

The Fen Edge Trail

The Old Bedford and 100 Foot

5.5 miles (8.9 km)
additional option 1.8 miles (2.9 km)
plus downloadable
history sound podcast
in partnership with

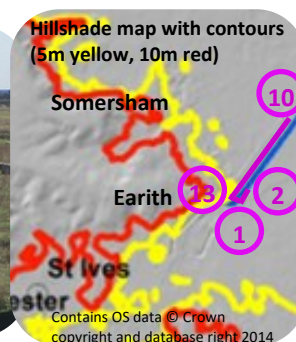
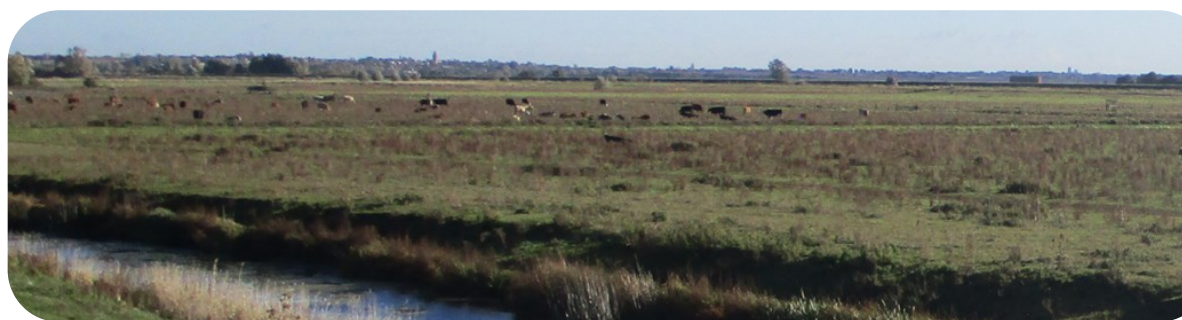


'Explore the history of drainage of the Fens in the 17th century where it actually happened; the Adventurers', great armies of labourers, prisoners of war and many more stories' Peter, The Word Garden



The route: 'along the great drains created in the 17th century by the Company of Adventurers'

The Fen Edge Trail passes through the village of **Earith**, situated at the point where the **River Great Ouse** reaches the fenland. The river once flowed north to the Wash past Chatteris and Benwick to join the Nene but, at some time, its flow was diverted along what is now the **Old West River** to join the Cam. However, the most significant change of its course was yet to come: as part of the famous '**draining of the Fens**' in the **17th century**. On this (partly) **circular walk** out from the southern end of the **Ouse Washes at Earith**, you will see the two great 'drains' (rivers) created by the Company of Adventurers in the 17th century: the **Old Bedford River** and the **100 Foot River** (also called the **New Bedford River**). The Adventurers faced many difficulties in building these new rivers: floods, resistance by the commoners and the challenge of managing an enormous workforce. For this walk, we have partnered with the **Word Garden** who have a **National Heritage Lottery Fund** project to transcribe and share the **archive of minutes** of the **Company of Adventurers** which has revealed the extraordinary history of these times, during the '**Common Wealth**' and the rule of **Oliver Cromwell**. In addition to this Walk Guide, a **downloadable sound recording** is available to accompany the walk.



Photos: 1.2f View north over the 100 Foot from the road bridge; 7.1f Looking east across the Washes from the Old Bedford, towards Sutton

Practicalities As with all of the Fen Edge Trail walks, you can complete the full length of the walk or choose a short or long round trip option, or just visit some of the places on the route. The walk is divided into numbered parts as shown on the two maps. Photos are shown in the order they are seen except for those on this front page (f). **The sound recording** follows each of the stop points in the same way. Whilst walking along the road between the two rivers you will be walking on the **Via Beata Long Distance Walk**.

Length of walk (circular route) approx. 5.5 miles (8.9 km), plus additional option to point 10 of 1.8 miles (2.9 km). Guide time c.2hrs 30 mins plus stops (not including additional options). Grid ref start TL 392747. Maps O.S. Explorer 225. Free, easy to use online geology map on www.bgs.ac.uk/map-viewers/bgs-geology-viewer.

Transport and services There are direct **buses** to Earith from St Ives and Ramsey (www.dews-coaches.com). **Nearest train service** is Huntingdon. **Parking** is available in the car park to the west of the bridge over the 100 Foot River on the A1123. From the west, drive through Earith on the A1123 and continue past the sluice. The car park is a further 300m on the left hand side before the road rises at the bridge. Coming from the east or south, turn toward Earith from the roundabout on the A1123 (from Haddenham) with the B1050 (from Willingham). The car park is a short distance beyond the bridge (sharp right turn needed). There are pubs and shops in Earith.

Safety The walk follows easily accessible public rights of way and does not require crossing busy roads. Be aware of risks you may encounter and take note of warnings given by landowners or on pathways. The terrain is flat. It **can be muddy when walking** along the banks, especially in winter as you will be on 'sticky clay' in places: walking boots needed in these conditions. Take particular care with uneven ground, when near water, on soft or slippery ground, in the presence of livestock or along roads. Ensure your dog is kept under control as needed. **Anyone undertaking walks on the Fen Edge Trail does so at their own risk; these notes are for general guidance only.**



The Fen Edge Trail

The Old Bedford and 100 Foot

Directions map (5.5 miles / 8.9 km) (plus additional option 1.8 miles 2.9 km)

- 1** Start the walk in the **car park** on the A1123, on the left as you leave Earith and just before the bridge over the **100 Foot River (New Bedford)**. Walk out of the car park and turn left to walk over the bridge. **NB No footpath for a short way so be very careful of traffic.** Turn left onto the **bank of the 100 Foot River** through the gate. Walk as far as the bend in the river.
- 2** Walk back towards the bridge.
- 3** After reaching the end of the bank, cross bridge (**NB break in path, busy traffic**) and return to car park.
- 4** Go through gate marked by footpath sign and walk along the path which runs alongside the fence of the field, emerging at the end onto the roadside.
- 5** Staying on the north side of the road, walk along it to cross over the **Old Bedford River**, under which lies the sluice, and turn right through the gate to walk onto the western (left) bank of the Old Bedford River (5.1).
- 6** After about 15 minutes beyond the buildings, you reach **ditches on both sides**. Continue along the bank of the Old Bedford.
- 7** Stop to look at the small plots of land in the **Ouse Washes** and then continue along the outer bank of Old Bedford River.
- 8** Continue along the high, outer bank of the Old Bedford.
- 9** Cross the wooden bridge over the **Counter Drain** (once known as the Bedford Drain) and turn left through rough ground to the metal gate.

10 Optional extension. Walk to the wide bend in the path that is the site of the **Gullet**, where the bank extends out into the fen. Return the same way to point **11**.

11 Where there are bridges over the channels on both sides of the path, turn left (from the south, or right if coming from the north) and cross the **wooden bridge**. Once across, walk a short way and turn left to go through a gate.

12 Walk through the field with the **Counter Drain** to the left.

13 Go through the gate and walk back up to the **bank**. Turn right along the bank to return the same way you came. Leave the end of the bank path through the **gate** taking you onto the roadside to turn left to walk back along the path to the car park, the **end of the walk at 1**.

13a For an optional walk into **Earith**, turn right at gate.

13b For a view south over the **Great Ouse**, cross the road to the small area to the left of the Environment Agency sluice on the opposite side of the road.



Other Fen Edge Trail walks in the area

This walk links with the **main Fen Edge Trail** at point **13b** (the viewpoint over the River Great Ouse) which is the end of the walk from **Somersham to Earith** via **Colne** and also the start of the walk from **Earith to Needingworth** via **Bluntisham**. It is also near to two walks on the Isle of Ely, one from **Witcham to Sutton** via **Mepal** and the other from **Sutton to Haddenham**. The **Walk guides** for all five walks (and many others) can be downloaded from www.fenedgetrail.org/overview/walks.

Walk: The Old Bedford and 100 Foot - geology and landscape

Ages of the rocks

'Superficial' Holocene:

Less than 11,700 years

Alluvium, Peat, Shell Marl

Pleistocene:

River Terrace Gravels

(1 & 2) c. 70-12,000 years (Devensian)

Glacial Gravels & Glacial Till

c.425,000 years (Anglian)

Jurassic

Bedrock:

Kimmeridge Clay

c.152 to c.157 million years

Amphill Clay

c.158 to c.159 million years



The **Amphill Clay bedrock**, formed when 'mud' on the floor of a shallow **Jurassic sea** (think **Ichthyosaurs** and **Pliosaurus**!) became compressed enough to form a sticky and relatively soft mudstone rock. It is now overlain by much younger deposits, from the **Pleistocene** 'Ice Age', the oldest being **Glacial Till (Boulder Clay)** and **glacial river gravels**, material left by glaciers during the **Anglian glaciation** c.425,000 years ago, still covering the tops of the hills on the Isle of Ely. There are also substantial amounts of **sand and gravel** deposited by powerful **braided rivers** during the most recent, **Devensian**, glaciation when there were cold, tundra-like conditions in the area. These river gravels are mapped as a series of '**River Terraces**' with complex accumulations of material of different ages (dated by their fossils) making up each terrace. The gravels here are from the youngest two terraces, the 1st and 2nd, which are difficult to separate due to intermixing. They date from c.70,000 to c.12,000 years ago. These deep sands and gravels have been **quarried extensively** for use in construction leaving many flooded pits. They underlie much of the Peat on the Fen Edge here.

In the last few thousand years (the **Holocene**), **Peat** formed on top of the gravels in lower areas when (fresh) waterlogging lasted long enough for the build up of this organic material. The river now called the **River Great Ouse** has had a dynamic history with its course changing numerous times, particularly since man has had such a **dramatic impact on the fenland landscape**. **Alluvium**, a fine material deposited relatively recently by the river, particularly in times of flood, extends over the current Ouse river valley and also in other areas, showing the location of old water channels that have now disappeared. From **Earith**, the main river once **flowed north**, to the west of Chatteris and then on to the Wash. Called the **West Water**, this course can be seen by the significant **band of Alluvium** that covers the Peat and River Gravels to the east of Somersham. The rest of the flow entered the **Old West River** which was modified and enlarged, probably during the Middle Ages, to go east to join with the Cam and then north to the Wash. Patches of **Shell Marl**, the remains of freshwater lakes, are scattered amongst the Alluvium, to the south of the Washes.

Although much of this walk is on man-made structures (including the banks), you can still see the **effects of the geology** on the landscape as you walk. You will go over land that is covered by three types of fenland deposits: river **Alluvium**, **Peat** and **River Terrace Sands and Gravels**. The soil at the surface differs on each and you may be able to notice, for example, the different colour of the Peat soil. You start on the **Alluvium**, which produces a fine and usually **very fertile soil**, often used for **summer pastures** when the Washes are not in flood. As you start walking along the Old Bedford River you pass through an area where the **River Terrace Gravels** are at the surface (albeit their sandy soils are hidden by the bank). As you walk along the low Counter Drain, you walk on the edge of the Peat. The **start is at c.5m above sea level** and the only (slight) change in height is caused by either walking up onto the high river banks (**maximum c.6m**) or descending to the Peat fen in a couple of places, the **lowest point being c.1m** above sea level south of point 11. Underlying these 'recent' deposits is the bedrock, the Jurassic Amphill Clay but it is only at the surface on the higher ground.

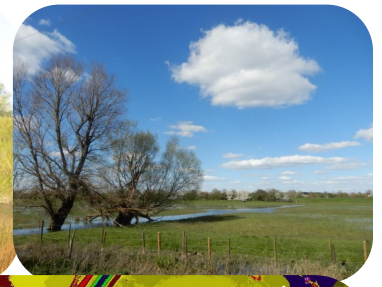


Podcast

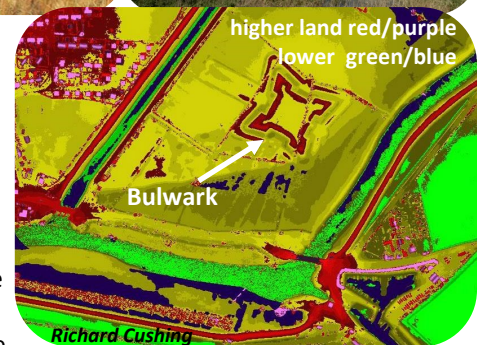
To accompany this walk, a sound recording can be downloaded onto your phone so that you can listen to it as you walk. This provides many more details of the history of the drainage works of the 17th century. Because the mobile signal is poor on parts of the walk, we suggest you **download the sound file before you start**. First, go to the **Internet Archive website www.archive.org** and then, using the site's search box, enter **Earith History Walk**. Select the file when it appears and then scroll down to **Download options** list to select the **WAVE** file (a type of audio file). Find the downloaded file on your phone (e.g. under Downloads or Files) then select the **EarithHistoryWalk.wav** file to play. Most phones play these WAVE files but, if not, download an app to do so). Earphones are useful as it can be difficult to hear your phone outside (especially if there is any wind). The audio dramas, referred to on the walk, can be found on the same website but search for '**Swafham**'. If the signal is good enough, alternatively, to stream live, go to **www.SoundCloud.com** and search for **Peter Daldorff** to find the history walk and audio dramas.

Places of interest along the Trail

1 The car park at the start of the walk is on the land (the '**Washes**') between the two major drainage channels of the southern Fens, the **Old Bedford River**, on the western side, and the **100 Foot River** (the **New Bedford**), on the eastern. The latter flows alongside the car park with the water entering from the **Great Ouse** to the south (right) under the road bridge. From the car park, there is a good view north along the 100 Foot (1.1). As you walk over the bridge across the 100 Foot there are further views (1.2f) along the 100 Foot (but **be careful of traffic as there is no pavement for a short way**). To the right of the bridge, a little downstream on the Great Ouse, is **Hermitage Lock**, which controls the flow into the **Old West River**. In 1652 a **sasse** (sluice) was constructed at the current site of the lock to allow boat passage into the Old West River and thence onward to link with the Cam (and Cambridge), an important navigation and trade route at the time. Once across the bridge, you arrive on the eastern, outer bank of the **Ouse Washes**.



2 The first stop is at the bend of the 100 Foot River, where you can see the Ouse Washes to the west and the Fens toward **Sutton and Haddenham** to the east. The **21 miles of the 100 Foot** were created in **1651** by an army of labourers, believed to be more than **10,000 men**. The **Adventurers'** first task, carried out in March 1651, was 'lockspitting', cutting a narrow trench to mark the route. In order to do this, they had to cross the difficult, boggy ground of the vast **Westmore Intercommon and Westmore Sedge Fen** to the north of Sutton, including large areas of wet 'fenn'. Remarkably, digging this great channel was completed by the end of the summer and even more remarkably **Cornelius Vermuyden** organised this work against the wishes of the Adventurers in London, who repeatedly wrote to him to transfer his efforts to the already drained Fens to the north. In the autumn and winter the river was '**bottomed**', making the channel and bank stable to take the flow of the Great Ouse before starting its diversion into the 100 Foot River. **Scottish prisoners of war**, who fought at the **battle of Worcester** in September 1651, were deployed on this work; in the previous 3 months before they arrived at Earith (in late October) to join the works, they had **marched 300 miles from Scotland to Worcester**, where they were defeated by **Cromwell's army** and then marched another 200 miles to a prisoner of war camp in **London**, from where they were marched to **the Fens**. This was followed by brutally hard work in the damp and cold of the muddy and wet conditions of the winter Fens. Many tried to escape despite an order of Parliament that if they did, they would be put to death without mercy.



3 As you walk back, you have good views of the road bridge with the Great Ouse behind it (3.1). A **bridge over the 100 Foot River** was first built by the Adventurers in **1652**. Although the drainers are best known for their great drains and banks, they also built many roads and bridges and many current fenland roads come from this time. Where the bridge is now they also built a dam to separate the 100 Foot River, which they called the **new Owze**, from the main course of the Great Ouse to stop water rushing in while they were doing the work. This dam was opened in July **1652** when the flow of the Great Ouse, coming down from Bedfordshire and Buckinghamshire, was redirected into the 100 Foot River, which must have been a very nervous time for the Adventurers. When they had opened the parallel Old Bedford River in **1637** the bank broke and the water flooded over the Fens.

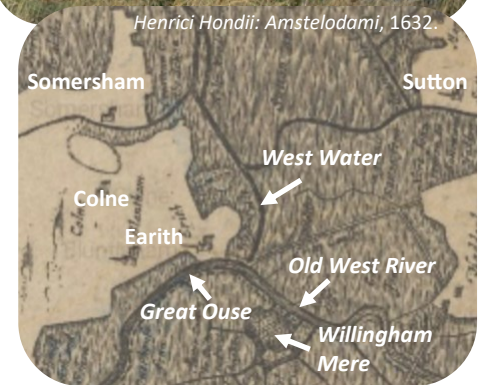
4 As you walk along the path, look for birds in the adjacent field - this is a good area to see **waterbirds and waders**, with uncommon species, such as Glossy ibis, being seen on occasion (4.1). Also, look north beyond the field to the area of raised ground behind. This is the site of the **Earith Bulwark** (4.2), which was built in **1643** by Parliamentary forces to protect the bridge where the Huntingdon to Ely road crossed the river. It consists of a square **earthwork fort** with bastions at each of the four corners. Although an obvious place to store materials for the drainage works, no clear reference is made to the Bulwark in the Proceedings of the Company of Adventurers.

5 As you walk over the Old Bedford River, note the modern **sluice**, operated by the Environment Agency to release water from the Great Ouse into the **Old Bedford River** when flows are high. This relieves potential flooding downstream as the water flows into the **Washes**, where it is stored. In **1652** a **great sluice** was built at Earith by the Adventurers, perhaps for the same purpose. The great sluice, built by an engineer called **Christianne Derickson** and his large team of carpenters, was an immense structure made of massive timbers and ropes. The construction, similar in complexity to seafaring boats, required the work of skilled craftsmen, costing **over £5,000** at the time. As you walk along the bank, there is another view across the river, to the right, to the site of the Bulwark (5.2).

Photos: 1.1 View from the car park north along the 100 foot River; 3.1 The road bridge between the Great Ouse and the 100 Foot; 4.1 The flooded fields are often good for birds; 4.2 Lidar image of the Bulwark.



6 The narrow watercourse on your left (6.1), to the north west, marks the course of what was once the main channel of the Ouse, known as the **West Water**. It ran across the **Middle Level** to the west of Chatteris and then to the Wash via **Benwick**. At some stage (by the Middle Ages), the waterway now known as the **Old West River** was enlarged, carrying some of the Ouse flow to the Cam and Ely. Both channels are seen on maps of the Fens before drainage (6.2). After the Adventurers completed their work, the West Water slowly dwindled away but its course can still be seen on current day maps forming the **boundary** between the old county of **Cambridgeshire** (now East and South Cambridgeshire) and **Huntingdonshire**. The band of **Alluvium** that it deposited can be seen clearly on the geology map. The current ditch is the **Cranbrook Drain**, which drains the highlands to the west, passes through Somersham and then comes south to empty into the **Counter Drain** (where the **Black Sluice** once stood). To the south east (right), the ditch that now crosses the Ouse Washes represents the course of this ancient river as it flowed north from the Great Ouse a few hundred yards further to the south east.



7 To the east of the Old Bedford River, on the **Ouse Washes** (7.1f), are plots of land separated by drains. The nearest area is a plot designated as **Adventurers' land**. In return for funding the drainage works, the Adventurers would receive drained land, **95,000 acres** in total, separated into small parcels, but only if the drainage was successful as judged by Commissioners established by the Act of Drainage. The **1st Undertaking** in the 1630s, during which time the Old Bedford River was made, was judged an **incomplete drainage of the Fens** and, consequently, the Adventurers did not receive their reward of land as recompense for their expenditure. The **2nd Undertaking** in the 1650s involved many of the same men and was, in part, an attempt to recover these losses. This undertaking was successful with positive adjudications by the Commissioners in **1651 for the northern part** of the level and **1653 for the southern part**. The Adventurers' plots of land can be seen on a map of the Fens created by the Adventurers' chief surveyor, **Jonas Moore** and many plots of these can still be seen today.

8 The bank of the Old Bedford River, where you now stand, caused many problems for the Adventurers during the drainage works of the 1650s. The bank, like many others, had deteriorated since it was built in the 1630s, slumping down and cracking and concerns by the officers were expressed that it would be breached. The supply of strong building materials for these river banks was an ongoing problem for the Adventurers since the most accessible material in much of the Fens was peat (not good for building) which, at times, they were forced to use. Although efforts were made to consolidate these banks, they deteriorated rapidly. In **November 1651**, the **inner bank of the Old Bedford River was breached and flooded the Washes** forcing the work on the 100 Foot River to be ceased for two months. Another problem faced by the Adventurers was **resistance by the local people** who opposed the drainage and the enforced change to their long established way of life. Many acts of sabotage were committed including the cutting of banks which included the bank of the Old Bedford River. A plan to sabotage the sluice at **Salters Lode** at the northern end of the Old Bedford River was discovered and a troop of soldiers was posted there to guard the sluice in December 1652.

9 Although large areas of the Fens were **unenclosed commons** there were also many small plots of privately owned land on the higher land and around the towns, including here on the fen edge. The Adventurers work sometimes damaged this land by cutting drains through them and building banks. Often land ownership was unclear and the Adventurers only found out when petitions were issued for compensation. Such petitions were considered by **the Commissioners**, and the Adventurers were required to pay if damage was judged to be done. Other petitions related to requests to build bridges where lands had been cut off by Adventurers' drains. Looking to the west across the fenland is an area called **Sutton Meadlands** which was subject to several petitions from the town of **Sutton**, requesting that they keep this land, now separated from it by the Washes, and in return release other plots to the Adventurers. Perhaps the land there was of particular value; it could have been on a patch of river Alluvium from the earlier West Water river, making it very good for pasture. The Commissioners, however, were from the same group of powerful, wealthy men who made up the Adventurers whilst several Adventurers were also Commissioners, so their decisions were unlikely to be even-handed. The **Jolly Banker's pub** once stood here and the **bridge across the Old Bedford** retains this name.

10 An extended walk takes you up to the **Gullet** where the bank bends out in an arc with low ground below (10.1). This is believed to be the location where the bank of Old Bedford River burst when the river was first opened in **1637, flooding the fens to the west**. Rebuilding the bank in an arc would have reduced the pressure on the bank and reduced the likelihood of the bank bursting again. 'Gulls' (gulleys) can be seen in several banks in the Fens, showing the widespread problem of bank failures.

11 The **Counter Drain**, which runs parallel to the Old Bedford River to the west of the bank was also dug by the Adventurers to help drain the land as well as to prevent livestock from



Photos: 5.1 Walking along the outer bank of the Old Bedford. 5.2 Looking across the Old Bedford to the site of the Bulwark; 6.1 Cranbrook Drain to the north west - once the course of the West Water; 6.2 Map (1632) showing the Fens near Earith before drainage. 10.1 The Gullet

moving up the bank and causing damage. Damage to the banks by **cattle and pigs** was a constant problem for the Adventurers and they appointed a man called **Mr Drewrey from 'Erith'** to look after the bank and report problems. On finding pigs let out on the banks and pigsties built on the banks of the 100 Foot River the Adventurers ordered them to be removed within a week or be burnt down.

12 This long part of the walk takes you through what was **Sutton Fenn** and part of **Middlemore**. Although hard to see from this position, the land level here is well below the surface of the Ouse Washes because of the degradation and erosion of the peat in the farmland due to disturbance and drying out; the Washes have remained wetter and, therefore, less exposed than the drained land on each side.

13 Walking back towards Earith, there are good views of the sluice (13.1) before turning left for the car park, the end of the walk **14**.

13a You could take a detour into **Earith** (13.1a) where there are several old buildings along the river, some dating from the time of the Adventurers. **Several meetings of the Adventurers** took place in Earith and it is where the **Scottish prisoners of war** were sent to be met by the officers of the Adventurers. There are pubs and a shop in the village. The **village sign** is on the High St on the corner of Colne Rd.

13b The small parking area next to the sluice on the opposite side of the road gives **views over the Great Ouse** (13b.1) as it now flows east to meet with the Cam and then north past Ely. The river here is still tidal, the **tidal limit being Brownhill Stauch**, further upriver to the south west, past Bluntisham. The land on the opposite side of the river is **Ouse Fen**, a huge area of restored gravel pits, now an **RSPB nature reserve**. A major archaeological project here (by **Cambridge Archaeological Unit, University of Cambridge**) included environmental research that revealed it as the **furthest inland reach of the Bronze Age sea incursion** (c.3,800 years ago), the most extensive in the history of the Fens. Here, where **the river valley meets the fenland**, an **extremely rich cultural and landscape heritage** has been discovered, covering many thousands of years.



Aerial view of the Ouse Washes from near start of walk, looking north east
Pat Doody/Martin Evans

The Ouse Washes

The **Old and New Bedford Rivers** are the two parallel drains that enclose an area of land between them known as the **Ouse Washes**. The Washes are a major **Flood Storage Reservoir**, their presence and management playing a key role in the **prevention of flooding** of the land either side. The western bank of the Old Bedford is also known as the **Middle Level Barrier Bank** as it prevents flood water from spilling onto the Middle Level (the largest part of the Great Level of the Fens), to the north west. The eastern bank of the new Bedford is the **South Level Barrier Bank**, the South Level being to the south east. The **Old Bedford and the Washes** carry **north flowing freshwater**, whilst the **New Bedford is tidal**. The inner (western) bank of the New Bedford, known as the **Cradge Bank**, separates the freshwater from the tidal and is, therefore, the eastern bank of the Reservoir. The Ouse Washes are now an **internationally important wetland**, protected as a **Ramsar Site** and as a **Special Area of Conservation**.

Photos: 13.1 The sluice on the Old Bedford as you approach Earith; 13a.1 A thatched house, not far from the river in Earith; 13b.1 View over Great Ouse from next to the sluice.



www.thewordgarden.org.uk

Established in 2003, the Word Garden aims to share heritage and bring it to life by historical and social research, as well as through creative arts activities such as new writing, drama and the visual Arts, thereby enhancing and preserving community knowledge of the past. 'The Adventurers' project is funded by the **Heritage Fund**.



The Fen Edge Trail

The **Fen Edge Trail** is a walking route around the Cambridgeshire Fens, roughly following the 5 metre contour (the land that is 5 m above sea level), where the low-lying fenland meets the surrounding higher land. From the Lincolnshire border near **Peterborough** in the north west, via **St Ives** and **Cambridge**, to the Suffolk border at **Isleham** in the south east, it will also extend to include the 'fen islands' including **Ely**, **Whittlesey**, **March**, **Chatteris** and **Wisbech**. There will also be some additional walks from points on the Trail to explore nearby features of interest, such as this walk from Earith. The Fen Edge Trail is an initiative set up by the **Cambridgeshire Geological Society** as part of their **Geosites** work which aims to identify and protect local sites of landscape and geological value, and share their importance and interest with local people and visitors to the county. Information on the Trail, and points of interest along it, are gradually being added to the website together with the Walk Guides.



Cambridgeshire
Geological Society

www.cambsgeology.org



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