, though our bag may be limited, the day has already become imprinted on my mind. Suddenly, the tide appears, forcing us to set off back.

A large flight of Pink-footed Geese crosses over the sea wall. The "Hounds of Heaven" can be heard calling as they head for the "Mere". This is the call of the wild, haunting and irresistible to the wildfowler."

E.A. White, Chairman, Preston & District Wildfowlers' Association.
Comparatively few fin fish species are found within the Ribble. These include migratory fish - salmon, trout and eels - which pass through the Estuary en route between the River Ribble and the open sea, and also the estuarine and marine species. Herring and bass use the Ribble as a nursery area. Flounder and smelt on the other hand may live their entire life in the Ribble. Dragonets, pogges and even poisonous lesser weevres are found in the outer estuary, while three spined sticklebacks and common gobies can be found in the waters of the inner estuary and saltmarsh.

Beyond the mouth of the Estuary there are several members of the shark family, whilst sole and cod and other marine species attract both commercial and recreational fishermen. The fauna of the tidal flats of the Ribble Estuary is typical of the other major estuaries and embayments of North West England; mainly worms, crustaceans and molluscs. The true value of these communities is not that they are rare or contain a wide diversity of species, but in their huge biomass that attracts internationally important numbers of birds to feed on them, as well as many fish. Also within the Estuary there are large stocks of shellfish including shrimps, cockles and mussels.

Cobbles and boulders in the Estuary support creatures such as barnacles and green seaweed. Further offshore these hard surfaces produce a more diverse habitat: delicate sea firs and sea mats are grazed upon by sea spiders and sea slugs. Sea anemones and the soft coral, dead man's fingers, live alongside a variety of crabs. These small oases are not typical but provide a wonderful contrast to the dominant mud and sand sediments.
1956 Southport Sanctuary established as a National Wildfowl Refuge

1976 Ribble Estuary Site of Special Scientific Interest (SSSI) designated

1978 Scarisbrick Estate put up for sale. About 5500 acres (2226 ha) of Ribble Estuary saltmarsh and mudflat within the SSSI bought for reclamation

1979 After prolonged negotiation, the area was purchased for the nation by the Nature Conservancy Council (now English Nature) as Banks Marsh National Nature Reserve (NNR)

1980 Ribble Estuary Wildfowl Liaison Committee set up

1980 Part of Hesketh Out Marsh added to the NNR by Nature Reserve Agreement with the owners

1981 The enlarged Ribble Marshes National Nature Reserve declared

1982 A small part of the Ribble Estuary classified Special Protection Area (SPA) under the 1979 European Commission (EC) Directive on the Conservation of Wild Birds (the Birds Directive)

1985 The Alt Estuary designated as a wetland of international importance under the Ramsar Convention, and classified as a SPA under the Birds Directive

1986 Newton Marsh SSSI designated
1990  Warton Marsh purchased by Lytham & District Wildfowlers Association who entered into a Nature Reserve Agreement with the Nature Conservancy Council

1992  Ribble Estuary Strategy established

1994  The Royal Society for the Protection of Birds leased land from Sefton Metropolitan Borough Council to form Marshside Nature Reserve

1995  The Ribble Estuary NNR extended, incorporating Warton Marsh and other landholdings

1995  The Ribble and Alt Estuaries classified as a SPA and designated as a Ramsar site

1996  Sefton Coast submitted to the EC as a candidate Special Area of Conservation under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora
"The estuarine resource is one of Britain's most valuable natural assets. We can no longer afford to treat it as wasteland."

Looking Forward

In practice, most day-to-day management on the Estuary is undertaken by landowners, but how best can everyone work towards a common purpose?

The Ribble Estuary Liaison Committee, involving wildfowlers and other land managers, has met for many years to discuss common interests and concerns.

In 1993 Sefton Council introduced a successful beach management strategy to balance the needs of fisheries, recreation and conservation on its internationally important foreshore.

For the first time in many decades, breeding birds such as the ringed plover, can be found nesting at the top of the beach.

Management Plans have also been written for the various nature reserves in and around the Ribble.

Then there is a Shoreline Management Plan, bringing together local authorities and others to address coastal protection concerns, including possible sea level rise, while the Environment Agency has recently published a series of Local Environment Agency Plans (LEAPs), tackling pollution of land, air and, especially, water.

A new canal, the Millennium Ribble Link, is being created to link the Lancaster Canal to the rest of the inland waterway network via the Estuary. When the canal is completed it will realise a 200 year old dream.
Recognition of the need for a more integrated approach to management of the Ribble Estuary as a whole led to the publication of the Ribble Estuary Strategy in 1997. Over 700 individuals and organisations were consulted and the stated aim of the strategy is:

“To sustain, enhance and improve the environment of the Ribble Estuary in order to maximise its potential for wildlife and human use.”

This aim sets the context for four objectives relating to Human Activities, Management, Natural Resources and Heritage, and the Water Environment, all of which have their own policies which are translated into action.

In this way we hope that future generations will be able to enjoy the sights and sounds of this wonderful estuary.

More than ever before the Estuary is the focus of a diverse range of interests and activities that all have some degree of impact. It is this diversity of interest however that offers the potential for ensuring its future.
The Ribble Estuary Partnership

The Ribble Estuary Partnership has been brought together to deliver the aims and objectives of the Ribble Estuary Strategy.

A Steering Group has been formed to co-ordinate the implementation of the Strategy, and a User Group that provides a forum for the public and other stakeholders to represent their views on issues affecting the Estuary. This group also serves to increase communication and understanding between the various users.

The Ribble Estuary Partnership is also part of PISCES (the Partnership of Coast and Estuary Strategies). PISCES is in turn represented on the North West Coastal Forum. Both of these groups aim to provide integrated and holistic management of the coast.

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The Partnership has a website at www.ribble-estuary.co.uk which includes other publications, lists of events, links to related sites, and further details about the Estuary.
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The views expressed in this booklet are those of the contributors and not necessarily those of the Ribble Estuary Partnership.

Picture Credits

A Wildlife Wonderland (cont.)

(continued from page 23) ... a national rarity, it will never have the cuddly appeal of a Red Squirrel or the beauty of an orchid and so it remains unsung and unloved, poor thing!"  
Dave Dunlop, The Wildlife Trust.

Over half of the Estuary is declared as a National Nature Reserve (NNR). Much of the NNR is owned and managed by English Nature. Other areas are privately owned, managed as a part of the NNR by agreement. The management of the NNR continually seeks to make the most of the wildlife habitats present and, during recent decades, has resulted in an increase in the numbers of many species of bird.

There is also another NNR at Ainsdale Sand Dunes on the Sefton Coast. The local authorities have established Local Nature Reserves at Lytham St. Anne's and Ainsdale and Birkdale Sandhills and the RSPB has its nature reserve at Marshside.

Traditional uses of the Estuary continue. Recreation, fisheries, wildfowling and farming all take place within the NNR in balance with its nature conservation interest.

Almost all of the saltmarshes in the Estuary are grazed by sheep or cattle, mostly in summer. This ensures that plants, which form the staple diet of the wigeon, pink-footed geese and wild swans are both plentiful and in ideal condition for wintering birds whilst leaving enough cover for breeding birds.

Wildfowling is one of the traditional activities which takes place on the saltmarshes. English Nature working with the wildfowling clubs in managing this activity on the NNR has played a key part in the improvement of the Estuary's wildlife.