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NRFA PEAK FLOW DATASET VERSION 12

Note on changes from v11.1

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1 INTRODUCTION

Version 12 of the NRFA Peak Flows Dataset contains AMAX and POT data for 917 gauging stations, of which 617 are in England, 168 are in Scotland, 94 are in Wales and 38 are in Northern Ireland. A total of 545 stations are recommended for use in pooling groups ('Suitable for Pooling'), 349 stations are 'Suitable for QMED' and 23 stations are 'Suitable for Neither'.

Version 12 contains:

- Network changes (see Section 2)
- An additional water year of data (updated to 30th September 2022) for all active peak flow stations in the UK (see section 3)
- Full period of record Data Review for a subset of stations in the dataset (89 stations, see section 4)
- Modifications to existing time series (see section 5).

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 11. Key changes are noted in this section.

2.1 Removal of Gauging Stations

26 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 12.

Station Number	Station Name	Measuring Authority	NRFA daily flow station	Comment
21034	Yarrow Water at Craig Douglas	SEPA-SE	YES	No confidence in flood estimation from flume equation and no flood gaugings.
23012	East Allen at Wide Eals	EA-NE	YES	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
28017	Devon at Cotham	EA-EM	YES	FEH Neither with no prospect of upgrade to QMED as it is a historical station. Not suitable for merging with replacement station due to large gap and distance between sites.
28038	Manifold at Hulme End	EA-WM	YES	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
28047	Oldcotes Dyke at Blyth	EA-EM	YES	FEH Neither with no prospect of update - needs significantly more gaugings at high flows in the non-modular range to instigate a rating review. But as the site is primarily installed for water resources this is not a priority.
28052	Sow at Great Bridgeford	EA-WM	YES	FEH Neither with no prospect of upgrade to QMED due to considerable scatter in gaugings below QMED.
28066	Cole at Coleshill	EA-WM	YES	FEH Neither with no prospect of upgrade to QMED due to considerable scatter in gaugings below QMED.
30017	Witham at Colsterworth	EA-LN	YES	FEH Neither with no prospect of upgrade to QMED. Flows are truncated around QMED so not suitable for Flood Estimation.
33009	Bedford Ouse at Harrold Mill	EA-EA	YES	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
33017	Bedford Ouse at St Ives	EA-EA	NO	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
33024	Cam at Dernford	EA-EA	YES	FEH Neither with no prospect of upgrade to QMED. Poor hydrometrically across range of peak flows with little prospect for improvement.
33033	Hiz at Arlesey	EA-EA	YES	FEH Neither with no prospect of upgrade to QMED. All peak flows are in the non-modular range with no correction.

Station Number	Station Name	Measuring Authority	NRFA daily flow station	Comment
33037	Bedford Ouse at Newport Pagnell Total	EA-EA	YES	FEH Neither with no prospect of upgrade to QMED. Poor hydrometrically across range of peak flows with little prospect for improvement.
33057	Ouzel at Leighton Buzzard	EA-EA	YES	FEH Neither with no prospect of upgrade to QMED. All peak flows are in the non-modular range with no correction.
35011	Belstead Brook at Belstead	EA-EA	NO	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
38026	Pincey Brook at Sheering Hall	EA-HNL	YES	QMED is in the non-modular range and not accounted for in the rating.
39015	Whitewater at Lodge Farm	EA-T	YES	FEH Neither with no prospect of upgrade to QMED and a historical station.
39038	Thame at Shabbington	EA-T	YES	FEH Neither with no prospect of upgrade to QMED as it is a historical station.
39044	Hart at Bramshill House	EA-T	YES	FEH Neither with no prospect of upgrade to QMED. Hydrometric issues, non-modular throughout AMAX range with unreliable non-modular correction.
39057	Crane at Cranford Park	EA-HNL	YES	FEH Neither with no prospect of upgrade to QMED. Major rating issues, which could be resolved but unclear. Potential to add back into the dataset in the future following further work.
48801	Cober at Trenear	EA-DC	YES	Site removed due to downstream site being improved.
54052	Bailey Brook at Ternhill	EA-WM	YES	Poor hydrometric performance at high flows, including bypassing of the gauging station below QMED.
84023	Bothlin Burn at Auchengeich	SEPA-SW	YES	Flows are based on a theoretical crump weir equation only, with no calibration at flood levels when the weir is drowned out.
203027	Braid at Ballee	DfIR	YES	Highest gauging is (only) 60% of QMED but far removed from current rating equation indicating that the top end of the current rating is unsuitable for QMED estimation. Flows not fully constrained at QMED.
205010	Lagan at Banoge	DfIR	YES	FEH Neither station with a poor range of gaugings, weed growth during summer months renders low end of rating poor, out of bank at high flows, few high flow gaugings.
206004	Bessbrook at Carnbane	DfIR	NO	Recent (low flow) spot gauging indicates that the rating equation requires urgent review.

2.2 Addition of Gauging Stations

Four stations have been added to the dataset in version 12, listed in Table 2.

Table 2: Stations added to the dataset in version 12.

Station Number	Station Name	Measuring Authority	Suitability	NRFA daily flow station
17003	Bonny Water at Bonnybridge	SEPA-SE	Pooling	Yes
19017	Gogar Burn at Turnhouse	SEPA-SE	Pooling	Yes
83002	Garnock at Dalry	SEPA-SW	Pooling	Yes
83010	Irvine at Newmilns	SEPA-SW	Pooling	Yes

2.3 Closure of Gauging Stations

One station has been closed in version 12, 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 12.

Station Number	Station Name	Measuring Authority	NRFA daily flow station	Comment
69006	Bollin at Dunham Massey	EA-GMMC	Yes	Station replaced by 69045 Bollin at Bollington Mill

2.4 Changes to Station Numbers

No station numbers have changed in version 12.

2.5 Changes to FEH Indicative Suitabilities

Indicative suitabilities have changed at two stations in Scotland, one station in Northern Ireland, two stations in Wales and twelve stations in England, shown listed in Table 4.

Table 4: Stations with changes to indicative suitability in version 12.

Station Number	Station Name	Measuring Authority	V11 Suitability	V12 Suitability	Upgrade/Downgrade
4005	Meig at Glenmeanie	SEPA-NW	QMED	Pooling	Upgrade
25001	Tees at Darlington Broken Scar	EA-NE	Pooling	QMED	Downgrade
26009	West Beck at Snakeholme Lock	EA-Y	QMED	Pooling	Upgrade
28012	Trent at Yoxall	EA-WM	Neither	QMED	Upgrade
28048	Amber at Wingfield Park	EA-EM	Neither	QMED	Upgrade
28115	Maun at Mansfield the Dykes	EA-EM	Neither	QMED	Upgrade
37019	Beam at Bretons Farm	EA-HNL	Neither	QMED	Upgrade
43004	Bourne at Laverstock	EA-WX	Pooling	QMED	Downgrade
47010	Tamar at Crowford Bridge	EA-DC	Neither	QMED	Upgrade
47015	Tavy at Ludbrook	EA-DC	Neither	QMED	Upgrade
48010	Seaton at Trebrownbridge	EA-DC	Neither	QMED	Upgrade
62003	Teifi at Pont Llanio	NRW	Neither	QMED	Upgrade
65001	Glaslyn at Beddgelert	NRW	Neither	QMED	Upgrade
69003	Irk at Scotland Weir	EA-GMMC	Pooling	QMED	Downgrade
75017	Ellen at Bullgill	EA-CL	QMED	Pooling	Upgrade
79002	Nith at Friars Carse	SEPA-SW	Pooling	QMED	Downgrade
201002	Fairywater at Dudgeon Bridge	Dfir	QMED	Neither	Downgrade

2.6 Component Stations

At several 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 several such stations around the UK that the NRFA and/or Measuring Authority treat as a combined station.

No changes have been made to these time series since v4.1.

2.7 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 . Two stations were added to the list in version 12, 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.

2.8 Trends in AMAX Timeseries

For the first time, the NRFA are including trend information alongside the data and within the WINFAP files. Identification and interpretation of trends in observed time series are a necessary foundation for the development of appropriate water policy and management responses to climate-driven change. There is more information about the trend analysis methodology on [the NRFA Website](#).

NOTE: The current WINFAP software (version 5.0) will not be able to read the trend information until the newest version of WINFAP (version 5.1) is released in late-September 2023.

The trend analysis has been undertaken on the Version 12 data following the [Hannaford et al, 2021](#) methodology.

Mann-Kendall scores and significance of trends are presented in the WINFAP files as an **indication** of whether a trend is present (or not) in the AMAX timeseries.

Practitioners should **not** change their process because of this alone but instead should consult any guidance issued by the Measuring Authority for the region they are working in:

- England – Environment Agency: Guidance around non-stationary analysis is provided in the Flood Estimation Guidelines (LIT 11832), latest version published 23/12/2022. This can be requested from the Environment Agency customer contact centre enquiries@environment-agency.gov.uk. The Environment Agency National Flood Hydrology team will be releasing further guidance on the use of trend information in WINFAP 5.1.
- Wales – Natural Resources Wales
- Scotland – Scottish Environment Protection Agency
- Northern Ireland – Department for Infrastructure – Rivers

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 2021/2022

The version 12 files contain AMAX and POT time-series data updated to 30th September 2022 for all currently operational peak flow gauging stations in England, Scotland, Wales, and Northern Ireland.

3.2 New AMAX 1 records

New AMAX 1 records were set at 7 stations in water year 2021/2022, listed in Table 5 with the percentage of the previous AMAX 1.

Table 5: New AMAX 1 records set in water year 2021/2022.

Station Number	Station Name	Measuring Authority	% of previous AMAX 1
27065	Holme at Huddersfield Queens Mill	EA-NE	129
33046	Thet at Redbridge	EA-EA	103
44006	Sydling Water at Sydling St Nicholas	EA-WX	113
54005	Severn at Montford	EA-WM	103
54025	Dulas at Rhos-y-pentref	NRW	134
54028	Vyrnwy at Llanymynech	NRW	124
54080	Severn at Dolwen	NRW	118

4 PERIOD OF RECORD REVIEW

A programme of period of record reviews is undertaken as part of the stewardship arrangements for the national Peak Flows Dataset by UKCEH. 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 12. 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 19 stations in Scotland, 57 stations in England, and 13 stations in Northern Ireland, listed in Table 6. At 14 existing peak flow stations in Scotland, the period of record has been extended by 15 water years to end with water year 2021/2022.

The Period of Record Review process for version 12 also involved the following activities:

- In Wales, a review of metadata, gaugings and ratings for 27 peak flow stations, comprising loading of period of record gaugings, sense checks of datum histories, historical continuity of data, gaugings and rating histories, and review of AMAX rejection, station descriptions and FEH suitability categories and comments. A full list of Welsh stations that have been through this review and when is available in ANNEX 2 6.2ANNEX 2 .
- For England, a review of FEH Neither sites resulting in either an upgrade from FEH Neither to Suitable for QMED, or if no upgrade was viable, the removal of the site from the NRFA Peak Flow Dataset.

Table 6 Stations included in the period of record review in version 12. New stations to the dataset are shown with a *.

Station Number	Station Name	Measuring Authority	Start date	End date
2001	Helmsdale at Kilphedir	SEPA-NW	1974/1975	2021/2022
4005	Meig at Glenmeanie	SEPA-NW	1986/1987	2021/2022
8011	Livet at Minmore	SEPA-NW	1980/1981	2021/2022
10003	Ythan at Ellon	SEPA-NE	1983/1984	2021/2022
12003	Dee at Polhollick	SEPA-NE	1975/1976	2021/2022
12005	Muick at Invermuick	SEPA-NE	1990/1991	2021/2022
15007	Tay at Pitnacree	SEPA-NE	1991/1992	2021/2022
17003*	Bonny Water at Bonnybridge	SEPA-SE	1992/1993	2021/2022
19017*	Gogar Burn at Turnhouse	SEPA-SE	1992/1993	2021/2022
21020	Yarrow Water at Gordon Arms	SEPA-SE	1966/1967	2021/2022
21024	Jed Water at Jedburgh	SEPA-SE	1971/1972	2021/2022
23005	North Tyne at Tarsset	EA-NE	1963/1964	1986/1987
23010	Tarsset Barn at Greenhaugh	EA-NE	1969/1970	1979/1980
23013	West Allen at Hindley Wrae	EA-NE	1970/1971	1980/1981
23015	North Tyne at Barrasford	EA-NE	1941/1942	1958/1959
26009	West Beck at Snakeholme Lock	EA-Y	1988/1989	2021/2022

Station Number	Station Name	Measuring Authority	Start date	End date
26010	Driffield Canal at Snakeholme Lock	EA-Y	1988/1989	2021/2022
27014	Rye at Little Habton	EA-Y	1957/1958	1973/1974
28002	Blithe at Hamstall Ridware	EA-WM	1959/1960	2021/2022
28081	Tame at Bescot	EA-WM	1990/1991	2021/2022
30011	Bain at Goulceby Bridge	EA-LN	1965/1966	2021/2022
33005	Bedford Ouse at Thornborough Mill	EA-EA	1976/1977	1990/1991
33009	Bedford Ouse at Harrold Mill	EA-EA	1976/1977	1996/1997
33030	Clipstone Brook at Clipstone	EA-EA	1999/2000	2021/2022
33031	Broughton Brook at Broughton	EA-EA	1970/1971	2021/2022
33048	Larling Brook at Stonebridge	EA-EA	1980/1981	2000/2001
34001	Yare at Colney	EA-EA	1979/1980	2021/2022
37010	Blackwater at Appleford Bridge	EA-EA	1962/1963	2021/2022
37011	Chelmer at Churchend	EA-EA	1963/1964	2021/2022
37012	Colne at Poolstreet	EA-EA	1964/1965	2021/2022
39022	Loddon at Sheepbridge	EA-T	1986/1987	2021/2022
39027	Pang at Pangbourne	EA-T	1968/1969	2021/2022
39037	Kennet at Marlborough	EA-T	1971/1972	2021/2022
39086	Gatwick Stream at Gatwick Link	EA-KSL	1974/1975	2021/2022
40008	Great Stour at Wye	EA-KSL	1967/1968	2021/2022
40009	Teise at Stonebridge	EA-KSL	1967/1968	2021/2022
40011	Great Stour at Horton	EA-KSL	1967/1968	2021/2022
41012	Adur E Branch at Sakeham	EA-SSD	1981/1982	2021/2022
41023	Lavant at Graylingwell	EA-SSD	1981/1982	2021/2022
43008	Wylfe at South Newton	EA-WX	1966/1967	2021/2022
44004	Frome at Dorchester Total	EA-WX	1991/1992	2021/2022
44013	Piddle at Little Puddle	EA-WX	1991/1992	2021/2022
45003	Culm at Woodmill	EA-DC	1962/1963	2021/2022
46005	East Dart at Bellever	EA-DC	1963/1964	2021/2022
48004	Warleggan at Trengoffe	EA-DC	1969/1970	2021/2022
48010	Seaton at Trebrownbridge	EA-DC	1971/1972	2021/2022
49004	Gannel at Gwills	EA-DC	1969/1970	2021/2022
50007	Taw at Taw Bridge	EA-DC	1973/1974	2021/2022
52014	Tone at Greenham	EA-WX	1966/1967	2021/2022
53006	Frome (Bristol) at Frenchay	EA-WX	1979/1980	2021/2022
53008	Avon at Great Somerford	EA-WX	1963/1964	2021/2022
53026	Frome (Bristol) at Frampton Cotterell	EA-WX	1977/1978	2021/2022
54026	Chelt at Slate Mill	EA-WM	1976/1977	2009/2010
54102	Avon at Lilbourne	EA-WM	1998/1999	2021/2022
54906	Stour (Worcs) at Kidderminster Gilt Edge	EA-WM	1976/1977	1992/1993
55014	Lugg at Byton	EA-WM	1980/1981	2021/2022
55018	Frome at Yarkhill	EA-WM	1984/1985	2021/2022
68006	Dane at Hulme Walfield	EA-GMMC	1975/1976	1985/1986
68007	Wincham Brook at Lostock Gralam	EA-GMMC	1975/1976	2017/2018
69003	Irk at Scotland Weir	EA-GMMC	1973/1974	2000/2001
69006	Bollin at Dunham Massey	EA-GMMC	1976/1977	2001/2002
72817	New Mill Brook at Hollowforth Hall	EA-CL	1983/1984	2021/2022

Station Number	Station Name	Measuring Authority	Start date	End date
73015	Keer at High Keer Weir	EA-CL	1975/1976	2021/2022
74002	Irt at Galesyke	EA-CL	1975/1976	2021/2022
74005	Ehen at Braystones	EA-CL	1975/1976	2021/2022
75003	Derwent at Ouse Bridge	EA-CL	1975/1976	2021/2022
75017	Ellen at Bullgill	EA-CL	1975/1976	2021/2022
76005	Eden at Temple Sowerby	EA-CL	1965/1966	2021/2022
82003	Stinchar at Balnowlart	SEPA-SW	1979/1980	2021/2022
83002*	Garnock at Dalry	SEPA-SW	2016/2017	2021/2022
83006	Ayr at Mainholm	SEPA-SW	1975/1976	2021/2022
83010*	Irvine at Newmilns	SEPA-SW	1976/1977	2021/2022
84005	Clyde at Blairston	SEPA-SW	2006/2007	2021/2022
84018	Clyde at Tulliford Mill	SEPA-SW	1978/1979	2021/2022
84019	North Calder Water at Calderpark	SEPA-SW	1978/1979	2021/2022
96003	Strathy at Strathy Bridge	SEPA-NW	1985/1986	2021/2022
201002	Fairywater at Dudgeon Bridge	DfIR	1971/1972	2021/2022
201005	Camowen at Camowen Terrace	DfIR	1971/1972	2021/2022
201008	Derg at Castleberg	DfIR	1975/1976	2021/2022
201009	Owenkillew at Crosh	DfIR	1979/1980	2021/2022
201010	Mourne at Drumnabuoy House	DfIR	1982/1983	2021/2022
202002	Faughan at Drumahoe	DfIR	1976/1977	2021/2022
203012	Ballinderry at Ballinderry Bridge	DfIR	1969/1970	2021/2022
203022	Blackwater at Derrymeen Bridge	DfIR	1979/1980	2021/2022
203025	Callan at Martin's Bridge	DfIR	1971/1972	2021/2022
203028	Agivey at Whitehill	DfIR	1972/1973	2021/2022
203033	Upper Bann at Bannfield	DfIR	1974/1975	2021/2022
203042	Crumlin at Cidercourt Bridge	DfIR	1980/1981	2021/2022
203049	Clady at Clady Bridge	DfIR	1981/1982	2021/2022

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 3, 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 one station, shown in Table 7.

Table 7: Stations with changes to POT Thresholds in version 12.

Station Number	Station Name	Measuring Authority	V11 POT Threshold	V12 POT Threshold
74006	Calder at Calder Hall	EA-CL	24.35	31.00

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. Three stations had edits to the historical time series in version 12, listed in Table 8.

Table 8: Stations with minor changes to time series in version 12.

Station Number	Station Name	Measuring Authority	Details of change
36010	Bumpstead Brook at Broad Green	EA-EA	Reduced WY2001/2002 AMAX to 19.3 cumecs and WY2006/2007 AMAX to 18 cumecs following recommendation from EA Non-Stationarity Project.
37006	Can at Beach's Mill	EA-EA	Addition of five AMAX in WY1980/1981, WY1990/1991, WY1995/1996, WY1996/1997 and WY2005/2006 which were previously missing from the dataset.
69025	Irwell at Manchester Racecourse	EA-GMMC	Reduced WY1945/1946 AMAX to 500 cumecs following recommendation from EA Non-Stationarity Project.

5.4 Changes to Stage-Discharge Ratings and Reprocessed Data

Stage-discharge ratings have changed at an additional 24 stations as part of the routine Annual Update of the dataset. The period of re-processed flow data is listed in Table 9, all stations have been re-processed to the end of the record (water year 2021/2022). For stations included in the Period of Record Review (see Table 6), ratings have been reviewed and data re-processed as required.

Table 9: Stations with rating changes and re-processed data in version 12.

Station Number	Station Name	Measuring Authority	Start date of re-processed data
7002	Findhorn at Forres	SEPA-NW	06/06/2020 07:45
7003	Lossie at Sheriffmills	SEPA-NW	07/04/2019 05:45
7010	Muckle Burn at Brodie	SEPA-NW	23/02/2022 20:15
7011	Black Burn at Pluscarden Abbey	SEPA-NW	07/06/2017 08:00
15006	Tay at Ballathie	SEPA-NE	05/01/2016 12:00
28018	Dove at Marston on Dove	EA-WM	08/12/2000 21:45
48005	Kenwyn at Truro	EA-DC	29/07/1969 04:45
54012	Tern at Walcot	EA-WM	23/07/1994 09:00
54025	Dulas at Rhos-y-Pentref	NRW	21/06/2005 09:00
55007	Wye at Erwood	NRW	01/01/1952 00:00
55010	Wye at Pant Mawr	NRW	01/01/1973 00:00
55013	Arrow at Titley Mill	EA-WM	24/02/1997 23:00
56019	Ebbw at Aberbeeg	NRW	01/10/2012 00:00
57014	Rhymney at Bargoed	NRW	22/03/2001 00:00
58005	Ogmore at Brynmenyn	NRW	01/10/1969 09:00
58007	Llynfi at Coytrahen	NRW	01/10/1970 00:00
60005	Bran at Llandoverly	NRW	30/09/2010 09:00
60007	Tywi at Dolau Hirion	NRW	25/04/1968 09:00
60012	Twrch at Ddol Las	NRW	01/10/1970 00:00
61003	Gwaun at Cilrhedyn Bridge	NRW	07/07/2007 09:00
64002	Dysynni at Pont-y-Garth	NRW	03/03/1988 09:00
65001	Glaslyn at Beddgelert	NRW	01/12/1963 09:00
90003	Nevis at Claggan	SEPA-NW	28/01/2018 23:45
106003	Abhainn Roag at Mill Croft	SEPA-NW	15/12/2018 17:00

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 14 stations (Table 10), removed at 4 stations (Table 11) and edited at 2 stations (Table 12) The end dates for ongoing unrepresentative periods at a further 10 were extended to the end of water year 2021/2022.

Table 10: Unrepresentative periods added in version 12.

Station Number	Station Name	Measuring Authority	Start Date	End Date	Comments
21020	Yarrow Water at Gordon Arms	SEPA-SE	30/12/2015	01/10/2022	Extensive channel change during large flood on 30/12/2015 and subsequent upstream channel and bank stabilisation works. Thereafter level only with no check gaugings, with flows based on pre 2015 ratings and hence flagged suspect/unchecked.
21024	Jed Water at Jedburgh	SEPA-SE	27/01/2016	23/01/2018	Low confidence whilst landslip debris acted as a control until washed away by the AMAX flood of 24/01/2018 after which return to better confidence, as debris assumed washed away prior to peak and river/control returned to the pre landslip state.
23005	North Tyne at Tarsset	EA-NE	01/01/1981	09/07/1987	Impoundment of Kielder reservoir upstream.
28002	Blithe at Hamstall Ridware	EA-WM	01/10/1952	01/10/2022	Blithfield reservoir built in 1952. Post -reservoir data added to record in V12 however is marked as unrepresentative.
30005	Witham at Saltersford Total	EA-LN	01/10/1967	01/10/1973	Data prior to 1973 didn't consider the high and low flow portions of the station.
33005	Bedford Ouse at Thornborough Mill	EA-EA	01/10/1978	30/09/1991	Level recording during this time didn't consider gate opening / closures.
39016	Kennet at Theale	EA-T	01/10/2014	01/10/2019	Since 2014 there have been issues with the channel rendering data unsuitable for flood estimation.
40009	Teise at Stonebridge	EA-KSL	01/08/1960	31/12/1975	Data before construction of Bewl Water rejected for consistency with FARL
43004	Bourne at Laverstock	EA-WX	01/10/1964	01/10/1991	Data prior to 1992 is uncertain due to unknown gate movements.
47015	Tavy at Ludbrook	EA-DC	01/10/1981	01/10/2011	Stilling well issues causing significant under-recording of peak river levels.
48010	Seaton at Trebrowbridge	EA-DC	01/10/1971	01/10/2006	Stilling well issues causing significant under-recording of peak river levels.
56019	Ebbw at Aberbeeg	NRW	16/02/2020	01/10/2022	Awaiting rating review as the current rating has a very low upper limit.
74002	Irt at Galesyke	EA-CL	01/12/1968	01/10/1978	Early peak flows inconsistent with daily means, and rejected pending review of rating history.
76005	Eden at Temple Sowerby	EA-CL	04/03/1966	31/12/1975	Digitised flow data in the early record (1966-1975) are either

Station Number	Station Name	Measuring Authority	Start Date	End Date	Comments
					missing or estimated, with significant editing to the stage record; chart data are retained, but peak flows rejected as consistency is uncertain.

Table 11: Unrepresentative periods removed in version 12.

Station Number	Station Name	Measuring Authority	Start Date	End Date	Comments
28007	Trent at Shardlow	EA-EM	05-MAY-1983	01-JUL-1991	Data held from December 1991, so unrepresentative periods no longer required.
54028	Vyrnwy at Llanymynech	NRW	01-OCT-2014	01-OCT-2021	Removal of temporary rejected period following re-rating.
57006	Rhondda at Trehafod	NRW	05-SEP-2019	01-OCT-2021	Removal of temporary rejected period, although high uncertainty remains.
58012	Afan at Marcroft Weir	NRW	01-OCT-1978	01-OCT-1979	AMAX/POT magnitude validated.

Table 12: Unrepresentative periods edited in version 12.

Station Number	Station Name	Measuring Authority	Start Date	End Date	Comments
32010	Nene at Wansford	EA-LN	01-OCT-1939	16-JUN-1964	End date corrected (previously 17-JAN-1964).
73015	Keer at High Keer Weir	EA-CL	01-OCT-1971	20-SEP-1990	End date corrected (previously 01-OCT-1990).

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 15 stations (Table 13) and removed at 3 stations (Table 14).

Table 13: AMAX data now classed as rejected in version 12.

Station Number	Station Name	Measuring Authority	Rejected water year(s)
33021	Rhee at Burnt Mill	EA-EA	2017
33048	Larling Brook at Stonebridge	EA-EA	1980, 1981
34001	Yare at Colney	EA-EA	1967, 1975, 1978, 1981
36008	Stour at Westmill	EA-EA	1967

Station Number	Station Name	Measuring Authority	Rejected water year(s)
40011	Great Stour at Horton	EA-KSL	1967, 1975
44013	Piddle at Little Puddle	EA-WX	1992
46005	East Dart at Bellever	EA-DC	1963
50007	Taw at Taw Bridge	EA-DC	1987
68006	Dane at Hulme Walfield	EA-GMMC	1963
72817	New Mill Brook at Hollowforth Hall	EA-CL	1983, 2010, 2011
73015	Keer at High Keer Weir	EA-CL	1989
83006	Ayr at Mainholm	SEPA-SW	1991
84019	North Calder Water at Calderpark	SEPA-SW	1971
201005	Camowen at Camowen Terrace	DfIR	1971
203049	Clady at Clady Bridge	DfIR	1981

Table 14: AMAX data no longer classed as rejected in version 12.

Station Number	Station Name	Measuring Authority	Water year re-instated
28081	Tame at Bescot	EA-WM	1991
68006	Dane at Hulme Walfield	EA-GMMC	1977
56002	Ebbw at Rhiwderin	NRW	1996

5.7 Datum Changes

A short table is provided on the NRFA website for each station, which details the datum and control history over the period of record, with dates of applicability. The datum history has been updated at 39 stations listed in ANNEX 4 .

6 IMPACT OF DATA CHANGES

As part of the NRFA's quality control procedures, the new data submitted within each data release cycle are assessed in terms of the impact they make on key flood estimation parameters – QMED, 50-year and 100-year return period flows.

Substantial changes to these parameters can occur due to:

- Extension or shortening of flow records.
- Extreme high or low flows in one water year.
- Rating changes causing reprocessed flows.

Any stations with a >10% change (in either direction) of any of the key flood estimation parameters are listed below in Section 6.1 (Annual Update) and Section 6.2 (Period of Record Review), along with a comment explaining the change.

6.1 Impact of annual update

The addition of water year 2021/2022 has resulted in >10% changes in one or more flood estimation parameters at 18 stations, listed in Table 15.

Table 15: Changes in QMED, 50- and 100-year return periods resulting from the addition of water year 2021/2022. Increased >10% are shaded in blue, decreases <10% are shaded in red.

Station Number	Station Name	Measuring Authority	% change in:			Suitability	Comment
			QMED	50-yr	100-yr		
9010	Deveron at Huntly	SEPA-NW	-19%	-14%	-12%	Pooling	Short record (13 years) and WY20/21 is the lowest AMAX on record).
20003	Tyne at Spilmersford	SEPA-SE	-10%	-9%	-9%	Pooling	Flows in recent years have been at the lower end of the regime.
27065	Holme at Huddersfield Queens Mill	EA-Y	2%	14%	17%	QMED	AMAX1 registered in WY21/22 (and AMAX 2 in WY19/20).
28043	Derwent at Chatsworth	EA-EM	1%	8%	10%	Pooling	AMAX1 and AMAX3 recorded in WY19/20 and WY21/22.
33046	Thet at Redbridge	EA-EA	2%	9%	10%	QMED	AMAX1 and AMAX3 recorded in WY20/21 and WY21/22.
37031	Crouch at Wickford	EA-EA	11%	9%	8%	QMED	AMAX1 recorded in WY20/21.
40035	Old Mill Stream at Aylesford	EA-KSL	-5%	-11%	-12%	QMED	Reduction in AMAX1 (WY18/19) and addition of low AMAX in WY21/22 and a short record (19 years).
42003	Lymington at Brockenhurst	EA-SSD	-10%	-9%	-8%	Pooling	Flows in recent years have been at the lower end of the regime.
44008	South Winterbourne at Winterbourne Steepleton	EA-WX	11%	4%	3%	Pooling	WY21/22 AMAX is 9th highest AMAX.

Station Number	Station Name	Measuring Authority	% change in:			Suitability	Comment
			QMED	50-yr	100-yr		
49005	Bolingey Stream at Bolingey Cocks Bridge	EA-DC	-11%	4%	8%	Pooling	Short record (11 years) and WY20/21 is the lowest AMAX on record).
54025	Dulas at Rhos-y-pentref	NRW	0%	13%	16%	Pooling	AMAX1 recorded in WY21/22.
54028	Vyrnwy at Llanymynech	NRW	5%	27%	33%	Pooling	AMAX1 recorded in WY21/22.
54080	Severn at Dolwen	NRW	5%	22%	27%	Pooling	AMAX1 recorded in WY21/22.
60005	Bran at Llandovery	NRW	-2%	-27%	-32%	Neither	New AMAX flattens out top of FFC.
65001	Glaslyn at Beddgelert	NRW	0%	22%	30%	QMED	AMAX1 recorded in WY19/20
74003	Ehen at Bleach Green	EA-CL	0%	9%	11%	QMED	WY21/22 AMAX is AMAX2.
75004	Cocker at Southwaite Bridge	EA-CL	1%	8%	10%	Pooling	AMAX3 recorded in WY21/22.
95004	Abhainn a'Chnocain at Elphin	SEPA-NW	0%	9%	11%	QMED	WY18/19 AMAX increased following review.

6.2 Impact of Period of Record Review

The V12 Period of Record Review has resulted in >10% changes in one or more flood estimation parameters at 13 stations, listed in Table 16.

Table 16 Changes in QMED, 50- and 100-year return periods resulting from the version 12 Period of Record Review. Increased >10% are shaded in blue, decreases <10% are shaded in red.

Station Number	Station Name	Measuring Authority	% change in:			Suitability	Comment
			QMED	50-yr	100-yr		
4005	Meig at Glenmeanie	SEPA-NW	-10%	-24%	-27%	Pooling	Re-rating meaning flows in the early period have reduced plus the addition of 14 years to the record.
8011	Livet at Minmore	SEPA-NW	6%	32%	38%	Pooling	Addition of 22 years almost doubling the record.
10003	Ythan at Ellon	SEPA-NE	4%	61%	78%	Pooling	The addition of 15 years to the record.
12003	Dee at Polhollick	SEPA-NE	1%	37%	47%	Pooling	The addition of 16 years to the record.

Station Number	Station Name	Measuring Authority	% change in:			Suitability	Comment
			QMED	50-yr	100-yr		
12005	Muick at Invermuick	SEPA-NE	9%	41%	48%	Pooling	Addition of 15 years and one of these including a new AMAX1 in WY15/16.
21024	Jed Water at Jedburgh	SEPA-SE	-3%	-12%	-14%	Pooling	The addition of 16 years to the record.
28081	Tame at Bescot	EA-WM	8%	12%	14%	QMED	Increase in 2018 AMAX (now AMAX2).
33005	Bedford Ouse at Thornborough Mill	EA-EA	8%	27%	30%	Pooling	The addition of 13 years to the record.
37012	Colne at Poolstreet	EA-EA	-1%	-11%	-13%	QMED	Improvement in rating; it is now fully validated to 3m; hence flows are more accurate.
39037	Kennet at Marlborough	EA-T	-20%	-4%	-4%	QMED	Many of the lower AMAX-only events were previously missing from the record.
44013	Piddle at Little Puddle	EA-WX	-19%	-7%	-6%	Pooling	Relatively short record, WY21/22 AMAX is 7th lowest in record.
75017	Ellen at Bullgill	EA-CL	-11%	35%	51%	Pooling	Changes consistent with rating changes. AMAX1 increased (WY15/16)
96003	Strathy at Strathy Bridge	SEPA-NW	-8%	-26%	-30%	Pooling	Improvement in rating; correction meaning the highest flows have been reduced. Also, the addition of 13 years to the record.

ANNEX 1 POT EXCLUDED STATIONS

No POT data are presented on the NRFA website or given in the dataset for stations listed in ANNEX 1 . Two stations were added to the list in version 12, marked with a *. For more information see section 2.7.

Station Number	Station Name	Measuring Authority
23002	Derwent at Eddys Bridge	EA-NE
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
26017	Ings Beck at South Newbald	EA-Y
27073	Brompton Beck at Snainton Ings	EA-Y
28033	Dove at Hollinsclough	EA-WM
30005	Witham at Saltersford Total	EA-LN
30006	Slea at Leasingham Mill	EA-LN
30013	Heighington Beck at Heighington	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
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	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

Station Number	Station Name	Measuring Authority
37009	Brain at Guithavon Valley	EA-EA
37010	Blackwater at Appleford Bridge	EA-EA
37011*	Chelmer at Churchend	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
39027*	Pang at Pangbourne	EA-T
39033	Winterbourne Stream at Bagnor	EA-T
39034	Evenlode at Cassington Mill	EA-T
39037	Kennet at Marlborough	EA-T
39088	Chess at Rickmansworth	EA-HNL
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 Misingford	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	Wylde at South Newton	EA-WX
43010	Allen at Loverley Farm	EA-WX
43012	Wylde at Norton Bavant	EA-WX
43018	Allen at Walford Mill	EA-WX
43028	Chitterne Brook at Codford	EA-WX
43029	Wylde 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 Broadwey	EA-WX
44013	Piddle at Little Puddle	EA-WX
44014	Piddle at Briantspuddle	EA-WX

Station Number	Station Name	Measuring Authority
54027	Frome at Ebley Mill	EA-WM
55035	Iago at Iago flume	CEHW
68007	Wincham Brook at Lostock Gralam	EA-GMMC
68010	Fender at Ford Lane	EA-GMMC
71003	Croasdale Beck at Croasdale Flume	EA-CL
84013	Clyde at Daldowie	SEPA-SW
85001	Leven at Linnbrane	SEPA-SW
205034	Woodburn at Control	DfIR
206006	Annalong at Recorder	BCDWC

ANNEX 2 NATURAL RESOURCES WALES – FULL METADATA REVIEW

For more information about the Natural Resources Wales full metadata review process see Section 4.1.

Station Number	Station Name	Measuring Authority	Released in
54014	Severn at Abermule	NRW	V11
54025	Dulas at Rhos-y-pentref	NRW	V11
54028	Vyrnwy at Llanymynech	NRW	V11
54080	Severn at Dolwen	NRW	V11
55004	Irfon at Abernant	NRW	V11
55005	Wye at Rhayader	NRW	V11
55007	Wye at Erwood	NRW	V11
55009	Monnow at Kentchurch	NRW	V11
55010	Wye at Pant Mawr	NRW	V11
55012	Irfon at Cilmerly	NRW	V11
55016	Ithon at Disserth	NRW	V11
55023	Wye at Redbrook	NRW	V11
55025	Llynfi at Three Cocks	NRW	V12
55026	Wye at Ddol Farm	NRW	V12
55029	Monnow at Grosmont	NRW	V12
55032	Elan at Caban Dam	NRW	V12
56001	Usk at Chainbridge	NRW	V12
56002	Ebbw at Rhiwderin	NRW	V12
56003	Honddu at The Forge Brecon	NRW	V12
56004	Usk at Llandetty	NRW	V11
56006	Usk at Trallong	NRW	V12
56011	Sirhowy at Wattsville	NRW	V12
56012	Grwyne at Millbrook	NRW	V12
56013	Yscir at Pont-Ar-Yscir	NRW	V12
56019	Ebbw at Aberbeeg	NRW	V12
57004	Cynon at Abercynon	NRW	V12
57005	Taff at Pontypridd	NRW	V12
57006	Rhondda at Trehafod	NRW	V12
57007	Taff at Fiddlers Elbow	NRW	V12
57008	Rhymney at Llanedeyrn	NRW	V12
57009	Ely at St Fagans	NRW	V12
57010	Ely at Lanelay	NRW	V11
57014	Rhymney at Bargoed	NRW	V12
57015	Taff at Merthyr Tydfil	NRW	V12
57017	Rhondda Fawr at Tynewydd	NRW	V12
58001	Ogmore at Bridgend	NRW	V11
58002	Neath at Resolven	NRW	V11
58005	Ogmore at Brynmenyn	NRW	V11
58006	Mellte at Pontneddfechan	NRW	V11
58007	Llynfi at Coytrahen	NRW	V11
58008	Dulais at Cilfrew	NRW	V11
58009	Ewenny at Keepers Lodge	NRW	V11
58012	Afan at Marcroft Weir	NRW	V12
59001	Tawe at Ynystanglws	NRW	V12

Station Number	Station Name	Measuring Authority	Released in
59002	Loughor at Tir-y-dail	NRW	V11
60001	Tywi at Ty Castell	NRW	V12
60002	Cothi at Felin Mynachdy	NRW	V12
60003	Taf at Clog-y-Fran	NRW	V12
60007	Tywi at Dolau Hirion	NRW	V11
64001	Dyfi at Dyfi Bridge	NRW	V11
64002	Dysynni at Pont-y-Garth	NRW	V11
64006	Leri at Dolybont	NRW	V11
64011	Cerist at Llaw'r Cae	NRW	V11
65001	Glaslyn at Beddgelert	NRW	V11
65004	Gwyrfai at Bontnewydd	NRW	V11
65005	Erch at Pencaenewydd	NRW	V11
66011	Conwy at Cwmlanerch	NRW	V11
67018	Dee at New Inn	NRW	V11

ANNEX 3 POT INDEPENDENCE CHANGES

For more information about the POT independence changes see section 5.1.

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
21032	Glen at Kirknewton	EA-NE	04/01/1982	V11
21035	Till at Heaton Mill	EA-NE	Full period of record	V7
22001	Coquet at Morwick	EA-NE	04/01/1982	V8, V11
22003	Usway Burn at Shillmoor	EA-NE	Full period of record	V7
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
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
23003	North Tyne at Reaverhill	EA-NE	Full period of record	V11
23004	South Tyne at Haydon Bridge	EA-NE	Full period of record	V7
23005	North Tyne at Tarsset	EA-NE	01/10/1971	V12
23006	South Tyne at Featherstone	EA-NE	21/11/1972	V10
23007	Derwent at Rowlands Gill	EA-NE	03/01/1982	V11
23008	Rede at Rede Bridge	EA-NE	04/01/1982	V7
23009	South Tyne at Alston	EA-NE	27/11/1992	V9, V10, V11
23011	Kielder Burn at Kielder	EA-NE	23/11/1981	V7
23017	Team at Team Valley	EA-NE	Full period of record	V11
23018	Ouse Burn at Woosington	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, V10
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
24008	Wear at Witton Park	EA-NE	24/01/1975	V11
24009	Wear at Chester le Street	EA-NE	01/10/1981	V10
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
25020	Skerne at Preston le Skerne	EA-NE	04/01/1982	V11
25021	Skerne at Bradbury	EA-NE	04/01/1982	V11
25029	Leven at Foxton Bridge	EA-NE	Full period of record	V9
26009	West Beck at Snakeholme Lock	EA-Y	Full period of record	V12
26010	Driffield Canal at Snakeholme Lock	EA-Y	Full period of record	V12

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
26016	Gypsy Race at Kirby Grindalythe	EA-Y	01/10/2013	V7
26017	Ings Beck at South Newbald	EA-Y	Full period of record	V11
27001	Nidd at Hunsingore Weir	EA-Y	18/12/1966	V9
27002	Wharfe at Wetherby Flint Mill	EA-Y	30/11/2009	V11
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
27021	Don at Doncaster	EA-Y	29/01/1978	V10
27022	Don at Rotherham Weir	EA-Y	09/11/2005	V7
27023	Dearne at Barnsley Weir	EA-Y	24/03/1965	V5, V10
27024	Swale at Richmond	EA-Y	14/08/1966	V8
27025	Rother at Woodhouse Mill	EA-Y	15/10/1976	V10
27026	Rother at Whittington	EA-Y	12/12/1979	V10
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, V10
27031	Colne at Colne Bridge	EA-Y	08/02/1966	V9, V10
27032	Hebden Beck at Hebden	EA-Y	Full period of record	V11
27033	Sea Cut at Scarborough	EA-Y	22/12/1969	V8, V10
27034	Ure at Kilgram Bridge	EA-Y	14/08/1971	V8
27035	Aire at Kildwick Bridge	EA-Y	Full period of record	V11
27040	Doe Lea at Staveley	EA-Y	Full period of record	V9, V10
27041	Derwent at Buttercrambe	EA-Y	Full period of record	V7
27043	Wharfe at Addingham	EA-Y	Full period of record	V9
27049	Rye at Ness	EA-Y	Full period of record	V10
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
27079	Calder at Methley	EA-Y	Full period of record	V11
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
27084	Eastburn Beck at Crosshills	EA-Y	Full period of record	V11
27086	Skell at Alma Weir	EA-Y	22/11/2012	V5
27086	Skell at Alma Weir	EA-Y	Full period of record	V6, V7

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
27087	Derwent at Low Marishes	EA-Y	Full period of record	V11
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
28002	Blithe at Hamstall Ridware	EA-WM	29/01/1960	V12
28003	Tame at Water Orton	EA-WM	01/11/1993	V7, V8
28007	Trent at Shardlow	EA-EM	Full period of record	V11
28008	Dove at Rocester Weir	EA-WM	25/11/2011	V5
28008	Dove at Rocester Weir	EA-WM	13/03/1988	V10
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
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
28052	Sow at Great Bridgford	EA-WM	Full period of record	V11
28053	Penk at Penkridge	EA-WM	01/01/2012	V5, V11
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
28058	Henmore Brook at Ashbourne	EA-WM	Full period of record	V11
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, V11
28066	Cole at Coleshill	EA-WM	Full period of record	V7, V9, V11

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28067	Derwent at Church Wilne	EA-EM	Full period of record	V11
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, V12
28083	Trent at Darlaston	EA-WM	Full period of record	V6, V8
28085	Derwent at St. Mary's Bridge	EA-EM	Full period of record	V11
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, V12
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
32003	Harpers Brook at Old Mill Bridge	EA-LN	10/03/1981	V9
32004	Ise Brook at Harrowden	EA-LN	Full period of record	V11
32008	Nene/Kislingbury at Dodford	EA-LN	10/12/1979	V9
32010	Nene at Wansford	EA-LN	01/01/1998	V7
33005	Bedford Ouse at Thornborough Mill	EA-EA	01/10/1979	V12
33009	Bedford Ouse at Harrold Mill	EA-EA	01/10/1976	V12
33011	Little Ouse at County Bridge Euston	EA-EA	21/12/1980	V10
33012	Kym at Meagre Farm	EA-EA	01/10/2013	V7
33013	Sapiston at Rectory Bridge	EA-EA	04/01/1980	V10
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, V10
33019	Thet at Melford Bridge	EA-EA	05/02/1979	V9
33021	Rhee at Burnt Mill	EA-EA	11/12/1979	V7
33022	Ivel at Blunham	EA-EA	14/12/1979	V10
33023	Lea Brook at Beck Bridge	EA-EA	Full period of record	V9
33024	Cam at Dernford	EA-EA	22/01/1985	V7
33027	Rhee at Wimpole	EA-EA	28/12/1979	V10
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

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33030	Clipstone Brook at Clipstone	EA-EA	01/10/2002	V12
33031	Broughton Brook at Broughton	EA-EA	01/10/1986	V12
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
33046	Thet at Redbridge	EA-EA	15/01/1981	V10
33048	Larling Brook at Stonebridge	EA-EA	01/12/1979	V12
33050	Snail at Fordham	EA-EA	Full period of record	V10
33051	Cam at Chesterford	EA-EA	29/12/1979	V7
33055	Granta at Babraham	EA-EA	02/02/1979	V10
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
34001	Yare at Colney	EA-EA	01/10/1979	V12
34003	Bure at Ingworth	EA-EA	03/02/1971	V7
34006	Waveney at Needham Mill	EA-EA	09/02/1980	V11
34012	Burn at Burnham Overy	EA-EA	14/12/1979	V9
35008	Gipping at Stowmarket	EA-EA	25/05/1981	V7
36012	Stour at Kedington	EA-EA	10/04/1998	V11
37001	Roding at Redbridge	EA-HNL	Full period of record	V11
37010	Blackwater at Appleford Bridge	EA-EA	Full period of record	V12
37011	Chelmer at Churchend	EA-EA	Full period of record	V12
37012	Colne at Poolstreet	EA-EA	01/10/1979	V12
37014	Roding at High Ongar	EA-HNL	21/10/2012	V6
37014	Roding at High Ongar	EA-HNL	10/03/1981	V10
37020	Chelmer at Felsted	EA-EA	Full period of record	V10
38003	Mimram at Panshanger Park	EA-HNL	27/05/1982	V8
38004	Rib at Wadesmill	EA-HNL	Full period of record	V11
38007	Canons Brook at Elizabeth Way	EA-HNL	19/07/1987	V8
38011	Mimram at Fulling Mill	EA-HNL	Full period of record	V11
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, V10
39007	Blackwater at Swallowfield	EA-T	01/10/2013	V7
39011	Wey at Tilford	EA-T	31/01/1956	V11
39012	Hogsmill at Kingston-upon-Thames	EA-KSL	Full period of record	V9
39014	Ver at Hansteads	EA-HNL	16/03/1989	V8
39022	Loddon at Sheepbridge	EA-T	01/10/1986	V12
39026	Cherwell at Banbury	EA-T	01/01/1987	V9
39027	Pang at Pangbourne	EA-T	Full period of record	V12
39028	Dun at Hungerford	EA-T	21/12/1989	V10
39029	Tilling Bourne at Shalford	EA-T	15/09/1968	V11

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39035	Churn at Cerney Wick	EA-T	01/01/2013	V5
39036	Law Brook at Albury	EA-T	07/10/1987	V9
39037	Kennet at Marlborough	EA-T	Full period of record	V12
39042	Leach at Priory Mill Lechlade	EA-T	16/12/1972	V11
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
39081	Ock at Abingdon	EA-T	16/12/1986	V9
39086	Gatwick Stream at Gatwick Link	EA-KSL	01/10/1986	V12
39104	Mole at Esher	EA-KSL	Full period of record	V11
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
40008	Great Stour at Wye	EA-KSL	01/10/1968	V12
40009	Teise at Stonebridge	EA-KSL	01/10/1968	V12
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
40011	Great Stour at Horton	EA-KSL	01/10/1968	V12
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
40021	Hexden Channel at Hopemill Bridge Sandhurst	EA-KSL	Full period of record	V11
40035	Old Mill Stream at Aylesford	EA-KSL	Full period of record	V11
40035	Old Mill Stream at Aylesford	EA-KSL	Full period of record	V11
41005	Ouse at Gold Bridge	EA-SSD	14/12/1981	V10
41011	Rother at Iping Mill	EA-SSD	10/03/1982	V10
41012	Adur E Branch at Sakeham	EA-SSD	06/08/1981	V12
41016	Cuckmere at Cowbeek	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
41023	Lavant at Graylingwell	EA-SSD	20/01/1981	V12
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
43008	Wylfe at South Newton	EA-WX	Full period of record	V12
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

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
43028	Chitterne Brook at Codford	EA-WX	Full period of record	V9
43029	Wylye at Brixton Deverill	EA-WX	Full period of record	V5
44001	Frome at East Stoke Total	EA-WX	Full period of record	V10
44004	Frome at Dorchester Total	EA-WX	01/01/1992	V12
44008	South Winterbourne at Winterbourne Steepleton	EA-WX	Full period of record	V11
44009	Wey at Broadwey	EA-WX	Full period of record	V11
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, V10
44013	Piddle at Little Puddle	EA-WX	Full period of record	V12
44014	Piddle at Briantspuddle	EA-WX	Full period of record	V9, V11
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, V12
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
45816	Haddeo at Upton	EA-DC	Full period of record	V11
45817	Unnamed Stream at Upton	EA-DC	Full period of record	V11
45818	Withiel Florey Stream at Bessom Bridge	EA-DC	Full period of record	V11
46003	Dart at Austin's Bridge	EA-DC	Full period of record	V9
46005	East Dart at Bellever	EA-DC	Full period of record	V12
46006	Erme at Ermington	EA-DC	Full period of record	V9, V11
46007	West Dart at Dunnabridge	EA-DC	Full period of record	V6, V8
46008	Avon at Loddiswell	EA-DC	Full period of record	V9
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
47004	Lynher at Pillaton Mill	EA-DC	29/12/1966	V10
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
47008	Thrushel at Tinhay	EA-DC	Full period of record	V10
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, V10
47021	Kensy at Launceston Newport	EA-DC	Full period of record	V10

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
47022	Tory Brook at Newnham Park	EA-DC	Full period of record	V9, V11
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
47025	Wolf at Germansweek	EA-DC	Full period of record	V10
48001	Fowey at Trekeivesteps	EA-DC	Full period of record	V9
48003	Fal at Tregony	EA-DC	Full period of record	V8
48004	Warleggan at Trengoffe	EA-DC	Full period of record	V11, V12
48005	Kenwyn at Truro	EA-DC	Full period of record	V11, V12
48006	Cober at Helston Country Bridge	EA-DC	01/10/2012	V5
48007	Kennal at Ponsanooth	EA-DC	Full period of record	V10
48009	St Neot at Craigshill Wood	EA-DC	Full period of record	V9
48010	Seaton at Trebrowbridge	EA-DC	Full period of record	V12
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
49003	De Lank at De Lank	EA-DC	Full period of record	V11
49004	Gannel at Gwills	EA-DC	Full period of record	V12
49005	Boltingey Stream at Bolingey Cocks Bridge	EA-DC	Full period of record	V11
49006	Camel at Camelford	EA-DC	Full period of record	V7, V8
50001	Taw at UMBERLEIGH	EA-DC	Full period of record	V10
50005	West Okement at Vellake	EA-DC	01/10/2012	V5
50007	Taw at Taw Bridge	EA-DC	Full period of record	V12
50008	Lew at Gribbleford Bridge	EA-DC	Full period of record	V10
50009	Lew at Norley Bridge	EA-DC	Full period of record	V10
50010	Torrige 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
52007	Parrett at Chiselborough	EA-WX	Full period of record	V10
52009	Sheppey at Fenny Castle	EA-WX	14/08/1992	V10
52010	Brue at Lovington	EA-WX	Full period of record	V8
52011	Cary at Somerton	EA-WX	Full period of record	V10
52014	Tone at Greenham	EA-WX	09/02/1974	V8, V12
52015	Land Yeo at Wraxall Bridge	EA-WX	29/11/1992	V10
52016	Currypool Stream at Currypool Farm	EA-WX	Full period of record	V11
52017	Congresbury Yeo at Iwood	EA-WX	Full period of record	V7
52025	Hillfarrance Brook at Milverton	EA-WX	Full period of record	V11
53002	Semington Brook at Semington	EA-WX	Full period of record	V7
53004	Chew at Compton Dando	EA-WX	Full period of record	V8

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
53005	Midford Brook at Midford	EA-WX	Full period of record	V9
53006	Frome (Bristol) at Frenchay	EA-WX	20/12/1983	V8, V12
53007	Frome (Somerset) at Tellisford	EA-WX	03/08/1965	V9
53008	Avon at Great Somerford	EA-WX	Full period of record	V7, V12
53009	Wellow Brook at Wellow	EA-WX	Full period of record	V11
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, V11
53023	Sherston Avon at Fosseyway	EA-WX	Full period of record	V6, V8
53025	Mells at Vallis	EA-WX	Full period of record	V11
53026	Frome (Bristol) at Frampton Cotterell	EA-WX	Full period of record	V12
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, V11
54008	Teme at Tenbury	EA-WM	14/01/1970	V11
54011	Salwarpe at Harford Hill	EA-WM	24/01/1971	V10
54012	Tern at Walcot	EA-WM	03/12/1972	V8
54012	Tern at Walcot	EA-WM	01/10/1999	V12
54014	Severn at Abermule	NRW	22/02/1970	V8
54014	Severn at Abermule	NRW	01/10/2008	V11
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
54023	Badsey Brook at Offenham	EA-WM	Full period of record	V11
54024	Worfe at Burcote	EA-WM	Full period of record	V11
54026	Chelt at Slate Mill	EA-WM	01/10/1983	V12
54028	Vyrnwy at Llanymynech	NRW	13/12/2011	V6
54028	Vyrnwy at Llanymynech	NRW	Full period of record	V8, V11
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
54038	Tanat at Llanyblodwel	EA-WM	02/12/1992	V10
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
54080	Severn at Dolwen	NRW	22/11/2011	V6
54080	Severn at Dolwen	NRW	Full period of record	V8
54102	Avon at Lilbourne	EA-WM	01/01/2013	V10
54106	Stour (Warks) at Shipston	EA-WM	Full period of record	V9
54114	Avon at Warwick	EA-WM	15/06/2007	V8

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
54114	Avon at Warwick	EA-WM	Full period of record	V9
54906	Stour (Worcs) at Kidderminster Gilt Edge	EA-WM	01/10/1976	V12
55002	Wye at Belmont	EA-WM	01/10/1984	V11
55007	Wye at Erwood	NRW	11/03/1981	V8
55012	Irfon at Cilmery	NRW	12/12/1978	V8
55012	Irfon at Cilmery	NRW	Full period of record	V11
55013	Arrow at Titley Mill	EA-WM	14/01/1971	V11
55014	Lugg at Byton	EA-WM	01/10/1981	V11,V12
55016	Irfon at Disserth	NRW	02/01/1988	V8
55018	Frome at Yarkhill	EA-WM	01/01/1984	V12
55021	Lugg at Butts Bridge	EA-WM	24/11/1984	V7
55021	Lugg at Butts Bridge	EA-WM	01/10/1988	V11
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
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, V10
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
57010	Ely at Lanelay	NRW	Full period of record	V11
57014	Rhymney at Bargoed	NRW	Full period of record	V7
57017	Rhondda Fawr at Tynewydd	NRW	Full period of record	V7
58005	Ogmore at Brynmenyn	NRW	Full period of record	V11
58006	Mellte at Pontneddfechan	NRW	15/03/1982	V9, V11
58007	Llynfi at Coytrahen	NRW	06/03/1982	V7, V11
58008	Dulais at Cilfrew	NRW	12/02/1982	V10
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
59001	Tawe at Ynystanglws	NRW	08/06/1998	V10
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, V10
60006	Gwili at Glangwili	NRW	03/01/1982	V8
60007	Tywi at Dolau Hirion	NRW	12/02/1982	V7, V11
60009	Sawdde at Felin-y-cwm	NRW	29/12/2012	V6

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
60009	Sawdde at Felin-y-cwm	NRW	23/08/1985	V7
60011	Conwy at Cwmlanerch	NRW	01/11/1980	V11
60012	Twrch at Ddol Las	NRW	12/02/1982	V7
60016	Tywi at Manorafon	NRW	Full period of record	V11
60017	Twrch at Gurnos	NRW	Full period of record	V9
61002	Eastern Cleddau at Canaston Bridge	NRW	10/03/1982	V8, V10
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
62002	Teifi at Llanfair	NRW	Full period of record	
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
65001	Glaslyn at Beddgelert	NRW	18/08/1982	V10
65004	Gwyrfaï at Bontnewydd	NRW	20/07/2010	V6
65004	Gwyrfaï 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
66011	Conwy at Cwmlanerch	NRW	01/11/1981	V11
67005	Ceiriog at Brynkinalt Weir	NRW	24/01/1971	V7
67006	Alwen at Druid	NRW	19/02/1970	V8
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
67018	Dee at New Inn	NRW	01/01/1982	V11
67018	Dee at New Inn	NRW	01/01/1982	V11
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
68006	Dane at Hulme Walfield	EA-GMMC	01/05/1979	V12
68007	Wincham Brook at Lostock Gralam	EA-GMMC	01/10/1979	V12
68010	Fender at Ford Lane	EA-GMMC	Full period of record	V11
68011	Arley Brook at Gore Farm	EA-GMMC	Full period of record	V11
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
68021	Arrowe Brook at Acton Lane	EA-GMMC	Full period of record	V11
68044	Dane at Hug Bridge	EA-GMMC	18/01/2007	V6

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
68044	Dane at Hug Bridge	EA-GMMC	Full period of record	V9
69003	Irk at Scotland Weir	EA-GMMC	01/04/1974	V12
69005	Glaze Brook at Little Woolden Hall	EA-GMMC	Full period of record	V7
69006	Bollin at Dunham Massey	EA-GMMC	24/12/1985	V12
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
69020	Medlock at London Road	EA-GMMC	01/05/1975	V10
69022	Irwell at Irwell Vale	EA-GMMC	Full period of record	V6, V8
69023	Roch at Blackford Bridge	EA-GMMC	01/01/1976	V10
69024	Croal at Farnworth Weir	EA-GMMC	15/03/1978	V6, V8
69025	Irwell at Manchester Racecourse	EA-GMMC	Full period of record	V9
69027	Tame at Portwood	EA-GMMC	Full period of record	V11
69028	Mersey at Brinksway	EA-GMMC	11/02/1974	V7, V8
69030	Sankey Brook at Causey Bridges	EA-GMMC	28/12/1978	V10
69032	Alt at Kirkby	EA-CL	28/12/1978	V7
69041	Tame at Broomstairs	EA-GMMC	03/09/1974	V6, V8
69043	Irk at Collyhurst Weir	EA-GMMC	Full period of record	V10
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,V11
69047	Roch at Littleborough	EA-GMMC	Full period of record	V6, V8
69048	Tame at Uppermill	EA-GMMC	Full period of record	V10, V11
69803	Roch at Rochdale	EA-GMMC	Full period of record	V11
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, 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
71009	Ribble at New Jumbles Rock	EA-CL	26/11/1979	V10
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
71014	Darwen at Blue Bridge	EA-CL	Full period of record	V11
72002	Wyre at St Michaels	EA-CL	22/04/1970	V10
72003	Hindburn at Wray	EA-CL	23/11/1977	V6
72003	Hindburn at Wray	EA-CL	01/10/1976	V7, V9, V10
72004	Lune at Caton	EA-CL	07/01/1979	V8
72005	Lune at Killington	EA-CL	01/10/1981	V8

Station Number	Station Name	Measuring Authority	Start date of POT independence change	Released in
72007	Brock at upstream of A6	EA-CL	Full period of record	V10
72009	Wenning at Wennington	EA-CL	14/06/1977	V9, V10
72011	Rawthey at Brigflatts	EA-CL	Full period of record	V10, V11
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, V10
72017	Wenning at Hornby	EA-CL	05/05/1997	V9
72817	New Mill Brook at Hollowforth Hall	EA-CL	Full period of record	V12
73002	Crake at Low Nibthwaite	EA-CL	Full period of record	V10
73005	Kent at Sedgwick	EA-CL	02/01/1976	V10
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, V10
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, V12
73017	Kent at Bowston	EA-CL	Full period of record	V11
74001	Duddon at Duddon Hall	EA-CL	03/02/1977	V9
74002	Irt at Galesyke	EA-CL	01/01/1976	V12
74003	Ehen at Bleach Green	EA-CL	26/11/1976	V9
74005	Ehen at Braystones	EA-CL	19/10/1982	V8
74005	Ehen at Braystones	EA-CL	01/10/1977	V12
74006	Calder at Calder Hall	EA-CL	17/11/1978	V8
74007	Esk at Cripple How	EA-CL	03/02/1977	V9
74008	Duddon at Ulpha	EA-CL	Full period of record	V11
75003	Derwent at Ouse Bridge	EA-CL	01/06/2012	V10
75003	Derwent at Ouse Bridge	EA-CL	01/10/1976	V12
75004	Cocker at Southwaite Bridge	EA-CL	27/11/1976	V8, V11
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
75017	Ellen at Bullgill	EA-CL	Full period of record	V10, V12
75018	Derwent at Seaton Mill	EA-CL	Full period of record	V8, V9
76004	Lowther at Eamont Bridge	EA-CL	25/01/1977	V9, V11
76005	Eden at Temple Sowerby	EA-CL	01/10/1976	V12
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, V11
76017	Eden at Kirkby Stephen	EA-CL	Full period of record	V8, V11
76019	Roe Beck at Stockdalewath	EA-CL	Full period of record	V10
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 4 STATIONS WITH CHANGES TO DATUM HISTORY

For more information about datum history changes see section 5.7.

Station Number	Station Name	Measuring Authority
2001	Helmsdale at Kilphedir	SEPA-NW
4005	Meig at Glenmeanie	SEPA-NW
8011	Livet at Minmore	SEPA-NW
17003	Bonny Water at Bonnybridge	SEPA-SE
19017	Gogar Burn at Turnhouse	SEPA-SE
21024	Jed Water at Jedburgh	SEPA-SE
23015	North Tyne at Barrasford	EA-NE
26009	West Beck at Snakeholme Lock	EA-Y
27002	Wharfe at Wetherby Flint Mill	EA-Y
27051	Crimple at Burn Bridge	EA-Y
27053	Nidd at Birstwith	EA-Y
27059	Laver at Ripon Laver Weir	EA-Y
27062	Nidd at Skip Bridge	EA-Y
28002	Blithe at Hamstall Ridware	EA-WM
28081	Tame at Bescot	EA-WM
37011	Chelmer at Churchend	EA-EA
37012	Colne at Poolstreet	EA-EA
39022	Loddon at Sheepbridge	EA-T
40009	Teise at Stonebridge	EA-KSL
40021	Hexden Channel at Hopemill	EA-KSL
48006	Cober at Helston County Bridge	EA-DC
50007	Taw at Taw Bridge	EA-DC
54102	Avon at Lilbourne	EA-WM
55018	Frome at Yarkhill	EA-WM
55032	Elan at Caban Dam	NRW
56001	Usk at Chainbridge	NRW
56003	Honddu at The Forge Brecon	NRW
56012	Grwyne at Millbrook	NRW
57005	Taff at Pontypridd	NRW
57007	Taff at Fiddlers Elbow	NRW
58012	Afan at Marcroft Weir	NRW
69028	Mersey at Brinksway	EA-GMMC
82003	Stinchar at Balnowlart	SEPA-SW
83002	Garnock at Dalry	SEPA-SW
83006	Ayr at Mainholm	SEPA-SW
83010	Irvine at Newmilns	SEPA-SW
84005	Clyde at Blairston	SEPA-SW
84018	Clyde at Tulliford Mill	SEPA-SW
96003	Strathy at Strathy Bridge	SEPA-NW