

Lower Otter Restoration Project
Visitor and Public Access Strategy

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Executive Summary

This strategy details the works necessary to create and manage visitor access to the Lower Otter Restoration Project (LORP) area.

It sets out to guide the provision of visitor facilities at a time of great change to the area resulting from the planned restoration of tidal exchange to an area approximating to the historical extent of the tidal influence.

We provide a rationale for:

- Adopting an adaptive approach to visitor management, increasing facilities cautiously and in keeping with the needs of the developing bird populations.
- Keeping the visual impact of new access works to a minimum, in order to preserve the aesthetic appeal of this part of the East Devon Area of Outstanding Natural Beauty
- Developing new facilities at a modest level to keep future maintenance costs low

We assess each of the likely types of visitor to the LORP and consider how each must be catered for within an access strategy. Dog walkers are highlighted as a key user group for which special (but achievable) measures must be adopted to avoid conflict.

We try to anticipate which areas of the newly enlarged estuary will become important for birds and consider how they will differ. It is likely that the majority of the newly-tidal area will become important for larger numbers of wintering and migrant waders and wildfowl than the present small estuary. Areas towards the northern end may develop more specialised conditions, attracting a larger number of species.

We propose a future path network based on a high grade access loop around the lower estuary and along the riverside to Otterton. Other access routes to the north and northwest should be kept as rough footpaths in order to encourage a lower level of use.

We detail the measures necessary to manage disturbance resulting from large numbers of visitors using the path network. This includes measures to avoid dogs straying onto the inter-tidal areas as well as provision of viewpoints along screened routes, allowing visitors to see the wildlife of the estuary without disturbing it.

We recommend access improvements in the form of enhanced viewing opportunities to comprise:

- Upgrading the existing bird hide to a taller, larger building
- Installing a viewing mound at the edge of Lime Kiln Car Park, to overlook the new breach and the newly tidal area to the north
- Installing a new bird hide at the southern corner of the old landfill area, overlooking the new tidal mudflats to the south
- Installing a new viewing platform on Big Bank, overlooking both Little Marsh and the north end of Big Marsh

Three interpretation hubs should be provided at the key access points to give visitors information about the site and to help them to plan their visit.

We recommend the following habitat enhancements:

- To construct several high tide roost islands at various locations around the newly tidal areas to provide refuge at high water for roosting birds. One of these islands to be viewed from one of the proposed new bird hides
- To dig scrapes in Little Marsh and adjacent areas of Big Marsh, enhancing the area for a wider variety of bird species
- To manage the former landfill area as a mosaic of scrub and grassland clearings, providing enhanced opportunities for wildlife while increasing the appeal of the area to visitors

Finally, we recommend consideration be given to the following long term projects:

- Upgrading the hides and viewing platforms as necessary
- Installing a new hide in a central location, surrounded by mudflats
- Providing a visitor centre
- Providing additional or upgraded parking facilities

1.0 Introduction

The Lower Otter Restoration Project (hereinafter referred to as LORP) is an ambitious scheme which seeks to restore tidal processes to an area of the lower Otter valley, approximating to the extent of the tidal estuary before historic drainage works were undertaken.

The Lower Otter valley is entirely within the ownership of Clinton Devon Estates. The existing inter-tidal area and a further area of woodland upstream are designated as a SSSI. The project to extend the tidal area is a partnership between the Estate and the Environment Agency and it is anticipated that the Estate's conservation charity, The Pebblebed Heaths Conservation Trust, will manage the newly created wetlands.

The main element of the project entails creating a 70-metre wide breach in an existing sea wall which, together with additional works to improve tidal exchange, will result in an area of tidal estuary approximately three times its present size.

The proposed scheme is designed to bring about significant improvements for biodiversity, with a particular emphasis on estuary birds. A key element of the enlarged estuary will be the amount of inter-tidal mud which will be created. It is anticipated that this large area of mud, together with smaller areas of saltmarsh and other inter-tidal habitats, will attract significant additional numbers of wintering wildfowl and waders to the estuary.

A further important aspect of the scheme will be the expected increase in the number of visitors to the estuary. With an enlarged and more diverse inter-tidal area, the increase in both birdlife and the aesthetic appeal of the landscape is expected to attract greater numbers of birdwatchers, walkers and other recreational users to the Lower Otter.

In an area which already attracts large numbers of visitors, the anticipated increase necessitates a carefully considered strategy for visitor management, enabling visitors to get the most out of their visit without detriment to the biodiversity objectives of the scheme. This document therefore details the likely changes to the area's visitor appeal and describes ways of mitigating against increased visitor pressure while providing an enhanced level of visitor facilities.

2.0 Rationale

Schemes such as the one proposed for the Lower Otter don't come along very often. The essence of the LORP is to create an estuary which is three times its present size, which will have dramatically enhanced Biodiversity and Landscape value and, thereby, attract significant numbers of visitors. Managed retreat or setback schemes are particularly uncommon in areas of 'hard' coast such as the Southwest Peninsula, making the LORP an important flagship project. While innovative schemes such as this are undeniably exciting, it is important to make sure that all elements are carefully planned and delivered, and this must include a strategy for visitor management.

With appropriate provision of facilities, the LORP has the potential to become a regionally important wildlife visitor attraction and, as such, it could compare very favourably with the Seaton Wetlands, some twelve miles to the East.

At Seaton, East Devon District Council has created a wildlife visitor attraction by carrying out habitat improvement works and installing extensive visitor facilities on the small estuary of the River Axe. While the two estuaries differ somewhat in their layout, size and history, there are a number of similarities and a scheme could be devised which delivers something very similar to the Seaton Wetlands on the Otter Estuary.

Given that a scheme such as that at Seaton is technically feasible at the Lower Otter, we must consider whether it is desirable as an element of the LORP.

We would argue that a Seaton Wetlands-like scheme at the Lower Otter would not meet the objectives of the present partners and stakeholders for the following reasons:

1. Disturbance

One of the key objectives, particularly from the Environment Agency's perspective, is the creation of a large area of inter-tidal mud and hence an increase in wader and wildfowl numbers within the project area. It is felt that a Seaton Wetlands style approach to maximising the number of visitors could lead to significant and unacceptable disturbance to these birds. While we know that good design can mitigate against some of this increased disturbance, it is hard to anticipate exactly how many birds and human visitors will be attracted to which areas and therefore to what extent disturbance could be an issue.

Consequently, it is far more sensible to adopt an adaptive approach to visitor management, based on an agreed minimum level of provision (described elsewhere in this document) and leaving the possibility for future enhancements as the habitats and bird populations develop.

2. Landscape Aesthetics

The entire Lower Otter valley lies within the East Devon Area of Outstanding Natural Beauty (AONB) and, being easily accessed from a variety of public rights of way, is a popular area for walkers who are drawn here by the pleasant surroundings. The proposed scheme will add to the sense of wildness and will create a more expansive landscape, leading probably to an even greater aesthetic appeal.

Against this appeal (both intrinsic and enhanced), it is felt that any moves to significantly improve the visitor infrastructure should proceed only with caution. While tarmac paths, substantial boardwalks, bird hides, viewing platforms, large notice boards and additional car parks may all have their part to play elsewhere, we feel that too much of this style of

development would not be in keeping with the landscape and we are therefore suggesting relatively low-key developments, designed to blend well with the landscape.

3. Cost

Extensive visitor infrastructure of the kind found on large, well equipped nature reserves is costly. With no clear funding source for works of this kind, we recommend only low-key, less costly improvements should be planned. Future funding may allow infrastructure upgrades or improvements, but the anticipated level of funding in the short to medium term is low.

4. Ongoing Management

Schemes such as the one at Seaton Wetlands, with several buildings, complex networks of surfaced paths, boardwalks and extensive interpretation facilities, take a lot of manpower to maintain. The maintenance burden brought about by a level of provision of this scale is considerable and we would caution against it.

We therefore propose that the approach to visitor management adopted at the LORP should be based on serving the basic needs of the anticipated types of visitors, without providing additional facilities which would attract even more visitors to an, as yet, untested site.

The level of provision currently in place at the Otter Estuary would seem to be appropriate and, with some improvements to cater for specific needs (such as parking), should be repeated elsewhere across the newly enlarged estuary.

This does not mean there should never be any future developments involving higher grade facilities, but that such developments must be considered carefully as the new estuary and its birdlife develops. Any future developments must therefore consider fully the issues of disturbance, landscape, cost and ongoing management before proceeding.

3.0 Assessment of the likely types of visitor, their effect on the site and their needs

An understanding of the type of visitor and their reasons for visiting is essential to the management of any public site.

Based on experience, both at the Otter Estuary and elsewhere, there follows a description of the types of visitor that can be expected at the LORP. The categories are fairly broad and the great majority of visitors to the Lower Otter are expected to fall into one or more of them.

1. Dog Walkers

A controversial user group, and one which will always have a strong influence on access management.

It is anticipated that, while the total number of visitors to the LORP will increase as the project develops, the number of dog walkers will probably not increase at the same rate. This is because most dog walkers are locals and their number is relatively constant, whereas most visiting birdwatchers will be from further afield and their numbers are expected to increase as the bird interest develops. Ultimately this will reduce the overall proportion of visitors with dogs.

Nevertheless, walkers with dogs will remain a very large proportion of visitors to the Lower Otter. These visitors access the area via the existing rights of way and the majority of them keep their dogs to the paths. These responsible dog walkers represent such a large proportion of visitors to the area that nothing should be done to alienate or discourage their legitimate use of the Lower Otter.

Problems arise when a few dog walkers are less careful and allow their dogs to stray onto the adjacent areas used by estuary birds. At various sites locally, such as the 'Duck Pond' area at Exmouth and at Dawlish Warren there have been cases where only one or two out of all visiting dog owners do not control their dogs. However, if they are visiting a site regularly this can still lead to significant disturbance, enough to deny access to key areas for large numbers of birds over prolonged periods.

It is safest to assume that a few dog owners are likely to disregard any amount of education and voluntary codes of conduct and will persistently allow their dogs to run out over areas of the estuary. Wardens and by-laws can be used to control problem visitors, but this is very time consuming and costly work. It is therefore vital that all key access routes are provided with dog-proof barriers to keep the dogs from accessing the estuary. Many of the existing routes at the Lower Otter already have effective (or partial) dog barriers and those that don't can have barriers added relatively easily.

2. Walkers without dogs

Probably the second largest category of current visitors to the Lower Otter are walkers without dogs. The network of footpaths around the Lower Otter is such that many local walkers pass through the area on their way to the various villages nearby. Many also come from farther afield and use Lime Kiln car park or other parking opportunities to access the

estuary paths on foot or to use the estuary paths as a way to access the coast path and thence towards Ladram Bay and Sidmouth.

Some walkers appreciate well maintained, surfaced paths while others are less demanding. The area currently has both surfaced paths and muddy ones and we would envisage keeping this balance as a way of encouraging the heaviest use along certain routes. Almost all walkers keep to the paths and, in this way, they do not contribute any more than other users to the levels of disturbance around the estuary.

We anticipate future numbers of walkers will increase as the newly enlarged estuary develops, but not dramatically so and they are likely to retain their current share of the overall visitor numbers.

3. Runners/joggers

Sharing much in common with walkers with regard to their needs and impact on the Estuary, runners differ slightly by often wearing high visibility clothing. There are suggestions that visitors in Hi-Viz clothing cause more disturbance than more normally clad visitors and, while this is something to monitor and be aware of, we consider it unlikely that it will cause undue disturbance to birds on the estuary. Several of the existing footpaths around the estuary are at least partially screened by trees and shrubs and it would be feasible to provide additional similar screening on some of the more exposed routes to reduce the visual impact of visitors, particularly those in bright colours.

4. Birdwatchers

One of the user groups which we expect to increase significantly is birdwatchers. We use this term to cover all those who visit the estuary to experience its wildlife, either to look or to listen, but excluding those who specifically wish to photograph wildlife.

Birdwatchers can be divided into various categories, based usually on their level of expertise, commitment and fanaticism for their subject. Many will adopt one or more sites as their local patch and will visit frequently; usually several times per week. Others will be less frequent visitors, perhaps coming to the Lower Otter for a change of scenery from their local patch elsewhere. Some will visit only occasionally, perhaps while on holiday or a short break. Some will only ever visit when there is a rare bird present and, depending the degree of rarity, can sometimes arrive at a site in huge numbers (sometimes even in their thousands).

Birdwatchers differ in their preference for viewing facilities. Some welcome the provision of bird hides, viewing platforms and screens while other shun such facilities. Surprisingly most birdwatchers prefer not to walk very far for their birds and many will happily park in unsafe or inconvenient spots, just to reduce the time it takes to walk to the birding hotspots.

Birders are usually, but not always, well behaved and cause little disturbance, which is hardly surprising as they are keen to see the birds rather than to scare them away. They usually keep to the official access routes and viewing facilities and their choice of clothing is usually drab. The exceptions to this are a small minority of birders who will go to any length to get better views of a bird or birds, paying little heed to the needs of either the birds or to other birdwatchers. Fortunately, at the Lower Otter the existing barriers alongside the

major paths, together with our proposed additional dog barriers will keep the vast majority of over-keen birders in the right place. Furthermore, the narrow, linear layout of the estuary, coupled with our suggested viewing facilities will mean that nearly every bird on the newly enlarged estuary will be viewable from the official routes and, thus, few will feel the need to stray from them.

We feel that novice birdwatchers and birdwatching families deserve special mention. For those new to birding or with aspiring young birders in need of good views of the greatest possible range of species, a site like the Lower Otter can have a lot to offer. The diversity of species expected, together with the relative proximity of the birds to the public routes, will give the LORP great potential as a good place to learn and enthuse. This being the case, we feel that some provision of low-key viewing facilities, strategically placed to give good views of many species, will be very well received. Such facilities also provide locations for visitor interpretation, especially, for bird identification aids.

5. Wildlife photographers

Aside from those who simply wish to see or hear birds and other wildlife, photographers have their own needs and impart their own impact on any site, neither of which are particularly hard to accommodate.

The principle needs of wildlife photographers is the ability to get as close as possible to their intended subjects. As the newly expanded estuary develops a more extensive and diverse bird fauna, photographers will find the Lower Otter offers more potential for them. The provision of viewing facilities such as viewing platforms and bird hides will make the site more of a magnet to photographers and fortunately this is in keeping with the needs of other user groups.

The only potential problem to be aware of is the perception among many birdwatchers that photographers have taken over 'their' bird hides. It only takes a couple of heavily equipped photographers to make a small bird hide feel crowded, but the photographers have just as much right to be there as anyone else. The only way to mitigate against overcrowding and conflict is to make sure that there are several viewing platforms and/or hides, of sufficient size to accommodate all visitors. The key here is the quality of the viewpoints. With sufficient points of interest, affording good views of the estuary's birds, conflict can be avoided. To some extent this is slightly contrary to the need to keep development and infrastructure to a relatively low level, but we feel good design and placement of facilities will go a long way to avoiding problems.

6. Visitors with limited mobility

High grade path surfaces aimed at visitors with limited mobility are becoming the norm at many countryside sites. Paths of this type benefit a very large number of users, such that it is incorrect to think of them as 'disabled paths'. While a good surface is certainly required for visitors using wheelchairs or mobility scooters, it also gives access to anyone else who would avoid an unsurfaced route. Parents with children in buggies and pushchairs, children with scooters, walkers with any physical problem making them unsteady on their legs, visitors with impaired eyesight and even dog walkers with elderly dogs; all benefit enormously from well surfaced paths.

On the Lower Otter, the path from Lime Kiln Car Park to White Bridge has a wheelchair-friendly surface. All other paths in the area are presently unsurfaced and a few are particularly challenging, especially in winter.

We advise that the path alongside the river, north of White Bridge and the new path above the FABlink cable project to the west of the lower estuary, be maintained to a high standard if funds allow. Elsewhere paths should be kept up to the best standard that resources allow, although we appreciate this will probably mean some remain unsurfaced, particularly on the west side of the upper estuary.

7. Cyclists

While most of the rights of way are footpaths, South Farm Road and Park Lane are part of the National Cycle Network (Route 2) and are therefore regularly used by cyclists. We do not anticipate a significant increase in number of cyclists using this route, although more may wish to stop here in future. It would therefore be prudent to provide cycle racks at both points where NCN route 2 enters the site and possibly also in the proposed new car park.

There is also the possibility that an increasing number of cyclists could stray onto the footpath network in future. If this becomes a serious problem it may be necessary to consider taking action to prevent this by installing physical barriers such as kissing gates at strategic access points, especially on the improved western footpath.

8. Aquasports

At present there is low level use of the Otter Estuary by paddleboards and canoes and very occasionally kite-surfers on spring tides. For the most part this is intermittent use during the summer period of the stretch of river between Otter Mouth and White Bridge, with users rarely alighting. Through the creation of a much increased expanse of water at high tide under the LORP scheme, the site may become more attractive for aquasports in future. Users of the estuary currently have the right of tidal navigation. Increased use of the site for aquasports has the potential to increase disturbance, which may need to be addressed.

4.0 Assessment of the way birds are likely to use the newly extended estuary and the subsequent areas of interest to birdwatchers

An assessment of the likely areas of interest to visitors as the LORP develops in the years following the proposed works, gives us a basis from which to develop a visitor strategy.

The studies undertaken so far give us a good understanding of the tidal regime in different parts of the project area and these, added to our knowledge, both of the existing habitats and of the needs and requirements of different species, give us a picture of the likely distribution and numbers of different birds in the future. There is, nevertheless, an essential caveat to predictions of this nature: we must accept that the unexpected can still happen and some areas may be more or less favoured by birds than our current expectations suggest.

For the purpose of this assessment, we have divided the LORP area into five zones as follows:

- The area of the current estuary
- The new tidal area to the west of the current estuary and to the south of the South Farm road (Big Marsh South)
- The new tidal area north of the South Farm road and south of Big Bank (Big Marsh North)
- The area between Big Bank and Little Bank (Little Marsh)
- The old landfill area

There follows a brief assessment for each area of the likely use by birds and the subsequent likely response from birdwatchers:

1. The area of the current estuary

It is likely that the habitats in the area of the current estuary will change gradually in the years following the proposed works, but that this will result in only small changes to the way birds use the area.

In the early years, before wintering populations fully respond to the new habitats, birds on the present estuary are likely to disperse more widely over the newly expanded estuary, giving the impression that the 'old' estuary is less favoured than it has been.

Later, as the population of wintering birds in the LORP expands, the old estuary will remain important as a gull roost and the middle reaches will retain some interest for small numbers of wildfowl and waders. The areas of reed to the north of the old estuary are likely to expand, probably to the detriment of saltmarsh habitat. This, in the long term, will balance the creation of saltmarsh in the newly inter-tidal areas and the expected loss of some reed in those same areas.

These changes are likely to be subtle and will probably not affect the degree of interest for birdwatchers, at least in the initial few years. Probably as the newly expanded estuary develops, birdwatchers will focus their attention over a much wider area and the old estuary will be just one small part of the wider Otter Estuary birding experience.

The old estuary, with its well surfaced path to the west, and being close to Lime Kiln Car Park, will remain an important area for novice birdwatchers or those with only a passing interest in the natural world to have easy access to good views of a range of common species.

2. The new tidal area to the west of the current estuary and to the south of the South Farm road (Big Marsh South)

This area will be the most dynamic part of the newly expanded estuary and it is here that the effect of the tide will be most dramatic. All the water flowing through the new breach will cross this area, initially via the new creek network and then, as the tide rises, spreading over large areas of mudflat and low- to mid- saltmarsh.

While it is hard to predict exactly what will happen, this area is likely to become important for wintering and passage waders. These birds will be feeding on the mudflats and in the tidal creeks. To a lesser extent, the area may also attract good numbers of wintering wildfowl, with shelduck and wigeon both likely; the latter benefiting from the anticipated areas of saltmarsh.

Birds using this wide area can be viewed from the paths to the east and the west. For experienced birdwatchers this will be mostly adequate, but there will remain areas within the creeks and between the saltmarsh islands where birds will be hard to see.

While parts of the proposed feeder channel/creek will be close to the Lime Kiln-to-White Bridge footpath, large sections of it will be far from the paths, with birds likely to remain in or close to this watercourse at low to mid states of the tide. This means many birds will be hard to see without a telescope and will certainly remain too distant for all but the most experienced birders.

We strongly recommend a new viewing facility is created at the southern end of the old landfill site. This will overlook a large part of the estuary which would otherwise be hard to see. Indeed, were a viewing facility not provided at this location, it is likely that birdwatchers would still seek a way to view birds in this area and their *ad hoc* efforts to do so might result in increased disturbance. Details of this proposal can be found under Access Proposals (below).

3. The new tidal area north of the South Farm road and south of Big Bank (Big Marsh)

It seems likely that a significant part of this area will be similar to the area to the south of South Farm Road. Although it will be less dynamic and there will be a slightly larger proportion of saltmarsh, its appeal to wildfowl and waders will be broadly similar. Being a little less saline, it is likely to attract a slightly different range of wader species and, having more middle saltmarsh, it may hold more wildfowl.

Large parts of this area, particularly towards the north, will not be inundated on neap tides. Here we may find many birds congregate at times of high water while they wait for the ebb.

Like the area to the south, this area can be viewed from the paths bounding it to the east and west. It can also be viewed from the former landfill site at its southern boundary. The centre of the area, with its tidal creeks and saltmarsh islands, will be challenging for birdwatchers and the distances will put many birds beyond the skill and optical requirements of novices. Nevertheless, as the tide rises there will be a period when birds are forced nearer to the paths on either side and, at high water neaps there may be good viewing opportunities in many locations.

We feel there are few opportunities to improve viewing over large parts of the area, but towards the north, on Big Bank, a hide or viewing platform would work well.

4. The area between Big Bank and Little Bank (Little Marsh)

This area, being at the limit of mean spring tides and with the realigned Budleigh Brook flowing through it, is likely to attract a greater diversity of species than other areas. Any pools and scrapes in this area will almost certainly hold a good selection of waders, particularly in the spring and autumn passage periods. Depending on the roosting opportunities elsewhere within the project area, it is also probable that waders and wildfowl will use Little Marsh as a high tide roost on all but the higher Spring tides.

Unfortunately, the full potential of Little Marsh is likely to be compromised by the footpaths on both Big Bank and Little Bank, particularly the latter. These paths, on raised banks and in close proximity to some of the likely areas of interest, may lead to enough disturbance that certain species will avoid using the area during daylight hours.

We therefore feel that this area demands considerable effort to create the best possible habitat conditions while mitigating against disturbance issues.

Little Marsh is likely to become an important area for many birdwatchers, particularly those looking for less-common or irregularly seen species. Thus, it is important to create good facilities here, including screened access routes where possible and at least one viewing platform or hide. It should be remembered that, if properly designed and positioned, viewing facilities can help to reduce disturbance.

Being the northern limit of the LORP and furthest from the parking areas to the south, the Little Marsh area will attract fewer casual walkers although, lying alongside the main footpath to Otterton, it will still be a relatively busy area for walkers (both with or without dogs). The path on Little Bank is the main pedestrian link from the LORP to the village of East Budleigh and is likely to remain an important route for East Budleigh residents.

While habitat enhancement works are outside the scope of this strategy, we recommend future works to improve the feeding and roosting opportunities for birds. The area is at the limit of the tidal influence and it is therefore not possible to predict with any degree of confidence how it will develop in the years following the initial restoration of the LORP. Hence, it will be necessary to wait several years before designing any improvements.

In spite of this, we recommend work to limit disturbance from the paths on the two banks, at an early stage of the project. The existing tree cover on Big Bank and parts of Little Bank should be retained and, where possible, enhanced with extra planting.

5. The old landfill area

Standing in the way of a full restoration of the historic tidal regime, but providing the practical solution to the need for a new raised route to South Farm, the old landfill area contributes both positively and negatively to the LORP. As an area which may or may not become valued, both by wildlife and by visitors, the area is presently a neutral opportunity to be developed or left alone, according to the level of resources.

As mentioned under 2 above, we feel the southern edge of the landfill provides a good opportunity to give views over an important part of the newly extended estuary and we strongly advise a viewing facility is installed here. This will need to be served by a route or routes through the old landfill, which could either become a popular part of the Lower Otter visitor offering or remain simply a means to access the new viewing facility.

We describe what may be possible here under proposals (below) and this will affect the usage of the area by visitors, either as a destination in its own right or as an access route to the viewing facility.

Enhancement works to this area could result in its use by dogwalkers, picnickers, families, naturalists and birdwatchers. If left alone, the area will turn to largely impenetrable, scrubby woodland with some wildlife value, but nothing to offer the visitor.

5.0 Assessment of the anticipated access routes and desire lines

It is highly likely that visitor access to the LORP will develop an East/West split and we feel this more-or-less accidental arrangement should be actively encouraged as a positive access strategy for the project area.

We anticipate the path from Lime Kiln Car Park to White Bridge and beyond, along the river bank towards Otterton, will remain as the main access artery for the project area and should be maintained and enhanced to retain this status.

The route from the northwest corner of Lime Kiln Car Park, along the west side of the LORP as far as South Farm Road will be substantially upgraded as part of the proposed FABlink cable undergrounding project. Together with the newly raised South Farm Road (which will hopefully also incorporate a new footpath), this will form an opportunity to walk in a loop around the lower half of the newly expanded estuary, entirely on well surfaced, paths. This route is therefore likely to become very popular.

The route along the west side of the upper estuary, from the road below South Farm Cottages to Big Bank and thence to join the river bank route, will remain a subsidiary route, used by those 'in the know' (and without impaired mobility), as well as by an increasing number of birdwatchers as the newly flooded areas develop more interest. This route will be directly accessible from the new parking area (proposed later in this strategy) in the field opposite South Farm Cottages. We recommend that this path is left as a rough country path, rather than maintained to a high standard, in order to limit its popularity and help to promote greater usage of the Lime Kiln to White Bridge loop path incorporating the FABlink path. It should be noted that this path will flood on many high tides and should be signposted as such.

In the field immediately south of the old landfill area, a Public Right of Way crosses from west to east. This path is very seldom used and is impassable at its eastern end, where it disappears into a reed swamp. After the restoration of a tidal regime to this field, the path will become tidal, making it even more difficult to access. Any future regular use of this route would certainly cause disturbance to birds using the estuary, to the detriment of the birds as well as to birdwatchers using the proposed viewing facility which will overlook the area. We recommend no efforts are made to promote, maintain or enhance this route and its already infrequent use be allowed to diminish further. At some point it may be considered feasible to extinguish this right of way and thereby remove any future risk of disturbance. A path to provide access to the new hide at the southern end of the landfill site could provide a replacement for the extinguished one, with the advantage of not being a dead end.

The Public Right of Way along Little Bank will remain the route from East Budleigh to the LORP. Parts of this route will be affected by the changes to the existing spillway which will be removed in favour of a larger breach. The probable importance of the Little Marsh area for roosting and feeding birds will most likely be adversely affected by visitors using this route. Hence, we recommend caution when considering what maintenance or enhancement to the route may be desirable as, from a disturbance point of view, it would not be appropriate to make it more popular and, thus, any plans to lay a hard surface through the breach should be reconsidered.

6.0 Access proposals – Controlling Disturbance

Here we take each path around the LORP and provide recommendations for limiting disturbance to birds from visitors using the path.

1. The path alongside the 'old' estuary from Lime Kiln Car Park to White Bridge

This path provides a good model for limiting disturbance elsewhere in the project area. It has been maintained for many years with a mixture of scrub and small trees alongside, providing adequate screening while allowing views over the fields to the west. It could be argued there are not enough viewing gaps over the estuary to the east, but this would be relatively easy to remedy. The viewing gaps are maintained by keeping the scrub low (about 1.2 metres) using a handheld hedge trimmer. Some thought should be given to improving the views to both sides for short/young visitors as 1.2 metres is too high for some visitors.

The west side of this path also shows how a combination of scrub and a watercourse can provide an effective barrier against dogs. Unfortunately, dogs can (and do) access the estuary to the east, largely because there is no watercourse on this side of the bank. Here consideration should be given to short lengths of fencing to stop dogs pushing through the occasionally sparse or gappy scrub on this side. Dog control fencing should comprise sheep netting with two lines of plain (not barbed) wire above the netting at 100mm intervals

2. The river bank path from White Bridge to Clamour Bridge

This path in its present state presents probably the greatest risk of disturbance to birds using the LORP. To the west side of the path there is nothing to stop visitors and their dogs accessing the fields and, since these fields are likely to become one of the core areas for waders and wildfowl on the newly restored estuary, some work will be necessary to avoid disturbance becoming a problem.

We advise this path needs a fence along its western side, from White Bridge, as far as Clamour Bridge. The fence should comprise sheep netting with two lines of plain (not barbed) wire above the netting at 100mm intervals. To the north, where there may be cattle grazing alongside the path, the plain wire on the pedestrian side should be supplemented with two lines of barbed wire on the field side. Consideration should be given to creating animal under-passes to allow anything up to the size of a badger to pass under this fence, by installing 225mm drainage pipes under the fence at 200 metre intervals.

Where possible, and where there is no existing scrub cover alongside the path, new hedging should be planted to reduce the visual impact of the riverside path and reduce potential bird disturbance from path users. Ultimately this planting should be allowed to form into scrub strips between the fenced path and the tidal areas to the west: the scrub will be maintained as a strip by the saline influence to the west and the path management to the east. This strip should have frequent viewing gaps maintained along its length to allow visitors to view the inter-tidal area and its birds.

3. The western route from the pumping station in the corner of Lime Kiln Car Park to South Farm Road

This route will be substantially upgraded by the FABlink cable undergrounding project and will consequently be much more heavily used than at present (although it will still flood tidally on mean high water spring tides).

The route benefits from a watercourse between it and the newly expanded inter-tidal area which will effectively keep people and their dogs from straying onto what will become important areas for waders and wildfowl. It is also backed by sandstone cliffs which will help to soften the visual impact of visitors when viewed by the birds from the newly flooded areas to the east.

Consequently, there is probably no need to install additional measures to control disturbance along this route.

In the long term, the withdrawal of grazing from the fields adjacent to this path may lead to coarse vegetation and scrub becoming established in a strip between the limit of saline influence and the path and in particular between the watercourse and the path. If so, this strip can be managed as a screen and access barrier to limit disturbance, while maintaining gaps in the scrub to provide viewpoints as necessary.

4. The western route from South Farm Road to the start of Big Bank

Along almost its entire length there is a watercourse which acts as an effective barrier to keep people and their dogs from straying onto what will become important areas for waders and wildfowl. In addition, the path is backed by sandstone cliffs which will help to soften the visual impact of visitors when viewed by the birds from the newly flooded areas to the east.

Consequently, there is little that needs to be done to control disturbance along most of this route, with the possible exception of the northern end where it joins Big Bank. Here there is no watercourse to the east of the path, and it is possible that visitors and dogs might stray onto adjacent parts of the newly expanded estuary, causing disturbance to waders and wildfowl feeding and roosting here. It may become necessary to install fencing here (which would continue along Big Bank - see below). However, we suggest that fencing should not be erected immediately as, this close to the tidal marsh, it will be prone to damage on extreme tidal events. Consideration should be given to whether and how a fence could be installed, if disturbance should prove to be an issue here.

In the long term, the withdrawal of grazing from the fields adjacent to this path may lead to coarse vegetation and scrub becoming established in a strip between the limit of saline influence and the path. If so, this strip can be managed as a screen and access barrier to limit disturbance, while maintaining gaps in the scrub to provide viewpoints as necessary.

5. The paths on Big Bank and Little Bank

Visitors using the paths on Big Bank and Little Bank, with or without dogs, have the potential to cause disturbance to birds feeding and roosting on adjacent parts of the project area. Whilst, to some extent, this is inevitable, efforts should be made to limit this disturbance as much as possible.

Consideration should be given to fencing on both sides of Big Bank and the south side of Little Bank. Fencing should comprise sheep netting with two lines of plain (not barbed) wire above the netting at 100mm intervals, supplemented with barbed wire on the field side of the fence posts where cattle grazing is anticipated.

Where necessary, the existing trees and scrub on the sides of these banks should be supplemented with additional shrub species, in order to improve screening.

In common with several other areas around the newly expanded estuary, the withdrawal of grazing will lead in time to coarse vegetation and scrub becoming established in a narrow strip between the limit of saline influence and the footpath. This strip can be managed as a screen and access barrier to limit disturbance, while maintaining viewpoints where appropriate.

6. The northern edge of the old landfill area

The newly realigned South Farm Road, to be built on the northern edge of the old landfill area, will also be an important pedestrian link across the estuary and will afford views over the newly tidal area to the north.

We understand that the new road be supplemented with a pedestrian route alongside. We recommend that this be aligned on the northern side of the new road to make the most of the views to the north (see below under Enhancing Access).

There is a risk that visitors and their dogs will sometimes access the tidal areas to the north and cause disturbance to birds using the area and we therefore advise a fence is installed to the north side of the new road. The fence should comprise sheep netting with two lines of plain (not barbed) wire above the netting at 100mm intervals.

New hedging of mixed local species should be planted to the north of the new fence to reduce potential bird disturbance from path users. Ultimately this planting should be allowed to form into a scrub strip between the fenced path and the tidal area to the north: the scrub will be restricted to a relatively narrow strip by the saline influence to the north. It should be trimmed as necessary to stop it encroaching on the path and to encourage dense, scrubby growth. Frequent viewing gaps should be created and maintained along its length to allow visitors to view the inter-tidal area and its birds.

7. Aquasports

Aquasports users have the potential to significantly disturb roosting birds at times of high water when they are least able to replenish their energy reserves through feeding. We therefore recommend that every effort is made from the outset to prevent these activities becoming established in the newly flooded areas. It may be necessary to secure new byelaws to achieve this (through EDDC or DDC). The approach taken by the EDDC Countryside team on the Exe Estuary may be instructive in this regard.

7.0 Access Proposals – Enhancing Access and Viewing Opportunities

1. Parking

For many visitors to the LORP, East Devon District Council's Lime Kiln Car Park will be more than adequate. Leading directly to both of the north-south paths through the project area and with space for 300 cars, Lime Kiln Car Park is a perfect starting point for walkers, birdwatchers, dog walkers and all other types of visitor to the area.

In spite of this, we feel that additional parking is necessary further up the estuary. This would partly compensate for the loss of parking alongside South Farm Road which will become tidal and in the small area east of White Bridge, which should be closed to parking as it is within the SSSI.

We have considered the possibility of providing parking spaces alongside the newly aligned South Farm Road, where it crosses the former landfill site. Parking here would be very intrusive in the landscape and would encroach onto an area which could otherwise be put to very good use for wildlife and visitors on foot (see below).

We therefore recommend an additional smaller parking area is provided in the small field opposite South Farm Cottages. Most of the northern half of this field is intended as part of the newly aligned South Farm Road, leaving the remainder available to create space for up to 30 cars.

A parking area here will remove the need to park alongside the new road where it crosses the landfill site as well as allowing the closure of the *ad hoc* parking near the east side of White Bridge, which presently encroaches onto the SSSI.

This parking area will most likely become the favoured access point for birdwatchers and regular visitors.

There should be a new path leading directly from the northeast corner of the new car park to allow access onto the 'western route' in both directions.

The southeast corner of this area lends itself to a viewpoint and interpretation hub as outlined below.

Since this area will be used as the compound for the FABlink project, there may be an opportunity for the post-work restoration to incorporate the proposed car park scheme. FABlink could save the cost of making good the site and invest the same (or even slightly less) by leaving the sub-base in place for the new parking facilities.

2. Viewing Structures

We recommend five new viewing structures as follows:

- a. Replace the existing bird hide near Lime Kiln Car Park with a raised viewing platform or bird hide (SY 0742 8237).

We suggest initially constructing a platform, 1.2 metres above the top of the bank, measuring four metres by three metres and with an access ramp suitable for disabled

users. This platform should be screened on all sides to a height of 1 metre with an additional safety rail at 1.2 metres above deck height.

As bird numbers and distribution change over the years after the LORP is implemented, managers should assess whether there is any merit in upgrading the platform to a hide. The old hide, which is still in good condition should be dismantled carefully for re-use elsewhere (see below).

- b. A viewing mound should be constructed in the northeast corner of the grassed area to the north of Lime Kiln Car Park, as close to the breach as is practically possible (SY 0730 8215). The mound should be 1.5 metres high and measuring ten metres by three metres at the top. It should have post and rail safety fencing and should include a ramp to allow disabled access.
- c. A new, raised viewing platform should be constructed to the south side of Big Bank, close to the eastern end of the breach in the bank (SY 0749 8398).
We suggest initially constructing a platform, 1.2 metres above the top of the bank, measuring five metres by three metres and with an access ramp suitable for disabled users. This platform should be screened on all sides to a height of 1 metre with an additional safety rail at 1.2 metres above deck height.
As bird numbers and distribution change over the years after the LORP is implemented, managers should assess whether there is any merit in upgrading the platform to a hide and to what extent more effective screening along Big Bank might be necessary.
- d. A new bird hide, towards the southern corner of the old landfill site (SY 0731 8283 - see map for location), with a new path or paths providing access from South Farm road. We strongly recommend a new hide is built at this location, initially by using the hide which presently stands near to Lime Kiln Car Park, relocated to here.
This may become an important location for birds, and birdwatchers, as the birdlife of the estuary adapts to the newly created habitat, it may be appropriate to upgrade the hide to a larger one should this prove to be the case.
The hide should be screened to each side and fencing should be installed to keep visitors from straying onto areas where they might disturb birds.
We also recommend a roosting island be constructed on the mudflats some fifty metres in front of the hide (see habitat recommendations, below).
- e. A new viewing shelter in the southeast corner of the proposed new car park (SY 0705 8295). We strongly recommend a covered, open-fronted timber shelter is constructed so that the open front faces south-eastwards towards the estuary. Measuring circa 7.5 metres by 2.5 metres with a sloping half roof 1.8 metres tall at its lowest point (towards the rear). Probably shaped as an elongated half hexagon / trapezium with the open front being the longest side, this should be fully close boarded to the rear and have simple low level bench style seating around the interior perimeter so that the back wall becomes the backrest of the benches.
This is likely to become a popular place for picnicking, for visitors to get their bearings on arrival and for those unable to venture out onto the path network to simply sit and enjoy the view.

3. Footpaths

We anticipate all the footpaths currently in regular use around the estuary will remain as the principle access routes, although some will be subject to periodic tidal and fluvial flooding.

We recommend two further routes, both on the former landfill site.

The proposed new road from the field opposite South Farm Cottages, along the northern edge of the old landfill site to White Bridge, will, in addition to providing the road link to South Farm, give walkers access across the newly expanded estuary. Using this route, visitors will be able to access both sides of the estuary from the proposed parking area opposite South Farm Cottages. It will also allow visitors to walk a circuit around either the southern or northern half of the estuary.

Overlooking, as it will, the newly tidal area to the north, the road will also be a vantage point from which to view this part of the estuary and its birds.

We therefore feel it would desirable to install a new footpath alongside the road along the northern edge of the landfill, to keep pedestrians and vehicles apart. As detailed above, this should be to the north side of the new road. It is anticipated that cyclists will continue to use the roadway as part of NCN Route 2.

Our second recommended new path will provide access from the South Farm Road footpath (above) to the new bird hide at the southern tip of the former landfill site. This could be either a single path across the centre of the old landfill or, preferably, a 'wiggly' path from each end of the landfill, taking a route through any habitat enhancement areas (see habitat recommendations below).

4. Interpretation Hubs

At five locations, where visitors are likely to arrive at the project area, we recommend interpretation hubs are installed.

These five locations are as follows:

- On the proposed viewing mound close to Lime Kiln Car Park (where it may also be beneficial to install a cycle rack)
- At the northern end of the riverside path, where it joins Big Bank
- At the southeast corner of the proposed small parking area opposite South Farm Cottages
- To the west of White Bridge where the southwest coast path enters from the east
- Where Little Bank footpath joins Frogmore Road, close to Thorne Mill Farm

The scale of these hubs will depend on the resources available but should include, as a minimum requirement:

- A map of the project area showing access features
- An explanation of the project
- Details of the important birdlife of the LORP
- Explanation of the importance of reducing disturbance

In addition, it may be desirable to include:

- Leaflets with an access map
- A notice board giving details of recent sightings, forthcoming events etc.
- Details of how to get involved as a volunteer

An interpretation hub could simply be one or more notice boards, perhaps with a small roof for weather protection and with leaflet dispensers. We recommend the interpretation hub at the corner of the new parking area should be in or next to the viewing shelter and that one or more picnic table(s) and cycle rack(s) are also provided here.

The proposed bird hides and viewing platforms also make good locations for visitor interpretation. Here it is a good idea to provide identification charts or cards (which can be changed at different times of year) to help visitors to identify the birds which may be commonly seen from each viewing facility.

8.0 Habitat Enhancement Recommendations

While habitat enhancement or management is not expected as part of an access strategy, some of our access recommendations will be strongly influenced by the quality of the habitats present.

Plus, we've had a few good ideas and couldn't resist presenting them here!

1. High tide roost island(s)

We are concerned that the LORP may not provide adequately for roosting birds at times of high water, particularly at spring tides. The lack of roosting facilities could severely limit the number of waders using the estuary, regardless of the quality of the feeding areas.

We note that three 'islands for roosting birds' are included in the drawing for the southern area. We feel it would be more effective to spread these islands over a wider area, with one positioned as shown in the existing plan, but the other two relocated to other areas. One should be moved to a roughly central location in the northern area and the other positioned some fifty metres in front of the proposed bird hide at the southern end of the landfill area.

All three islands should be constructed to a height some 300mm above the peak astronomical tide height. Consideration should be given to surfacing one or more of them with shingle or cobbles to provide a possible breeding site for oystercatcher. It will probably be necessary to protect each island from erosion with rock armour, timber piles or similar. The islands should be mown each Autumn to provide ideal roosting conditions through the winter.

2. Scrapes

We recommend a number of scrapes are created towards the northern end of the site, largely on Little Marsh. Here, towards the limit of the tidal influence, scrapes will have a low salinity, ideal for specialist invertebrate fauna to proliferate, providing food for waders. Scrapes here are likely to be of special interest during the spring and autumn passage periods.

The large number of diggers and earth moving machinery needed to implement the LORP make the creation of scrapes a relatively easy proposition as part of the initial construction phase, as opposed to a more costly and onerous project if pursued later.

Scrapes should be excavated to a depth of 200mm to 400mm with gently shelving margins, at a variety of locations around Little Marsh and the north end of Big Marsh. They should be at different heights but all near to and above the peak astronomical tide. Six to ten smaller scrapes would be better than two or three large ones, with the size ultimately dependant on resources, but hopefully not less than fifteen metres in diameter

3. Former landfill area

The former landfill site could, if managed suitably, become an area of high value, both for wildlife and to visitors.

We propose leaving the margins of this former conifer plantation to develop young scrubby woodland with a large area within maintained as grassy clearings. The intention here would be to create sheltered, warm, sunny areas with flower-rich grassland within a matrix of regularly coppiced scrub, largely of grey willow.

Such an area would be valuable for a variety of breeding and migrating birds as well as a haven for invertebrates. In the context of the wider estuary and indeed the surrounding landscape, this could become a much needed haven for many migrating birds, providing an essential first or last feeding opportunity before or after the long sea crossing to or from France. Part of it could be maintained to provide suitable conditions for the already established bird ringing project to continue and would hopefully become an important migration observation and study location

A path through the area would give visitors the chance to experience something very different from the adjacent estuary habitats, whilst *en route* to the proposed bird hide near the southern corner of the landfill site.

We feel time is of the essence in this area. Leaving the whole area to revert to scrub in the coming few years will make it far more difficult to create clearings thereafter. It would be better to commence an annual mowing regime as soon as possible and, while we appreciate this will initially be hampered by the stumps of the recently removed conifers, we advise that early action would still be preferable.

4. New hedgerows

Replacement hedges will probably be needed to mitigate expected losses in the tidally flooded area. These could be planted or relocated:

- To the west side of the footpath from White Bridge to Big Bank
- On both sides of the new road
- Adjacent to the children's play area between Lime Kiln Car Park and the habitat creation area.
- On Big Bank
- On Little Bank

9. Potential future enhancements

While this strategy is intended to guide works in the initial few years of the LORP, it is also appropriate to consider outline plans for future enhancements to the visitor facilities provided here.

Should the newly enlarged estuary develop its full potential, both in terms of bird numbers and visitor numbers, the following further enhancements may be considered necessary or desirable:

1. All hides and viewing platforms may benefit from upgrading. Platforms can be turned into hides and hides can be enlarged as necessary
2. Consideration should be given to a hide somewhere central in Big Marsh, either to the north of the old landfill site or to the south. This would be an ambitious project but could result in a bird hide with no equal in the region, allowing close views of estuary species which are seldom approachable elsewhere. However, we feel it would be premature to decide on a location for such a hide until the newly enlarged estuary has developed its full bird potential. Only then will it be possible to pick a suitable location for a hide, either on stilts or on a small island and approached by a raised and screened access route. Substantial funding will be needed for such a hide and opportunities should be sought to enable a project of this scale to proceed in future.
3. A visitor centre or access hub at the north end of Lime Kiln Car Park. This could incorporate a café and would be the first point of access for visitors to the LORP, providing access information and interpretation to visitors as well as possibly becoming a centre for environmental interpretation.
4. Additional parking at the northern end of the site. As visitor numbers increase, it may prove desirable to provide additional parking facilities towards the northern end of the LORP. Possibly located on the outskirts of Otterton or East Budleigh, the creation of a new parking area would necessitate new access routes and other infrastructure and may ultimately be deemed undesirable, depending on how public use of the LORP develops.

Alternatively, it may prove desirable to upgrade and enlarge the proposed parking area opposite South Farm Cottages.

10. Conclusion

We believe that the plans to develop a much larger inter-tidal area on the Lower Otter present a rare opportunity to provide an enhanced experience for many visitors.

A carefully planned and executed visitor access strategy can transform this presently rather modest site into a regionally important destination for walkers and birdwatchers which could equal both the Exe and the Axe estuaries for the range and quality of facilities.

Following our infrastructure recommendations, all this can be achieved without detriment to the soon-to-be increased bird populations using the estuary.