THE RIVER STOUR, NAYLAND

The tranquil landscape of the River Stour valley, the setting for many of the paintings of the renowned artist John Constable. Situated in the beautiful Dedham Vale; designated an Area of Outstanding Natural Beauty by the Countryside Commission in 1969.

DECIMATED: BY WATER ABSTRACTION & NEGLECT ?

Compiled by Lorraine Brooks, Editor, Nayland with Wissington Community Times, September 2019

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Nayland's Horseshoe Weir:

How it usually looks (2018) and the catastrophic water level in September 2019



Nayland's impressive tumbling Horseshoe Weir Now you see it.... but in August 2019 the weir ran dry



14th August 2019 was a sad day in Nayland; it was the day the horseshoe weir ran dry. Some fish died, others became stranded in the weir aprons and in isolated pools further along the river which had ceased flowing.



The Environment Agency were alerted and arrived to rescue the fish and on 15/16th August set up a pump to siphon water to generate a little flow.

The incident featured on BBC Look East on 16th August. (full transcript)

Environment reporter Richard Daniel opened saying:

"Locals call this stretch of the river the fast waters except at the moment there's nothing fast or particularly watery about it; dry yes, stony, stagnant too.

Ray Spencer's house backs onto the weir where normally water would thunder over. Now pipes are being used to siphon a trickle.

Ray Spencer said: "I've never seen it like this before and that's in 40 years. They are waters that the children in the village normally play in, they're down there in the summer

holidays; it's running very fast normally, it's fairly shallow but it's safe. At the moment, there's nothing there, nothing."

"The stretch of the River Stour at Nayland has become unnavigable, canoeists get out and walk."

Ben Norrington from the Environment Agency said: "Over the last few days we've had to rescue fish from these pools where the fish have all congregated and were at maximum risk of exposure and the oxygen crashing"

Richard Daniel said: "Using an electric current the rescue saved around 4,000 fish, Dace, Roach and Chubb. They were released downstream where there is more water."

Richard Daniel said: "This river really is under pressure on all fronts; farmers here have been told they can no longer abstract water to irrigate crops, water companies have been restricted on what they can take out to supply homes and the wildlife is under pressure too. Normally at times of high flow the EA can increase the river level by pumping in water from the River Ouse in the Fens but the Ouse has been too low to even do this."

Will Akast from the EA said: "The water supply seen here supplies around a million people with their domestic supply, farmers need water to produce the high quality crops we all want to see, it is a system under pressure. That's true all across East Anglia."

Richard Daniel said: "The Agency hopes to be putting a little bit of water into the river this week but it warns that unless there is an exceptionally long spell of very wet weather levels here may not recover until October.

Richard Daniel, BBC Look East

This incident was also reported in the local press: Suffolk Free Press, Colchester Gazette, Essex County Standard, East Anglian Daily Times and the Nayland with Wissington Community Times.....



Many local residents expressed concern and the incident featured in the community news

OUR RIVER RUNS DRY!



14th August 2019 was a sad day in Nayland; it was the day the horseshoe weir ran dry. Walkers and villagers were dismayed, canoeists were left carrying their vessels, fish were stranded in isolated pools or lay dead and other wildlife left confused.

The Environment Agency were alerted and arrived to rescue the fish and on 15th set up a pump to siphon water to generate a little flow. The effect was short lived and the weir remained dry as the Community Times went to print on 20th September.

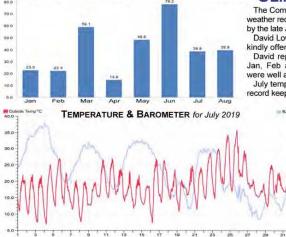
The only other time the weir has run dry, in February 2015, it was resolved almost immediately.

The incident featured on BBC Look East on 16th August. Their environment reporter Richard Daniel said: "The stretch of the River Stour at Nayland has become unnavigable, canoeists get out and walk. At the moment there's nothing fast or particularly watery about it; dry yes, stony, stagnant too."

Normally water would thunder over the weir; now pipes are being used to siphon a trickle.

Local resident, Ray Spencer was interviewed and said: "I've never seen it like this before and that's in 40 years. They are waters that the children in the village normally play in, they're down there in the summer holidays; it's running very fast normally, it's fairly shallow but it's safe. At the moment, there's nothing there, nothing."

Ben Norrington from the Environment Agency said: "Over RAINFALL (mm) - The total rainfall for January to August 2019 was 324.7mm





The flood channel and a section of the river beyond the Anchor had lost flow in July. On 18th July the EA issued an Emergency Navigation Notice giving the reason as a blockage under Bures Mill gate due to debris. They were hopeful that a combination of boreholes being switched on upstream and additional water being pimped into the river will increase flows and push out the blockage.

Historically the watercourse through Nayland was vital to the village. It provided transport and the benefits that brought, work (at the mills), energy (at the electric company), hunting, fishing,

the last few days we've had to rescue fish from these pools where the fish have all congregated and were at maximum risk of exposure and the oxygen crashing."

Using an electric current the rescue saved around 4,000 fish, Dace, Roach and Chubb. They were released downstream where there is more water.

Will Akast from the EA said: "The water supply seen here supplies around a million people with their domestic supply, farmers need water to produce the high quality crops we all want to see, it is a system under pressure. That's true all across East Anglia."

Normally at time of high flow the EA can increase the river level by pumping in water from the River Ouse in the Fens but the Ouse has been too low to even do this.

CLIMATOLOGICAL SUMMARY

The Community Times is very pleased to be able to include local weather records again. Records were previously kindly contributed by the late John Werner and his wife, Pinkle of Bear Street. David Lowe, who has a weather station in Stoke Road, has very

kindly offered to share his records with us.

David reports: Rainfall figures for 2019 reveal that rainfall in Jan, Feb and April was below average but March and June were well above average.

July temperatures - showing my highest temperature since my record keeping started on 25th July of 35.8 °C! The reasons this is

short of the new Cambridge national record on that date are probably that this is a nontranspondent of the coast. Wind direction was SE, coming across the southern North Sea, which it often is at the peak of a heat wave. The temperature of that is

normally about 16 °C in summer, so has a cooling effect, though this was not major!

The yearly rainfall figures for the past decade do not show a great deal of variation with the exception of 2012 and 2014 which were considerably wetter years.

Rainfall does not appear to have been exceptionally low, as some commentators have suggested. PAGE 20



sport and leisure. Until fairly recently the river was popular with anglers but many now say it is so overgrown and neglected it's neigh on impossible to fish. Parts of the river have been used by children to paddle and play and learn about wildlife; that's pretty much a thing of the past too.

At the Parish Assembly 2017, Will Akast of the Environment Agency responded to questions from the floor and confirmed

BACKGROUND

For much of its 45 mile length, the River Stour marks the county boundary between Essex and Suffolk; it has 7 major tributaries including the rivers Stour Brook (Haverhill), Glem (Glemsford), Chad Brook (Long Melford), Box (Thorington Street), Brett (Higham). Water from Norfolk is pumped into the Stour at Wixoe (near Haverhill) and water is abstracted at Wormingford and goes by pipeline to Abberton Reservoir.

Abberton Reservoir was constructed between 1936 and 1939. It is a pumped storage reservoir, owned and operated by Northumbrian Water Limited (NWL). Essex and Suffolk Water, which is part of NWL, is a water supply company serving a population of 1.8 million to an area of 1.105 square miles southeast Norfolk, east Suffolk, Essex and London boroughs. To meet the demand for water a £150 million project to extend Abberton Reservoir in Essex has seen its capacity expanded by 58% from 26 billion litres to 41 billion litres.

The programme of work included an expansion of the Ely -Ouse to Essex transfer scheme. The Ely Ouse to Essex Transfer Scheme (EOETS), created following the 1968 Ely Ouse Essex Water Act and operational from 1972, prevented spare water from entering the Wash by taking it to the Essex

NAYLAND WITH WISSINGTON COMMUNITY TIMES

that the Environment Agency's efforts concentrated on maintaining navigation and flood prevention. The funding and manpower available did not stretch to keeping banks tidy; this was the responsibility of landowners. Answering concerns about excessive reeds and fallen trees he said this did not pose a flood risk. The EA have also cited conservation to encourage biodiversity as reasons to leave reeds, bankside growth and fallen trees. A number of residents have said they feel this is neglect dressed up as conservation.

Local people say they would like to be able see a more of the water and river wildlife as they use the footpaths and some would like to go out as a family in a rowing boat which is not currently possible. Only kayaks and canoes can get through, even then sometimes with effort. This prevents a cross section of ages enjoying the waterway together.

Historically the river was all things to all men. Nowadays we can send men to the moon so why can't waterways be managed as well as they were 100 years ago?

It is hoped the EA may eventually react to the pressure of requests by residents and take some action towards better maintenance of the river. For those who wish to contact the EA the East Anglia Area Director is Simon Hawkins, tel: 02030 258358, email: areamanagercorrespondence.eastanglia@ environment-agency.gov.uk or by post to Iceni House, Cobham Road, Ipswich, Suffolk, IP3 9JD.

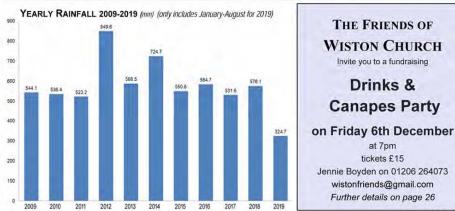
Lorraine Brooks, Photos: Antony Day & Andora Carver

reservoirs. Enhancement of the existing water transfer system enabled increased transfer of water from Denver in Norfolk to Abberton Reservoir. By varying the Environment Agency's (EA) abstraction licences the additional water needed to fill the enlarged Abberton Reservoir was provided.

This upgrade involved the construction of two new underground pipelines – Kirtling Green to Wixoe and Wormingford to Abberton. Work commenced in January 2011 to build a new pumping station on the River Stour near Wormingford and a pipeline to Abberton. The reservoir reached its new top water level in March 2015.... coincidentally the first time Nayland's horseshoe weir ran dry was February 2015!

The Stour Augmentation Groundwater Scheme (SAGS) is another factor of water levels according to the EA. The SAGS consists of boreholes, sunk into the chalk in the Stour Catchment and used to support the river at times of low flows. EA say that they are tightly constrained by their abstraction licence and can now only use these to provide water for the reservoirs. These are located at Cavendish, Long Melford, Baythorne End and Langham.

Many Nayland residents have been asking: "Don't we just need them to abstract a little less water?"



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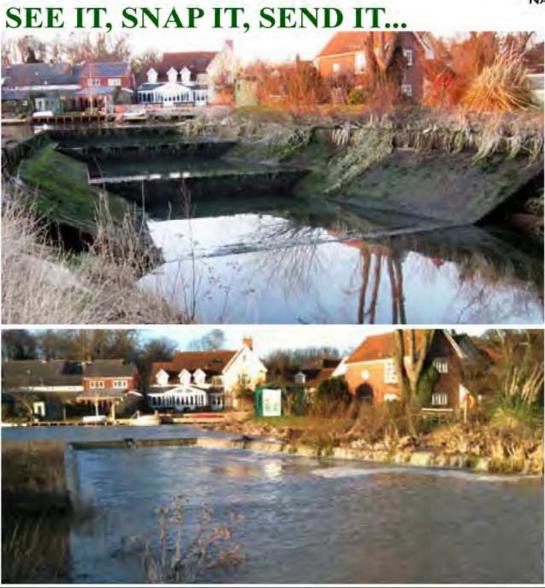
25th August: The siphons were barely generating a trickle



30th August: Dogs walked where they once swam

The 2006 and 2015 incidents

The Horseshoe Weir has run dry twice before, on both occasions this was quickly rectified



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Nayland Weir taken on 6th March when the water unexpectedly went down (top). The Environment Agency acted very swiftly to put things right and water was soon flowing again. It was good to note that the weir looks in very good condition. Thanks to Andora Carver for sending this photo.

It certainly was a different scene his time last year when Mike Hunter took this photo with high water levels.

If you have a snapshot taken in the parish to feature in a future issue please send it to lorraine.nayland@btinternet.com

The newly enlarged (by 58%) Abberton Reservoir reached full capacity in March 2015 – a coincidence?

Other sections of the main River Stour were affected with fish still trapped in isolated pools (25 Sept)





Reports of low water levels were posted on social media as early as 18th July 2019. Some fish died, other wildlife has been displaced, some fish remain trapped in isolated pools of water (25 Sept)



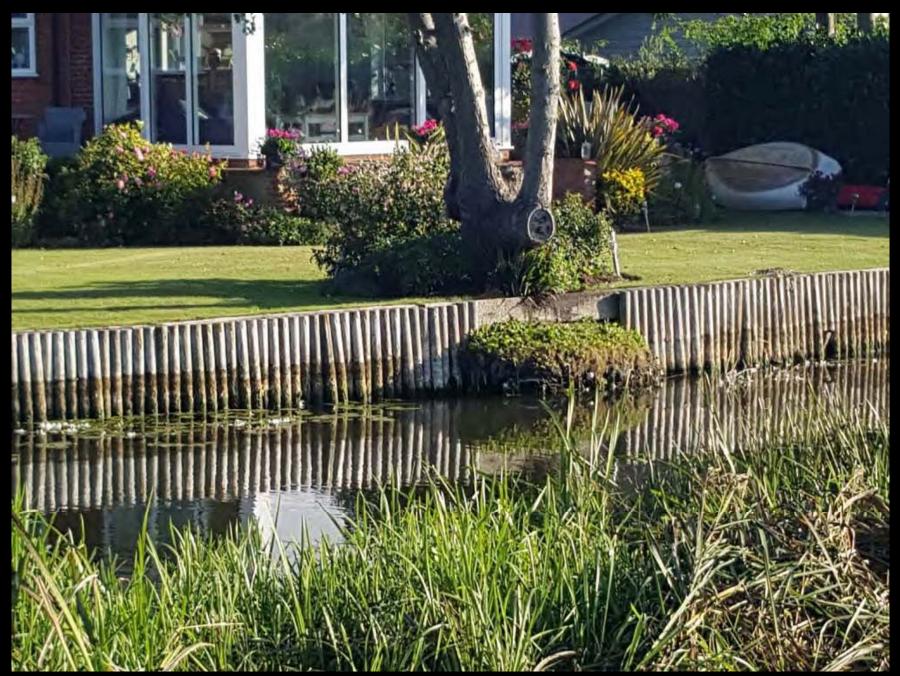
These photos were taken along the section near the Anchor Inn and from the bridge at Horkesley Lock



These photos were taken along the section near the Anchor Inn and Horkesley Lock



The level of the river above the Horseshoe weir has dropped 15-18 inches seen here at the popular community area of Caley Green, and from the top of the Horseshoe Weir



The level of the main river has dropped 15-18 inches seen here by the mooring of a house in Bear Street



The water level in Nayland meadow pond became horrendously low (photo 18 Sept). The pond, linked to the river by a short culvert beneath the footpath, was created in 2005 to provide a back water habitat that is important for maintaining fish stocks.



Mill Stream (along Fen Street) has not been adversely affected.

Mill Lade, which branches off the main River Stour above Nayland horseshoe weir, flows to a weir under Mill Street (with a 9 feet drop) and then on into Mill Stream which runs alongside Fen Street.

This was historically a stream that was made use of to facilitate power for the Mills and later the Nayland Light and Power Station.

The horseshoe weir in Nayland was built in 1947 to replace the lock when navigation ceased along the River Stour. It was built several inches higher than the mill weir so that in times of drought the Nayland mills would always have water for power.







During summer 2019 stretches of the River Stour through Nayland have been dry and canoeist have needed to walk with their canoes

Free Press

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Sudbury to the Sea event gets the go ahead despite river running dry

O By Newsdesk Sudbury - newsdesk@suffolkfreepress.co.uk ③ Published: 16:47, 13 September 2019 | Updated: 16:48, 13 September 2019

Organisers of the annual Sudbury to the Sea event say they have had to warn canoeists and rowers they will have to negotiate a dry river bed on some parts of the route this year

Water levels along the River Stour at Nayland have dropped substantially, with some parts of the river completely dry.

Residents in Nayland and Stoke-by-Nayland have been posting pictures of the dry river bed in the village on social media, calling for action. They say they have never seen the river so low before.



A past event, which takes place every year. Picture: Mark Westley

Last month, it was reported that the Environment Agency had rescued 1,000 fish from a weir in Navland because of the diminishing water levels.

The agency cited persistent low rainfall as the cause

River Stour Trust

River Stour Trust

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4 Sep 2019

50 Years (1968-2018) -

Preserving the Stour For You

S2C - PRE-BOOKING

SATURDAY 14 & SUNDAY 15 SEPTEMBER 2019



Remember, the River Stour is navigable all year round! Visit our Navigation Guide for more information - click here.



2019 EVENT - FULLY BOOKED - CLICK HERE FOR INFORMATION ABOUT \$2C19

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Sudbury to the Sea @RSTS2C Attention S2Cers! Unfortunately it has come to our attention that an aprox. 400m section of the river has dried up just after the Anchor at nayland. The event is still going ahead, if you have any questions please email us at s2c@riverstourtrust.org	Y	River Trips Navigation Guide John Constable Lighter Sudbury River Trips Dedham Vale River Trips Locks Our Venues Sales Items Links
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The Sudbury to the Sea event on 14th/15th September was affected with canoeists warned they will need to walk a 400 metre section through Nayland. This annual event was established in 1970 to "ensure that the Navigation is used and to note any problems on the river."

In recent years the river has become somewhat neglected.

When approached on this matter Environment Agency representatives have said their responsibilities only involve navigation and flood prevention; reed growth and fallen trees encourage biodiversity and conservation.



Can this really be considered navigable? (even when water levels are normal)



Can this really be considered navigable and would it not be a hindrance to flow in times of flood? *(taken from Anchor Bridge and the footbridge at Pop's Piece)*



Just a few years ago the River Stour at Anchor Bridge was navigable



Anchor Bridge (northwards): is currently just navigable for very narrow craft such as canoes, Just eight years ago it was perfectly navigable and able to take high water levels.



The Stour is a place where children learn about wildlife and where humans and wildlife coexist in harmony



Where wild swimmers challenge themselves and river travellers enjoy the scenery (photos taken at Caley Green where residents have permission to control the reeds)



When water levels are normal the river is navigable for canoes/kayaks, albeit with some effort in places, but use of rowing boats is a thing of the past as the river is too overgrown to accommodate them *(photo right 2010)*



Another sign of times past, when anglers were able to enjoy their hobby along the River Stour. Colchester Angling Preservation Society (CAPS) members and local residents fished from its banks, but much of the river is no longer accessible and angling clubs no longer use the river here.



Background Research:

Abberton Reservoir was constructed between 1936 and 1939. It is a pumped storage reservoir, owned and operated by Northumbrian Water Limited (NWL). Essex and Suffolk Water (ESW), which is part of NWL, is a water supply company serving a population of 1.8 million to an area of 1,105 square miles southeast Norfolk, east Suffolk, Essex and London boroughs. To meet the demand for water a £150 million project to extend Abberton Reservior in Essex has seen its capacity expanded by 58% from 26 billion litres to 41 billion litres.

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Abberton Reservoir Visitor Centre

Visitors can enjoy walks on Essex Wildlife Trust's nature reserve; with stunning panoramic views across the reservoir and surrounding villages as well as superb views of the water's edge from three bird hides. The nature reserve has a 900m accessible circular footpath. The Visitor Centre offers a tearoom which is open seven days a week, a well-stocked shop which has binoculars, telescopes, bird food, feeders and a range of gifts and a wild play area . ESW runs a programme of events throughout the year for all ages as well as children's outdoor birthday parties. There is suggested entry donation of £2 for adults, £1 for children and £5 family.

Abberton reservoir was constructed to store water from winter rainfall for summer use as part of the water supply network for the southern half of Essex. It is filled with water from local rivers including Layer Brook, Roman River and the river Stour.

The Essex supply area includes the major towns of Chelmsford, Brentwood, Witham and Southend-on-Sea and the London boroughs of Havering, Redbridge and Barking & Dagenham.

Due to current pumping and storage constraints, ESW cannot always fully utilise water during high flow conditions in the river Stour. The enlarged reservoir and the additional intake from the river Stour at Wormingford allows ESW to abstract and store additional water from the river Stour when water is available during these peak flow conditions which usually occur during the winter.



Background Research: UK Rainfall

According to the Met Office: https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries/index

The UK rainfall total for 2017 was 1124 mm, 97% of the 1981–2010 average. The UK rainfall total for 2018 was 1064 mm, which is 92% of the 1981-2010 average, making this a dry year overall although not exceptionally so.

December 2018 rainfall totals were broadly close to average. January 2019 was a drier month; with less than half the average rainfall in many areas; February saw rainfall totals near or rather below average, March rainfall totals were above average with double the average places (the 5th wettest March in a series since 1910); April was generally drier with 71% of the average for the month; May was very wet with 93% of normal rainfall. June rainfall totals were above average across most areas, with double the average in numerous parts of England Overall the UK had 152% of average rainfall (the 11th wettest June since 1910).

Annual 2017

The UK rainfall total for 2017 was 1124 mm, 97% of the 1981–2010 average.

The rainfall anomaly pattern showed considerable spatial variation with much of Highland Scotland and lowland England drier than average; for example only 75% was recorded across parts of Perthshire. The wet-test areas relative to average were across west Wales, north-west England and parts of south-west and north-east Scot-land. Parts of Lancashire, Cumbria and west Wales recorded over 125% of average and it was a wet year too across the Northern Isles.

Annual 2018

The UK rainfall total for 2018 was 1064 mm, which is 92% of the 1981-2010 average, making this a dry year overall although not exceptionally so. However, parts of northern Scotland received only 75% of average rainfall.

Winter 2018/2019

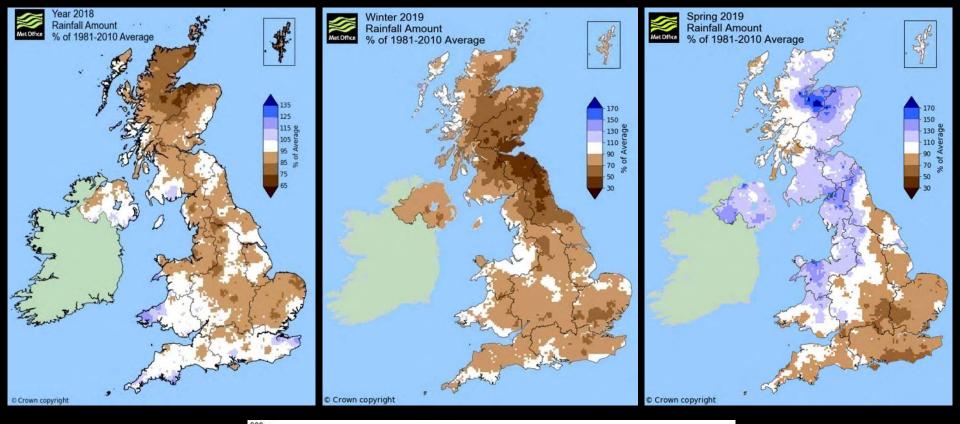
December rainfall totals were broadly close to average across many areas but parts of northern and eastern Britain were drier, with some areas of England and Wales having a rather wet month; overall the UK had 99% of average rainfall. January was a drier month, with less than half the average rainfall in many areas - especially Fife and south-east Scotland - and only northern Scotland got close to average; the UK overall had 52% of average rainfall for the month. February saw rainfall totals near or rather below average, driest in north-eastern areas, with 82% of average overall.

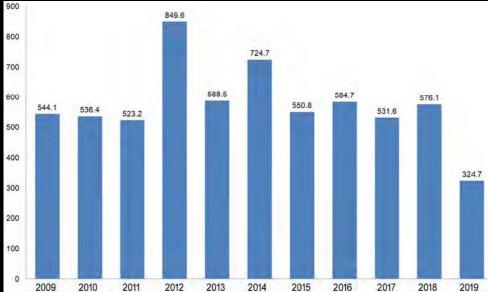
Spring 2019

March rainfall totals were above average for most areas, with double the average in a few places; much of the rain fell in the first half of the month. Overall the UK had 140% of average rainfall, provisionally the 5th wettest March in a series since 1910. April was generally drier, with below half the average rainfall in eastern England and parts of western Scotland; the UK overall had 71% of average for the month. May was very wet in north-east Scotland but drier towards SW Britain, with 93% of normal rainfall overall.

Summer 2019

June rainfall totals were above average across most areas, with double the average in numerous parts of England and Wales; most of the rain fell in the first half of the month. Overall the UK had 152% of average rainfall, provisionally the 11th wettest June in a series since 1910. July also ended up rather wet from the English Midlands northwards, with again more than twice the average monthly rainfall in some places; the UK overall had 114% of average for the month.





YEARLY RAINFALL IN NAYLAND 2009-2019 *(mm)*

(only includes January-August for 2019)