

Natural Resources Wales

- The monthly rainfall total for Wales during August was 121% of the Long Term Average (LTA, 1961-90). South East, South West and North Wales received 113%, 122% and 126% of the LTA, respectively.
- At the end of August, soil moisture deficit (SMD) values across Wales were from 0 to 119.2 mm for all MORECS squares. Soil in 16 squares (out of 23) was wetter than the LTA while soil in the rest of the squares (7 out of 23) were drier than the LTA for August.
- For river flows in Wales, 8 out of 30 indicator sites (which had flow data available) were classed as *Normal* and 12 were classed as *Above normal*. 7 sites were *Notably high* and 1 site was *Exceptionally high*. For the remaining 2 sites, 1 site was classed as *Below normal* and the other was *Notably low* for August.
- The overall cumulative reservoir storage across the indicator sites was greater than 85% at the end of August and all reservoirs were within normal operating ranges.

Rainfall*

The monthly rainfall total for Wales was 121% of the LTA for August. The percentage of rainfall recorded in catchments compared with the LTA across Wales was between 81% (Ynys Mon) and 172% (Dysynni). The rainfall total for Wales was 21.0mm more than the August LTA. For South East, South West and North Wales the rainfall totals were 113%, 122% and 126% of LTA, respectively.

Rainfall Map

[National](#)

Rainfall Charts

[National & Areas](#)

[South East Wales](#)

[North Wales](#)

[South West Wales](#)

* using NCIC (National Climate Information Centre) data (*Source: Met Office © Crown Copyright*)

Soil Moisture Deficit/Recharge

All 23 MORECS squares had SMD values which were between 7.2 and 135.1mm. 16 squares were wetter than the long term average while the remaining 7 squares were drier than the LTA for August.

SMD Map

[National](#)

SMD Charts

[Compare to LTA](#)

All data are provisional and August be subject to revision.

The views expressed in this document are not necessarily those of the Natural Resources Wales. Its officers, servants or agents accept no liability for any loss or damage arising from the interpretation or use the information, or reliance upon views contained herein.

River Flows

River flows were between *Notably low* to *Exceptionally high* for all the indicator sites across Wales. 8 out of 30 indicator sites (which had flow data available) were classed as *Normal* and 12 were classed as *Above normal*. 7 sites were classed as *Notably high* and 1 site was *Exceptionally high*. For the remaining 2 sites, 1 site was classed as *Below normal* and the other was *Notably low* for August.

South East: Flows in the area ranged from 43% (River Lugg at Butts Bridge) to 146% (River Usk at Trostrey Weir) of the August LTA values.

South West: The river flows within this area ranged from 98% (River Ewenny at Keepers Lodge) to 203% (River Western Cleddau at Treffgarne) of the August LTA values.

North: Flows in the area ranged from 68% (River Wheeler at Bodfari) to 285% (River Clwyd at Ruthin Weir) of the August LTA Values.

River Flow Map [National](#)
 [% of LTA and compare to previous year](#)
River Flow Charts [South East Wales](#) [North Wales](#) [South West Wales](#)

Groundwater Levels

Groundwater levels for August at all indicator sites (10 sites) were classed between *Exceptionally low* (Pont y Cambwll and Eastwick) to *Normal*. 6 sites were classed as *Normal* (Greenfield Garage, Hollybush, Dodleston, Fernbank, Broxton and Pant-y-Lladron) and 1 site was classed as *Below normal* (Llanfair DC) and the remaining (Handley) was *Notably low*.

Groundwater Map [National](#)
Groundwater Charts [South East Wales](#) [North Wales](#) [South West Wales](#)

Reservoir Storage

At the end of August most of the indicator reservoirs (12 out of 18) were greater than 85% full and the remaining six reservoirs (Usk, Elan Valley, Llandegfedd, Ystradfellte, the Big 5 and the joint Aled & Aled Isaf) were ranged between 66% and 82% full. All of them were in normal operation for the time of year.

Reservoir Charts [South East Wales](#) [North Wales](#) [South West Wales](#)

All data on Water Situation Reports are provisional, based on spot readings, and are subject to revision.

Author: Zhong Zhang Telephone: 03000 654521

[Return to Summary](#)

Natural Resources Wales

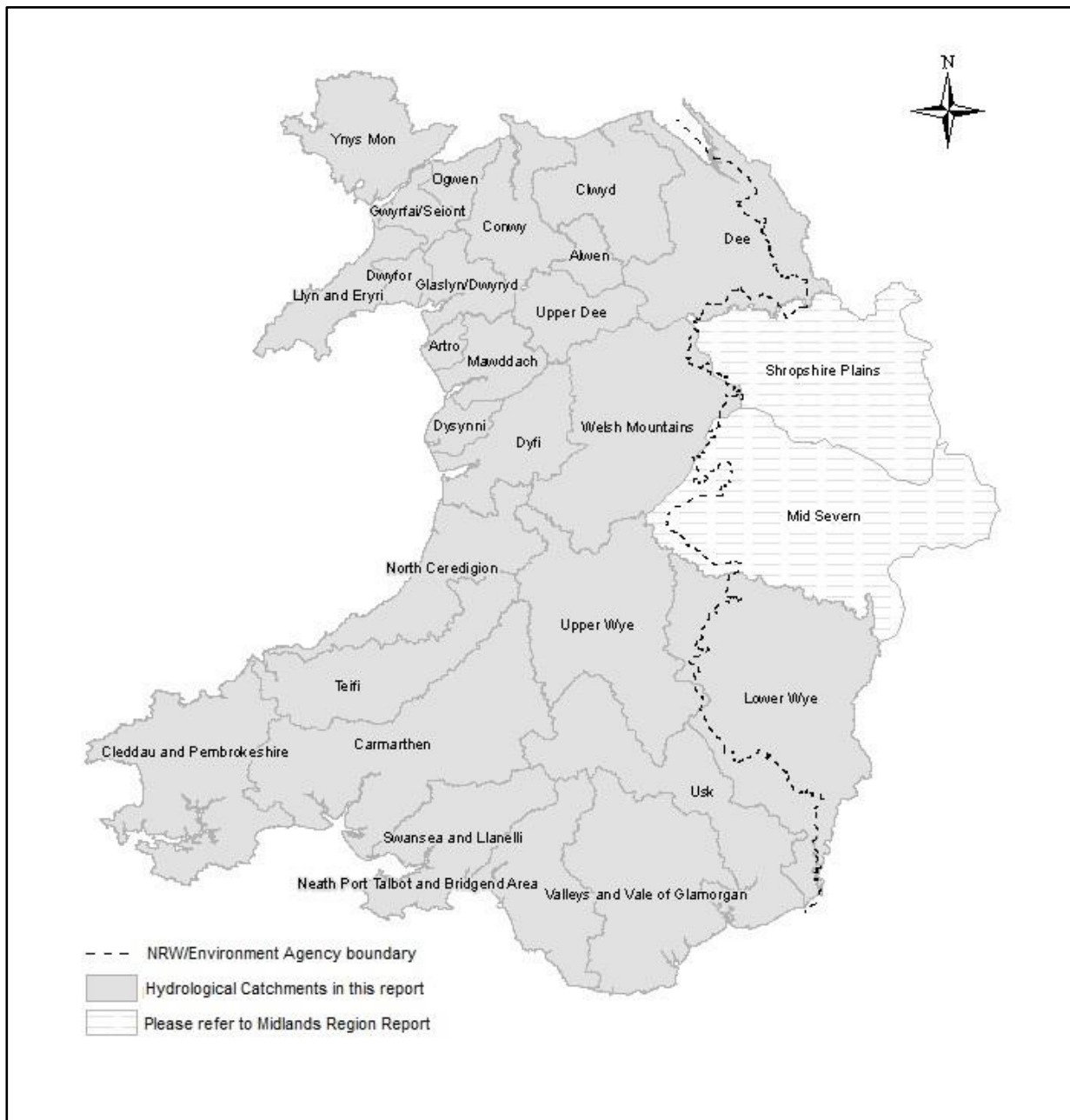


Figure 1: The Natural Resources Wales Water Situation Report features sites in the catchments shown. Parts of the Shropshire Plains and Mid Severn catchments are within Wales. For full information on these catchments, please see the Environment Agency Midlands Water Situation Report.

For areas adjoining Natural Resources Wales, please see the reports for Environment Agency Midlands and North West England:

[Environment Agency - Midlands, England Water Situation Report](#)
[Environment Agency - North West, England Water Situation Report](#)

All data are provisional and August be subject to revision.

The views expressed in this document are not necessarily those of the Natural Resources Wales. Its officers, servants or agents accept no liability for any loss or damage arising from the interpretation or use the information, or reliance upon views contained herein.

Rainfall

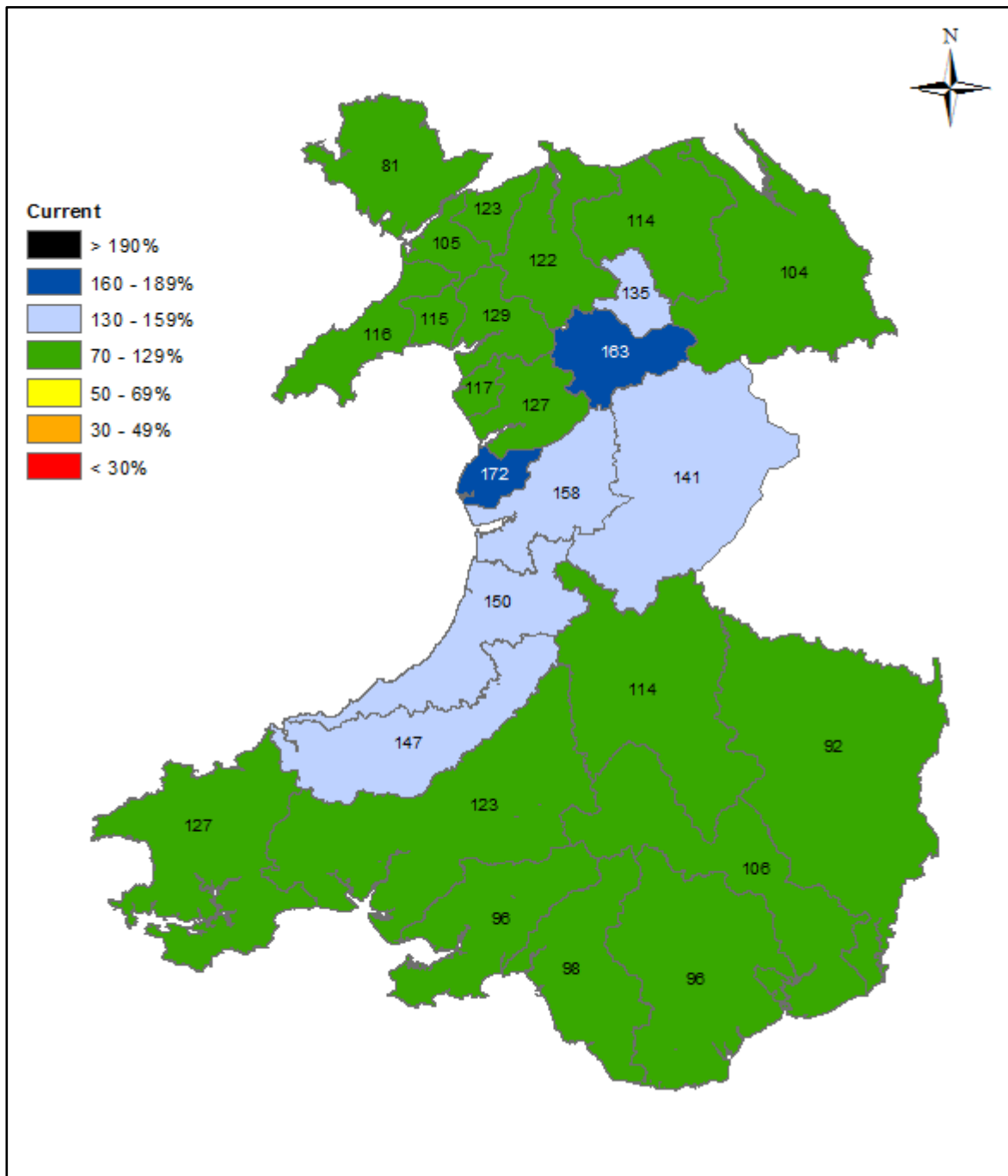
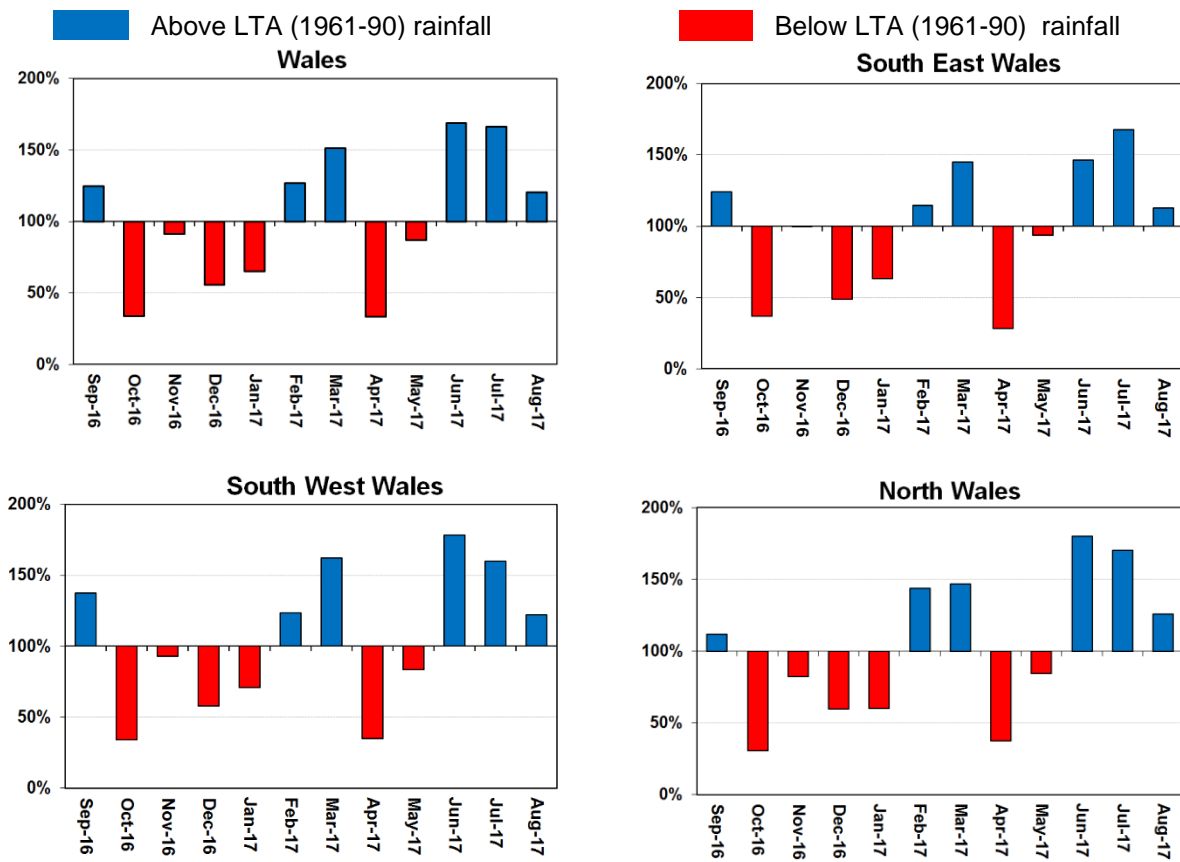


Figure 2: Calculated catchment average August rainfall totals as a percentage of the 1961-90 August long term average for Natural Resources Wales catchments, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

Rainfall Charts

Figure 3: Rainfall Charts: National and Areas

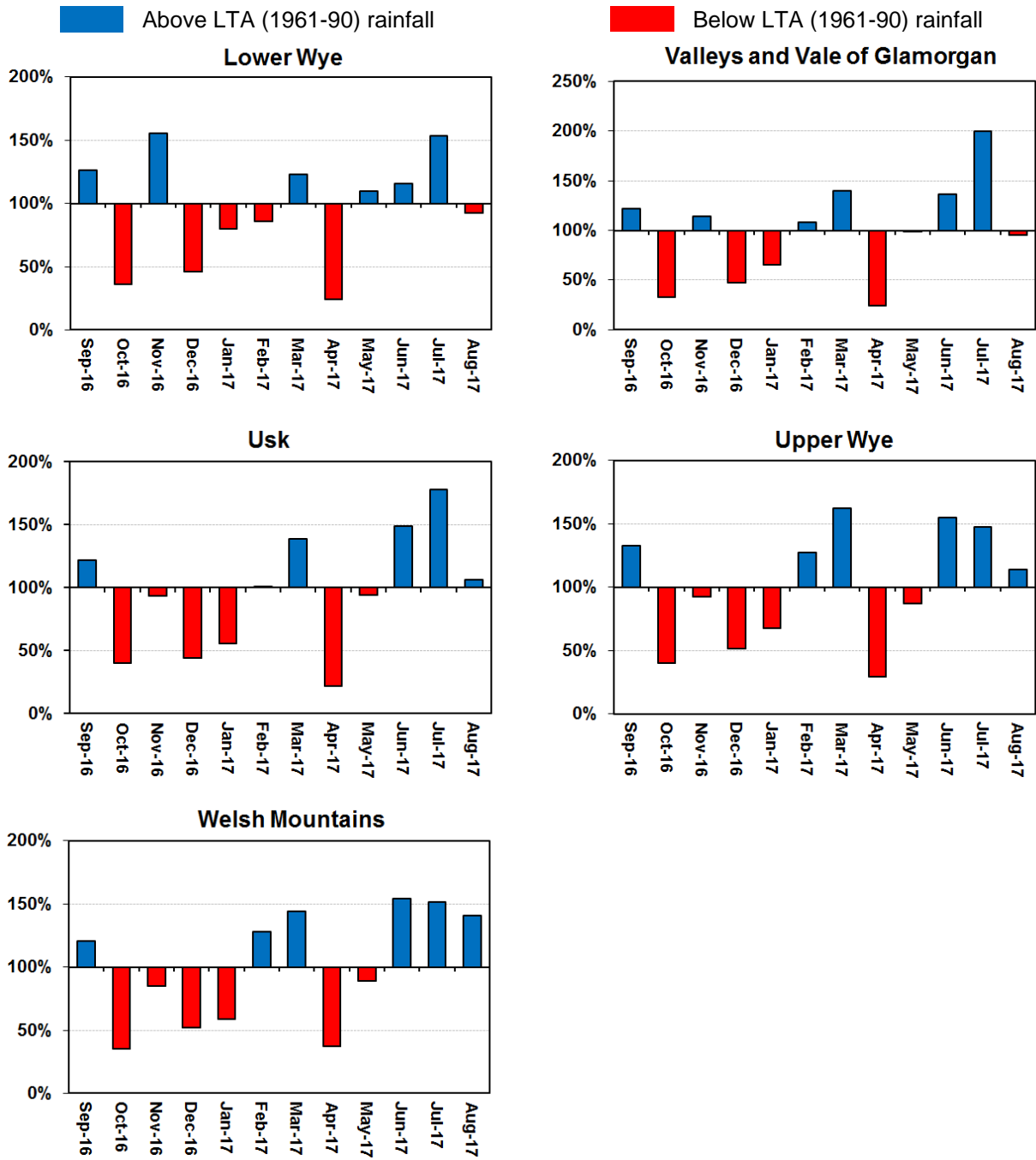


Comparison of monthly rainfall totals to the 1961-90 long term average expressed as percentage for Natural Resources Wales and Areas, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

All data are provisional and Jul be subject to revision.

The views expressed in this document are not necessarily those of the Natural Resources Wales. Its officers, servants or agents accept no liability for any loss or damage arising from the interpretation or use the information, or reliance upon views contained herein.

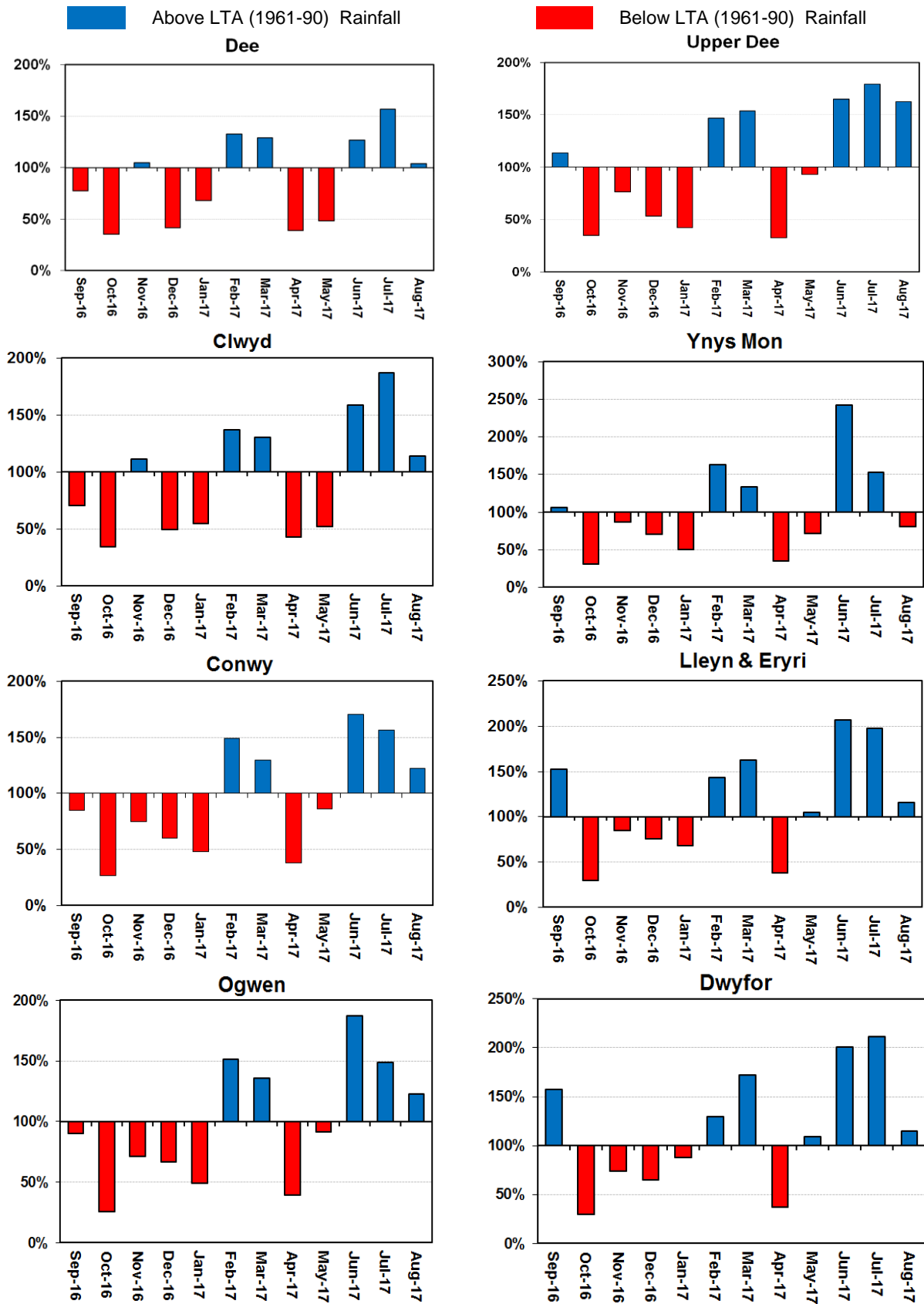
Figure 4: Rainfall Charts: South East Wales



Comparison of monthly rainfall totals to the 1961-90 long term average expressed as percentage for South East Wales, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

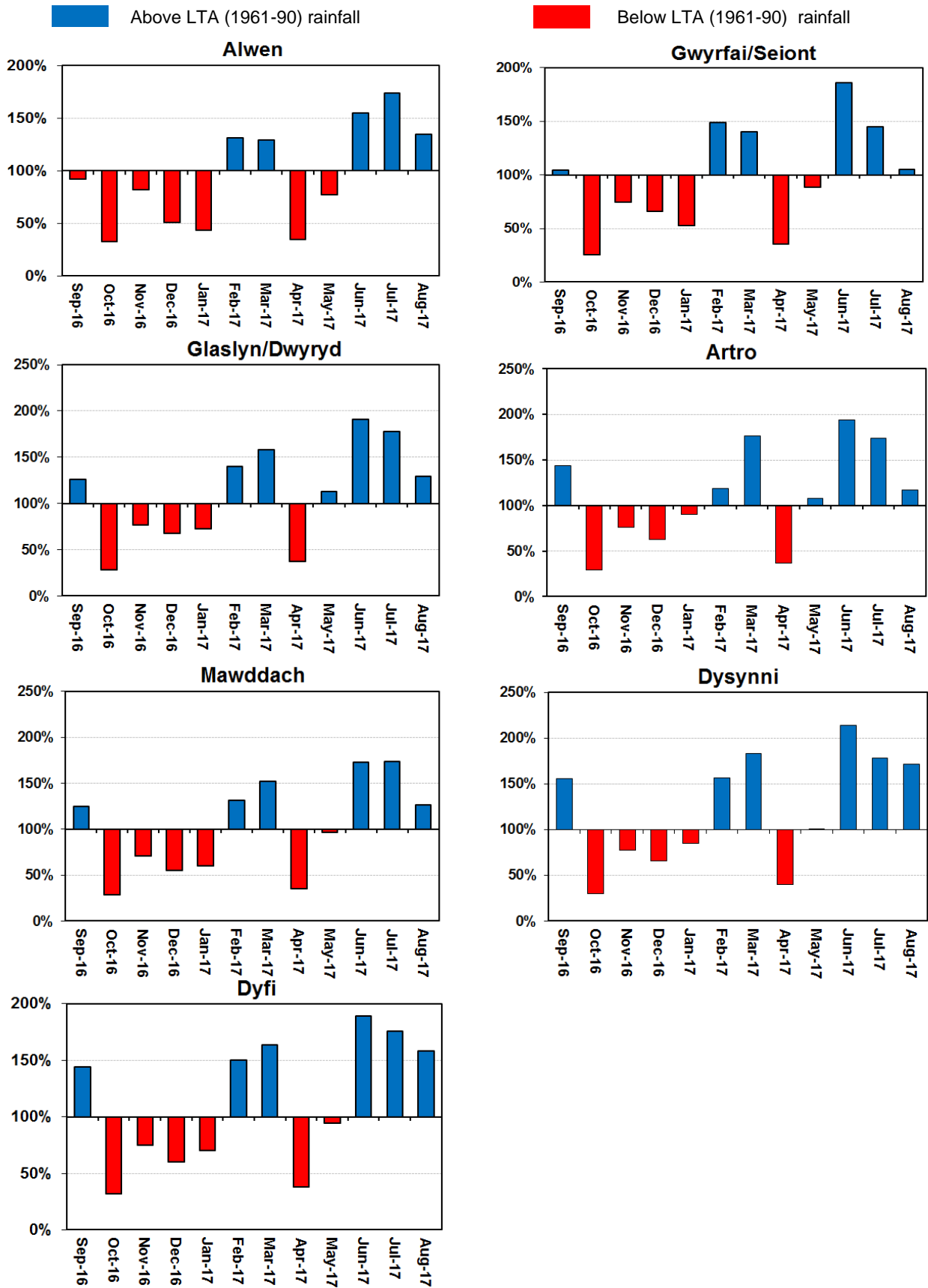
[Return to Summary](#)

Figure 5: Rainfall Charts: North Wales



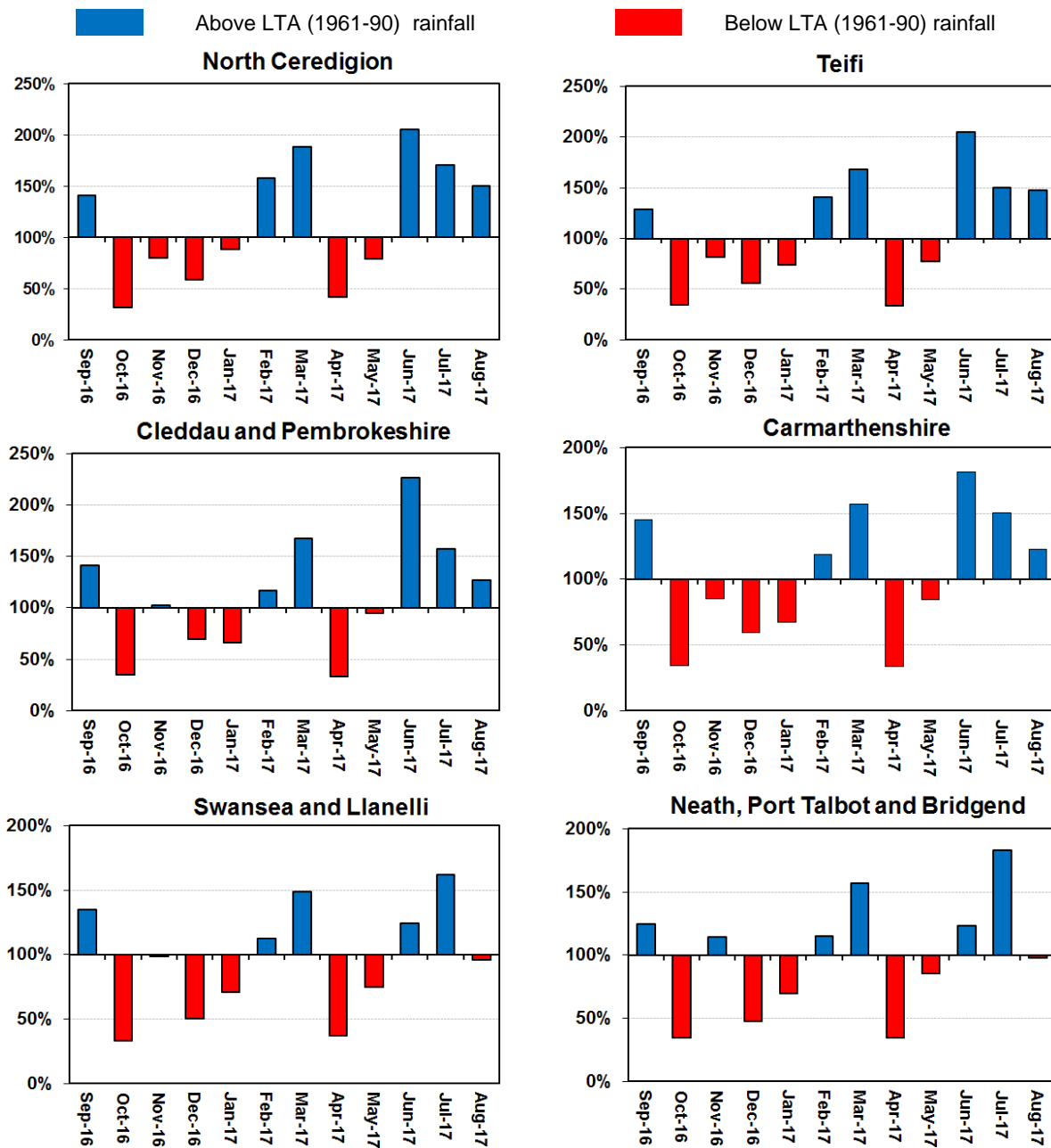
Comparison of monthly rainfall totals to the 1961-90 long term average expressed as percentage for North Wales, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

[Return to Summary](#)



Comparison of monthly rainfall totals to the 1961-90 long term average expressed as percentage for North Wales, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

Figure 6: Rainfall Charts: South West Wales



Comparison of monthly rainfall totals to the 1961-90 long term average expressed as percentage for South West Wales, using NCIC (National Climate Information Centre) data (Source: Met Office © Crown Copyright).

Soil Moisture Deficit (SMD)

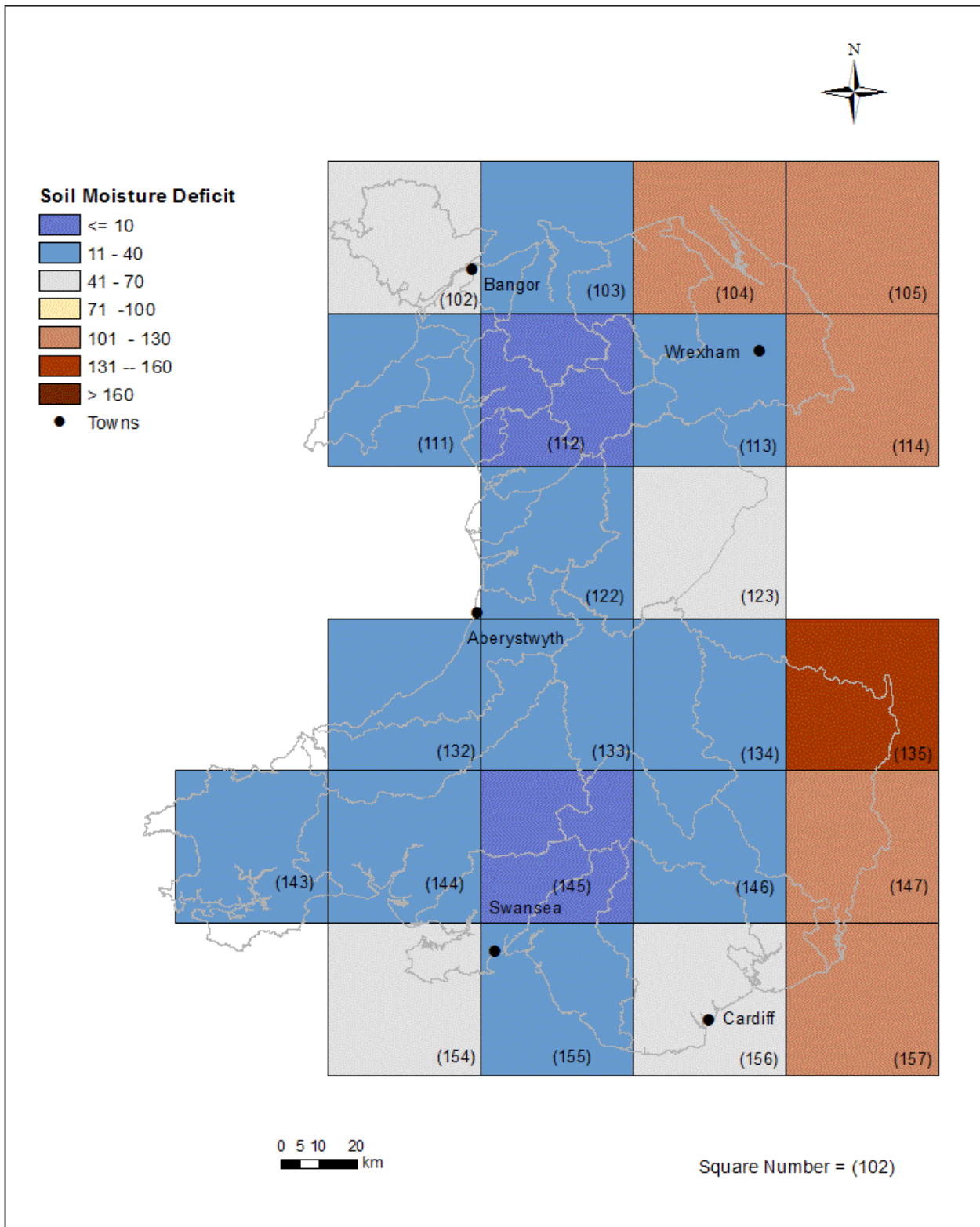


Figure 7: MORECS soil moisture deficits (mm) for August for real land use for Natural Resources Wales (Source: Met Office © Crown Copyright).

[Return to Summary](#)

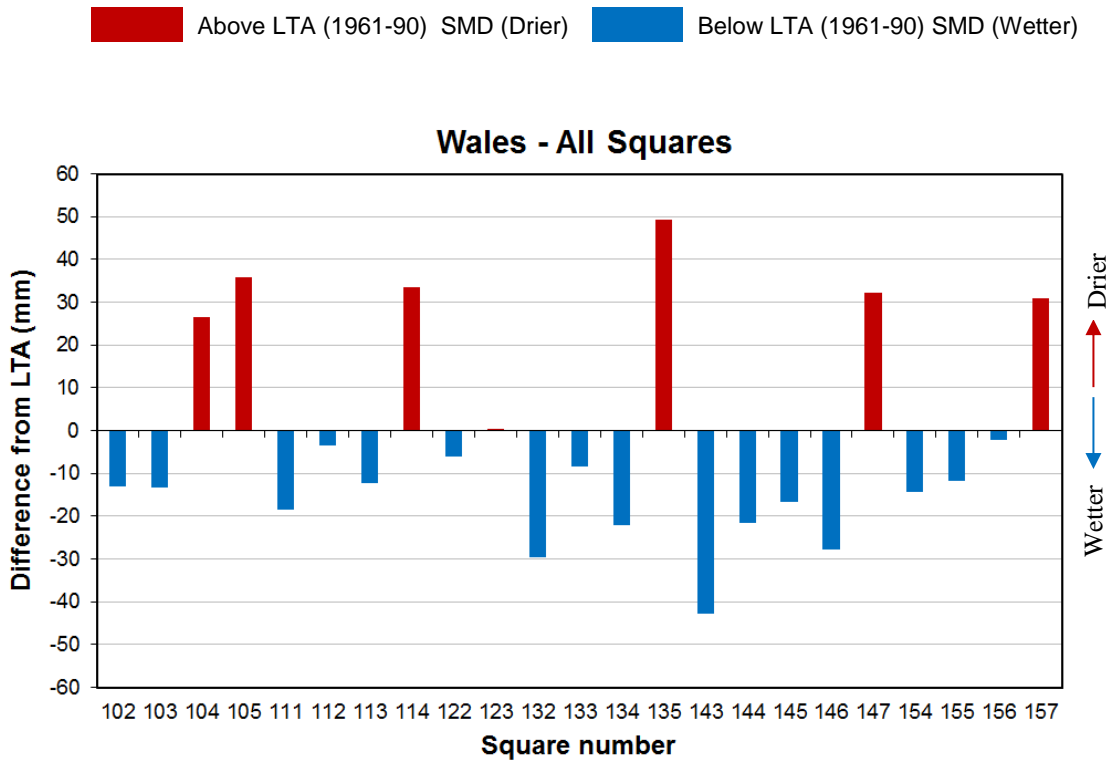


Figure 8: MORECS month end soil moisture deficits difference (mm) from the 1961-90 long term monthly average (LTA) for real land use for Natural Resources Wales squares (Source: Met Office © Crown Copyright).

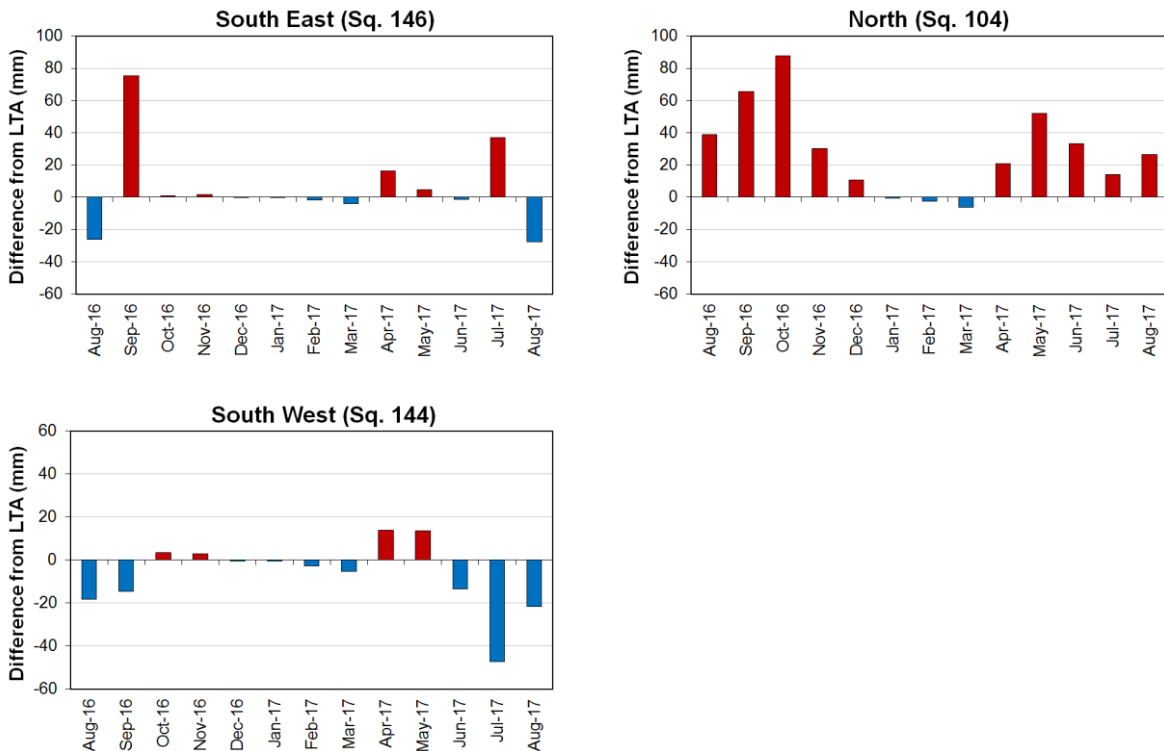


Figure 9: MORECS month end soil moisture deficit difference (mm) from the 1961-90 long term monthly average (LTA) for real land use for South East, North and South West (Source: Met Office © Crown Copyright). (Note: no LTA available for Natural Resources Wales.)

River Flow

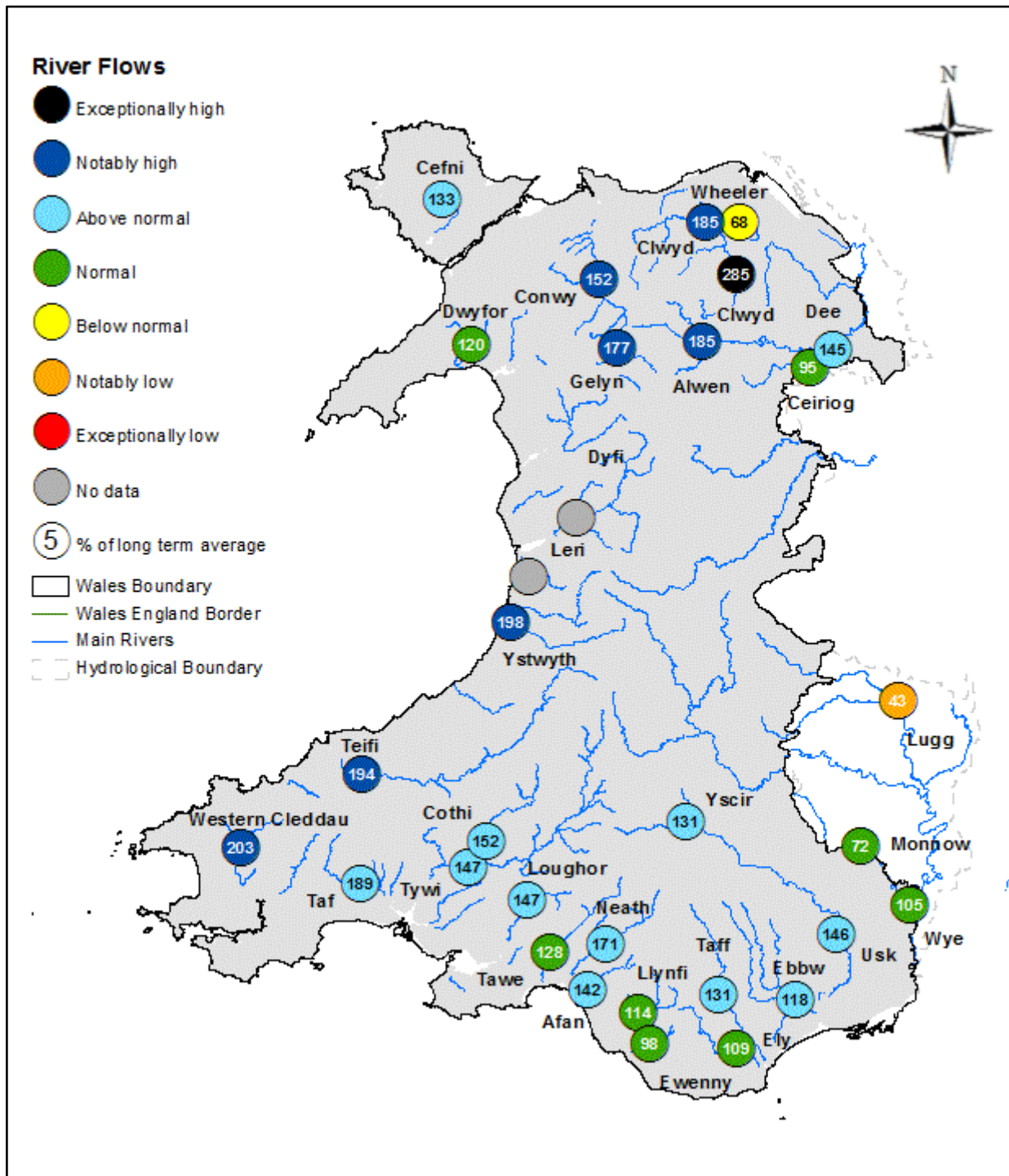


Figure 10: Monthly mean river flow for August, classed relative to analysis of historic August monthly means (Source: Natural Resources Wales).

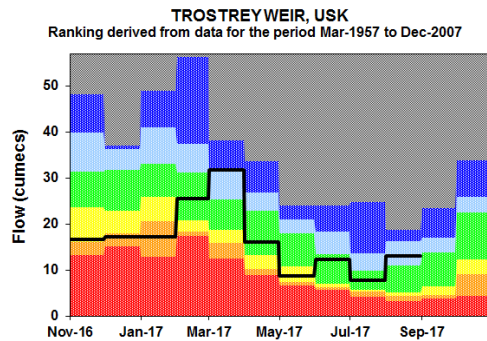
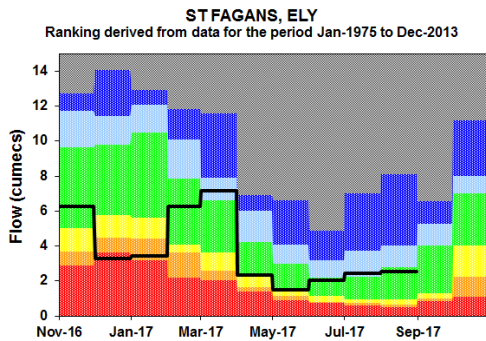
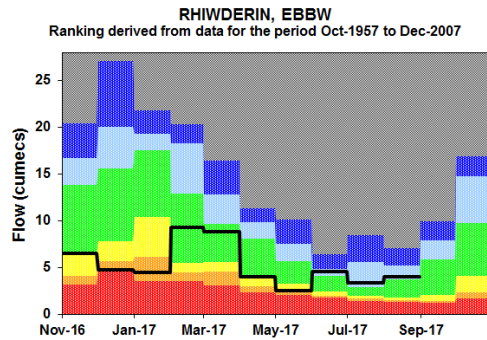
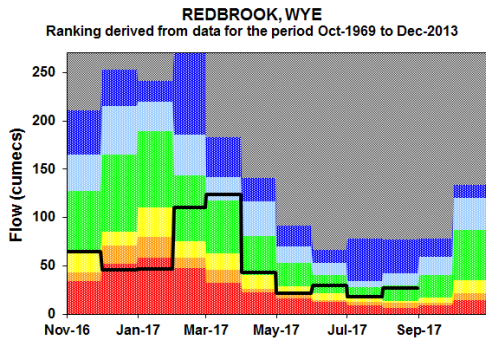
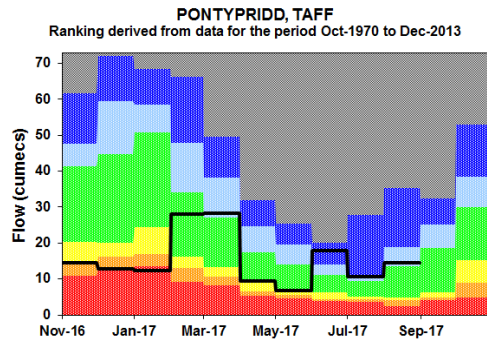
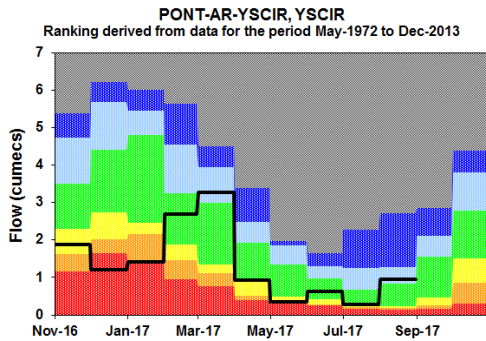
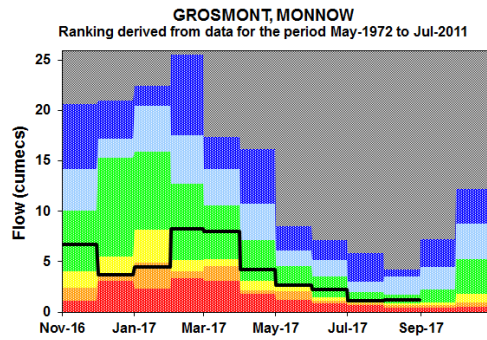
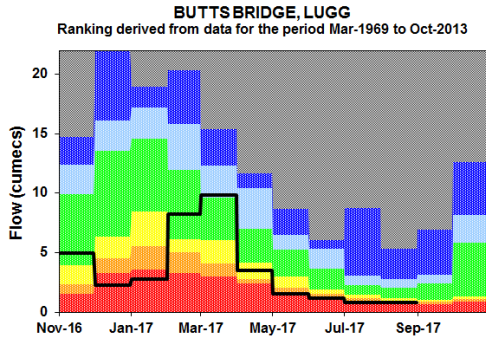
[Return to Summary](#)

SITE NAME	RIVER	August 2017			August 2016		August LTA		
		Class	% of LTA	Flow (m3/s)	% of LTA	Flow (m3/s)	LTA	Monthly Min (m3/s)	Monthly Max (m3/s)
River Flow Sites : South East Area									
Butts Bridge	Lugg	Notably low	43%	0.83	53%	1.01	1.90	0.51	6.97
Grosmont	Monnow	Normal	72%	1.22	76%	1.29	1.69	0.36	8.17
Pont ar Yscir	Yscir	Above normal	131%	0.94	93%	0.67	0.72	0.10	3.23
Pontypridd	Taff	Above normal	131%	14.50	143%	15.86	11.10	2.29	49.00
Redbrook	Wye	Normal	105%	27.30	94%	24.30	25.95	5.18	79.70
Rhiwderin	Ebbw	Above normal	118%	3.95	74%	2.48	3.35	0.93	14.30
St Fagans	Ely	Normal	109%	2.54	150%	3.50	2.34	0.46	11.30
Trostrey Weir	Usk	Above normal	146%	13.10	102%	9.13	8.96	2.70	27.50
River Flow Sites : North Area									
Bodfari	Wheeler	Below normal	68%	0.27	88%	0.35	0.40	0.19	0.87
Bodffordd	Cefni	Above normal	133%	0.12	67%	0.06	0.09	0.00	0.36
Brynkinalt Weir	Ceiriog	Normal	95%	1.07	61%	0.69	1.13	0.18	5.20
Cwmlanerch	Conwy	Notably high	152%	17.40	127%	14.45	11.41	0.73	37.40
Cynefail	Gelyn	Notably high	177%	0.69	123%	0.48	0.39	0.03	1.09
Dol y Bont	Leri						1.03	0.08	3.00
Druid	Alwen	Notably high	185%	3.93	73%	1.55	2.12	0.39	5.90
Dyfi bridge	Dyfi						12.52	0.66	40.40
Garndolbenmaen	Dwyfor	Normal	120%	2.47	121%	2.49	2.06	0.12	6.25
Manley Hall	Dee	Above normal	145%	22.20	94%	14.33	15.32	7.08	38.60
Pont y Cambwll	Clwyd	Notably high	185%	3.68	66%	1.31	1.99	0.51	7.18
Ruthin Weir	Clwyd	Exceptionally high	285%	0.74	108%	0.28	0.26	0.05	0.74
River Flow Sites : South West Area									
Capel Dewi	Tywi	Above normal	147%	28.20	79%	15.20	19.16	2.70	78.50
Clog y Fran	Taf	Above normal	189%	6.70	118%	4.18	3.54	0.33	18.30
Coytrahen	Llynfi	Normal	114%	1.83	160%	2.57	1.61	0.26	6.06
Felin Mynachdy	Cothi	Above normal	152%	9.49	81%	5.08	6.25	0.36	23.40
Glanteifi	Teifi	Notably high	194%	26.30	63%	8.52	13.56	1.13	77.30
Keepers Lodge	Ewenny	Normal	98%	1.02	167%	1.74	1.04	0.22	4.24
Marcroft	Afan	Above normal	142%	5.34	174%	6.52	3.75	0.55	13.30
Pont Llolwyn	Ystwyth	Notably high	198%	6.15	146%	4.55	3.11	0.18	8.57
Treffgarne *	Western Cleddau	Notably high	203%	2.72	96%	1.28	1.34	0.24	5.54
Resolven	Neath	Above normal	171%	9.84	174%	10.04	5.76	0.40	22.50
Tir-y-Dail	Loughor	Above normal	147%	1.79	120%	1.46	1.22	0.18	4.40
Ynystanglws	Tawe	Normal	128%	9.99	158%	12.3	7.80	1.07	28.60

Figure 11: Monthly mean river flow for August with comparison against previous year expressed as a percentage of the August long term average and classed relative to analysis of historic August monthly means. (Source: Natural Resources Wales). (* For Treffgarne station the LTAs were derived using scaled historical flows (1965-2003) from the downstream station at Prendergast Mill.)

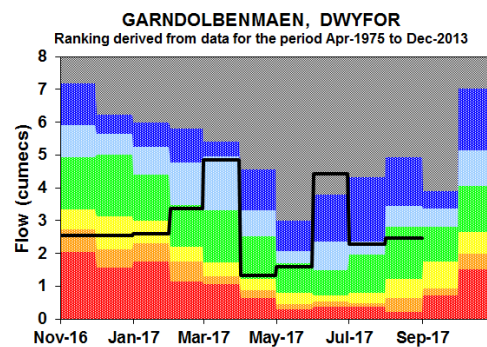
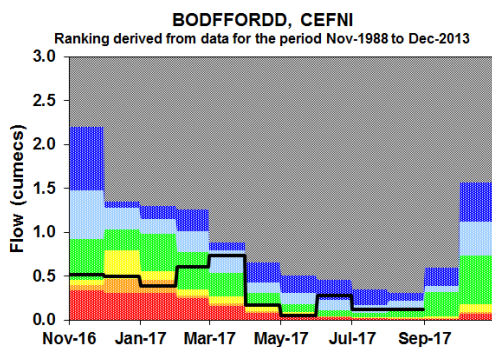
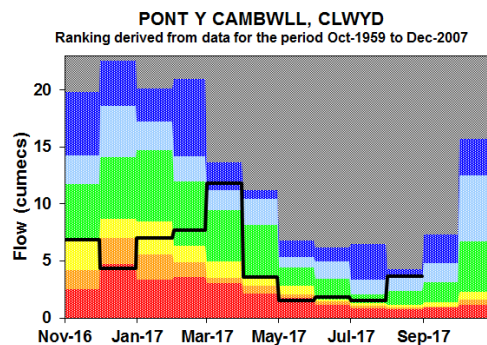
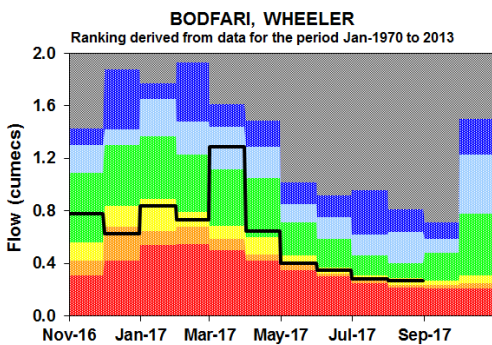
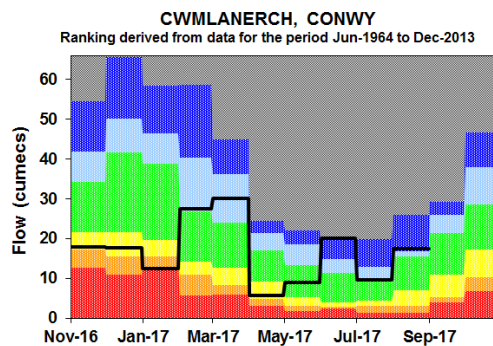
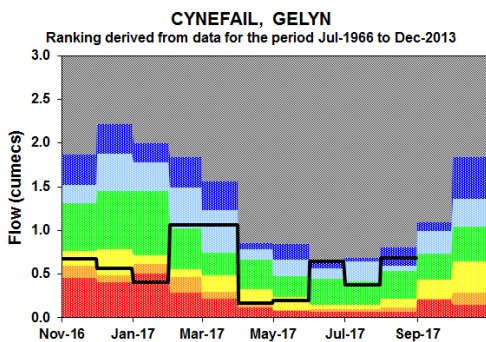
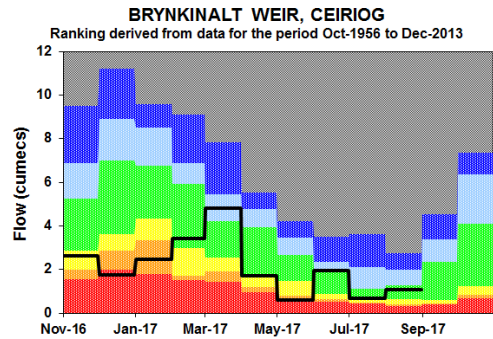
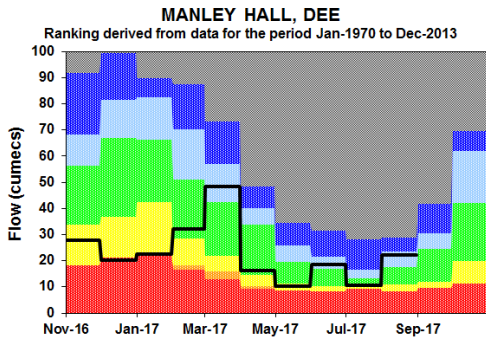
River Flow Charts

Figure 12: River Flow Charts: South East Wales



Monthly mean river flows for the last 10 months classed relative to the analysis of historic river levels (Source: Natural Resources Wales).

Figure 13: River Flow Charts: North Wales



Monthly mean river flows for the last 10 months classed relative to the analysis of historic river levels (Source: Natural Resources Wales).

[Return to Summary](#)

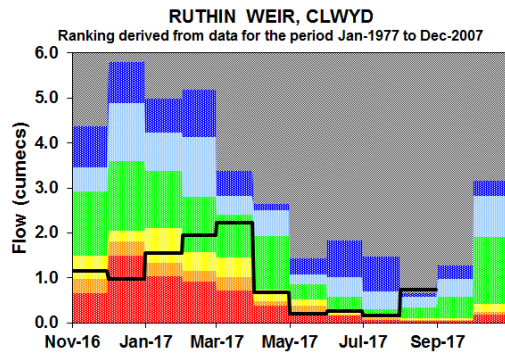
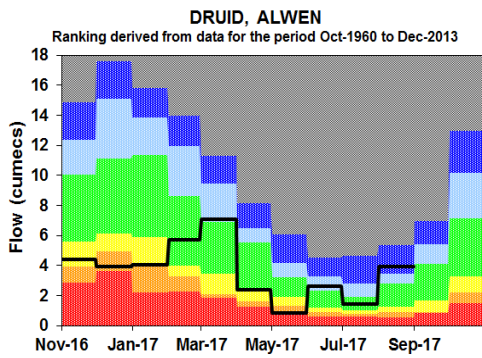
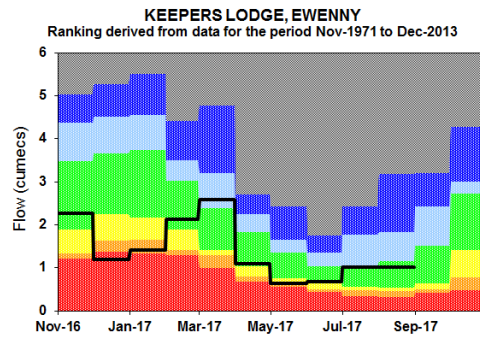
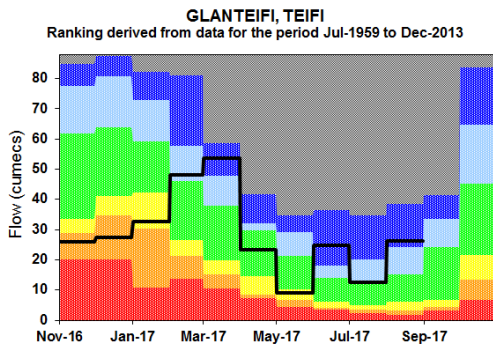
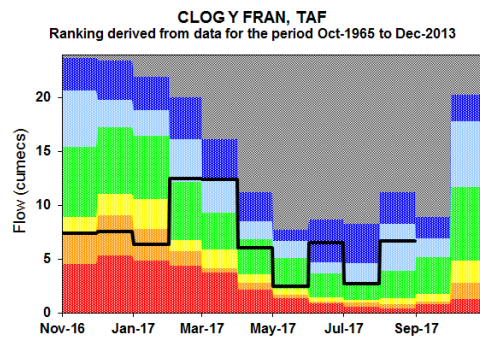
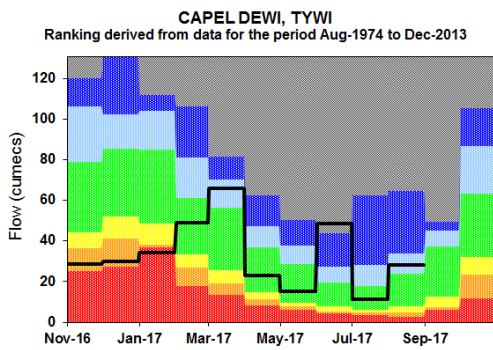
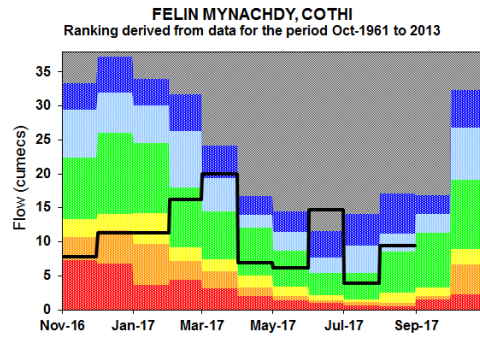
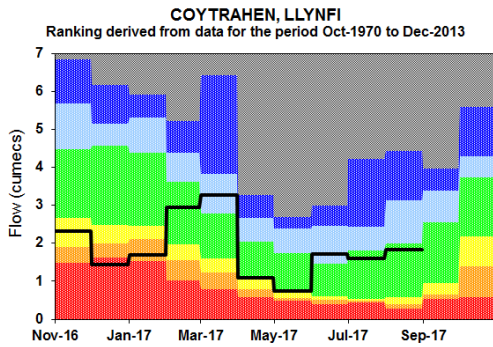
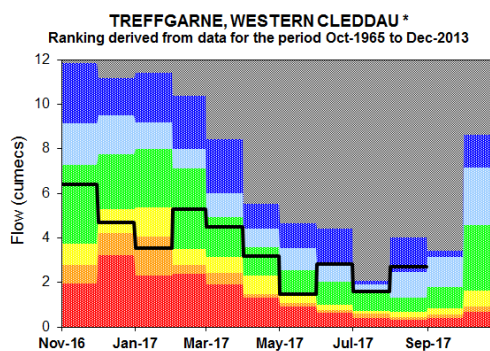
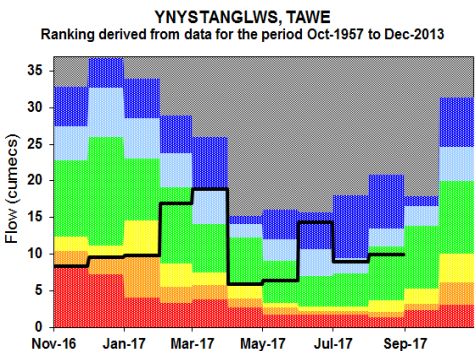
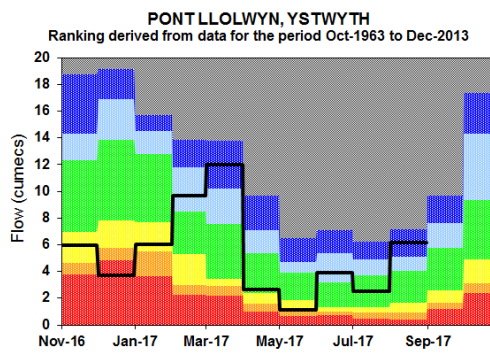
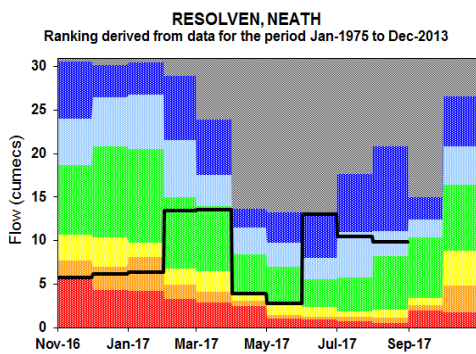
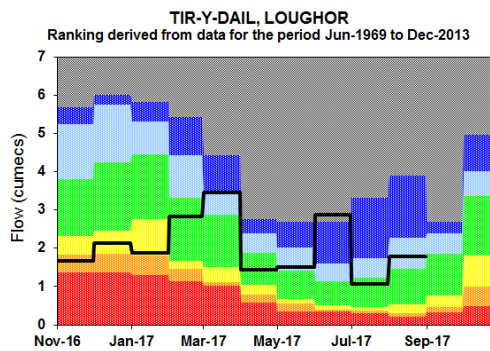
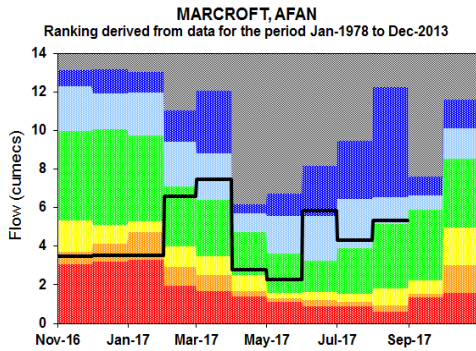
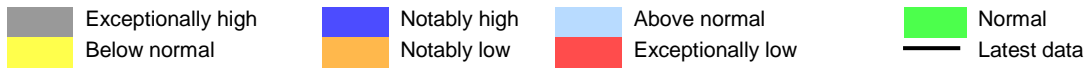


Figure 14: River Flow Charts: South West Wales



[Return to Summary](#)



Monthly mean river flows for the last 10 months classed relative to the analysis of historic river levels. (Source: Natural Resources Wales).

(* Please note that for Treffgarne station the ranking bands were derived using scaled historical flows (1965-2003) from the downstream station at Prendergast Mill)

Groundwater Levels

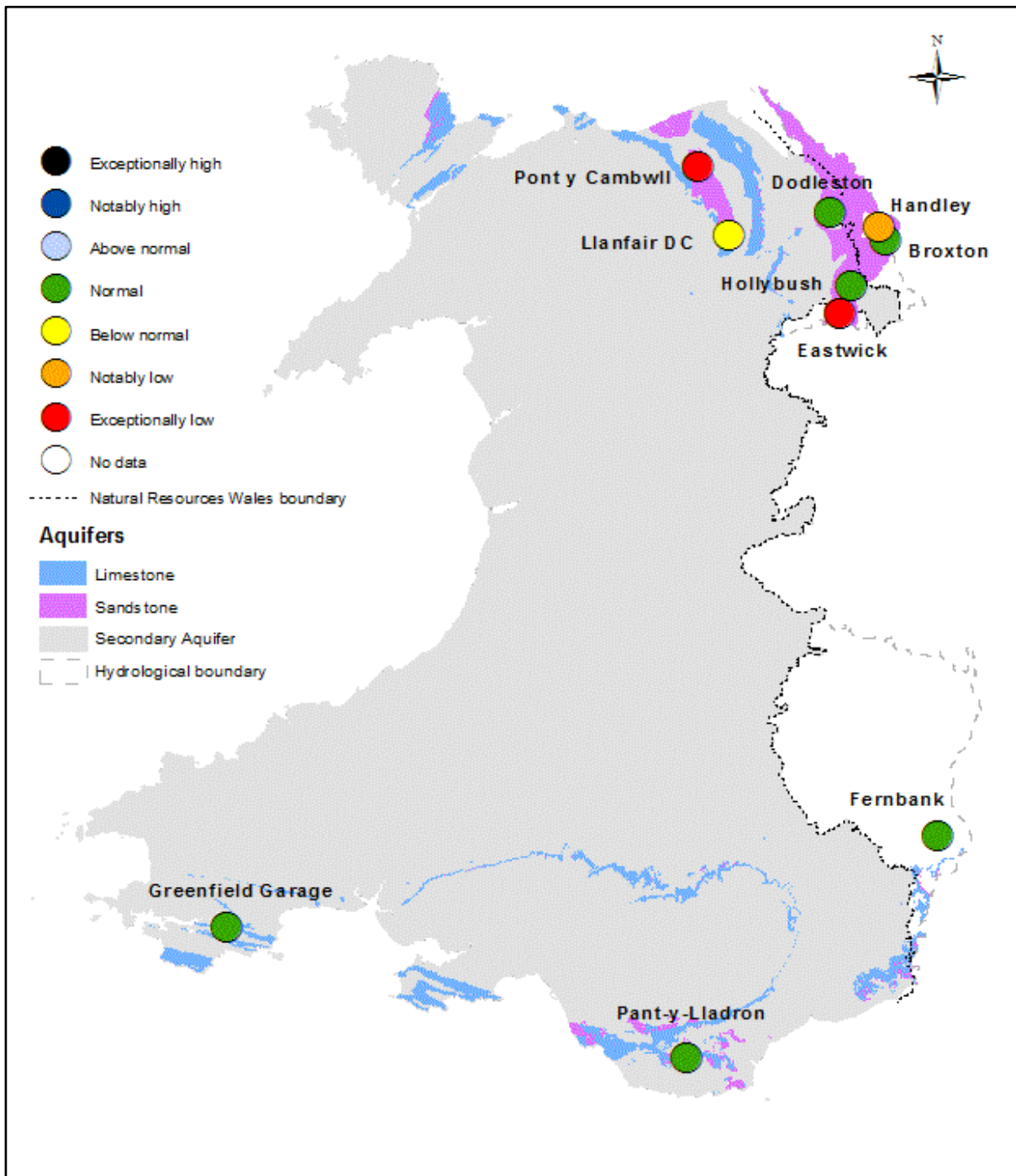
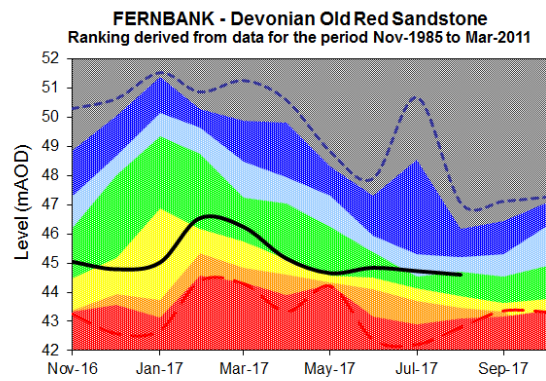
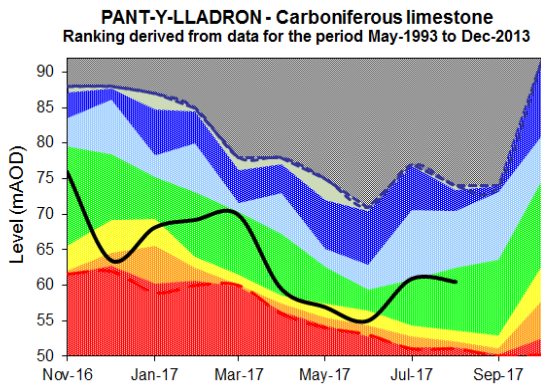
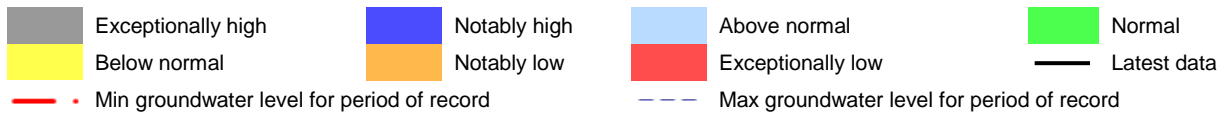


Figure 15: Groundwater levels at the end of month classed relative to an analysis of historic August groundwater levels (Source: Natural Resources Wales and Environment Agency).

[Return to Summary](#)

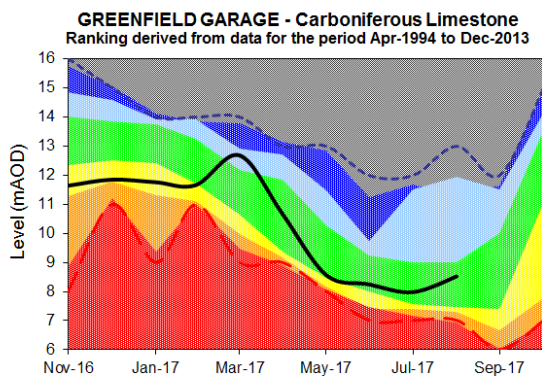
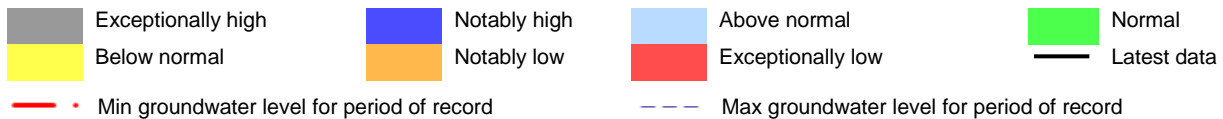
Groundwater charts

Figure 16: Groundwater level charts: South East Wales



End of month groundwater levels for the past 10 months for index sites (Source: Natural Resources Wales).

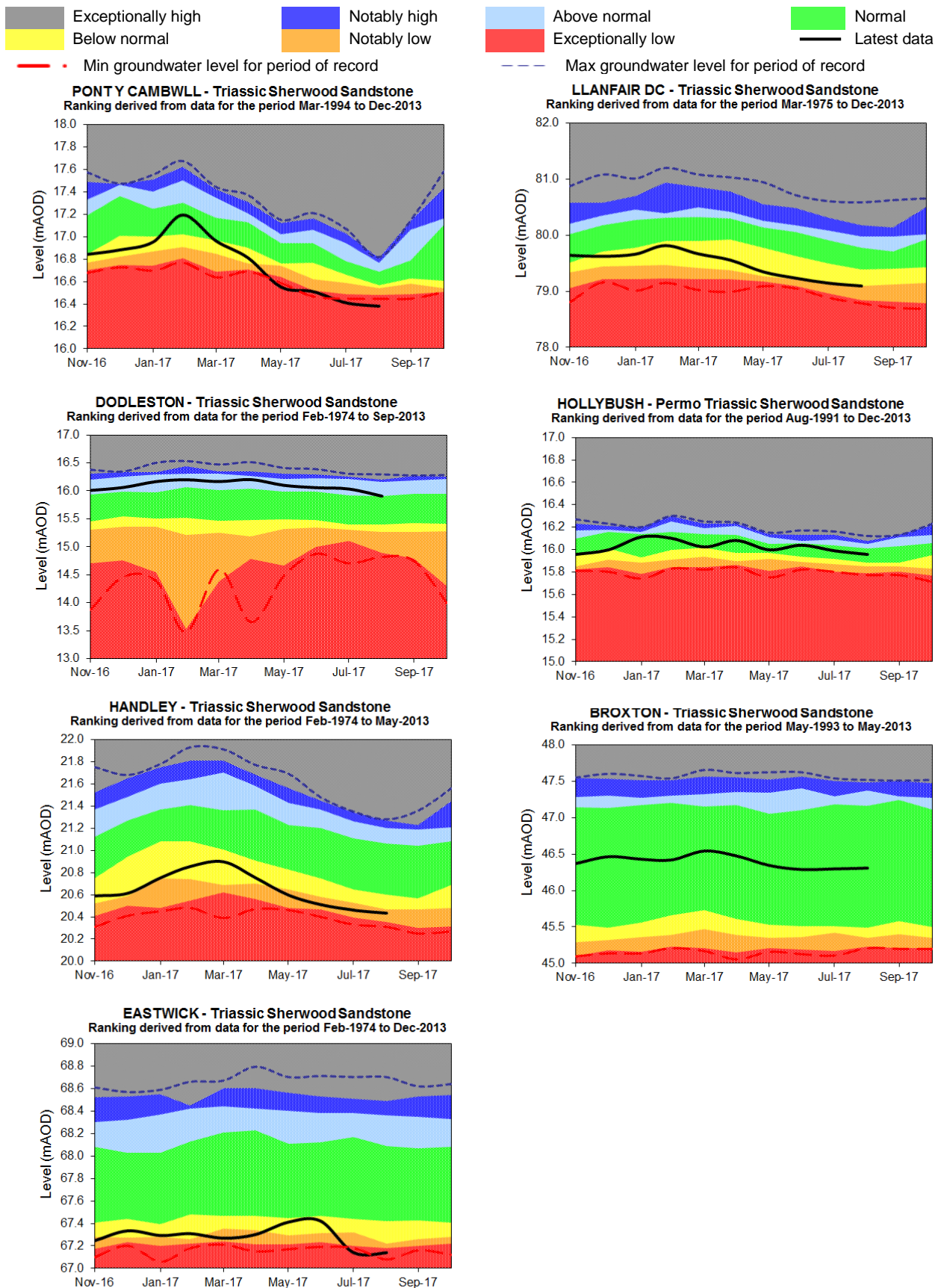
Figure 17: Groundwater level charts: South West Wales



End of month groundwater levels for the past 10 months for index sites (Source: Natural Resources Wales).

[Return to Summary](#)

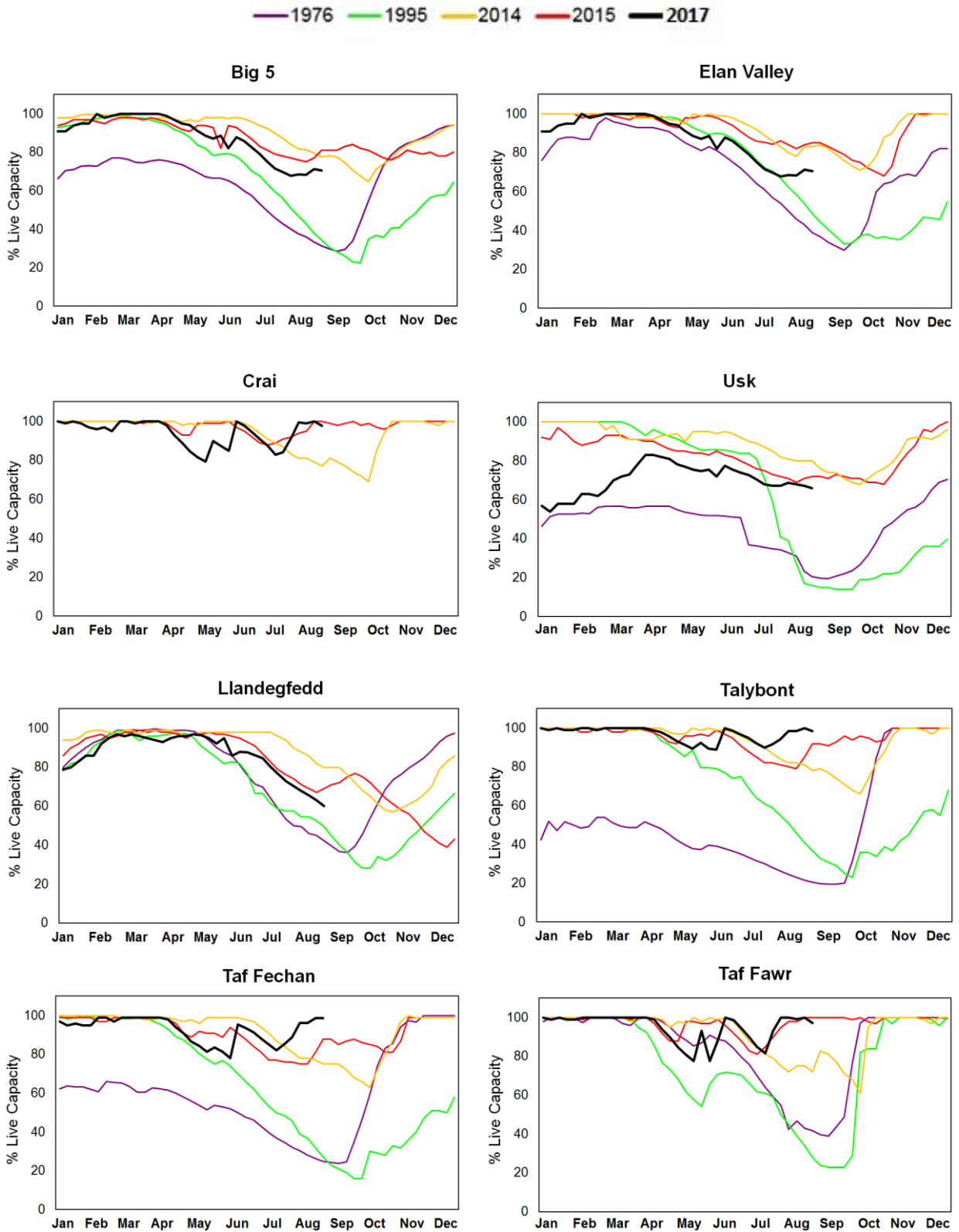
Figure 18: Groundwater level charts: North Wales



End of month groundwater levels for the past 10 months for index sites (Source: Natural Resources Wales and Environment Agency).

Reservoir Storage

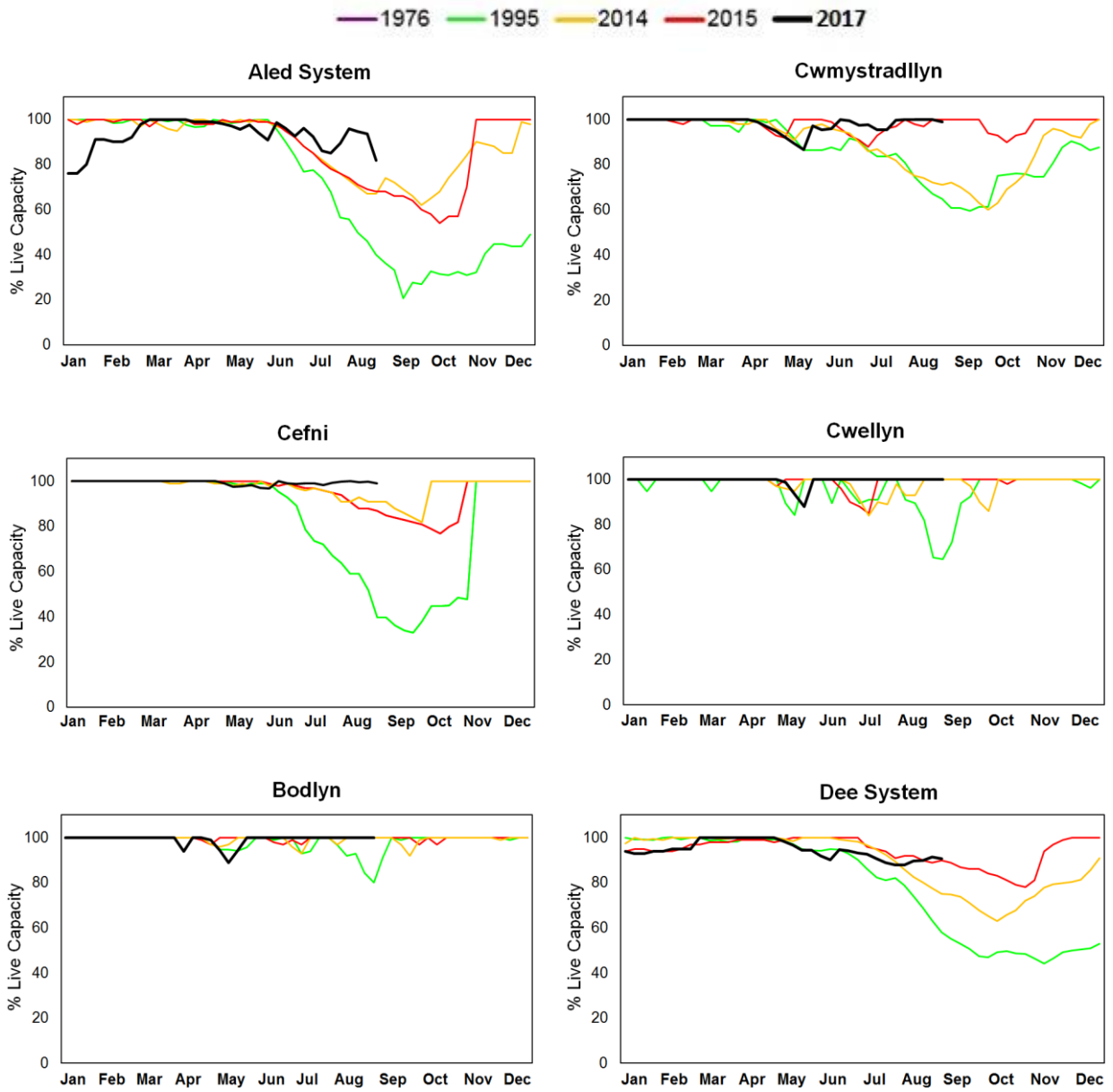
Figure 19: Reservoir charts: South East Wales



Weekly reservoir stocks for Natural Resources Wales index sites (Source: Welsh Water)

[Return to Summary](#)

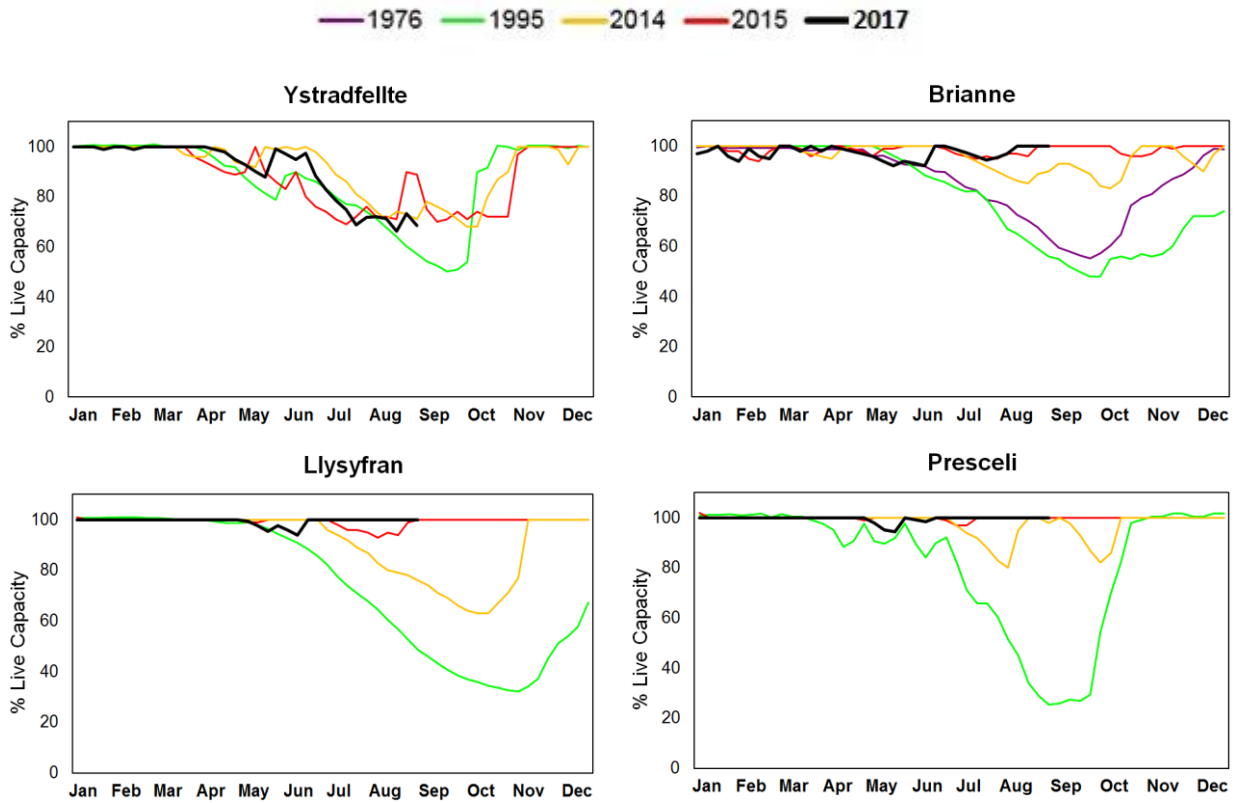
Figure 20: Reservoirs charts: North Wales



Weekly reservoir stocks for Natural Resources Wales index sites (Source: Welsh Water).

[Return to Summary](#)

Figure 21: Reservoirs charts: South West Wales



Weekly reservoir stocks for Natural Resources Wales index sites (Source: Welsh Water).

Glossary

Term	Definition
Aquifer	A geological formation able to store and transmit water.
Areal average rainfall	The estimated average depth of rainfall over a defined area. Expressed in depth of water (mm).
Effective rainfall	The rainfall available to percolate into the soil or produce river flow. Expressed in depth of water (mm).
Groundwater	The water found in an aquifer
Meteorological Office Rainfall and Evaporation Calculating System (MORECS)	The Met Office provides climate data for grid squares measuring 40km by 40km across the UK using MORECS
Recharge	The process of increasing the water stored in the saturated zone of an aquifer. Expressed in depth of water (mm).
Reservoir live capacity	The reservoir capacity normally usable for storage to meet established reservoir operating requirements. It is the total capacity less that not available because of operating agreements or physical restrictions. Only under abnormal conditions, such as a severe water shortage might this additional water be extracted.
Soil moisture deficit (SMD)	The difference between the amount of water actually in the soil and the amount of water that the soil can hold. Expressed in depth of water (mm).

Categories

Exceptionally high	Value likely to fall within this band 5% of the time
Notably high	Value likely to fall within this band 8% of the time
Above normal	Value likely to fall within this band 15% of the time
Normal	Value likely to fall within this band 44% of the time
Below normal	Value likely to fall within this band 15% of the time
Notably low	Value likely to fall within this band 8% of the time
Exceptionally low	Value likely to fall within this band 5% of the time

Units

cumecs	Cubic metres per second ($m^3 s^{-1}$)
mAOD	Metres Above Ordnance Datum (mean sea level at Newlyn Cornwall).