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- 11.1.1 Figures 31 to 37 illustrate a selection of English estuaries, chosen to reflect the range of potential considerations which arise from the application of the estuary criteria in chapter 10. The accompanying text briefly:
- explains the geographical limits of our discretion to align the trail along the estuary;
 - analyses the estuary in terms of the criteria and gives an initial view on the likely significance of each criterion in our decision as to the best approach to take; and
 - describes two or three options for trail alignment which are suggested by the analysis.
- 11.1.2 We have not estimated the costs of each option, which would also be a significant factor to be weighed against potential benefits. Normally the further the trail extends up an estuary, the higher the costs of alignment and establishment would be.
- 11.1.3 The analysis illustrates how the estuary criteria will be applied, but is not a substitute for the detailed analysis which will take place during the preparation of our proposals to the Secretary of State on each of the estuaries shown.
- 11.1.4 For these reasons, our eventual proposal to the Secretary of State on the estuaries illustrated here may be different from any of the options described.

Figure 31: Mersey estuary

Figure 31 shows the Mersey estuary between its seaward limit ① and the Runcorn-Widnes bridge ②, which is the first upstream bridge and has pedestrian access. The trail may end at either of these places or Natural England may specify any other point on either bank between them.

Ferry service

There is a frequent, daily pedestrian ferry service between Liverpool and Birkenhead ③. This could provide a convenient place to cross the river.

Character of the estuary

Nature of the land

The river banks are predominantly developed. There are few typical coastal land forms, but the shoreline is rocky for a short stretch downstream of Garston on the north bank ④ and there are extensive mudflats along the south bank between Frodsham and Ellesmere Port.

Topography of the shoreline

The topography of the shoreline is dominated by the large bend between Liverpool and Runcorn. There is a large headland on the south bank opposite the airport ⑤ and another on the north bank opposite Runcorn ⑥.

River width

The Mersey broadens dramatically downstream of Runcorn, then narrows at Liverpool on its approach to the sea.

Features of interest

There are many features of interest along this stretch, in particular at Liverpool, where the historic docks ⑦ have special maritime significance.

Recreational benefit

There is potential to provide a designated pedestrian route to the open coast from the city of Liverpool in particular, and from other towns on the affected stretch.

Excepted land

There are several significant areas of excepted land on both banks, including docklands to the north of Liverpool ⑧ which are not currently accessible to the public, the container port at Garston ④ and the oil terminal at Rock Ferry ⑨.

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Options

This brief analysis suggests the following options:

- End the trail at the seaward limit. However, there is no means to cross the river at this point.
- Specify a suitable point near the ferry between Liverpool and Birkenhead. This would provide a means to cross the Mersey and a pedestrian link from Liverpool to the open coast. It could incorporate nearby features of interest such as the historic docks. However, this option would require a significant inland detour around the docks north of Liverpool.
- Align the trail as far as the Runcorn Bridge, where pedestrians can cross the river on foot. This would provide a link to the open coast for more communities and create a potential circular route around the wide stretch of river between Liverpool and Runcorn. However, this option would require significant detours around port and industrial facilities.

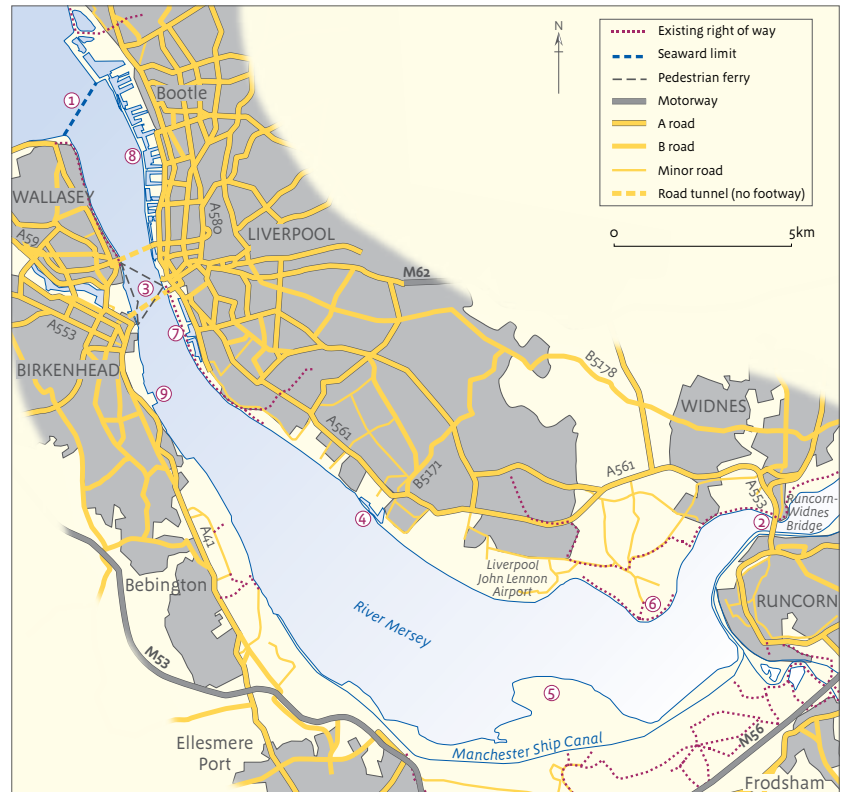


Figure 32: Esk estuary (Cumbria)

Figure 32 shows the Esk estuary in Cumbria between its seaward limit and the first bridge on its main tributary that has safe pedestrian access (4). The estuary is crossed by a railway at (1) and two tidally restricted bridleways at (2). The first non-railway crossing at (3) is a busy main road, with no footway. The first crossing point which might be considered safe for pedestrians is the small bridge at (4), which is a considerable distance upstream and not well served by connecting rights of way.

Ferry service

There is no ferry service on this stretch.

Character of the estuary

Nature of the land

There are extensive mudflats throughout the tidal estuary. Much of the land surrounding the estuary is farmed, with areas of woodland.

Topography of the shoreline

Some of the farm land to the southeast of the estuary is low-lying and prone to flooding. Parts of the northwest bank are accessible and on higher ground.

River width

The river narrows from approximately 200m wide at the railway viaduct (1) to several metres at the road bridge (3).

Features of interest

To the northwest of the lower estuary, much of the area is within the grounds of Muncaster Castle, a popular tourist attraction.

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Recreational benefit

There is considerable potential for a new river crossing for walkers and cyclists, attached in some way to the existing railway bridge at ③, to provide a much more direct and coastal route across the estuary than any of the existing crossing points. However, it would require considerable capital investment and cooperation from various organisations with a stake in the idea.

Excepted land

To the southwest of the railway lies a military firing range. (Eskmeal Ranges)

Options

This brief analysis suggests these three options:

- End the trail at some convenient point on either side of the estuary, relying on the railway to provide a link between the trail on either side of the river, whilst allowing the possibility of an estuary crossing on foot, via the bridleway fords, at low tide.
- Align the trail as far as the small bridge at ④ on either side of the estuary, making use of existing footpaths, tracks and minor roads where convenient and at low risk of flooding. This option would most likely involve the creation of some entirely new sections of trail.
- Defer our access proposals for the estuary until such time as a new pedestrian river crossing, closer to the sea, can be delivered by others, in line with the principle at paragraph 10.1.8.



Figure 33: Thames estuary

Figure 33 shows the Thames estuary between its seaward limit ① and the foot tunnel at Woolwich⁹¹ ②. The trail may end at either of these places or Natural England may specify any other point on either bank between them.

Ferry service

A frequent ferry service is available to foot passengers between Gravesend and Tilbury, which runs every day except Sundays and Bank Holidays ②.

Character of the estuary

Nature of the land

There are extensive flats and salt marsh throughout the affected stretch. There are popular beaches on the north shore at Southend-on-Sea.

Topography of the shoreline

The most prominent features are the Isle of Sheppey, the Medway estuary and Hoo Peninsula on the south shore, and Canvey Island on the north shore. The Medway estuary is complex, with several inlets and islands. Upstream of the Hoo Peninsula, there are several distinctive bends in the river and significant tributaries at the Darent ④ and at Barking Creek ⑤.

⁹¹ There is no pedestrian access across either the bridge or the tunnel at Dartford

River width

The river widens significantly downstream of three points: Gravesend, Canvey Island and Sheerness.

Features of interest

There are numerous features of interest along the affected stretch, for example the extensive nature reserves at Cliffe ⑥, and the historic docks at Rochester.

Recreational benefit

There is potential to provide a designated pedestrian route to the open coast for several significant towns and London suburbs along the affected stretch, including Gravesend, Southend-on-Sea, Rochester and Gillingham.

Excepted land

There are several extensive areas of excepted land along the affected stretch, including port and industrial facilities at Dagenham ⑦, Tilbury, Coryton ⑧ and the Isle of Grain ⑨.

Options

This brief analysis suggests these three options:

- End the trail at Canvey Island on the north bank and Rochester on the south bank. This would provide a link to the open coast for several coastal towns and incorporate several significant features including the Isle of Sheppey and part of the Medway estuary. There are relatively few areas of excepted land on this stretch. However, the trail would not cross the Thames and would miss several significant centres of population.
- Align the trail upstream to the Gravesend-Tilbury ferry on both banks. This would provide a link to the open coast for communities living along the affected stretch and a means to cross the river on foot. However, it would require detours around significant port and industrial facilities.
- Align the trail as far as the Woolwich foot tunnel. This would provide a pedestrian route to the open coast from Greater London via the Thames Path National Trail and a means to cross the river on foot. However, it would require significant detours around port and industrial facilities.



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Figure 34: Severn estuary

Figure 34 shows the Severn estuary between its seaward limit at Weston-super-Mare ① and the M48 bridge ②, which is the first bridge with pedestrian access. Natural England may specify a limit for the trail at either of these two places or at any point on either bank between them.

Ferry service

There is no ferry service across the Severn estuary.

Character of the estuary

Nature of the land

There are beaches, dunes and cliffs around Weston-super-Mare, more beach at Clevedon and low cliffs between Clevedon and Portishead. There are extensive tracts of mudflat throughout and areas of salt marsh in places

Topography of the shoreline

There are prominent headlands at Brean ③ and Sand Point ④ and smaller ones at Clevedon and Portishead. There are several tributaries, the largest of which is the River Avon at Avonmouth ⑤.

River width

The Severn is already wide where it reaches the M48 bridge. It widens significantly again downstream of the M4 Bridge, and again at Portishead.

Features of interest

There are many features of interest along the affected stretch, including the Severn bridges; the piers at Weston-super-Mare and Clevedon; and Middle Hope nature reserve ④.

Recreational benefit

There is potential to provide a designated pedestrian route to the open coast and across to the Welsh coast from the towns of Weston-super-Mare, Clevedon and Portishead and the city of Bristol.

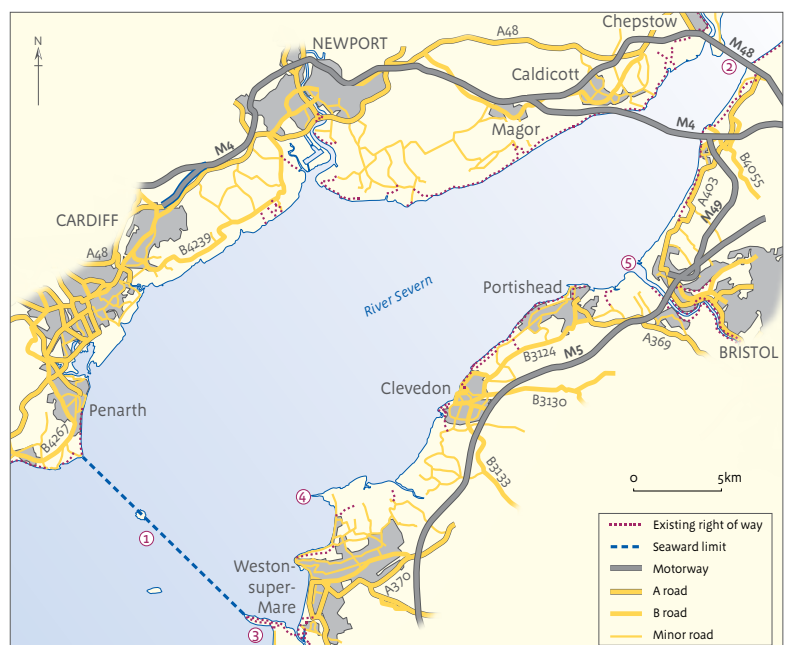
Excepted land

There are extensive port and industrial facilities at Avonmouth and Portbury Docks ⑤.

Options

This brief analysis suggests these three options:

- End the trail at Sand Point ④. This would provide a route from Weston-super-Mare along the open coast, and could incorporate beaches, dunes and cliffs in the vicinity of the town. However, there would be no means to cross the Severn to Wales.
- Align the trail as far as Portishead. This would incorporate several more beaches and other features of interest. It would provide a route along the English coast for other towns along that stretch, but there would be no means to cross the river to Wales.
- Align the trail as far as the M48 bridge. This would provide a pedestrian link to the coast of Wales. However, it would require a significant detour around port and industrial facilities at Avonmouth.



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Figure 35: Parrett estuary (Somerset)

Figure 35 shows the Parrett estuary between its seaward limit ① and the first bridge at Bridgwater ②, which has pedestrian access. Natural England may specify a limit for the trail at either of these two places or at any point on either bank between them.

Ferry service

There is no ferry service across this stretch.

Character of the estuary

Nature of the land

There are cliffs at Brean Down ③ and beaches and dunes between Brean and Burnham-on-Sea. There are extensive mudflats in Bridgwater Bay.

Topography of the shoreline

There are prominent headlands at Brean Down and Stert Point. The River Brue empties into the Parrett opposite Stert Point. There are several large bends in the river between Bridgwater and Stert Point.

River width

The river widens gradually from Bridgwater to Stert Point. At Stert Point it widens dramatically into Bridgwater Bay, where the estuary has the appearance of open coast.

Features of interest

Brean Down ③ includes a Napoleonic fort and views over the Bristol Channel. There is popular birdwatching over Bridgwater Bay. Upstream from Stert Point is the historic port of Comwich and the museum and docks at Bridgwater.

Recreational benefit

There are already footpaths on both banks between Bridgwater and Stert Point, though these might be improved by the introduction of coastal access rights, for example by enabling the paths to adapt to erosion. There could be improved public access for communities between the River Brue and Brean Down, including rights across the beaches and dunes there.

Excepted land

There is a pedestrian route seaward of the power station at Hinkley Point (4). There appear to be no other significant areas of excepted land on the estuary.

Options

This brief analysis suggests these two options:

- End the trail at Stert Point on the south bank and the mouth of the River Brue on the north bank. This would incorporate the widest section of estuary with the strongest coastal characteristics. It would link the coastal trail to the footpaths extending upstream, but the coastal trail would not itself incorporate those upstream paths or the bridge they lead to.
- Align the trail as far as the crossing point at Bridgwater. This might enable improvements to the existing footpaths on the river banks and would incorporate more features of interest.



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Figure 36: Camel estuary (North Cornwall)

Figure 36 shows the Camel estuary between its seaward limit ① and the first bridge with pedestrian access at Wadebridge ②. Natural England may specify a limit for the trail at either of these two places or at any point on either bank between them.

Ferry service

There is a ferry service available to foot passengers between Padstow and Rock, which runs every day except winter Sundays ③.

Character of the estuary

Nature of the land

There are popular beaches at Harbour Cove ④, Porthilly Cove ⑤ and Polzeath. There are extensive sandflats all along the estuary at low tide, and a small area of salt marsh at Trewarnan ⑥.

Topography of the shoreline

There are distinctive coves, bays, creeks and inlets all along the affected stretch on both banks.

River width

The width of the estuary is variable. It widens significantly one mile downstream of Wadebridge and again just upstream of Padstow and Rock. It narrows again briefly downstream of Padstow, before widening again - dramatically so at Polzeath.

Features of interest

There are viewpoints from the hills north of Rock and Padstow. Both Padstow Harbour and the waterfront at Rock attract tourists. There is birdwatching along both river banks.

Recreational benefit

The south/west bank of the estuary is already well-served by public rights of way. There is potential for a new link on the north/east bank from Wadebridge to the sea. There could also be improved access rights for affected communities along the estuary, in particular to potential spreading room.

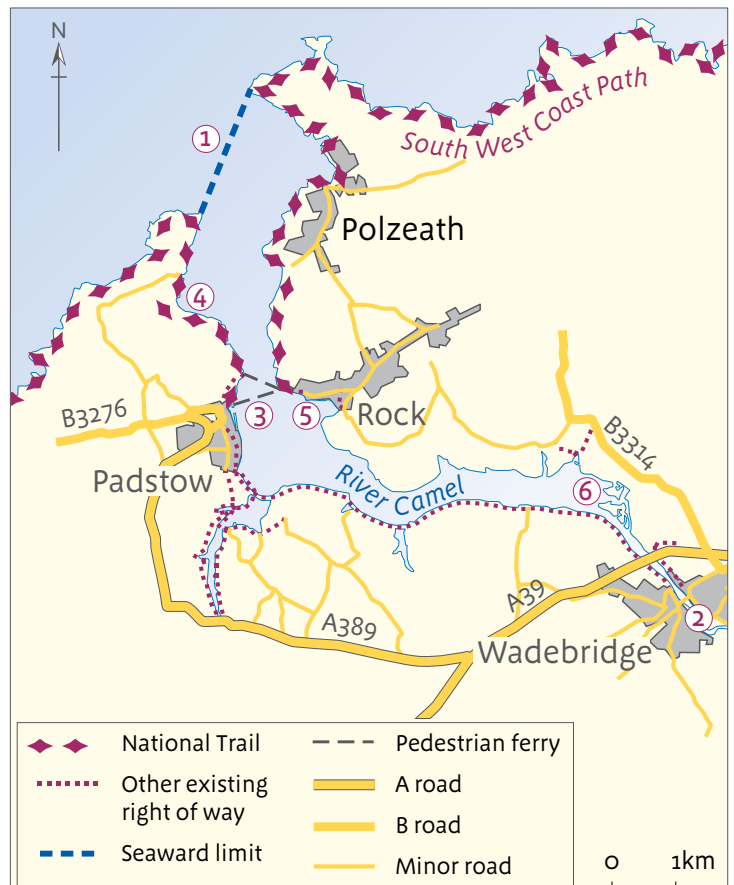
Excepted land

There appear to be no significant areas of excepted land on the estuary.

Options

This brief analysis suggests these two options:

- End the trail at Padstow on the west bank and Porthilly Cove ⑤ on the east bank, incorporating beaches at Polzeath, Harbour Cove and Porthilly ⑤. The public would cross the river by ferry between Padstow and Rock.
- Align the trail as far as Wadebridge. This would create a new link on the north/east bank from Wadebridge to the sea, and make a circular route between the ferry and the bridge.



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Figure 37: Yealm estuary (South Devon)

Figure 37 shows the Yealm estuary, including its seaward limit ① and various bridging points on its tributaries upstream ②. Natural England may specify a limit for the trail at any of these points or at any point on either bank between them.

Ferry service

There is a pedestrian ferry service which crosses the river from two places on the east bank at Newton Ferrers during the summer months ③.

Character of the estuary

Nature of the land

There are cliffs on both banks between Newton Ferrers and the open sea. There are extensive mudflats in the wider reaches upstream ④.

Topography of the shoreline

The topography of the shoreline is varied and interesting. There is a junction at Newton Ferrers. The main channel continues northwards past small creeks before dividing again at Steer Point ⑤. Both channels then divide further before reaching the pedestrian crossing points.

River width

The river narrows just upstream of the seaward limit, but widens again significantly northeast of Steer Point ⑤.

Features of interest

There are viewpoints on either bank downstream of Newton Ferrers. There are causeways across some creeks upstream of Newton Ferrers which can be crossed at low tide.

Recreational benefit

There is considerable potential to improve public access upstream from Newton Ferrers, including pedestrian routes to the coast from Brixton, Puslinch and Yealmpton. A more modest improvement could be achieved by providing a secure pedestrian route from Noss Mayo to the ferry point.

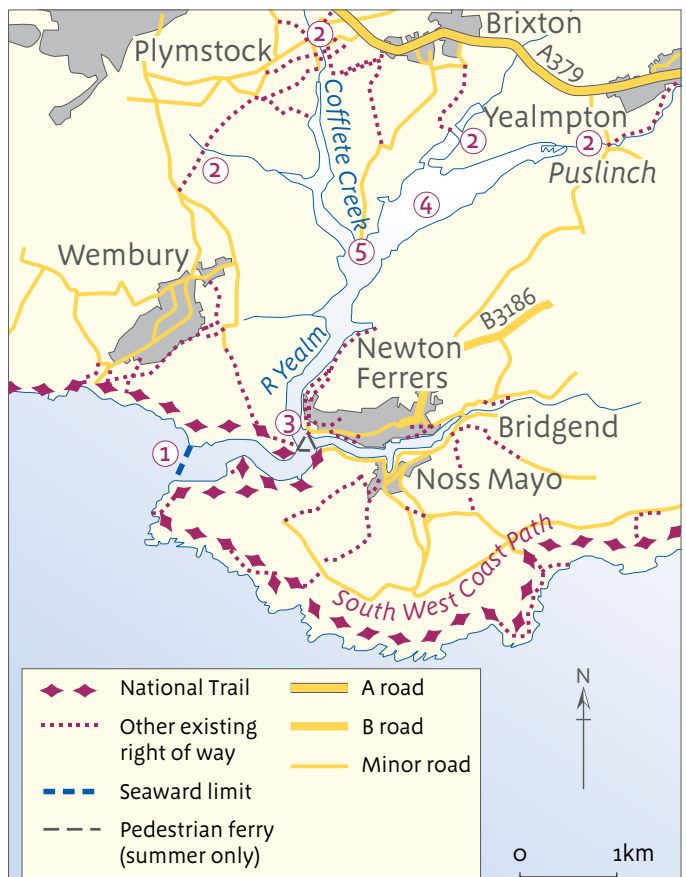
Excepted land

There are parks and gardens on the shoreline in some places.

Options

This brief analysis suggests these two options:

- End the trail at the ferry point on the west bank and at Noss Creek on the east bank. This would create a better pedestrian link from Noss Mayo to the ferry point. However, there would be no means to cross the estuary on foot during months when the ferry does not operate.
- Create a continuous route around the estuary, incorporating the existing bridges across the various inlets and tributaries. Detours may be necessary around private gardens, where these extend to the river bank.



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