

= River Rother , East Sussex =

The River Rother flows for 35 miles (56 km) through the English counties of East Sussex and Kent . Its source is near Rotherfield in East Sussex , and its mouth is on Rye Bay , part of the English Channel . Prior to 1287 , its mouth was further to the east at New Romney , but it changed its course after a great storm blocked its exit to the sea . It was known as the Limen until the sixteenth century . For the final 14 miles (23 km) , the river bed is below the high tide level , and Scots Float sluice is used to control levels . It prevents salt water entering the river system at high tides , and retains water in the river during the summer months to ensure the health of the surrounding marsh habitat . Below the sluice , the river is tidal for 3 @. @ 7 miles (6 @. @ 0 km) .

The river has been used for navigation since Roman times , and is still navigable by small boats as far as Bodiam Castle . It flowed in a loop around the northern edge of the Isle of Oxney until 1635 , when it was diverted along the southern edge . Scots Float Sluice was built before 1723 , when the engineer John Reynolds made repairs to it , and later extended it , to try to keep the channel clear of silting , but it was criticised by John Rennie in 1804 , as it was inconvenient to shipping . The river became part of a defensive line to protect England from the threat of invasion by the French in the early 1800s , when its lower section and part of the River Brede formed a link between the two halves of the Royal Military Canal . Scots Float Sluice was again rebuilt in 1844 . Some 31 square miles (80 km²) of the valley were inundated by floodwater in 1960 , which resulted in the Rother Area Drainage Improvement Scheme being implemented between 1966 and 1980 . The river banks were raised , and 20 pumping stations were installed .

The river has been managed by a number of bodies , including the Rother Levels Commissioners of Sewers , the Rye Harbour Commissioners , and the Board of Conservators for the River Rother . After the passing of the Land Drainage Act 1930 , it was managed by the Rother and Jury 's Gut Catchment Board , the Kent River Board , the Kent and Sussex River Authorities , the National Rivers Authority and finally the Environment Agency . It is unusual , in that while it is under the jurisdiction of the Environment Agency , it has been a free river since 1826 , and so no licence is required to use it . Management of the levels adjacent to the river is undertaken by the Romney Marshes Area Internal Drainage Board . The Rother passes by or near the villages of Etchingham , Robertsbridge , Bodiam , Northiam , and Wittersham .

= = Etymology = =

The modern name of the river is comparatively recent , probably dating from around the sixteenth century . It is derived from the village and hundred of Rotherfield , located where the river rises . Rotherfield means ' open land of the cattle ' , based on the Old English Hrydera @-@ feld . Prior to being called the Rother , it was known as the Limen throughout its length . This is a Celtic word meaning ' river ' . In several Anglo @-@ Saxon charters , it is suffixed with -ea , appearing as Limenea , where the suffix also means ' river ' , but in Old English . During the thirteenth century , it was known as the River of Newenden .

= = Hydrology = =

The Rother rises in the High Weald of Sussex , at around 490 feet (150 m) above ordnance datum (AOD) , and descends rapidly . It is joined by the River Dudwell at Etchingham and the River Darwell at Robertsbridge , and by the time it reaches Udiam , it is only 7 feet (2 m) AOD . Average annual rainfall in the High Weald is 35 inches (900 mm) , and most of the underlying geology is impermeable , resulting in rain rapidly reaching the river and flowing down to the sea . The river valley is thus prone to winter floods , while during the summer months , the flow can be quite low in dry periods , as there are few groundwater aquifers . Between Udiam and Bodiam , the bed of the river drops below sea level , and the lower river flows slowly . The surrounding land is crossed by networks of canals and ditches , which are pumped into the river during the winter to drain the land . During the summer , water is transferred in the other direction , to manage the habitat of the

marshland .

Scots Float sluice , some 3 @. @ 7 miles (6 km) from the mouth of the river , is used to control levels . The river below it is tidal , and it is closed as the tide rises , to prevent salt water passing up the river . During dry years , the sluice may be kept closed for most of the summer , as the water is used to maintain the marsh environment . A navigation lock bypasses the sluice . If heavy rainfall coincides with a high tide , where outflow is tide @-@ locked , the river above the sluice to Bodiam acts as a huge holding reservoir for flood water , and is managed as such . In times of high flow , water is also pumped from the river into Darwell Reservoir , which can hold 167 million cubic feet (4728 MI) of water . It covers an area of 154 acres (62 ha) and was built between 1937 and 1949 . Since the 1980s , its output has been taken by pipeline to Beauport Park , from where it provides a public water supply for Hastings .

= = History = =

Near its mouth , the River Rother no longer follows its ancient course , as it once flowed across Romney Marsh and joined the sea at Dungeness . It is widely asserted that in 1287 a hurricane , known as the Great Storm , caused large quantities of shingle and mud to be deposited on the port of Romney and the mouth of the river . The water from the river created a new channel , joining the River Brede and the River Tillingham near Rye , where the combined rivers flow into the sea . However , Tatton @-@ Brown has argued that patterns of occupation on Romney Marsh suggest that the change of route took place at least a century before that date . Rye became part of the Cinque Ports in the thirteenth century , and although it is situated some distance from the sea , its harbour is still visited by commercial shipping and has a fleet of fishing boats .

= = = Early developments = = =

The river is known to have been used for shipping in Roman times , when it was navigable to Bodiam and possibly further upstream . There are records of small boats reaching Etchingham during Saxon and Norman periods . Stone for building Bodiam Castle was transported along the river in the fourteenth century , and iron was shipped from Newenden or Udiam in the sixteenth century . A century later , an iron store was erected at Udiam . Maytham Wharf served Rolvenden , while Tenterden was served by Small Hythe .

The Isle of Oxney is an area of higher land to the west of Appledore , which is isolated from high ground to its north and south . The valley around the northern edge of it was known as the Upper Levels , while that to the south was called the Wittersham Levels , and had its own Commission of Sewers . The Rother had been routed around the northern side of the Isle since the 1330s , when the Knelle Dam was built at the western end of the Wittersham Levels . The sea was prevented from entering the levels by the Wittersham Sea Wall , built across the eastern end of the valley . This enabled some of the levels to be used for agriculture all year round , although some was only suitable for summer grazing . A perennial problem with the river was that the tides deposited large quantities of silt in the channel , and during the summer months the flow of the river was insufficient to scour the silt away . As a result , some 3 @, @ 000 acres (1 @, @ 200 ha) of the Upper Levels were " drowned lands " by 1629 , meaning that they were persistently flooded , and another 2 @, @ 000 acres (810 ha) were only usable in the summer months .

From the 1600s onwards , much effort and expense had been spent trying to drain the Upper Levels , including the construction of the Great Freshwater Sluice below Appledore . Its purpose was to limit the inflow of the tide , and to control the outflow of the river . The works were not particularly successful , and negotiations were started with the Commissioners of the Wittersham Levels to divert the river through those levels . After initial reluctance , an agreement was reached in February 1631 . The western end of the levels , from Kent Wall to the Knelle Dam , was to be used as an " indraught " , essentially a holding reservoir for river water and some sea water , which would be released in a controlled way to scour the main channel . An embanked channel called the New Salt Channel was constructed across the levels between Kent Wall and a new sluice in the Wittersham

Sea Wall . The river was flowing to the south of the Isle by 4 May 1635 , and on 4 October , the navigation was also routed along the new channel , reducing its length by 5 miles (8 km) . The former channel to the north became known as the Reading Sewer .

Disaster occurred on Lady Day 1644 , when an exceptionally high tide flooded the Upper Levels , and broke through the walls of the New Salt Channel . The Commissioners authorised the construction of a new sea sluice at Kent Wall , and work began in May 1646 , but in September , they decided that it should be built at Blackwall instead . The height of Knelle Dam was regularly adjusted , in an attempt to manage the amount of water that still flowed along the Appledore Channel , and the conflicting needs of navigation and drainage . The Great Freshwater Sluice below Appledore deteriorated , and failed in 1650 . A new sluice with three channels was built in 1669 . The financial burden on the Upper Levels as a result of the sea entering the Wittersham Levels was huge , as they had to pay rent on all land that was not available to its original owners , and so in 1671 , an agreement was reached that the sea would be excluded from the levels . Work began in 1680 to enclose areas of land on both sides of the valley , and was largely completed by 1684 . The work included a new embanked channel for the Rother , which was built along the southern edge of the valley . It was called the Craven Channel , and ended at Craven Sluices .

When repairs to Craven Sluices were necessary in 1684 , the water was temporarily diverted into Scots Float Channel . This worked well , and a regulating penn was built , so that water could be routed to Craven Sluices or Scots Float . Knock Sluice was built below the Appledore Sluice in 1686 , and land above it was reclaimed . In 1696 , New Knock Sluice was built , close to Craven Sluices , and the sea was finally excluded from the Wittersham Levels .

In 1723 , the Commissioners of the Kent and Sussex Rother Levels employed the civil engineering contractor John Reynolds to make repairs to Scots Float Sluice , a timber lock on the lower river . He built a dovetailed sheet pile wall below the foundations , and the Commissioners offered him the job of maintaining the levels in 1725 , for which he would be paid £ 65 per year . He moved to Iden and held the post for fourteen years . Silting of the river estuary caused mounting problems with the drainage of the levels during the 1720s . Reynolds carried out further work on the sluice in 1729 , and in 1732 reconstructed it to provide an extra outlet . Several new channels were excavated through the levels in the early 1730s , so that all the runoff passed through Scots Float . Reynolds resigned his post in 1739 as he was too busy with other engineering projects .

= = = Navigation = = =

Vessels used on the river were Rye sailing barges , which were about 45 by 12 feet (13 @ .@ 7 by 3 @ .@ 7 m) in size , with a draught of 2 @ .@ 75 feet (0 @ .@ 84 m) . A pamphlet published in 1802 announced that there were 16 barges operating on the river , whereas there had only been three some ten years earlier . The main cargoes were manure , fuel and roadstone , and the places served by the river were listed as Appledore , Reading Street , Maytham Wharf , Newenden , Bodiam and Small Hythe . Boats also worked along part of the Newmill Channel towards Tenterden . The river did not have a towing path , and the boats were bow @ - @ hauled by men . Scots Float Sluice was described as being " very inconvenient and ill @ - @ adapted to the present vessels which navigate the Rother " by the civil engineer John Rennie in 1804 .

The end of the eighteenth century was a turbulent period ; Britain was at war with France from 1793 to 1802 . Hostilities between the two countries ceased with the signing of the Treaty of Amiens in 1802 , but in 1803 , the Napoleonic Wars began , and there were fears that France would invade England . In order to frustrate such an attack , the Royal Military Canal was proposed . This was initially a small canal near Hythe , but was extended during its planning phase to Cliff End , near Pett in East Sussex . The canal would join the River Rother at Iden and the river would become part of the defence system , as would the course of the River Brede from Rye to Winchelsea . Completion was scheduled for June 1805 , but construction did not start until late 1804 , and by the time it was completed in 1809 , invasion was thought to be unlikely .

The Rother Levels Acts were two Acts of Parliament which were obtained in 1826 and 1830 . The Commissioners of the Rother Levels were obliged by the acts to ensure that navigation between

Scots Float and Bodiam Bridge was possible , and that all bridges provided at least 5 feet (1 @. @ 5 m) of headroom . They also enshrined the principle that it was a free river , and no tolls were to be collected for its use . The Rennie brothers , John and George , who had taken over from their father on his death in 1821 , produced two reports on the river in 1830 , as it was difficult to navigate and prone to flooding . They were critical of the way in which tidal water was allowed to enter the river through Scots Float Sluice , and thought that the river channel was too circuitous , which resulted in shoals forming . The Rennie brothers also criticised the angles at which bridges crossed the channel . William Cubitt and James Elliott rebuilt Scots Float Sluice in 1844 .

Iden Lock connected the Royal Military Canal to the river . The last commercial barge to pass from the Rother through Iden lock onto the canal was the Vulture , carrying 27 tons of shingle on 15 December 1909 . After that , the lock was replaced by a sluice , severing the navigable connection . The river was used by pleasure craft in Edwardian times , when regular boat trips from Scots Float Sluice , then called Star Lock , to Bodiam Castle were offered . The lower river is currently used for moorings , and the Bodiam Ferry Company operate a trip boat from Newenden Bridge to Bodiam Castle .

= = = Flooding = = =

In 1960 , there was extensive flooding of the Rother Valley , with some 31 square miles (80 km²) inundated , and in some areas the water did not recede for several months . In 1962 the Kent River Board introduced a bill to Parliament , which would authorise improvements to the river banks , with the construction of a sluice and associated lock below Rye , to prevent tidal flooding . At the time , the river was used by a fishing fleet of at least ten trawlers , and a freighter of 250 tons used the river for a trade in timber . There was some concern in the House of Lords that the lock would not be large enough to accommodate the freighter , although it would be possible to open both sets of lock gates when the tide level was suitable . The bill did not become an Act of Parliament , due to lack of parliamentary time , and so the sluice was not constructed . However , the Rother Area Drainage Improvement Scheme began in 1966 , and was completed in 1980 . This involved raising the level of the floodbanks along much of the river . Those in the Wet Level , an area of 690 acres (280 ha) between the junction with the Maytham Sewer and Blackwall Bridge , were not raised as much , so that during periods of high flow when the river is tide @-@ locked , the levels can be used for flood storage . The scheme included the installation of 20 pumping stations , which raise water from the low @-@ lying marshes into the embanked river using Archimedes ' screw pumps . Some of the drainage ditches in the marshland had to be reconfigured to deliver the water to the pumping stations .

= = Jurisdiction = =

Responsibility for the river has resided with a number of legal bodies in the past . The first was the Rother Levels Commissioners of Sewers , who were established by letters patent issued under the provisions of the Statute of Sewers dated 1531 . The lower river was also covered by the Rye Harbour Commissioners , after they were established by Act of Parliament in 1731 . In 1872 , the Board of Conservators for the River Rother was created to manage and protect stocks of fish in the river . As in many parts of Britain , the rights and duties of these various bodies competed and overlapped , and by the early twentieth century , the situation was chaotic . An attempt to resolve the confusion was made in 1930 , with the passing of the Land Drainage Act 1930 , under which 47 catchment areas were established , and a Catchment Board was then created for each one , with overall responsibility for that area . Thus the Rother and Jury 's Gut Catchment Board was created . While the board had overall responsibility , local management of rivers and drainage was under the control of Internal Drainage Boards , and the transition was eased by reconstituting Commissioners of Sewers as Internal Drainage Boards , under the terms of the act .

The River Board Act of 1950 sought to replace the Catchment Boards with larger organisations , and from 1950 the East Sussex River Board took over the responsibilities of most of the catchments

in East Sussex , but the Rother and Jury 's Gut Catchment Board became part of the Kent River Board . Further changes followed the Water Resources Act 1963 , and responsibility passed to the Kent and Sussex River Authorities in 1964 . Ten years later , these structures were replaced by unitary authorities , who had responsibility for the supply of drinking water and for the drainage function of rivers . This lasted until the passing of the Water Act 1989 , which split apart the two functions , and management of the river became the responsibility of the National Rivers Authority , Southern Region . Finally in April 1996 , the National Rivers Authority was abolished with the formation of the Environment Agency . The agency has responsibility for drainage and water quality , and in the case of some rivers , it holds the navigation rights . The Rother is unusual , in that while it is under the jurisdiction of the Environment Agency , it is a free river , and so a licence is not required to use it . The Environment Agency also acts as the harbour authority for Rye Harbour , another unique situation , and the Department for Environment , Food and Rural Affairs acts as a signatory to the Harbour of Rye Bylaws .

The Environment Agency has powers to manage flood control on main rivers , which are defined by a series of statutory main river maps , and for water quality on all watercourses . Responsibility for watercourses other than the main rivers resides with Internal Drainage Boards (IDBs) . The Rother is a main river below Mayfield . Internal Drainage Boards have tended to amalgamate to cover larger areas , and the Romney Marshes Area IDB formed from the Romney Marsh Levels , the Walland Marsh , the Denge and Southbrooks , the Rother and the Pett IDBs . It manages 220 miles (350 km) of drainage ditches and watercourses , although most of the pumping stations which pump water from the drainage ditches into the Rother are owned by the Environment Agency .

= = Route = =

The River Rother rises from several springs on the south @-@ eastern side of Cottage Hill near Rotherfield in East Sussex . The hill is 653 feet (199 m) above sea level at the top , and the springs are found near the 520 @-@ foot (160 m) and 445 @-@ foot (136 m) contours . The River Medway rises on the north @-@ eastern slopes of the same hill , and flows in the opposite direction . The Rother flows towards the south east , picking up water from other streams , to reach the western edges of Mayfield , where it is crossed by the A267 road . A little before the bridge is the site of Woolbridge Furnace , a scheduled ancient monument .

The river curves to the east along the southern edge of Mayfield , passing a sewage works on the south bank and crossing under an abandoned railway embankment and a road at St Dunstan 's Bridge . A tributary joins from the south , which once drove Moat Mill . The mill house dates from the seventeenth century , is timber framed and has been faced with red brick on the ground floor while the attached three @-@ storey mill building dates from the following century . It has been converted into a house , although most of the mill machinery is still present , but has been isolated from the living space by glass panels .

The river is joined by two more tributaries , one from the north and the second from the south , after which it is crossed by a minor road at Scotsford Bridge . It drops below the 148 @-@ foot (45 m) contour soon afterwards . The next bridges are Turks Bridge and Bivelham Forge Bridge . Tide Brook joins from the north , and Witherenden Mill , a two @-@ storey building that was originally the mill house is below the junction . In its grounds are two grade II listed oasthouses and a two @-@ storey granary . The railway line , which was following the valley of the Tide Brook , runs parallel to the river as it continues eastwards , passing to the north of Burwash .

After Crowhurst Bridge , which carries the Burwash to Stonegate road over the river , the railway crosses to the south bank . By Etchingham railway station , the River Limden joins from the north , the A265 road crosses , and the River Dudwell joins from the southwest . Both the railway and the river turn to the south to reach Robertsbridge . Another tributary , which flows to the northwest from near a gypsum mine at Brightling , turns to the south and runs parallel to the Rother before joining it in Robertsbridge . There is a network of channels , as the River Darwell joins the river , and there was formerly a mill nearby . The mill was called Hodson 's Mill , and was part of Mill Farm . It burnt down in 1902 , and the Georgian farmhouse was subsequently demolished . The only original farm

building still standing is part of an oasthouse , dating from the late eighteenth century .

A little further to the east , the grade I listed Abbot 's House from the former Cistercian Abbey at Robertsbridge stands on the south side of the river . The Abbey was founded by Alured and Alicia de St Martin in 1176 , although the house was probably built between 1225 and 1250 . It was modified in the 1530s by Sir William Sydney , and again in the nineteenth century . An attic bedroom had a wooden fireplace dating from the 1830s , but surrounded by medieval tiles described by the National Heritage List as being of " superlative quality . " There are additional ruins near Abbey Farmhouse .

The river turns towards the northeast , passing under an abandoned railway bridge and dropping below the 16 @-@ foot (4 @.@ 9 m) contour to reach Bodiam . A local road crosses the river at Bodiam Bridge , and passes through the site of a Romano @-@ British settlement to the south of the bridge .

= = = Navigable section = = =

Beyond the bridge is Bodiam railway station , the western terminus of the Kent and East Sussex Railway since 2000 . On the north bank of the river is Bodiam Castle , built soon after 1385 by Sir Edward Dalyngrigge . Lord Curzon restored the ruins in 1919 and gave them to the National Trust six years later . The buildings are grade I listed , and the landscaped grounds , which include a millpond and a Second World War pillbox , are a scheduled ancient monument .

For the final 14 miles (23 km) from Bodiam to the sea , the bed of the river is below the high @-@ water mark of neap tides , and there are numerous drainage ditches traversing the valley floor . The river is embanked , with sluices and pumping stations along its banks , which discharge water drained from the low @-@ lying land into the river channel . The Kent Ditch joins on the northern bank , and forms the boundary between the counties of Kent and East Sussex . After the junction , the boundary runs along the centre of the river .

At Newenden , Newenden Bridge carries the A28 road over the channel . It was built with three arches in 1706 , but in an earlier Medieval style . Northiam lies just to the south . A loop to the south takes the river under the Kent and East Sussex Railway , and into an area known as the Rother Levels . The county boundary now follows a small channel to the north , which was the main channel when the river passed around the northern edge of the Isle on Oxney prior to 1635 . The boundary joins the Hexden Channel near Maytham Wharf , and rejoins the river when the channel does . Next , Potman 's Heath Channel joins .

The short channel splits into Newmill Channel and Reading Sewer a little further to the north , the first flowing southwards , and the second originally flowing northwards , when it was the main channel for the River Rother . A public footpath follows the eastern bank of Potman 's Heath Channel , and continues along the north bank of the river to Blackwall Bridge , where it becomes part of the Sussex Border Path , a long @-@ distance footpath that follows the county boundary .

The low @-@ lying land through which the channel passes is called the Rother Levels . Soon after New Bridge carries Wittersham Road over the river , the channel turns to the south , to run along the eastern edge of Walland Marsh . The Military Road , which was built along the landward side of the Royal Military Canal , crosses to the western bank of the river just before Iden Lock , the disused entrance to the canal . The lock structure contains a sluice mechanism , which is used to regulate water levels in the canal , but during the summer months , water is pumped from the river into the canal , from where it irrigates the marshes .

The Military Road continues to follow the west bank , while the Saxon Shore Way footpath follows the eastern bank . Next comes Scots Float Lock , below which the river is tidal . As it approaches the eastern edge of Rye , it is crossed by a fixed truss bridge which carries the Marshlink railway line . The bridge was installed in 1903 , and replaced a swing bridge erected in 1851 during the construction of the railway , which opened in 1852 . Monk Bretton Bridge carries the A259 New Road , and below that , the Rother is joined by the River Brede at the southern edge of Rye . The river channel is quite wide , and is known as Rye Harbour . There is also a village called Rye Harbour , at the southern end of the wide section .

There was a wharf on the river in 1874 , served by a railway line , and sidings which were used to collect shingle . By 1909 , the wharf had been replaced by a landing stage slightly further downstream , which was also served by the railway . As it nears the sea , a Martello tower , built in 1806 to protect against French invasion , stands to the west of the channel . It is numbered 28 , and was one of many such structures built at the time . Nearby is an Inshore Rescue station , run by the Royal National Lifeboat Institution The river then enters Rye Bay , part of the English Channel .

= = Points of interest = =