

# National River Flow Archive

UK Centre for Ecology & Hydrology

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## NRFA PEAK FLOW DATASET VERSION 9

Note on changes from v8

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AUTHOR: KATIE MUCHAN, STEVE TURNER, CATH SEFTON, OLIVER SWAIN, VASILEIOS ANTONIOU

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## DOCUMENT VERSION CONTROL

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# 1 INTRODUCTION

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Version 9 of the NRFA Peak Flows Dataset contains AMAX and POT data for 935 gauging stations, of which 638 are in England, 163 are in Scotland, 92 are in Wales and 42 are in Northern Ireland. A total of 544 stations are recommended for use in pooling groups ('Suitable for Pooling'), 338 stations are 'Suitable for QMED' and 53 stations are 'Suitable for Neither'.

Version 9 contains:

- Network changes (see Section 2)
- An additional water year of data (updated to 30<sup>th</sup> September 2019) for all active peak flow stations in the UK (see section 3)
- Provisional data for water year 2019/2020 for a sub-set of sites (see section 3)
- Full period of record Data Review for a subset of stations in the dataset (143 stations, see section 4)
- Modifications to existing time series (see section 5).

## 1.1 Changes to file format and structure

Version 9 contains some changes to the file structure / naming for users to be aware of:

- The main folder structure is now named as "suitable-for-neither", "suitable-for-qmed" and "suitable-for-pooling"

There is now an "amax.csv" file included in the zip folder which contains all the data within the dataset in one CSV, including an indication of whether the data are rejected or not.

## 2 NETWORK CHANGES

A number of changes have been made to the gauging stations for which peak flow data are held on the NRFA since the release of version 8. Key changes are noted in this section.

### 2.1 Removal of Gauging Stations

Five stations have been removed from the dataset, listed in Table 1. Daily flows are still held on the NRFA where indicated.

**Table 1:** Stations removed from the dataset in version 9.

Station Number	Station Name	Measuring Authority	NRFA daily flow station	Comment
21022	Whiteadder Water at Hutton Castle	SEPA-S	YES	Suspect stage data pre-1986; no non-modular correction in rating; very few high flow gaugings carried out.
28007	Trent at Shardlow	EA-EM	YES	Unreliable data (all data pre-ultrasonic and out of bank flows post-ultrasonic installation).
29005	Rase at Bishopbridge	EA-LN	YES	FEH Neither with large scatter in gaugings below QMED, two flood storage reservoirs impact flows above QMED.
31021	Welland at Ashley	EA-LN	YES	FEH Neither with little prospect of improvement in the future - flows are truncated below QMED.
33063	Little Ouse at Knettishall	EA-EA	YES	FEH Neither with little prospect of improvement in the future - large scatter in gaugings means the uncertainty in peak flows is >30%.

### 2.2 Addition of Gauging Stations

Five stations have been added to the dataset in version 9, listed in Table 2.

**Table 2:** Stations added to the dataset in version 9. A \* denotes stations that are completely new to the NRFA (i.e. were not existing daily flow stations).

Station Number	Station Name	Measuring Authority	Suitability	NRFA daily flow station
9006	Deskford Burn at Cullen	SEPA-N	Pooling	Yes
25029	Leven at Foxton Bridge	EA-NE	Pooling	Yes
60017*	Twrch at Gurnos	NRW	QMED	No
105001	Snizort at Skeabost	SEPA-N	QMED	Yes
106002	Laxdale at Laxdale	SEPA-N	Pooling	Yes

### 2.3 Closure of Gauging Stations

Two stations have been closed in version 9, listed in Table 3. Previously recorded flow data for these stations are still contained in the dataset and shown on the NRFA website, but there will be no further updates in future.

**Table 3:** Gauging stations closed in version 9.

Station Number	Station Name	Measuring Authority	NRFA daily flow station	Comment
<b>21031</b>	Till at Etal	EA-NE	YES	Historical closure on 31/12/1980. Replaced with 21035.
<b>47023</b>	Tamar at Tamarstone Bridge	EA-DC	NO	Station closed 01/10/2017 converted to level only site.

## 2.4 Changes to Station Numbers

Station numbers have changed at six stations in England, listed in Table 4. All data and metadata are now held under these new station numbers on the NRFA website and data are presented in files with these station numbers in the download for use in WINFAP.

**Table 4:** Station number changes in version 9.

Station Name	Measuring Authority	V8 Station Number	V9 Station Number
Gypsy Race at Kirby Grindalythe	EA-Y	26802	26016
Chitterne Brook at Codford	EA-WX	43801	43028
Wylfe at Brixton Deverill	EA-WX	43806	43029
Wenning at Hornby	EA-CL	72807	72017
Caldew at Cummersdale	EA-CL	76809	76022
Dacre Beck at Dacre Bridge	EA-CL	76811	76023

## 2.5 Changes to FEH Indicative Suitabilities

Indicative suitabilities have changed at one station in Scotland, one station in Wales and six stations in England listed in Table 5.

**Table 5:** Stations with changes to indicative suitability in version 9.

NRFA Station	Station Name	Measuring Authority	V8 Suitability		V9 Suitability	
			QMED	POOLING	QMED	POOLING
<b>7003</b>	Lossie at Sheriffmills	SEPA-N	YES	NO	YES	YES
<b>33058</b>	Ouzel at Bletchley	EA-EA	YES	YES	YES	NO
<b>37003</b>	Ter at Crabbs Bridge	EA-EA	YES	YES	YES	NO
<b>39052</b>	The Cut at Binfield	EA-T	NO	NO	YES	NO
<b>45005</b>	Otter at Dotton	EA-DC	YES	YES	YES	NO
<b>47013</b>	Withey Brook at Bastreet	EA-DC	NO	NO	YES	NO
<b>53013</b>	Marden at Stanley	EA-WX	YES	NO	YES	YES
<b>61001</b>	Western Cleddau at Prendergast Mill	NRW	YES	NO	NO	NO

## 2.6 Combined Peak Flow Time Series from Multiple Stations

No changes have been made to these in version 9. See the release note for v3.3.2 for the most recent changes.

## **2.7 Component Stations**

No changes have been made to the stations that the NRFA treats as combined sites since v4.1.

At a number of gauging stations, flows are derived from measurements taken at more than one location (for example low flows may be measured at a weir and high flows measured at a gauged section a short distance up/downstream). There are a number of such stations around the UK that the NRFA and/or Measuring Authority treat as a combined station.

In some cases, the peak flow data may be derived from only one component of the combined dataset and as such the source for the POT and AMAX data may not be the same as that presented for the daily flow record.

## **2.8 Stations Where No POT Data are Presented**

No POT data are presented on the NRFA website or given in the dataset for stations listed in Annex 1. Three stations were added to the list in version 9, marked with a \* in Annex 1.

Stations are usually listed as 'POT excluded' because the gauged catchment response does not lend itself to POT analysis. Such catchments are usually, but not exclusively, those dominated by baseflow and are therefore concentrated on the large chalk aquifers of southern and eastern England.

## 3 ANNUAL UPDATE

As part of the stewardship arrangements for the national Peak Flows Dataset by UKCEH through the NRFA, a programme of annual updates has been implemented. It is intended that all currently operating NRFA Peak Flow stations are updated each year with the addition of one water year of data.

### 3.1 Addition of water year 2018/2019

The version 9 files contain AMAX and POT time-series data updated to 30 September 2019 for all currently operational peak flow gauging stations in the UK, with the exception of three stations that were not able to be updated due to issues with the station or the hydrometric archive (Table 6).

**Table 6:** Stations not updated in version 9.

Station Number	Station Name	Measuring Authority
27088	Calder at Mytholmroyd	EA-Y
47023	Tamar at Tamarstone Bridge	EA-DC
75005	Derwent at Portinscale	EA-CL

### 3.2 Addition of water year 2019/2020

In addition to the usual annual update, following exceptional flooding events in 2019/2020 (most notably in November 2019 and February 2020), provisional data have been released in version 9 for 87 stations.

There are stations which recorded flows which ranked AMAX 1, AMAX 2 or AMAX 3 in 2019/2020 in Wales, Northern Ireland and in some areas of England (North East, Yorkshire, East Midlands, West Midlands (West), Greater Manchester, Merseyside & Cheshire and Cumbria & Lancashire).

A full update of water year 2019/2020 for all stations will be provided in NRFA Peak Flows Dataset Version 10, expected to be released in autumn 2021.

### 3.3 UKCEH Operated Gauging Stations

Version 9 contains an update to the AMAX flow data for stations operated by the UK Centre for Ecology & Hydrology at Plynlimon. All operational gauging stations except 54022 (Plynlimon Flume) and 55008 (Cefyn Brwyn) have been updated to the end of water year 2017/2018.

### 3.4 New AMAX 1 records

New AMAX 1 records were set at 14 stations in water year 2018/2019 and at 37 stations in water year 2019/2020, listed in Table 7 with the percentage of the previous AMAX 1.

**Table 7:** New AMAX 1 records set in water year 2018/2019 and 2019/2020. \*Stations 23033 and 27096 set a new AMAX 1 in 2018/2019 which was then broken in 2019/2020.

Water Year	Station Number	Station Name	Measuring Authority	% of previous AMAX 1
2018/2019	23008	Rede at Rede Bridge	EA-NE	104%
	23033*	Rede at Otterburn	EA-NE	109%
	27096*	Wharfe at Netherside Hall	EA-Y	106%
	60006	Gwili at Glangwili	NRW	102%
	62001	Teifi at Glanteifi	NRW	133%
	62002	Teifi at Llanfair	NRW	116%
	66004	Wheeler at Bodfari	NRW	100%

Water Year	Station Number	Station Name	Measuring Authority	% of previous AMAX 1
	66011	Conwy at Cwmlanerch	NRW	107%
	69041	Tame at Broomstairs	EA-GMMC	117%
	69043	Collyhurst Weir	EA-GMMC	119%
	76008	Irthing at Greenholme	EA-CL	102%
	85003	Falloch at Glen Falloch	SEPA-S	102%
	95004	Abhainn a'Chnocain at Elphin	SEPA-N	137%
	205011	Annacloy at Kilmore Bridge	DFIR	109%
<b>2019/2020</b>	23011	Kielder Burn at Kielder	EA-NE	102%
	23033*	Rede at Otterburn	EA-NE	101%
	27021	Don at Doncaster	EA-Y	100%
	27022	Don at Rotherham Weir	EA-Y	102%
	27030	Dearne at Adwick	EA-Y	105%
	27031	Colne at Colne Bridge	EA-Y	103%
	27053	Nidd at Birstwith	EA-Y	105%
	27065	Holme at Huddersfield Queens Mill	EA-Y	106%
	27096*	Wharfe at Netherside Hall	EA-Y	103%
	27098	Calder at Dewsbury	EA-Y	108%
	28043	Derwent at Chatsworth	EA-EM	117%
	28060	Dover Beck at Lowdham	EA-EM	100%
	28085	Derwent at St Mary's Bridge	EA-EM	103%
	28086	Sence at South Wigston	EA-EM	132%
	28091	Ryton at Blyth	EA-EM	104%
	54044	Tern at Ternhill	EA-WM	130%
	54052	Bailey Brook at Ternhill	EA-WM	135%
	55002	Wye at Belmont	EA-WM	113%
	55014	Lugg at Byton	EA-WM	119%
	55016	Ithon at Disserth	NRW	103%
	55018	Frome at Yarkhill	EA-WM	100%
	55021	Lugg at Butts Bridge	EA-WM	112%
	55023	Wye at Redbrook	NRW	109%
	56002	Ebbw at Rhiwderin	NRW	104%
	57004	Cynon at Abercynon	NRW	116%
	57005	Taff at Pontypridd	NRW	131%
	57006	Rhondda at Trehafod	NRW	116%
	57007	Taff at Fiddlers Elbow	NRW	133%
	57010	Ely at Laneley	NRW	106%
	57014	Rhymney at Bargoess	NRW	163%
	57015	Taff at Merthyr Tydfil	NRW	114%
	57017	Rhondda Fawr at Tynewydd	NRW	107%
	58001	Ogmore at Bridgend	NRW	101%
	58002	Neath at Resolven	NRW	115%
	66006	Elwy at Pont-y-Gwyddel	NRW	109%
	69008	Dean at Stanneylands	EA-GMMC	173%
	71006	Ribble at Henthorn	EA-CL	104%
	71009	Ribble at New Jumbles Rock	EA-CL	108%
	71011	Ribble at Arnford	EA-CL	101%



## 4 PERIOD OF RECORD REVIEW

As part of the stewardship arrangements for the national Peak Flows Dataset by UKCEH through the, a programme of period of record reviews is undertaken. It is intended that a subset of the NRFA Peak Flow stations are subject to a Period of Record Review each year and released in the next scheduled release of files for use in WINFAP.

The Period of Record Review is extensive and covers a full period of record review of:

- Flow and stage data (including extension of recent and where applicable, early records)
- Gaugings and ratings
- Missing data periods
- FEH Suitability
- Metadata (station descriptions, station type, datum history, POT threshold, bankfull stage)
- Unrepresentative data periods and rejected data

This section lists the stations and time periods included in the Period of Record Review published in version 9. Major changes to the use of the data – POT thresholds, unrepresentative periods and rejected data – are detailed in Section 5.

### 4.1 Stations Included

The Period of Record Review covered 10 stations in Scotland, 120 stations in England and 13 stations in Wales, listed in Table 8. At the seven existing peak flow stations in Scotland, the period of record has been extended by 13 water years to end with water year 2018/2019.

**Table 8:** Stations included in the period of record review in version 9. New stations to the dataset are shown with a \*.

Station Number	Station Name	Measuring Authority	Start date	End date
4006	Bran at Dosmucheran	SEPA-N	1989/1990	2018/2019
7003	Lossie at Sheriffmills	SEPA-N	1978/1979	2018/2019
9006*	Deskford Burn at Cullen	SEPA-N	2010/2011	2018/2019
15006	Tay at Ballathie	SEPA-E	1988/1989	2018/2019
19001	Almond at Craigiehall	SEPA-E	2006/2007	2018/2019
19006	Water of Leith at Murrayfield	SEPA-E	1961/1962	2015/2016
21021	Tweed at Sprouston	SEPA-S	1969/1970	2017/2018
22007	Wansbeck at Mitford	EA-NE	1981/1982	2018/2019
23002	Derwent at Eddys Bridge	EA-NE	1981/1982	2018/2019
24004	Bedburn Beck at Bedburn	EA-NE	1959/1960	2018/2019
24008	Wear at Witton Park	EA-NE	1980/1981	2018/2019
25001	Tees at Darlington Broken Scar	EA-NE	1956/1957	2018/2019
25005	Leven at Leven Bridge	EA-NE	1980/1981	2018/2019
25008	Tees at Barnard Castle	EA-NE	1989/1990	2018/2019
25009	Tees at Low Moor	EA-NE	1981/1982	2018/2019
25018	Tees at Middleton in Teesdale	EA-NE	1981/1982	2018/2019
25029*	Leven at Foxton Bridge	EA-NE	2005/2006	2018/2019
26016	Gypsy Race at Kirby Grindalythe	EA-Y	1997/1998	2018/2019
27001	Nidd at Hunsingore Weir	EA-Y	1966/1967	2018/2019
27002	Wharfe at Wetherby Flint Mill	EA-Y	1965/1966	2018/2019
27043	Wharfe at Addingham	EA-Y	1973/1974	2018/2019
27050	Esk at Sleights	EA-Y	1976/1977	2018/2019
27051	Crimple at Burn Bridge	EA-Y	1976/1977	2018/2019
27052	Whitting at Sheepbridge	EA-Y	1976/1977	2018/2019

Station Number	Station Name	Measuring Authority	Start date	End date
27062	Nidd at Skip Bridge	EA-Y	1999/2000	2018/2019
27073	Brompton Beck at Snainton Ings	EA-Y	1980/1981	2018/2019
27081	Oulton Beck at Oulton Farrer Lane	EA-Y	1986/1987	2018/2019
27090	Swale at Catterick Bridge	EA-Y	1992/1993	2018/2019
27098	Calder at Dewsbury	EA-Y	1995/1996	2018/2019
28009	Trent at Colwick	EA-EM	1970/1971	2018/2019
28015	Idle at Mattersey	EA-EM	1982/1983	2018/2019
28048	Amber at Wingfield Park	EA-EM	1970/1971	2018/2019
29005	Rase at Bishopbridge	EA-LN	1966/1967	2018/2019
30005	Witham at Saltersford Total	EA-LN	1984/1985	2018/2019
31002	Glen at Kates Br & King St Br	EA-LN	1980/1981	2018/2019
31010	Chater at Fosters Bridge	EA-LN	1980/1981	2018/2019
32003	Harpers Brook at Old Mill Bridge	EA-LN	1980/1981	2018/2019
32008	Nene/Kislingbury at Dodford	EA-LN	1979/1980	2018/2019
33015	Ouzel at Willen	EA-EA	1976/1977	2018/2019
33019	Thet at Melford Bridge	EA-EA	1978/1979	2018/2019
33023	Lea Brook at Beck Bridge	EA-EA	1962/1963	2018/2019
33032	Heacham at Heacham	EA-EA	1979/1980	2018/2019
33034	Little Ouse at Abbey Heath	EA-EA	1980/1981	2018/2019
33058	Ouzel at Bletchley	EA-EA	1977/1978	2018/2019
33063	Little Ouse at Knettishall	EA-EA	1979/1980	2018/2019
34005	Tud at Costessey Park	EA-EA	1979/1980	2018/2019
34012	Burn at Burnham Overy	EA-EA	1980/1981	2018/2019
35010	Gipping at Bramford	EA-EA	1981/1982	2018/2019
36003	Box at Polstead	EA-EA	1960/1961	2018/2019
36006	Stour at Langham	EA-EA	1962/1963	2018/2019
36009	Brett at Cockfield	EA-EA	1967/1968	2018/2019
36010	Bumpstead Brook at Broad Green	EA-EA	1967/1968	2018/2019
37003	Ter at Crabbs Bridge	EA-EA	1963/1964	2018/2019
39012	Hogsmill at Kingston upon Thames	EA-KSL	1984/1985	2018/2019
39020	Coln at Bibury	EA-T	1963/1964	2018/2019
39026	Cherwell at Banbury	EA-T	1966/1967	2018/2019
39033	Winterbourne Stream at Bagnor	EA-T	1962/1963	2018/2019
39036	Law Brook at Albury	EA-T	1968/1969	2018/2019
39052	The Cut at Binfield	EA-T	1957/1958	2018/2019
39056	Ravensbourne at Catford Hill	EA-KSL	1984/1985	2018/2019
39081	Ock at Abingdon	EA-T	1978/1979	2018/2019
40004	Rother at Udiam	EA-KSL	1968/1969	2018/2019
40010	Eden at Penshurst / Vexour Bridge	EA-KSL	1967/1968	2018/2019
40012	Darent at Hawley	EA-KSL	1989/1990	2018/2019
42007	Alre at Drove Lane Alresford	EA-SSD	1980/1981	2018/2019
42009	Candover Stream at Borough Bridge	EA-SSD	1982/1983	2018/2019
42012	Anton at Fullerton	EA-SSD	1980/1981	2018/2019
42014	Blackwater at Ower	EA-SSD	1976/1977	2018/2019
42017	Hermitage Stream at Havant	EA-SSD	1979/1980	2018/2019
43004	Bourne at Laverstock	EA-WX	1991/1992	2018/2019

Station Number	Station Name	Measuring Authority	Start date	End date
43006	Nadder at Wilton	EA-WX	1990/1991	2018/2019
43014	East Avon at Upavon	EA-WX	1986/1987	2018/2019
43017	West Avon at Upavon	EA-WX	1986/1987	2018/2019
43028	Chitterne Brook at Codford	EA-WX	1993/1994	2018/2019
43029	Wylfe at Brixton Deverill	EA-WX	1983/1984	2018/2019
44002	Piddle at Baggs Mill	EA-WX	1992/1993	2018/2019
45005	Otter at Dotton	EA-DC	1962/1963	2018/2019
46003	Dart at Austins Bridge	EA-DC	1959/1960	2018/2019
46006	Erme at Ermington	EA-DC	1973/1974	2018/2019
46008	Avon at Loddiswell	EA-DC	1970/1971	2018/2019
47006	Lyd at Lifton Park	EA-DC	1975/1976	2018/2019
47010	Tamar at Crowford Bridge	EA-DC	1971/1972	2018/2019
47011	Plym at Carn Wood	EA-DC	1970/1971	2018/2019
47013	Withey Brook at Bastreet	EA-DC	1972/1973	2018/2019
48003	Fal at Tregony	EA-DC	1978/1979	2018/2019
48009	St Neot at Craigshill Wood	EA-DC	1971/1972	2018/2019
48012	Fal at Trenowth	EA-DC	1997/1998	2018/2019
50011	Okement at Jacobstowe	EA-DC	1990/1991	2018/2019
51001	Doniford Stream at Swill Bridge	EA-WX	1983/1984	2018/2019
52003	Halsewater at Halsewater	EA-WX	1991/1992	2018/2019
52004	Isle at Ashford Mill	EA-WX	1971/1972	2018/2019
52005	Tone at Bishops Hull	EA-WX	1967/1968	2018/2019
53005	Midford Brook at Midford	EA-WX	1967/1968	2018/2019
53007	Frome (Somerset) at Tellisford	EA-WX	1964/1965	2018/2019
53017	Boyd at Bitton	EA-WX	1988/1989	2018/2019
53028	By Brook at Middlehill	EA-WX	1981/1982	2018/2019
53029	Biss at Trowbridge	EA-WX	1983/1984	2018/2019
54001	Severn at Bewdley	EA-WM	1982/1983	2018/2019
54004	Sowe at Stoneleigh	EA-WM	1950/1951	2018/2019
54007	Arrow at Broom	EA-WM	1976/1977	2018/2019
54018	Rea Brook at Hookagate	EA-WM	1977/1978	2018/2019
54019	Avon at Stareton	EA-WM	1962/1963	2018/2019
54034	Dowles Brook at Oak Cottage	EA-WM	1971/1972	2018/2019
54044	Tern at Ternhill	EA-WM	1971/1972	2018/2019
54052	Bailey Brook at Ternhill	EA-WM	1971/1972	2018/2019
54057	Severn at Haw Bridge	EA-WM	1976/1977	2018/2019
54106	Stour (Warks) at Shipston	EA-WM	1971/1972	2018/2019
54114	Avon at Warwick	EA-WM	1971/1972	2018/2019
55023	Wye at Redbrook	NRW	1980/1981	2018/2019
55025	Llynfi at Three Cocks	NRW	1980/1981	2018/2019
55032	Elan at Caban Dam	NRW	1980/1981	2018/2019
56006	Usk at Trallong	NRW	1962/1963	2008/2009
56012	Grwyne at Millbrook	NRW	1981/1982	2018/2019
56013	Yscir at Pont-Ar-Yscir	NRW	1981/1982	2018/2019
58006	Mellte at Pontneddfechan	NRW	1981/1982	2018/2019
58012	Afan at Marcroft Weir	NRW	1978/1979	2018/2019

Station Number	Station Name	Measuring Authority	Start date	End date
59002	Loughor at Tir-y-dail	NRW	1981/1982	2018/2019
60003	Taf at Clog-y-Fran	NRW	1981/1982	2018/2019
60017*	Twrch at Gurnos	NRW	1994/1995	2018/2019
62001	Teifi at Glanteifi	NRW	1959/1960	2018/2019
67010	Gelyn at Cynefail	NRW	1969/1970	2018/2019
68044	Dane at Hug Bridge	EA-GMMC	1991/1992	2018/2019
69008	Dean at Stanneylands	EA-GMMC	1975/1976	2018/2019
69012	Bollin at Wilmslow	EA-GMMC	1975/1976	2018/2019
69015	Etherow at Compstall	EA-GMMC	1970/1971	2018/2019
69017	Goyt at Marple Bridge	EA-GMMC	1968/1969	2018/2019
69025	Irwell at Manchester Racecourse	EA-GMMC	1976/1977	2018/2019
70002	Douglas at Wanes Blades Bridge	EA-CL	1972/1973	2018/2019
70004	Yarrow at Croston Mill	EA-CL	1975/1976	2018/2019
71008	Hodder at Hodder Place	EA-CL	1975/1976	2018/2019
71010	Pendle Water at Barden Lane	EA-CL	1976/1977	2018/2019
72003	Hindburn at Wray	EA-CL	1976/1977	2018/2019
72009	Wenning at Wennington	EA-CL	1976/1977	2018/2019
72017	Wenning at Hornby	EA-CL	1996/1997	2018/2019
73014	Brathay at Jeffy Knotts	EA-CL	1975/1976	2018/2019
74001	Duddon at Duddon Hall	EA-CL	1976/1977	2018/2019
74003	Ehen at Bleach Green	EA-CL	1975/1977	2018/2019
74007	Esk at Cropple How	EA-CL	1976/1977	2018/2019
76022	Caldew at Cummersdale	EA-CL	1996/1997	2018/2019
76023	Dacre Beck at Dacre Bridge	EA-CL	1999/2000	2018/2019
84004	Clyde at Sills of Clyde	SEPA-S	1955/1956	2018/2019
105001*	Snizort at Skeabost	SEPA-N	2001/2002	2018/2019
106002*	Laxdale at Laxdale	SEPA-N	2007/2008	2018/2019

## 5 MODIFICATIONS TO EXISTING TIME SERIES

### 5.1 POT Independence

For stations in England operated by the Environment Agency and in Wales operated by Natural Resources Wales, the rules for independence between POT events have been clarified such that the minimum discharge in the trough between the two peaks must be less than two-thirds of the discharge of **both peaks** (FEH guidelines states the first peak, but this requires subsequent manual re-processing to remove spurious peaks). Previous Environment Agency data updates by the NRFA and under the HiFlows-UK initiative may also have utilised the 'both peaks rule'.

These rules apply at all Environment Agency and Natural Resources Wales operated stations to POT events for water years 2014/2015 onwards. Additionally, for the stations listed in Annex 2, due to changes to stage-discharge relationships or other re-processing, the new independence rules apply from the date shown to the end of the period of record. Users should therefore be aware that at these stations the independence criteria used to generate the POT series updates may therefore vary throughout the flow record.

No changes have been made to the independence extraction criteria for POT data in Scotland or Northern Ireland.

### 5.2 POT Thresholds

The POT Threshold has changed at 12 stations, listed in Table 9.

**Table 9:** Stations with changes to POT Thresholds in version 9.

NRFA Station	Station Name	Measuring Authority	V8 POT Threshold	V9 POT Threshold
4006	Bran at Dosmucheran	SEPA-N	57.204	52
27052	Whitting at Sheepbridge	EA-Y	10.884	8
28015	Idle at Mattersey	EA-EM	6.934	5.5
28048	Amber at Wingfield Park	EA-EM	16.841	13
28060	Dover Beck at Lowdham	EA-EM	0.993	1.13
33023	Lea Brook at Beck Bridge	EA-EA	0.623	0.88
42009	Candover Stream at Borough Bridge	EA-SSD	0.4	0.8
47013	Withey Brook at Bastreet	EA-DC	6.993	5.75
48009	St Neot at Craigshill Wood	EA-DC	4.064	4.8
50011	Okement at Jacobstowe	EA-DC	21.285	34
51001	Doniford Stream at Swill Bridge	EA-WX	3.401	6.4
73014	Brathay at Jeffy Knotts	EA-CL	34.347	45.5

### 5.3 Minor Changes to AMAX and POT Records

Major changes to time series can be made through the period of record review (see Section 4) or through rating changes submitted as part of the Annual Update process (see Section 5.4).

Other minor changes to individual events can be made outside of these processes. Two stations had edits to the historical time series in version 9, listed in Table 10.

**Table 10:** Stations with minor changes to time series in version 9.

Station Number	Station Name	Measuring Authority	Details of change
52006	Yeo at Pen Mill	EA-WX	Update flow for 1962/1963 AMAX from 149.82 m <sup>3</sup> s <sup>-1</sup> to 251 m <sup>3</sup> s <sup>-1</sup> due to new modelled rating. This makes the event the new AMAX 1.
69020	Medlock at London Road	EA-GMMC	Removal of 12/08/1992 event moved AMAX for 1991/1992 to 01/06/1992. AMAX 1 remains as 1991/1992.

## 5.4 Changes to Stage-Discharge Ratings and Reprocessed Data

For stations included in the Period of Record Review (see Table 8), ratings have been reviewed and data re-processed as required. Stage-discharge ratings have changed at an additional 32 stations as part of the routine Annual Update of the dataset. The time period of re-processed flow data is listed in Table 11, all stations have been re-processed to the end of the record (water year 2018/2019).

**Table 11:** Stations with rating changes and re-processed data in version 9.

Station Number	Station Name	Measuring Authority	Start date of re-processed data
6008	Enrick at Mill of Tore	SEPA-N	Full period of record
7002	Findhorn at Forres	SEPA-N	26/10/2009
7004	Nairn at Firhall	SEPA-N	Full period of record
23009	South Tyne at Alston	EA-NE	27/11/1992
24001	Wear at Sunderland Bridge	EA-NE	05/01/1982
24003	Wear at Stanhope	EA-NE	04/01/1982
27021	Don at Doncaster	EA-Y	28/01/1978
27029	Calder at Elland	EA-Y	19/10/1971
27031	Colne at Colne Bridge	EA-Y	08/02/1966
27040	Doe Lea at Staveley	EA-Y	Full period of record
27055	Rye at Broadway Foot	EA-Y	Full period of record
27071	Swale at Crakehill	EA-Y	Full period of record
27092	Esk at Briggswath	EA-Y	Full period of record
28066	Cole at Coleshill	EA-WM	Full period of record
28081	Tame at Bescot	EA-WM	11/01/2008
30011	Bain at Goulceby Bridge	EA-LN	14/12/1979
41020	Bevern Stream at Clappers Bridge	EA-SSD	03/12/2006
44014	Piddle at Briantspuddle	EA-WX	Full period of record
47022	Tory Brook at Newnham Park	EA-DC	Full period of record
48011	Fowey at Restormel	EA-DC	Full period of record
53018	Avon at Bathford	EA-WX	Full period of record
60001	Tywi at Ty Castell	NRW	03/01/1984
60002	Cothi at Felin Mynachdy	NRW	20/11/2006
69022	Irwell at Irwell Vale	EA-GMMC	14/11/2003
69046	Bradshaw Brook at Bradshaw Tennis Club	EA-GMMC	Full period of record
73010	Leven at Newby Bridge	EA-CL	20/10/1971
73011	Mint at Mint Bridge	EA-CL	Full period of record
75007	Glenderamackin at Threlkeld	EA-CL	Full period of record
75018	Derwent at Seaton Mill	EA-CL	Full period of record

Station Number	Station Name	Measuring Authority	Start date of re-processed data
76004	Lowther at Eamont Bridge	EA-CL	Full period of record
76021	Eden at Great Musgrave Bridge	EA-CL	Full period of record
84001	Kelvin at Killermont	SEPA-S	10/11/2015

## 5.5 Unrepresentative Data Periods

Some periods of data are unsuitable for use in WINFAP because they are unrepresentative of the hydrological behaviour of the catchment. These are shown on the NRFA website by pink shading on the AMAX and POT graphs. The unrepresentative periods occur in two main situations:

1. Where there is a clear change in the catchment during the period of record. The most common example is where a large reservoir has been built and therefore caused a change in the FARL (Flood Attenuation by Reservoirs and Lakes) value.
2. Where data quality has changed significantly during the period of record, the indicative suitability has been based on the better data, providing the length of record is reasonable. In these cases, the years of poorer quality have been rejected.

New unrepresentative periods have been added at 13 stations (Table 12) and removed at 2 stations (Table 13). The end dates for ongoing unrepresentative periods at a further 12 were extended to the end of water year 2018/2019.

**Table 12:** Unrepresentative periods added in version 9.

NRFA Station	Station Name	Measuring Authority	Start Date	End Date	Comments
19005	Almond at Almondell	SEPA-E	01-Oct-1996 09:00:00	30-Sep-2010 08:45:00	Overestimation of peak flows, review pending.
19006	Water of Leith at Murrayfield	SEPA-E	01-Oct-2016 09:00:00	30-Sep-2017 08:45:00	Flood defence construction.
23002	Derwent at Eddys Bridge	EA-NE	01-Oct-1965 09:00:00	01-Oct-2018 08:45:00	Post-reservoir construction.
25008	Tees at Barnard Castle	EA-NE	01-Oct-2012 09:00:00	07-Mar-2014 08:45:00	Weir reconstruction.
27001	Nidd at Hunsingore Weir	EA-Y	01-Oct-1933 09:00:00	01-Oct-1966 08:45:00	Reprocessing of digital data not able to be applied to pre-digital data.
27050	Esk at Sleights	EA-Y	01-Oct-1951 09:00:00	01-Oct-1976 08:45:00	Records pre Feb 1977 are thought to be unreliable.
			01-Oct-1992 09:00:00	07-Jan-1998 08:45:00	Gauge replaced at Briggswath, Slight rejection to prevent duplication of records.
33058	Ouzel at Bletchley	EA-EA	01-Oct-2012 09:00:00	30-Sep-2019 08:45:00	Deviation of gaugings and ratings, pending review of non-modularity limit.
39056	Ravensbourne at Catford Hill	EA-KSL	01-Apr-1986 09:15:00	01-Mar-1987 09:00:00	Ascending oscillations are present and appear suspicious.
42007	Alre at Drove Lane Alresford	EA-SSD	01-Oct-1969 09:00:00	01-Oct-1978 09:00:00	Data for this period are main weir only at a combined site.

NRFA Station	Station Name	Measuring Authority	Start Date	End Date	Comments
52004	Isle at Ashford Mill	EA-WX	05-Dec-1989 09:00:00	04-Dec-1991 08:45:00	High resolution 15 minute data is missing for this time period.
54028	Vyrnwy at Llanymynech	NRW	01-Oct-2014 09.00.00	01-Oct-2019 08.45.00	Calculated flows may be up to 30% higher than actual flows during this period, rating review in progress.
55012	Irfon at Cilmeri	NRW	01-Dec-1989 09.00.00	01-Oct-1995 08.45.00	Erroneous rating, pending rating review.
70003	Douglas at Wigan	EA-CL	01-Nov-2011 09.00.00	30-Sep-2019 08.45.00	Peak flows impacted by Wigan FAS.

**Table 13:** Unrepresentative periods removed in version 9.

NRFA Station	Station Name	Measuring Authority	Start Date	End Date	Comments
58012	Afan at Marcroft Weir	NRW	01-Oct-12 09:00:00	30-Sep-13 00:00:00	Data now infilled from nearby upstream station Cwmafan
60003	Taf at Clog-y-Fran	NRW	01-Oct-12 09:00:00	01-Oct-17 00:00:00	New rating applied

## 5.6 Rejected Data

AMAX and POT data that are unsuitable for use in flood estimation are marked as rejected in the dataset and not included in flood estimation calculations. These are shown by red bars (for AMAX) and red crosses (for POTs) on the AMAX and POT graphs respectively. All data falling within unrepresentative periods (see section 5.5 Unrepresentative Data Periods) are rejected.

In addition, where periods of missing data are likely to have included the true AMAX, any AMAX recorded during that water year is rejected. Where the true AMAX is recorded, the event is not rejected.

Rejected AMAX values have been added at 31 stations (Table 14) and removed at 17 stations (Table 15).

**Table 14:** AMAX data now classed as rejected in version 9.

NRFA Station	Station Name	Measuring Authority	Rejected water year(s)
4006	Bran at Dosmucheran	SEPA-N	2009
9006	Deskford Burn at Cullen	SEPA-N	1996, 1997, 1998, 1999
19006	Water of Leith at Murrayfield	SEPA-E	1961, 1966, 1972
25005	Leven at Leven Bridge	EA-NE	2005
25018	Tees at Middleton in Teesdale	EA-NE	1971, 1981
25029	Leven at Foxton Bridge	EA-NE	2005
27062	Nidd at Skip Bridge	EA-Y	2001
32003	Harpers Brook at Old Mill Bridge	EA-LN	1974, 1979
33019	Thet at Melford Bridge	EA-EA	1969, 1979
33023	Lea Brook at Beck Bridge	EA-EA	1989
33032	Heacham at Heacham	EA-EA	1967
33034	Little Ouse at Abbey Heath	EA-EA	1979
34005	Tud at Costessey Park	EA-EA	1983



NRFA Station	Station Name	Measuring Authority	Rejected water year(s)
39016	Kennet at Theale	EA-T	2012, 2014, 2015, 2018
39036	Law Brook at Albury	EA-T	1967, 1985, 2017
40004	Rother at Udiam	EA-KSL	1969, 1972, 1977, 1991
40010	Eden at Penshurst / Vexour Bridge	EA-KSL	1972, 1978, 1979
40012	Darent at Hawley	EA-KSL	1979
44014	Piddle at Briantspuddle	EA-WX	1992
47011	Plym at Carn Wood	EA-DC	1999
47021	Kensey at Launceston Newport	EA-DC	2001
48012	Fal at Trenowth	EA-DC	1997
51001	Doniford Stream at Swill Bridge	EA-WX	1985, 1978
52003	Halsewater at Halsewater	EA-WX	1976, 1977
52004	Isle at Ashford Mill	EA-WX	1989, 1990
53005	Midford Brook at Midford	EA-WX	1974, 1989
54004	Sowe at Stoneleigh	EA-WM	1952, 1953, 1955, 2018
54044	Tern at Ternhill	EA-WM	1971
54114	Avon at Warwick	EA-WM	1982
56004	Usk at Llandetty	NRW	1985
60003	Taf at Clog-y-Fran	NRW	1976

Table 15: AMAX data no longer classed as rejected in version 9.

NRFA Station	Station Name	Measuring Authority	Water year re-instated
21021	Tweed at Sprouston	SEPA-S	1969
25008	Tees at Barnard Castle	EA-NE	2011
26016	Gypsy Race at Kirby Grindalythe	EA-Y	1999, 2001
27090	Swale at Catterick Bridge	EA-Y	2002
31002	Glen at Kates Br & King St Br	EA-LN	2002
33058	Ouzel at Bletchley	EA-EA	1994
35010	Gipping at Bramford	EA-EA	1982
36009	Brett at Cockfield	EA-EA	1993, 1994, 1995
40004	Rother at Udiam	EA-KSL	1978
67010	Gelyn at Cynefail	NRW	1984
68044	Dane at Hug Bridge	EA-GMMC	1992
69017	Goyt at Marple Bridge	EA-GMMC	1977
70002	Douglas at Wanes Blades Bridge	EA-CL	1995
71010	Pendle Water at Barden Lane	EA-CL	1971
72003	Hindburn at Wray	EA-CL	1990
47021	Kensey at Launceston Newport	EA-DC	2011
56004	Usk at Llandetty	NRW	1979

## 5.7 Datum Changes

A short table is provided on the NRFA website for each station, which details the datum history over the period of record, with dates of applicability. The datum history has been updated at 44 stations listed in Annex 3.

## ANNEX 1 POT EXCLUDED STATIONS

NRFA Station	Station Name	Measuring Authority
26003	Foston Beck at Foston Mill	EA-Y
26009	West Beck at Snakeholme Lock	EA-Y
26010	Driffield Canal at Snakeholme Lock	EA-Y
26013	Driffield Trout Stream at Driffield	EA-Y
26014	Water Forlornes at Driffield	EA-Y
26016	Gypsy Race at Kirby Grindalythe	EA-Y
27073	Brompton Beck at Snainton Ings	EA-Y
28033	Dove at Hollinsclough	EA-WM
29005	Rase at Bishopbridge	EA-LN
30005	Witham at Saltersford Total	EA-LN
30006	Slea at Leasingham Mill	EA-LN
30013	Heighington Beck at Heighington	EA-LN
30015	Cringle Brook at Stoke Rochford	EA-LN
31004	Welland at Tallington Total	EA-LN
33005	Bedford Ouse at Thornborough Mill	EA-EA
33007	Nar at Marham	EA-EA
33012	Kym at Meagre Farm	EA-EA
33032	Heacham at Heacham	EA-EA
33049	Stanford Water at Buckenham Tofts	EA-EA
33052	Swaffham Lode at Swaffham Bulbeck	EA-EA
33054	Babingley at Castle Rising	EA-EA
33057	Ouzel at Leighton Buzzard	EA-EA
34007	Dove at Oakley Park	EA-EA
34008	Ant at Honing Lock	EA-EA
34012	Burn at Burnham Overy	EA-EA
35003	Alde at Farnham	EA-EA
35004	Ore at Beversham Bridge	EA-EA
35010	Gipping at Bramford	EA-EA
36002	Glem at Glemsford	EA-EA
36003	Box at Polstead	EA-EA
36004	Chad Brook at Long Melford	EA-EA
36005	Brett at Hadleigh	EA-EA
36006	Stour at Langham	EA-EA
36007	Belchamp Brook at Bardfield Bridge	EA-EA
36008	Stour at Westmill	EA-EA
36009	Brett at Cockfield	EA-EA
36010	Bumpstead Brook at Broad Green	EA-EA
36011	Stour Brook at Sturmer	EA-EA
36012	Stour at Kedington	EA-EA
36015	Stour at Lamarsh	EA-EA
37003	Ter at Crabbs Bridge	EA-EA
37005	Colne at Lexden	EA-EA
37007	Wid at Writtle	EA-EA
37008	Chelmer at Springfield	EA-EA
37009	Brain at Guithavon Valley	EA-EA

<b>NRFA Station</b>	<b>Station Name</b>	<b>Measuring Authority</b>
37010	Blackwater at Appleford Bridge	EA-EA
37012	Colne at Poolstreet	EA-EA
37013	Sandon Brook at Sandon Bridge	EA-EA
37016	Pant at Copford Hall	EA-EA
37017	Blackwater at Stisted	EA-EA
37031	Crouch at Wickford	EA-EA
37033	Eastwood Brook at Eastwood	EA-EA
38011	Mimram at Fulling Mill	EA-HNL
39010	Colne at Denham	EA-HNL
39020*	Coln at Bibury	EA-T
39021	Cherwell at Enslow Mill	EA-T
39033	Winterbourne Stream at Bagnor	EA-T
39034	Evenlode at Cassington Mill	EA-T
39037	Kennet at Marlborough	EA-T
39089	Gade at Bury Mill	EA-HNL
40033	Dour at Crabble Mill	EA-KSL
41015	Ems at Westbourne	EA-SSD
41023	Lavant at Graylingwell	EA-SSD
42005	Wallop Brook at Broughton	EA-SSD
42006	Meon at Mislingford	EA-SSD
42007	Alre at Drove Lane Alresford	EA-SSD
42008	Cheriton Stream at Swards Bridge	EA-SSD
42009	Candover Stream at Borough Bridge	EA-SSD
42010	Itchen at Highbridge & Allbrook Total	EA-SSD
42012	Anton at Fullerton	EA-SSD
42017	Hermitage Stream at Havant	EA-SSD
43003	Avon at East Mills Total	EA-WX
43004	Bourne at Laverstock	EA-WX
43005	Avon at Amesbury	EA-WX
43008	Wylfe at South Newton	EA-WX
43010	Allen at Loverley Farm	EA-WX
43012	Wylfe at Norton Bavant	EA-WX
43018	Allen at Walford Mill	EA-WX
43028*	Chitterne Brook at Codford	EA-WX
43029*	Wylfe at Brixton Deverill	EA-WX
44002	Piddle at Baggs Mill	EA-WX
44004	Frome at Dorchester Total	EA-WX
44006	Sydling Water at Sydling St Nicholas	EA-WX
44008	South Winterbourne at Winterbourne Steepleton	EA-WX
44009	Wey at Broadway	EA-WX
44013	Piddle at Little Puddle	EA-WX
44014	Piddle at Briantspuddle	EA-WX
54027	Frome at Ebley Mill	EA-WM
55035	Iago at Iago flume	UKCEH
68007	Wincham Brook at Lostock Gralam	EA-GMMC
71003	Croasdale Beck at Croasdale Flume	EA-CL

<b>NRFA Station</b>	<b>Station Name</b>	<b>Measuring Authority</b>
<b>84013</b>	Clyde at Daldowie	SEPA-S
<b>85001</b>	Leven at Linnbrane	SEPA-S
<b>205034</b>	Woodburn at Control	DfIR
<b>206006</b>	Annalong at Recorder	BCDWC

## ANNEX 2 POT INDEPENDENCE CHANGES

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
21035	Till at Heaton Mill	EA-NE	Full period of record	V7
22001	Coquet at Morwick	EA-NE	04/01/1982	V8
22006	Blyth at Hartford Bridge	EA-NE	04/01/1982	V8
22007	Wansbeck at Mitford	EA-NE	04/01/1982	V9
22009	Coquet at Rothbury	EA-NE	04/01/1982	V8
22003	Usway Burn at Shillmoor	EA-NE	Full period of record	V7
23001	Tyne at Bywell	EA-NE	01/12/1992	V6
23001	Tyne at Bywell	EA-NE	04/01/1982	V7
23002	Derwent at Eddys Bridge	EA-NE	28/04/1983	V9
23004	South Tyne at Haydon Bridge	EA-NE	Full period of record	V7
23008	Rede at Rede Bridge	EA-NE	04/01/1982	V7
23009	South Tyne at Alston	EA-NE	27/11/1992	V9
23011	Kielder Burn at Kielder	EA-NE	23/11/1981	V7
23018	Ouse Burn at Woolsington	EA-NE	24/12/1983	V7
23033	Rede at Otterburn	EA-NE	Full period of record	V8
24001	Wear at Sunderland Bridge	EA-NE	05/01/1982	V9
24003	Wear at Stanhope	EA-NE	04/01/1982	V8, V9
24004	Bedburn Beck at Bedburn	EA-NE	04/02/1982	V7, V9
24008	Wear at Witton Park	EA-NE	04/01/1982	V9
25001	Tees at Darlington Broken Scar	EA-NE	03/01/1982	V9
25004	Skerne at Darlington South Park	EA-NE	12/10/2012	V6
25004	Skerne at Darlington South Park	EA-NE	04/01/1982	V8
25005	Leven at Leven Bridge	EA-NE	15/03/1982	V9
25006	Greta at Rutherford Bridge	EA-NE	01/10/2008	V5
25006	Greta at Rutherford Bridge	EA-NE	04/01/1982	V8
25008	Tees at Barnard Castle	EA-NE	25/01/1990	V9
25009	Tees at Low Moor	EA-NE	03/01/1982	V9
25011	Langdon Beck at Langdon	EA-NE	25/09/2001	V8
25012	Harwood Beck at Harwood	EA-NE	03/01/1982	V8
25018	Tees at Middleton in Teesdale	EA-NE	06/10/1982	V9
25019	Leven at Easby	EA-NE	04/01/1982	V7
25029	Leven at Foxton Bridge	EA-NE	Full period of record	V9
26016	Gypsy Race at Kirby Grindalythe	EA-Y	01/10/2013	V7
27001	Nidd at Hunsingore Weir	EA-Y	18/12/1966	V9
27002	Wharfe at Wetherby Flint Mill	EA-Y		V9
27003	Aire at Beal Weir	EA-Y	14/09/1993	V5
27003	Aire at Beal Weir	EA-Y	Full period of record	V8
27006	Don at Hadfields Weir	EA-Y	15/07/1968	V7
27007	Ure at Westwick Lock	EA-Y	07/01/1971	V8
27008	Swale at Leckby Grange	EA-Y	03/11/1968	V7
27022	Don at Rotherham Weir	EA-Y	09/11/2005	V7
27023	Dearne at Barnsley Weir	EA-Y	24/03/1965	V5

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
27024	Swale at Richmond	EA-Y	14/08/1966	V8
27028	Aire at Armley	EA-Y	28/12/1978	V6
27028	Aire at Armley	EA-Y	Full period of record	V7
27029	Calder at Elland	EA-Y	19/10/1971	V8, V9
27030	Dearne at Adwick	EA-Y	11/02/1977	V6
27031	Colne at Colne Bridge	EA-Y	08/02/1966	V9
27033	Sea Cut at Scarborough	EA-Y	22/12/1969	V8
27034	Ure at Kilgram Bridge	EA-Y	14/08/1971	V8
27035	Aire at Kildwick Bridge	EA-Y	09/07/1971	V5
27040	Doe Lea at Staveley	EA-Y	Full period of record	V9
27041	Derwent at Buttercrambe	EA-Y	Full period of record	V7
27043	Wharfe at Addingham	EA-Y	Full period of record	V9
27050	Esk at Sleights	EA-Y	03/05/1977	V9
27051	Crimple at Burn Bridge	EA-Y	Full period of record	V9
27052	Whitting at Sheepbridge	EA-Y	Full period of record	V9
27053	Nidd at Birstwith	EA-Y	Full period of record	V7
27055	Rye at Broadway Foot	EA-Y	Full period of record	V7, V9
27059	Laver at Ripon	EA-Y	Full period of record	V7
27062	Nidd at Skip Bridge	EA-Y	Full period of record	V9
27065	Holme at Queens Mill	EA-Y	Full period of record	V7
27071	Swale at Crakehill	EA-Y	Full period of record	V7, V9
27080	Aire at Lemonroyd	EA-Y	20/12/1996	V6
27080	Aire at Oulton Lemonroyd	EA-Y	Full period of record	V7
27081	Oulton Beck at Oulton Farrer Lane	EA-Y	Full period of record	V9
27083	Foss at Huntington	EA-Y	01/10/2013	V7
27083	Foss at Huntington	EA-Y	Full period of record	V8
27086	Skell at Alma Weir	EA-Y	22/11/2012	V5
27086	Skell at Alma Weir	EA-Y	Full period of record	V6, V7
27088	Calder at Mytholmroyd	EA-Y	Full period of record	V6, V7
27089	Wharfe at Tadcaster	EA-Y	Full period of record	V8
27090	Swale at Catterick Bridge	EA-Y	Full period of record	V9
27092	Esk at Briggswath	EA-Y	Full period of record	V8, V9
27094	Wiske at Romanby Viewly Bridge	EA-Y	Full period of record	V7
27095	Pickering Beck at Pickering	EA-Y	Full period of record	V7
27096	Wharfe at Netherside Hall	EA-Y	Full period of record	V7
27097	Aire at Bingley	EA-Y	Full period of record	V8
27098	Calder at Dewsbury	EA-Y	Full period of record	V7, V8, V9
27099	Derwent at Malton A64 Road Bridge	EA-Y	Full period of record	V8
28003	Tame at Water Orton	EA-WM	01/11/1993	V7, V8
28008	Dove at Rocester Weir	EA-WM	25/11/2011	V5
28009	Trent at Colwick	EA-EM	24/01/1971	V9
28012	Trent at Yoxall	EA-WM	01/10/2010	V5
28015	Idle at Mattersey	EA-EM	Full period of record	V9
28018	Dove at Marston on Dove	EA-WM	07/11/2000	V5

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
28018	Dove at Marston on Dove	EA-WM	28/11/1974	V8
28019	Trent at Drakelow Park	EA-WM	27/08/1996	V7
28024	Wreake at Syston Mill	EA-WM	30/11/2009	V5
28026	Anker at Polesworth	EA-WM	Full period of record	V7
28033	Dove at Hollinsclough	EA-WM	05/12/1972	V5
28039	Rae at Calthorpe Park	EA-WM	Period of record	V7, V8
28040	Trent at Stoke-On-Trent	EA-WM	01/10/2013	V7
28040	Trent at Stoke-On-Trent	EA-WM	Full period of record	V8
28041	Hamps at Waterhouses	EA-WM	01/10/2000	V7
28041	Hamps at Waterhouses	EA-WM	18/02/2000	V8
28046	Dove at Izaak Walton	EA-EM	02/01/1988	V8
28047	Oldcotes Dyke at Blyth	EA-EM	Full period of record	V7
28048	Amber at Wingfield Park	EA-EM	Full period of record	V9
28049	Ryton at Worksop	EA-EM	Full period of record	V7
28052	Sow at Great Bridgford	EA-WM	01/10/2013	V7
28053	Penk at Penkridge	EA-WM	01/01/2012	V5
28053	Penk at Penkridge	EA-WM	Full period of record	V7
28055	Ecclesbourne at Duffield	EA-EM	Full period of record	V8
28056	Rothley Brook at Rothley	EA-EM	Full period of record	V7
28058	Henmore Brook at Ashbourne	EA-WM	29/10/2000	V8
28060	Dover Beck at Lowdham	EA-EM	Full period of record	V8
28061	Churnet at Basford Bridge	EA-WM	06/11/2000	V5
28061	Churnet at Basford Bridge	EA-WM	Full period of record	V6
28066	Cole at Coleshill	EA-WM	Full period of record	V7, V9
28080	Tame at Lea Marston Lakes	EA-WM	Full period of record	V7
28080	Tame at Lea Marston Lakes	EA-WM	01/01/2001	V8
28081	Tame at Bescot	EA-WM	Full period of record	V6, V8
28083	Trent at Darlaston	EA-WM	Full period of record	V6, V8
28091	Ryton at Blyth	EA-EM	Full period of record	V7
28095	Tame at Hopwas Bridge	EA-WM	01/01/1998	V5
28095	Tame at Hopwas Bridge	EA-WM	Full period of record	V7
28115	Maun at Mansfield the Dykes	EA-EM	Full period of record	V7, V8
29001	Waithe Beck at Brigsley	EA-LN	27/08/1986	V7
29002	Great Eau at Claythorpe Mill	EA-LN	14/12/1979	V7
29003	Lud at Louth	EA-LN	14/12/1979	V8
29004	Ancholme at Bishopbridge	EA-LN	14/12/1979	V8
29009	Ancholme at Toft Newton	EA-LN	14/12/1979	V8
30001	Witham at Claypole Mill	EA-LN	11/12/1979	V7
30003	Bain at Fulsby Lock	EA-LN	14/12/1979	V8
30004	Lymn at Partney Mill	EA-LN	15/12/1979	V7
30011	Bain at Goulceby Bridge	EA-LN	14/12/1979	V9
30014	Pointon Lode at Pointon	EA-LN	21/11/2012	V6
30014	Pointon Lode at Pointon	EA-LN	14/12/1979	V8
31010	Chater at Fosters Bridge	EA-LN	27/04/1981	V9
31025	Gwash South Arm at Manton	EA-LN	Full period of record	V7
32002	Willow Brook at Fotheringhay	EA-LN	30/12/1981	V7

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
32003	Harpers Brook at Old Mill Bridge	EA-LN	10/03/1981	V9
32008	Nene/Kislingbury at Dodford	EA-LN	10/12/1979	V9
32010	Nene at Wansford	EA-LN	01/01/1998	V7
33012	Kym at Meagre Farm	EA-EA	01/10/2013	V7
33014	Lark at Temple	EA-EA	09/02/1980	V7
33015	Ouzel at Willen	EA-EA	Full period of record	V9
33018	Tove at Cappenham Bridge	EA-EA	28/12/1979	V7
33019	Thet at Melford Bridge	EA-EA	05/02/1979	V9
33021	Rhee at Burnt Mill	EA-EA	11/12/1979	V7
33023	Lea Brook at Beck Bridge	EA-EA	Full period of record	V9
33024	Cam at Dernford	EA-EA	22/01/1985	V7
33028	Flit at Shefford	EA-EA	15/12/1979	V8
33029	Stringside at Whitebridge	EA-EA	26/11/2012	V6
33029	Stringside at Whitebridge	EA-EA	28/12/1979	V7, V8
33030	Clipstone Brook at Clipstone	EA-EA	01/10/2012	V5
33034	Little Ouse at Abbey Heath	EA-EA	21/12/1980	V9
33037	Bedford Ouse at Newport Pagnell Total	EA-EA	29/12/1979	V8
33039	Bedford Ouse at Roxton	EA-EA	17/12/1979	V7, V8
33044	Thet at Bridgham	EA-EA	01/10/2013	V7
33045	Wittle at Quidenham	EA-EA	14/12/1979	V7
33051	Cam at Chesterford	EA-EA	29/12/1979	V7
33057	Ouzel at Leighton Buzzard	EA-EA	Full period of record	V8
33058	Ouzel at Bletchley	EA-EA	Full period of record	V9
33063	Little Ouse at Knettishall	EA-EA	Full period of record	V9
34003	Bure at Ingworth	EA-EA	03/02/1971	V7
34012	Burn at Burnham Overy	EA-EA	14/12/1979	V9
35008	Gipping at Stowmarket	EA-EA	25/05/1981	V7
37014	Roding at High Ongar	EA-HNL	21/10/2012	V6
38003	Mimram at Panshanger Park	EA-HNL	27/05/1982	V8
38007	Canons Brook at Elizabeth Way	EA-HNL	19/07/1987	V8
38018	Upper Lee at Water Hall	EA-HNL	07/04/1987	V8
38022	Pymmes Brook at Edmonton Silver Street	EA-HNL	27/02/1987	V8
39001	Thames at Kingston	EA-T	05/11/2012	V6
39003	Wandle at South Wimbledon	EA-KSL	09/10/1987	V8
39012	Hogsmill at Kingston-upon-Thames	EA-KSL	Full period of record	V9
39014	Ver at Hansteads	EA-HNL	16/03/1989	V8
39007	Blackwater at Swallowfield	EA-T	01/10/2013	V7
39026	Cherwell at Banbury	EA-T	01/01/1987	V9
39035	Churn at Cerney Wick	EA-T	01/01/2013	V5
39036	Law Brook at Albury	EA-T	07/10/1987	V9
39052	The Cut at Binfield	EA-T	Full period of record	V9
39056	Ravensbourne at Catford Hill	EA-KSL	04/06/1987	V8
39056	Ravensbourne at Catford Hill	EA-KSL	26/05/1985	V9



Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
39081	Ock at Abingdon	EA-T	16/12/1986	V9
39134	Ravensbourne East at Bromley South	EA-KSL	Full period of record	V8
40004	Rother at Udiam	EA-KSL	26/09/1968	V9
40005	Beult at Stilebridge	EA-KSL	24/01/1970	V8
40007	Medway at Chafford / Colliersland Bridge	EA-KSL	01/10/2013	V7
40010	Eden at Penshurst / Vexour Bridge	EA-KSL	01/10/2013	V7
40010	Eden at Penshurst / Vexour Bridge	EA-KSL	12/05/1968	V9
40011	Great Stour at Horton	EA-KSL	01/10/2013	V7
40012	Darent at Hawley	EA-KSL	26/11/1992	V6, V8, V9
40013	Darent at Otford	EA-KSL	Full period of record	V8
40016	Cray at Crayford	EA-KSL	01/10/2013	V7
40017	Dudwell at Burwash	EA-KSL	Full period of record	V8
40018	Darent at Lullingstone	EA-KSL	30/03/2010	V6
41016	Cuckmere at Cowbeeck	EA-SSD	05/01/1982	V8
41020	Bevern Stream at Clappers Bridge	EA-SSD	03/12/2006	V9
41022	Lod at Halfway Bridge	EA-SSD	07/03/1991	V7
42001	Wallington at North Fareham	EA-SSD	14/10/1982	V7
42003	Lymington at Brockenhurst	EA-SSD	Full period of record	V7
42014	Blackwater at Ower	EA-SSD	Full period of record	V9
43006	Nadder at Wilton	EA-WX	09/03/1991	V9
43007	Stour at Throop	EA-WX	28/03/1987	V8
43009	Stour at Hamoon	EA-WX	06/01/1988	V8
43014	East Avon at Upavon	EA-WX	04/04/1987	V9
43017	West Avon at Upavon	EA-WX	05/04/1987	V9
43019	Shreen Water at Colesbrook	EA-WX	Full period of record	V7
43028	Chitterne Brook at Codford	EA-WX	Full period of record	V9
43029	Wylfe at Brixton Deverill	EA-WX	Full period of record	V5
44011	Asker at East Bridge Bridport	EA-WX	01/10/2013	V7
44011	Asker at East Bridge Bridport	EA-WX	Full period of record	V8
44014	Piddle at Briantspuddle	EA-WX	Full period of record	V9
44015	Hooke at Hooke	EA-WX	Full period of record	V7, V8
45001	Exe at Thorverton	EA-DC	01/12/2003	V7
45001	Exe at Thorverton	EA-DC	Full period of record	V8
45002	Exe at Stoodleigh	EA-DC	Full period of record	V8
45003	Culm at Woodmill	EA-DC	Full period of record	V6
45004	Axe at Whitford	EA-DC	Full period of record	V5, V8
45005	Otter at Dotton	EA-DC	Full period of record	V9
45007	Exe at Trews Weir	EA-DC	Full period of record	V7
45008	Otter at Fenny Bridges	EA-DC	Full period of record	V8
45009	Exe at Pixton	EA-DC	Full period of record	V7
45012	Creedy at Cowley	EA-DC	Full period of record	V7
46003	Dart at Austin's Bridge	EA-DC	Full period of record	V9

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
46006	Erme at Ermington	EA-DC	Full period of record	V9
46008	Avon at Loddiswell	EA-DC	Full period of record	V9
46007	West Dart at Dunnabridge	EA-DC	Full period of record	V6, V8
46013	Bovey at Bovey Parke	EA-DC	Full period of record	V7
46014	Teign at Chudleigh	EA-DC	Full period of record	V7
47001	Tamar at Gunnislake	EA-DC	Full period of record	V8
47005	Ottery at Werrington Park	EA-DC	24/12/1978	V8
47006	Lyd at Lifton Park	EA-DC	28/11/1975	V9
47007	Yealm at Puslinch	EA-DC	21/01/1970	V7
47009	Tiddy at Tideford	EA-DC	25/09/1976	V7
47010	Tamar at Crowford Bridge	EA-DC	Full period of record	V9
47011	Plym at Carn Wood	EA-DC	Full period of record	V9
47013	Withey Brook at Bastreet	EA-DC	Full period of record	V9
47014	Walkham at Horrabridge	EA-DC	Full period of record	V8
47015	Tavy at Ludbrook	EA-DC	01/10/1994	V7
47020	Inny at Bealsmill	EA-DC	Full period of record	V7
47022	Tory Brook at Newnham Park	EA-DC	Full period of record	V9
47023	Tamar at Tamarstone Bridge	EA-DC	Full period of record	V7
47024	Tavy at Tavistock Abbey Bridge	EA-DC	Full period of record	V5, V8
48001	Fowey at Trekeivesteps	EA-DC	Full period of record	V9
48003	Fal at Tregony	EA-DC	Full period of record	V8
48006	Cober at Helston Country Bridge	EA-DC	01/10/2012	V5
48009	St Neot at Craigshill Wood	EA-DC	Full period of record	V9
48011	Fowey at Restormel	EA-DC	Full period of record	V7, V9
48012	Fal at Trenowth	EA-DC	Full period of record	V9
49001	Camel at Denby	EA-DC	Full period of record	V7
49002	Hayle at St Erth	EA-DC	Full period of record	V7
49006	Camel at Camelford	EA-DC	Full period of record	V7, V8
50005	West Okement at Vellake	EA-DC	01/10/2012	V5
50010	Torridge at Rockhay Bridge	EA-DC	01/10/2012	V5
50011	Okement at Jacobstowe	EA-DC	Full period of record	V9
51001	Doniford Stream at Swill Bridge	EA-WX	Full period of record	V9
51002	Horner Water at West Luccombe	EA-WX	Full period of record	V7
51003	Washford at Beggearn Huish	EA-WX	01/11/1982	V6
51003	Washford at Beggearn Huish	EA-WX	Full period of record	V8
52003	Halsewater at Halsewater	EA-WX	30/11/1992	V9
52004	Isle at Ashford Mill	EA-WX	07/03/1972	V5
52005	Tone at Bishops Hull	EA-WX	11/07/1968	V9
52006	Yeo at Pen Mill	EA-WX	Full period of record	V8
52010	Brue at Lovington	EA-WX	Full period of record	V8
52014	Tone at Greenham	EA-WX	09/02/1974	V8
52017	Congresbury Yeo at Iwood	EA-WX	Full period of record	V7
53002	Semington Brook at Semington	EA-WX	Full period of record	V7
53004	Chew at Compton Dando	EA-WX	Full period of record	V8
53005	Midford Brook at Midford	EA-WX	Full period of record	V9

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
53006	Frome (Bristol) at Frenchay	EA-WX	20/12/1983	V8
53007	Frome (Somerset) at Tellisford	EA-WX	03/08/1965	V9
53008	Avon at Great Somerford	EA-WX	Full period of record	V7
53013	Marden at Stanley	EA-WX	Full period of record	V6, V8
53017	Boyd at Bitton	EA-WX	09/10/1988	V9
53018	Avon at Bathford	EA-WX	Full period of record	V7, V9
53023	Sherston Avon at Fosseyway	EA-WX	Full period of record	V6, V8
53028	By Brook at Middlehill	EA-WX	Full period of record	V9
53029	Biss at Trowbridge	EA-WX	Full period of record	V7, V9
54001	Severn at Bewdley	EA-WM	07/01/1983	V9
54002	Avon at Evesham	EA-WM	06/01/1995	V8
54004	Sowe at Stoneleigh	EA-WM	Full period of record	V9
54005	Severn at Montford	EA-WM	24/01/1971	V7
54007	Arrow at Broom	EA-WM	Full period of record	V9
54012	Tern at Walcot	EA-WM	03/12/1972	V8
54014	Severn at Abermule	NRW	22/02/1970	V8
54016	Roden at Rodington	EA-WM	Full period of record	V7
54018	Rea Brook at Hookagate	EA-WM	14/12/1978	V9
54019	Avon at Stareton	EA-WM	Full period of record	V9
54020	Perry at Yeaton	EA-WM	Full period of record	V7
54028	Vyrnwy at Llanymynech	NRW	13/12/2011	V6
54028	Vyrnwy at Llanymynech	NRW	Full period of record	V8
54029	Teme at Knightsford Bridge	EA-WM	Full period of record	V7
54034	Dowles Brook at Oak Cottage	EA-WM	Full period of record	V9
54036	Isbourne at Hinton on the Green	EA-WM	Full period of record	V8
54040	Meese at Tibberton	EA-WM	Full period of record	V8
54041	Tern at Eaton upon Tern	EA-WM	28/01/1977	V8
54044	Tern at Ternhill	EA-WM	Full period of record	V9
54052	Bailey Brook at Ternhill	EA-WM	Full period of record	V9
54057	Severn at Haw Bridge	EA-WM		
54080	Severn at Dolwen	NRW	22/11/2011	V6
54080	Severn at Dolwen	NRW	Full period of record	V8
54106	Stour (Warks) at Shipston	EA-WM	Full period of record	V9
54114	Avon at Warwick	EA-WM	15/06/2007	V8
54114	Avon at Warwick	EA-WM	Full period of record	V9
55007	Wye at Erwood	NRW	11/03/1981	V8
55012	Irfon at Cilmerly	NRW	12/12/1978	V8
55016	Irfon at Disserth	NRW	02/01/1988	V8
55021	Lugg at Butts Bridge	EA-WM	24/11/1984	V7
55023	Wye at Redbrook	NRW	13/03/1981	V9
55025	Llynfi at Three Cocks	NRW	11/03/1981	V9
55026	Wye at Ddol Farm	NRW	22/12/1985	V8
55029	Monnow at Grosmont	NRW	29/04/2012	V6
55029	Monnow at Grosmont	NRW	01/10/2009	V7
55032	Elan at Caban Dam	NRW	Full period of record	V9
56004	Usk at Llandetty	NRW	14/11/2009	V8

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
56006	Usk at Trallong	NRW	Full period of record	V9
56012	Grwyne at Millbrook	NRW	03/01/1982	V9
56013	Yscir at Pont-Ar-Yscir	NRW	05/01/1985	V9
57004	Cynon at Abercynon	NRW	13/02/1982	V7
57005	Taff at Pontypridd	NRW	12/11/1992	V7
57006	Rhondda at Trehafod	NRW	15/10/1983	V7
57008	Rhymney at Llanederyn	NRW	10/03/1982	V7
57009	Ely at St Fagans	NRW	Full period of record	V8
57010	Ely at Lanelay	NRW	10/03/1982	V8
57014	Rhymney at Bargoed	NRW	Full period of record	V7
57017	Rhondda Fawr at Tynewydd	NRW	Full period of record	V7
58006	Mellte at Pontneddfechan	NRW	15/03/1982	V9
58007	Llynfi at Coytrahen	NRW	06/03/1982	V7
58009	Ewenny at Keepers Lodge	NRW	22/12/1995	V8
58012	Afan at Marcroft Weir	NRW	Full period of record	V9
59001	Tawe at Ynystanglws	NRW	14/10/2002	V8
59002	Loughor at Tir-y-dail	NRW	06/03/1982	V9
60001	Twyi at Ty Castell	NRW	03/01/1982	V6, V7, V9
60002	Cothi at Felin Mynachdy	NRW	12/02/1982	V7
60003	Taf at Clog-y-Fran	NRW	06/03/1982	V9
60006	Gwili at Glangwili	NRW	03/01/1982	V8
60007	Tywi at Dolau Hirion	NRW	12/02/1982	V7
60009	Sawdde at Felin-y-cwm	NRW	29/12/2012	V6
60009	Sawdde at Felin-y-cwm	NRW	23/08/1985	V7
60012	Twrch at Ddol Las	NRW	12/02/1982	V7
60017	Twrch at Gurnos	NRW	Full period of record	V9
61002	Eastern Cleddau at Canaston Bridge	NRW	10/03/1982	V8
61003	Gwaun at Cilrhedyn Bridge	NRW	24/10/2011	V6
62001	Teifi at Glanteifi	NRW	13/02/1982	V9
62002	Teifi at Llanfair	NRW	08/11/2002	V8
63001	Ystwyth at Pont Llolwyn	NRW	29/10/1989	V8
63003	Wyre at Llanrystud	NRW	01/10/1999	V7
63003	Wyre at Llanrystud	NRW	Full period of record	V8
64001	Dyfi at Dyfi Bridge	NRW	18/11/2009	V6
64001	Dyfi at Dyfi Bridge	NRW	11/01/1990	V8
64002	Dysynni at Pont-y-Garth	NRW	03/03/1998	V6, V7
64006	Leri at Dolybont	NRW	24/09/1982	V8
64011	Cerist at Llaw'r Cae	NRW	Full period of record	V7
65004	Gwyrfaai at Bontnewydd	NRW	20/07/2010	V6
65004	Gwyrfaai at Bontnewydd	NRW	04/01/1982	V7
65005	Erch at Pencaenewydd	NRW	10/03/1982	V7
65006	Seiont at Peblig Mill	NRW	01/10/2013	V7
65007	Dwyfor at Garndolbenmaen	NRW	10/03/1982	V8
66004	Wheeler at Bodfari	NRW	27/01/1977	V8
67005	Ceiriog at Brynkinalt Weir	NRW	24/01/1971	V7
67006	Alwen at Druid	NRW	19/02/1970	V8

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
67008	Alyn at Pont-y-Capel	NRW	22/01/1970	V7
67009	Alyn at Rhydymwyn	NRW	05/02/1980	V7
67010	Gelyn at Cynefail	NRW	Full period of record	V9
68001	Weaver at Ashbrook	EA-GMMC	05/12/1979	V7
68003	Dane at Rudheath	EA-GMMC	03/02/1977	V6
68003	Dane at Rudheath	EA-GMMC	02/01/1976	V7
68005	Weaver at Audlem	EA-GMMC	22/03/1976	V7
68018	Dane at Congleton Park	EA-GMMC	01/10/2012	V6
68018	Dane at Congleton Park	EA-GMMC	05/12/1979	V7
68020	Gowy at Bridge Trafford	EA-GMMC	Full period of record	V7
68044	Dane at Hug Bridge	EA-GMMC	18/01/2007	V6
68044	Dane at Hug Bridge	EA-GMMC	Full period of record	V9
69005	Glaze Brook at Little Woollen Hall	EA-GMMC	Full period of record	V7
69007	Mersey at Ashton Weir	EA-GMMC	25/09/1976	V7
69008	Dean at Stanneylands	EA-GMMC	02/01/1976	V9
69012	Bollin at Wilmslow	EA-GMMC	02/01/1976	V9
69015	Etherow at Compstall	EA-GMMC	19/10/1971	V9
69017	Goyt at Marple Bridge	EA-GMMC	01/01/1976	V6
69017	Goyt at Marple Bridge	EA-GMMC	02/01/1976	V9
69020	Medlock at London Road	EA-GMMC	01/11/1992	V7
69022	Irwell at Irwell Vale	EA-GMMC	Full period of record	V6, V8
69024	Croal at Farnworth Weir	EA-GMMC	15/03/1978	V6, V8
69025	Irwell at Manchester Racecourse	EA-GMMC	Full period of record	V9
69028	Mersey at Brinksway	EA-GMMC	11/02/1974	V7, V8
69032	Alt at Kirkby	EA-CL	28/12/1978	V7
69041	Tame at Broomstairs	EA-GMMC	03/09/1974	V6, V8
69044	Irwell at Bury Ground	EA-GMMC	06/11/1996	V8
69046	Bradshaw Brook at Bradshaw Tennis Club	EA-GMMC	Full period of record	V9
69047	Roch at Littleborough	EA-GMMC	Full period of record	V6, V8
70002	Douglas at Wanes Blades Bridge	EA-CL	Full period of record	V9
70003	Douglas at Wigan	EA-CL	03/12/1999	V8
70004	Yarrow at Croston Mill	EA-CL	01/10/2013	V5
70004	Yarrow at Croston Mill	EA-CL	Full period of record	V6, V8
70004	Yarrow at Croston Mill	EA-CL	Full period of record	V9
71001	Ribble at Samlesbury	EA-CL	02/01/1976	V8
71004	Calder at Whalley Weir	EA-CL	01/01/1976	V7
71004	Calder at Whalley Weir	EA-CL	02/01/1976	V8
71006	Ribble at Henthorn	EA-CL	02/01/1976	V8
71008	Hodder at Hodder Place	EA-CL	02/01/1976	V9
71010	Pendle Water at Barden Lane	EA-CL	22/04/1977	V9
71011	Ribble at Arnford	EA-CL	Full period of record	V7
71013	Darwen at Ewood	EA-CL	Full period of record	V7
72003	Hindburn at Wray	EA-CL	23/11/1977	V6

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
72003	Hindburn at Wray	EA-CL	01/10/1976	V7, V9
72004	Lune at Caton	EA-CL	07/01/1979	V8
72005	Lune at Killington	EA-CL	01/10/1981	V8
72009	Wenning at Wennington	EA-CL	14/06/1977	V9
72014	Conder at Galgate	EA-CL	06/04/1978	V6
72014	Conder at Galgate	EA-CL	29/11/1976	V7
72015	Lune at Lunes Bridge	EA-CL	01/10/1981	V8
72017	Wenning at Hornby	EA-CL	05/05/1997	V9
73008	Bela at Beetham	EA-CL	15/11/1978	V8
73009	Sprint at Sprint Mill	EA-CL	02/01/1976	V7
73010	Leven at Newby Bridge	EA-CL	29/11/1976	V8
73010	Leven at Newby Bridge	EA-CL	20/10/1971	V9
73011	Mint at Mint Bridge	EA-CL	Full period of record	V9
73014	Brathay at Jeffy Knots	EA-CL	Full period of record	V7, V8, V9
73015	Keer at High Keer Weir	EA-CL	01/01/1991	V6
74001	Duddon at Duddon Hall	EA-CL	03/02/1977	V9
74003	Ehen at Bleach Green	EA-CL	26/11/1976	V9
74005	Ehen at Braystones	EA-CL	19/10/1982	V8
74006	Calder at Calder Hall	EA-CL	17/11/1978	V8
74007	Esk at Cropple How	EA-CL	03/02/1977	V9
75004	Cocker at Southwaite Bridge	EA-CL	27/11/1976	V8
75005	Derwent at Portinscale	EA-CL	01/10/2011	V5
75007	Glenderamackin at Threlkeld	EA-CL	Full period of record	V9
75009	Greta at Low Briery	EA-CL	02/01/1976	V7
75018	Derwent at Seaton Mill	EA-CL	Full period of record	V8, V9
76004	Lowther at Eamont Bridge	EA-CL	Full period of record	V9
76007	Eden at Sheepmount	EA-CL	Full period of record	V8
76014	Eden at Kirkby Stephen	EA-CL	02/02/1981	V8
76015	Eamont at Pooley Bridge	EA-CL	Full period of record	V7
76017	Eden at Kirkby Stephen	EA-CL	Full period of record	V8
76021	Eden at Great Musgrave Bridge	EA-CL	Full period of record	V8, V9
76022	Caldew at Cummersdale	EA-CL	Full period of record	V9
76023	Dacre Beck at Dacre Bridge	EA-CL	Full period of record	V9

## ANNEX 3 STATIONS WITH CHANGES TO DATUM HISTORY

NRFA Station	Station Name	Measuring Authority
7003	Lossie at Sheriffmills	SEPA-N
9006	Deskford Burn at Cullen	SEPA-N
19001	Almond at Craigiehall	SEPA-E
21021	Tweed at Sprouston	SEPA-S
22007	Wansbeck at Mitford	EA-NE
23002	Derwent at Eddys Bridge	EA-NE
25005	Leven at Leven Bridge	EA-NE
25008	Tees at Barnard Castle	EA-NE
25018	Tees at Middleton in Teesdale	EA-NE
25029	Leven at Foxton Bridge	EA-NE
27043	Wharfe at Addingham	EA-Y
27050	Esk at Sleights	EA-Y
27081	Oulton Beck at Oulton Farrer Lane	EA-Y
34005	Tud at Costessey Park	EA-EA
34012	Burn at Burnham Overy	EA-EA
35010	Gipping at Bramford	EA-EA
36003	Box at Polstead	EA-EA
36006	Stour at Langham	EA-EA
36009	Brett at Cockfield	EA-EA
36010	Bumpstead Brook at Broad Green	EA-EA
37003	Ter at Crabbs Bridge	EA-EA
39056	Ravensbourne at Catford Hill	EA-KSL
40004	Rother at Udiam	EA-KSL
40010	Eden at Penshurst / Vexour Bridge	EA-KSL
42009	Candover Stream at Borough Bridge	EA-SSD
43006	Nadder at Wilton	EA-WX
43029	Wylfe at Brixton Deverill	EA-WX
43810	Avon at East Mills Flume	EA-WX
43811	Avon at East Mills Weir	EA-WX
44012	Piddle at South House	EA-WX
46008	Avon at Loddiswell	EA-DC
47011	Plym at Carn Wood	EA-DC
48003	Fal at Tregony	EA-DC
48012	Fal at Trenowth	EA-DC
53005	Midford Brook at Midford	EA-WX
60017	Twrch at Gurnos	NRW
71008	Hodder at Hodder Place	EA-CL
72009	Wenning at Wennington	EA-CL
72017	Wenning at Hornby	EA-CL
73010	Leven at Newby Bridge	EA-CL
73014	Brathay at Jeffy Knotts	EA-CL

<b>NRFA Station</b>	<b>Station Name</b>	<b>Measuring Authority</b>
<b>84004</b>	Clyde at Sills of Clyde	SEPA-S
<b>105001</b>	Snizort at Skeabost	SEPA-N
<b>106002</b>	Laxdale at Laxdale	SEPA-N