

Monthly Water Situation Report August 2016

Natural Resources Wales

- The monthly rainfall total received for Wales during August was 107% of the Long Term Average (LTA, 1961-90). South East, South West and North Wales received 117%, 99% and 106% of the LTA, respectively.
- At the end of August, soil moisture deficit (SMD) values across Wales were between 1.9 and 115mm for all MORECS squares. The difference when compared to the long term average August (1961-90), ranged from -28.1mm (wetter) to 39.0mm (drier).
- For river flows in Wales, 19 out of 30 indicator sites which had flow data were classed as *Normal* for August. 10 sites were classed as *Above normal* and the remaining 1 site was classed as *Below normal*.
- The overall reservoir storage across all indicator sites was greater than 85% full at the end of August and all reservoirs were within normal operating ranges.

Rainfall*

The monthly rainfall total received for Wales was 107% of the LTA for August. The percentage of rainfall recorded in catchments compared with the long term average (1961-90) across Wales was between 75% (Dee) and 128% (Dysynni). The rainfall total for Wales was 7mm more than the August LTA. For South East, South West and North Wales the rainfall totals were 117%, 99% and 106% of the 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

The 23 MORECS squares had SMD values between 1.9 and 115mm. 16 out of 23 squares had SMD values which were less than the long-term average (wetter) and only 7 squares had SMD values which were greater than the long-term average (drier)

 SMD Map
 National

 SMD Charts
 Compare to LTA

All data are provisional and may be subject to revision.

River Flows

River flows at 19 sites (out of 30 sites which had flow data) were classed as *Normal*. 10 sites were classed as *Above normal* and the remaining 1 site was classed as *Below normal*.

North: Flows in the area ranged from 61% (River Ceiriog at Brynkinalt Weir) to 127% (River Conwy at Cwmlanerch) of the August LTA Values.

South East: Flows in the area ranged from 53% (River Lugg at Butts Bridge) to 150% (River Ely at St Fagans) of the August LTA values.

South West: The river flows within this area ranged from 63% (River Teifi at Glanteifi) to 167% (River Ewenny at Keepers Lodge) of the August LTA values.

River Flow Map	<u>National</u>		
River Flow Table	% of LTA and comp	pare to previou	<u>s year</u>
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 *Below normal* (Eastwick and Greenfield Garage) and *Exceptionally high* (Hollybush). 5 sites were classed as *Normal* (Pant-y-Lladron, Fernbank, Pont y Cambwll, Handley and Broxton Obs) and the two remaining sites were classed as *Above normal* (Llanfair DC Obs and Dodleston Obs).

Groundwater MapNationalGroundwater ChartsSouth East WalesNorth WalesSouth West Wales

Reservoir Storage

At the end of August most of the indicator reservoirs (14 out of 18) were greater than 85% full.

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

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Natural Resources Wales

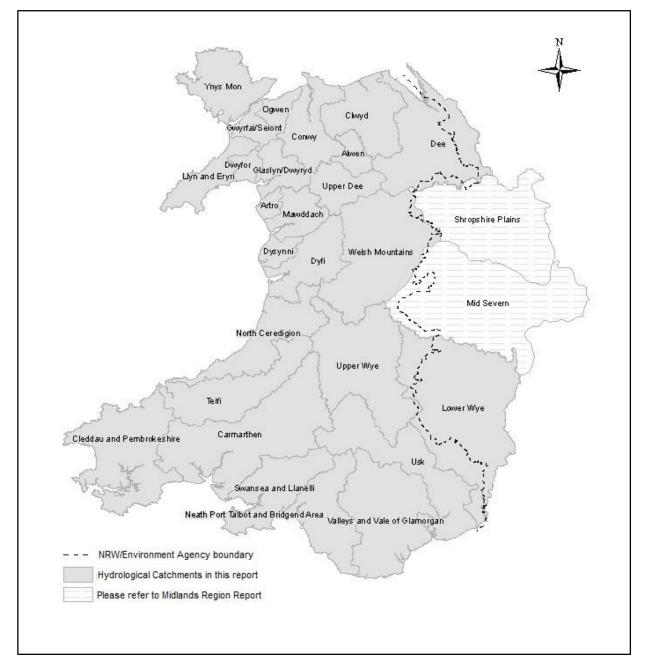


Figure 1: The Natural Resources Wales Water Situation Report features sites in the catchments shown. Parts of the Shropshire Plains and Mid Severn catchments are within Wales. For full information on these catchments, please see the Environment Agency Midlands Water Situation Report.

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

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Rainfall

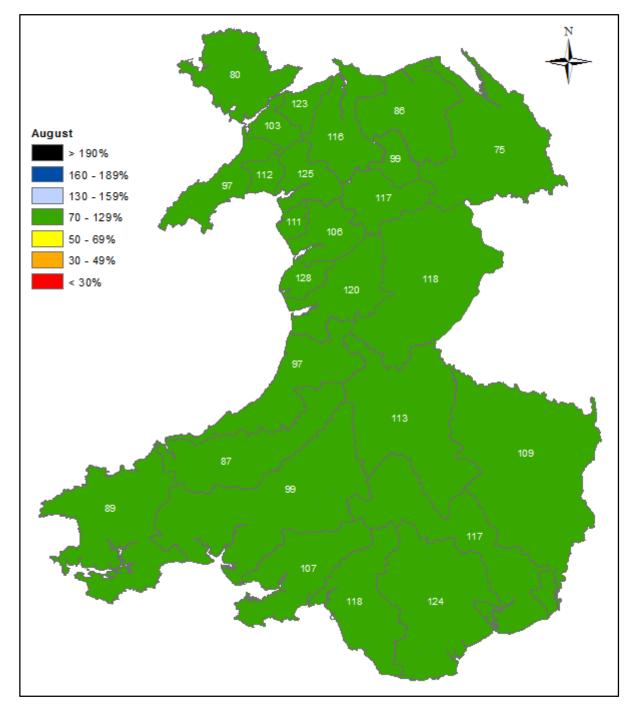


Figure 2: Calculated catchment average August rainfall totals as a percentage of the 1961-90 August long term average for Natural Resources Wales catchments, using NCIC (National Climate Information Centre) data (*Source: Met Office* © *Crown Copyright*).

All data are provisional and may be subject to revision.

Rainfall Charts

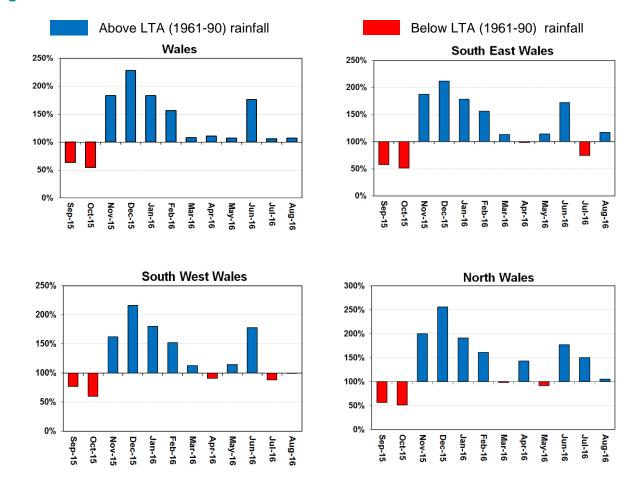


Figure 3: Rainfall Charts: National and Areas

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.

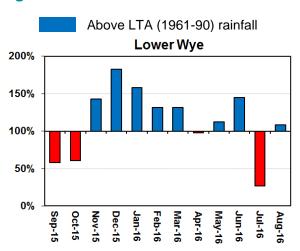
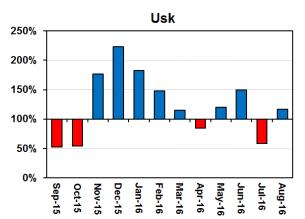
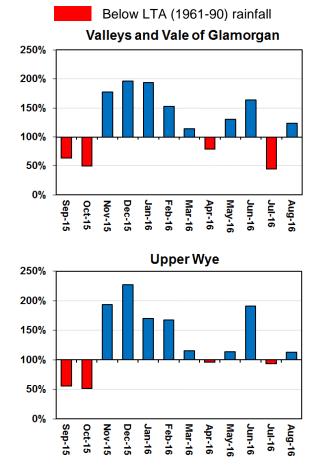
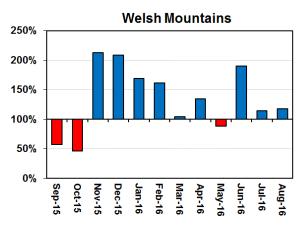


Figure 4: Rainfall Charts: South East Wales







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).

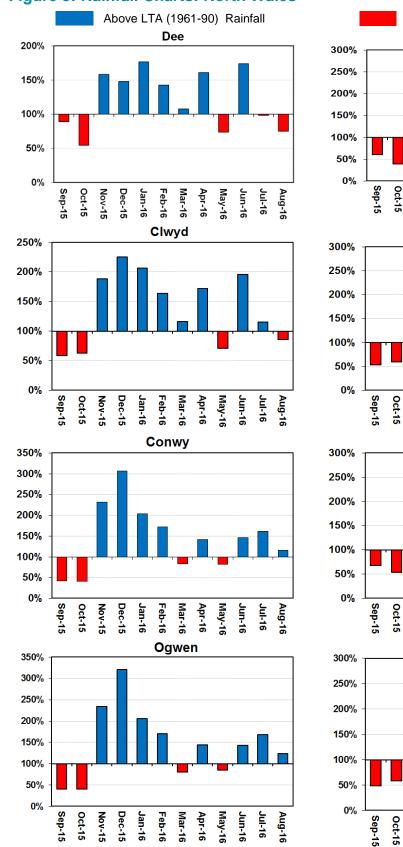


Figure 5: Rainfall Charts: North Wales



Below LTA (1961-90) Rainfall

Dec-15 Nov-15

Dec-15 Nov-15

Nov-15

Jan-16

⁼eb-16

Feb-16

Mar-16

Jan-16 Dec-15

Nov-15

Jul-16 Jun-16 May-16 Apr-16

Dec-15

Jan-16

Mar-16 Feb-16

Ynys Mon

Apr-16 Mar-16

Lleyn & Eryri

Apr-16

Mar-16

Dwyfor

May-16

Jun-16

Jul-16 Jun-16 May-16

Feb-16 Jan-16

Upper Dee

Apr-16

May-16

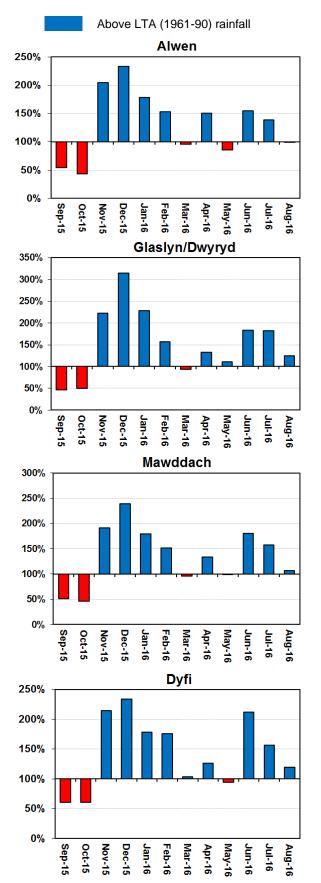
Jul-16 Jun-16 Aug-16

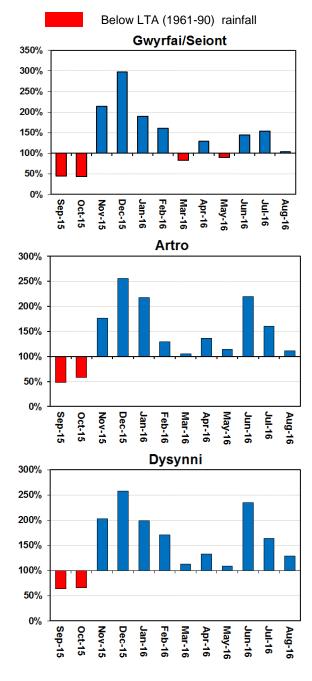
Aug-16

Aug-16

Aug-16

Jul-16





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).

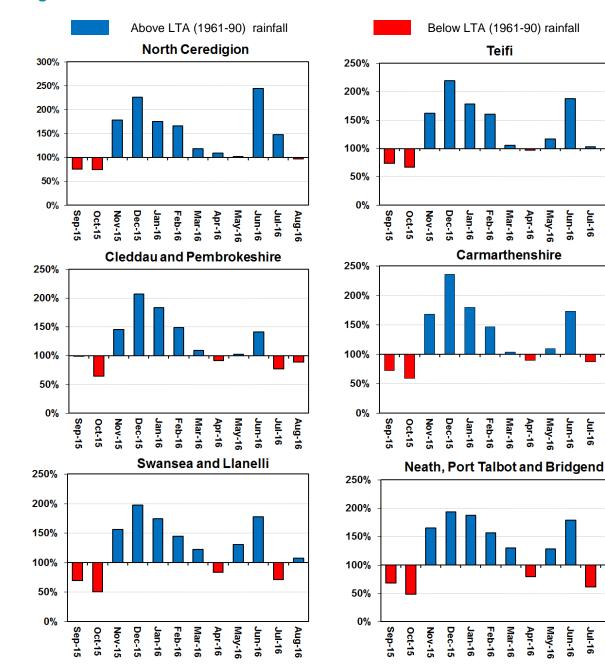


Figure 6: Rainfall Charts: South West Wales

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).

Teifi

Feb-16

Feb-16

Feb-16 Mar-16

Mar-16

Aug-16

Aug-16

Aug-16

Jul-16

May-16

May-16

May-16 Jun-16 Jul-16

Apr-16

Jun-16 Jul-16

Apr-16

Mar-16

Apr-16

Jun-16

Soil Moisture Deficit (SMD)

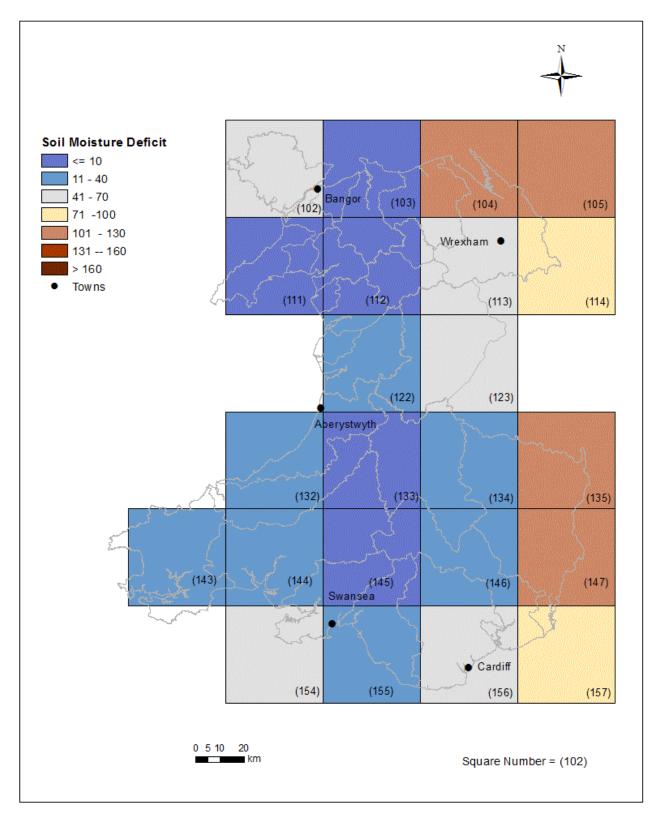


Figure 7: MORECS soil moisture deficits (mm) for August for real land use for Natural Resources Wales (Source: Met Office © Crown Copyright).

Above LTA (1961-90) SMD (Drier)

Below LTA (1961-90) SMD (Wetter)

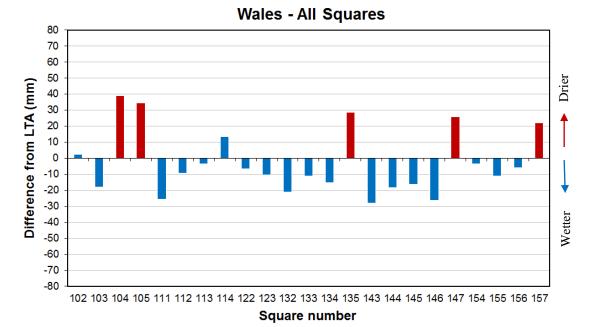


Figure 8: MORECS month end soil moisture deficits difference (mm) from the 1961-90 long term monthly average (LTA) for July for real land use for Natural Resources Wales squares (*Source: Met Office* © *Crown Copyright*).

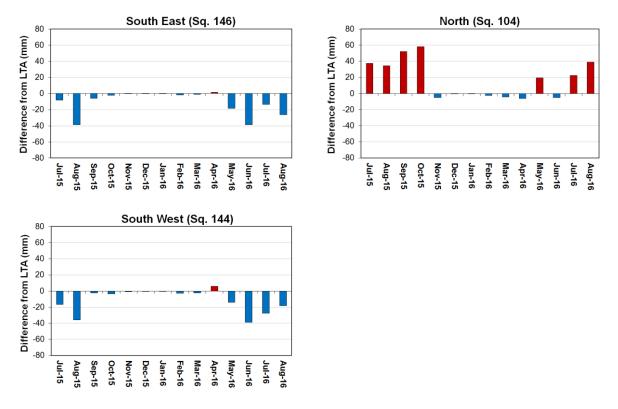


Figure 9: MORECS month end soil moisture deficit difference (mm) from the 1961-90 long term monthly average (LTA) for real land use for South East, North and South West (*Source: Met Office* © *Crown Copyright*). (Note: no LTA available for Natural Resources Wales)

River Flow

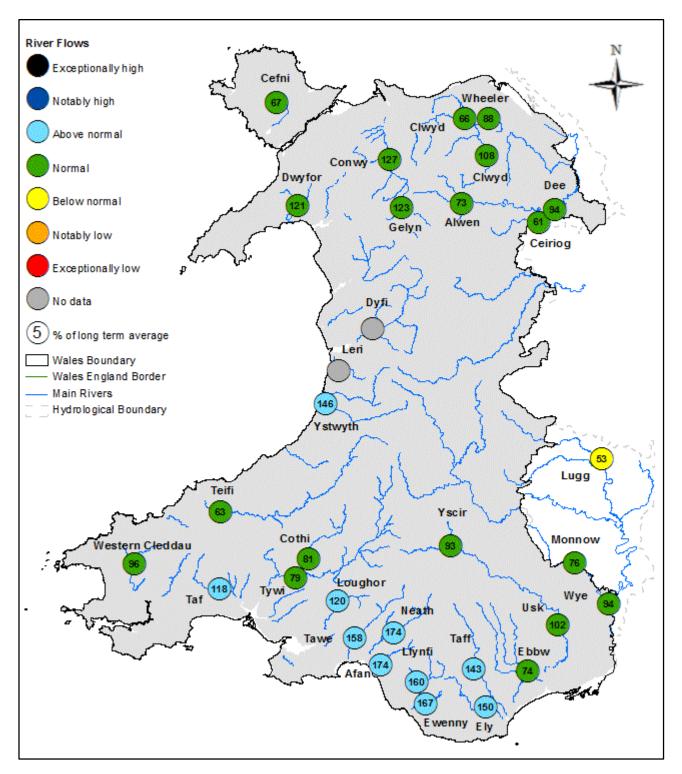


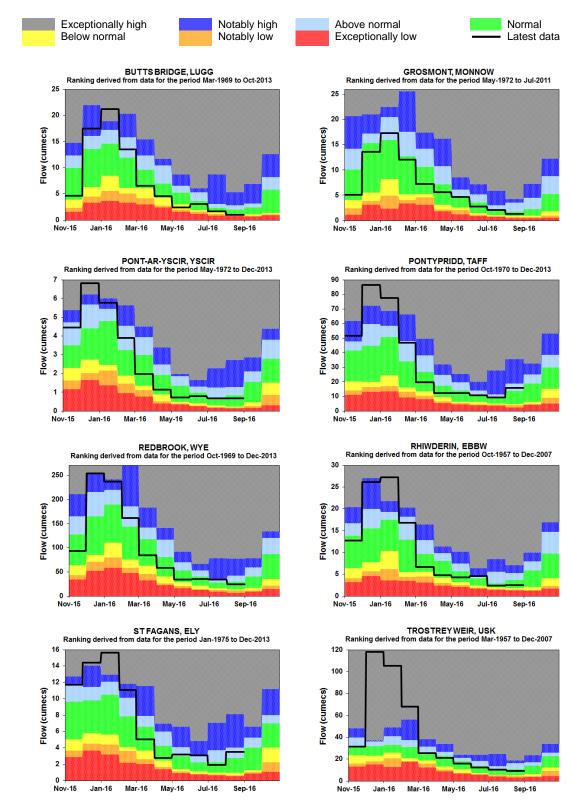
Figure 10: Monthly mean river flow for August, classed relative to analysis of historic August monthly means (*Source: Natural Resources Wales*).

Normal Class % of LTA Flow (m3/s) % of LTA Flow (m3/s) LTA Monthy (m3/s) Monthy (m3/s) River Flow Sites : South East Area Butts Bridge Lugg Below normal 53% 1.01 51% 0.96 1.90 0.51 6.9 Grosmont Monnow Normal 93% 0.67 156% 1.12 0.72 0.10 3.2 Pont at Ysoir Ysoir Normal 93% 0.67 156% 1.12 0.72 0.10 3.2 Pont at Ysoir Ysoir Normal 93% 0.67 156% 1.12 0.72 0.10 3.2 Pont at Ysoir Ysoir Normal 94% 2.4.30 17% 18.48 25.95 5.18 79.7 Riwderin Ebbw Normal 16% 3.50 155% 3.62 2.34 0.46 11.3 Trostrey Weir Usk Normal 10% 0.69 100% 2.17 1.13 0.18	SITE NAME RIVER		August 2016			August 2015		August LTA		
Butts Bridge Lugg Below normal 53% 1.01 51% 0.96 1.90 0.51 6.97 Grosmont Monnow Normal 7% 1.29 7% 1.34 1.69 0.56 8.1 Pont ar Ysair Ysair Normal 93% 0.67 156% 1.12 0.72 0.10 3.2 Pontypridd Taff Above normal 143% 15.86 158% 17.49 11.10 2.29 49.0 Redbrook Wye Normal 94% 24.30 71% 18.48 25.95 5.18 77.7 Rhivderin Ebbw Normal 102% 9.13 145% 3.80 3.35 0.93 14.3 St Fagans Ely Abore normal 102% 9.13 145% 3.20 8.96 0.35 65% 0.26 0.40 0.19 0.8 Bodfari Wheeler Normal 67% 0.66 33% 0.03 0.00 0.3		Class		-		-	LTA	Min	Monthly Max (m3/s)	
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Pontypridd Taff Above normal 143% 15.86 15.8% 17.49 11.10 2.29 49.0 Redbrook Wye Normal 74% 24.30 71% 18.48 25.95 5.18 79.7 Rhiwderin Ebbw Normal 74% 2.48 116% 3.88 3.35 0.93 14.3 St Fagans Ely Above normal 150% 3.60 155% 3.62 2.34 0.46 11.3 Trostrey Weir Usk Normal 102% 9.13 145% 13.01 8.96 2.70 27.5 River Flow Sites : North Area Stronth Area 88% 0.35 65% 0.26 0.40 0.19 0.8 Bodfari Wheeler Normal 67% 0.06 33% 0.03 0.09 0.00 0.3 Bodfarid Cefnig Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefaii Gelyn <td>Grosmont</td> <td>Monnow</td> <td>Normal</td> <td>76%</td> <td>1.29</td> <td>79%</td> <td>1.34</td> <td>1.69</td> <td>0.36</td> <td>8.17</td>	Grosmont	Monnow	Normal	76%	1.29	79%	1.34	1.69	0.36	8.17
Redbrook Wye Normal 94% 24.30 71% 18.48 25.95 5.18 79.7 Rhiwderin Ebbw Normal 74% 2.48 116% 3.88 3.35 0.93 14.3 St Fagans Ely Above normal 150% 3.60 155% 3.62 2.34 0.46 11.3 Trostrey Weir Usk Normal 102% 9.13 145% 13.01 8.96 2.70 27.5 River Flow Sites : North Area Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodffordd Cefni Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodffordd Cefniog Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 122% 0.48 113% 0.44 0.39 0.03 1.00 Druid Alwen No	Pont ar Yscir	Yscir	Normal	93%	0.67	156%	1.12	0.72	0.10	3.23
Rhiwderin Ebw Normal 74% 2.48 116% 3.88 3.35 0.93 14.3 St Fagans Ely Above normal 150% 3.50 155% 3.62 2.34 0.46 11.3 Trostrey Weir Usk Normal 102% 9.13 145% 13.01 8.96 2.70 27.5 River Flow Sites : North Area Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodfari Wheeler Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodffordd Cefni Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodfari Ceiriog Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Darid Alwen Norma	Pontypridd	Taff	Above normal	143%	15.86	158%	17.49	11.10	2.29	49.00
St Fagans Ely Above normal 150% 3.60 155% 3.62 2.34 0.46 11.3 Trostrey Weir Usk Normal 102% 9.13 145% 13.01 8.96 2.70 27.5 River Flow Sites : North Area Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodfford Cefni Normal 67% 0.66 33% 0.03 0.09 0.00 0.33 Bodfford Cefnig Normal 67% 0.68 33% 0.44 0.99 0.03 1.00 Cwmlanerch Convy Normal 127% 14.45 98% 11.22 11.14 0.73 37.4 Cynefail Gelyn Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Dol y Bont Leri N/A N/A N/A N/A N/A 1.03 0.08 3.00 Dyfi bridge Dyfi N/	Redbrook	Wye	Normal	94%	24.30	71%	18.48	25.95	5.18	79.70
Trostrey Weir Usk Normal 102% 9.13 145% 13.01 8.96 2.70 27.5 River Flow Sites : North Area Normal 98% 0.35 65% 0.26 0.40 0.19 0.87 Bodfari Wheeler Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Bodffordd Cefrig Normal 61% 0.69 105% 2.17 1.13 0.18 5.22 Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dolly Bont Leri N/A N/A N/A N/A N/A N/A 1.03 0.08 3.00 Dyli bridge Dyfi N/A N/A N/A N/A N/A N/A 1.52 0.66 40.4 GarndolbenmaenD	Rhiwderin	Ebbw	Normal	74%	2.48	116%	3.88	3.35	0.93	14.30
River Flow Sites : North Area Bodfari Wheeler Normal 88% 0.35 65% 0.26 0.40 0.19 0.8 Bodffordd Cefni Normal 67% 0.06 33% 0.03 0.09 0.00 0.3 Brynkinalt Weir Ceiriog Normal 61% 0.69 105% 2.17 1.13 0.18 5.22 Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A 1.03 0.08 3.00 Druid Alwen Normal 73% 1.55 79% 167 2.12 0.39 5.9 Dyfi bridge Dyfi N/A N/A N/A N/A N/A 1.65 2.76 0.12 6.22 <td>St Fagans</td> <td>Ely</td> <td>Above normal</td> <td>150%</td> <td>3.50</td> <td>155%</td> <td>3.62</td> <td>2.34</td> <td>0.46</td> <td>11.30</td>	St Fagans	Ely	Above normal	150%	3.50	155%	3.62	2.34	0.46	11.30
Bodflari Wheeler Normal 88% 0.35 65% 0.26 0.40 0.19 0.8 Bodffordd Cefni Normal 67% 0.06 33% 0.03 0.09 0.00 0.3 Brynkinalt Weir Ceiriog Normal 61% 0.69 105% 2.17 1.13 0.18 5.20 Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A 0.48 13% 0.44 0.39 0.03 1.00 Druid Alwen Normal 73% 1.55 79% 1.67 2.12 0.39 5.9 Dyfi bridge Dyfi N/A N/A N/A N/A N/A 1.04 0.62 0.62 0.61	Trostrey Weir	Usk	Normal	102%	9.13	145%	13.01	8.96	2.70	27.50
Bodffordd Cefni Normal 67% 0.06 33% 0.03 0.09 0.00 0.33 Brynkinalt Weir Ceiriog Normal 61% 0.69 105% 2.17 1.13 0.18 5.24 Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A 1.03 0.08 3.00 Druid Alwen Normal 73% 1.55 79% 1.67 2.12 0.39 5.99 Dyfi bridge Dyfi N/A N/A N/A N/A N/A 11.22 0.66 40.44 Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.24 Manley Hall Dee N	River Flow Site	s : North Are	ea	•						
Brynkinalt Weir Ceiriog Normal 61% 0.69 10% 2.17 1.13 0.18 5.28 Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A N/A 0.48 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A N/A 0.48 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A N/A N/A 0.48 0.49 0.43 0.00 0.03 0.00 0.04 0.05 0.07 0.62 0.62 0.62 0.62 0.62 0.62 0.65 0.7 0.7 0.26 0.05 0.7 0.7 0.26 0.05	Bodfari	Wheeler	Normal	88%	0.35	65%	0.26	0.40	0.19	0.87
Cwmlanerch Conwy Normal 127% 14.45 98% 11.22 11.41 0.73 37.4 Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A N/A N/A N/A N/A 1.03 0.08 3.00 Druid Alwen Normal 73% 1.55 79% 1.67 2.12 0.39 5.99 Dyfi bridge Dyfi N/A N/A N/A N/A N/A N/A 12.52 0.66 40.4 Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.22 Manley Hall Dee Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 Capel Dewi	Bodffordd	Cefni	Normal	67%	0.06	33%	0.03	0.09	0.00	0.36
Cynefail Gelyn Normal 123% 0.48 113% 0.44 0.39 0.03 1.00 Dol y Bont Leri N/A N/A </td <td>Brynkinalt Weir</td> <td>Ceiriog</td> <td>Normal</td> <td>61%</td> <td>0.69</td> <td>105%</td> <td>2.17</td> <td>1.13</td> <td>0.18</td> <td>5.20</td>	Brynkinalt Weir	Ceiriog	Normal	61%	0.69	105%	2.17	1.13	0.18	5.20
Dol y Bont Leri N/A N/A N/A N/A N/A N/A 1.03 0.08 3.00 Druid Alwen Normal 73% 1.55 79% 1.67 2.12 0.39 5.90 Dyfi bridge Dyfi N/A N/A N/A N/A N/A N/A N/A 1.25 0.66 40.4 Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.23 Manley Hall Dee Normal 94% 14.33 90% 13.79 15.32 7.08 38.6 Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.14 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 River Flow Sites : South West Area Issi 118% 2.49 158% 5.60 3.54 0.33 18.3	Cwmlanerch	Conwy	Normal	127%	14.45	98%	11.22	11.41	0.73	37.40
Druid Alwen Normal 73% 1.55 79% 1.67 2.12 0.39 5.99 Dyfi bridge Dyfi N/A N/A N/A N/A N/A N/A 1.252 0.66 40.4 Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.22 Manley Hall Dee Normal 94% 14.33 90% 13.79 15.32 7.08 38.6 Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.11 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 River Flow Sites : South West Area South West Area 118% 2.49 158% 5.60 3.54 0.33 18.3 Copy Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen <td>Cynefail</td> <td>Gelyn</td> <td>Normal</td> <td>123%</td> <td>0.48</td> <td>113%</td> <td>0.44</td> <td>0.39</td> <td>0.03</td> <td>1.09</td>	Cynefail	Gelyn	Normal	123%	0.48	113%	0.44	0.39	0.03	1.09
Dyfi bridge Dyfi N/A N/A N/A N/A N/A N/A N/A I2.52 0.66 40.4 Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.22 Manley Hall Dee Normal 94% 14.33 90% 13.79 15.32 7.08 38.6 Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.14 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 River Flow Sites : South West Area 108% 0.28 27% 0.07 0.26 0.05 0.7 Capel Dewi Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen	Dol y Bont	Leri	N/A	N/A	N/A	N/A	N/A	1.03	0.08	3.00
Garndolbenmaen Dwyfor Normal 121% 2.49 105% 2.17 2.06 0.12 6.24 Manley Hall Dee Normal 94% 14.33 90% 13.79 15.32 7.08 38.6 Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.14 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.7 River Flow Sites : South West Area Image: South West Area 118% 2.49 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4	Druid	Alwen	Normal	73%	1.55	79%	1.67	2.12	0.39	5.90
Manley Hall Dee Normal 94% 14.33 90% 13.79 15.32 7.08 38.6 Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.14 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.74 Ruthin Weir Clwyd Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Capel Dewi Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi	Dyfi bridge	Dyfi	N/A	N/A	N/A	N/A	N/A	12.52	0.66	40.40
Pont y Cambwll Clwyd Normal 66% 1.31 44% 0.87 1.99 0.51 7.14 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.74 Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.74 River Flow Sites : South West Area Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 <t< td=""><td>Garndolbenmaen</td><td>Dwyfor</td><td>Normal</td><td>121%</td><td>2.49</td><td>105%</td><td>2.17</td><td>2.06</td><td>0.12</td><td>6.25</td></t<>	Garndolbenmaen	Dwyfor	Normal	121%	2.49	105%	2.17	2.06	0.12	6.25
Ruthin Weir Clwyd Normal 108% 0.28 27% 0.07 0.26 0.05 0.74 River Flow Sites : South West Area Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.22 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3	Manley Hall	Dee	Normal	94%	14.33	90%	13.79	15.32	7.08	38.60
River Flow Sites : South West Area Capel Dewi Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11	Pont y Cambwll	Clwyd	Normal	66%	1.31	44%	0.87	1.99	0.51	7.18
Capel Dewi Tywi Normal 79% 23.20 150% 28.65 19.16 2.70 78.5 Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.3 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.57	Ruthin Weir	Clwyd	Normal	108%	0.28	27%	0.07	0.26	0.05	0.74
Clog y Fran Taf Above normal 118% 2.49 158% 5.60 3.54 0.33 18.33 Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.57	River Flow Sites : South West Area									
Coytrahen Llynfi Above normal 160% 2.57 134% 2.15 1.61 0.26 6.00 Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.55	Capel Dewi	Tywi	Normal	79%	23.20	150%	28.65	19.16	2.70	78.50
Felin Mynachdy Cothi Normal 81% 5.08 153% 9.59 6.25 0.36 23.4 Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.57	Clog y Fran	Taf	Above normal	118%	2.49	158%	5.60	3.54	0.33	18.30
Glanteifi Teifi Normal 63% 8.52 101% 13.69 13.56 1.13 77.3 Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.55	Coytrahen	Llynfi	Above normal	160%	2.57	134%	2.15	1.61	0.26	6.06
Keepers Lodge Ewenny Above normal 167% 1.74 153% 1.59 1.04 0.22 4.24 Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.57 Treffgame * Western Normal 96% 1.28 125% 1.67 1.34 0.24 5.57	Felin Mynachdy	Cothi	Normal	81%	5.08	153%	9.59	6.25	0.36	23.40
Marcroft Afan Above normal 174% 6.52 190% 6.14 3.75 0.55 13.3 Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.55 Treffgame * Western Normal 96% 1.28 125% 1.67 1.34 0.24 5.55	Glanteifi	Teifi	Normal	63%	8.52	101%	13.69	13.56	1.13	77.30
Pont Llolwyn Ystwyth Above normal 146% 4.55 87% 2.69 3.11 0.18 8.57 Treffgame * Western Normal 96% 1.28 125% 1.67 1.34 0.24 5.57	Keepers Lodge	Ewenny	Above normal	167%	1.74	153%	1.59	1.04	0.22	4.24
Treffgarpe * Western Normal 96% 1.28 125% 1.67 1.34 0.24 5.5	Marcroft	Afan	Above normal	174%	6.52	190%	6.14	3.75	0.55	13.30
	Pont Llolwyn	Ystwyth	Above normal	146%	4.55	87%	2.69	3.11	0.18	8.57
	Treffgarne *		Normal	96%	1.28	125%	1.67	1.34	0.24	5.54
Resolven Neath Above normal 174% 10.04 172% 9.90 5.76 0.40 22.5	Resolven		Above normal	174%	10.04	172%	9.90	5.76	0.40	22.50
Tir-y-Dail Loughor Above normal 120% 1.46 175% 2.13 1.22 0.18 4.40	Tir-y-Dail	Loughor	Above normal	120%	1.46	175%	2.13	1.22	0.18	4.40
Ynystanglws Tawe Above normal 158% 12.32 197% 15.37 7.80 1.07 28.6	Ynystanglws	Tawe	Above normal	158%	12.32	197%	15.37	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.)

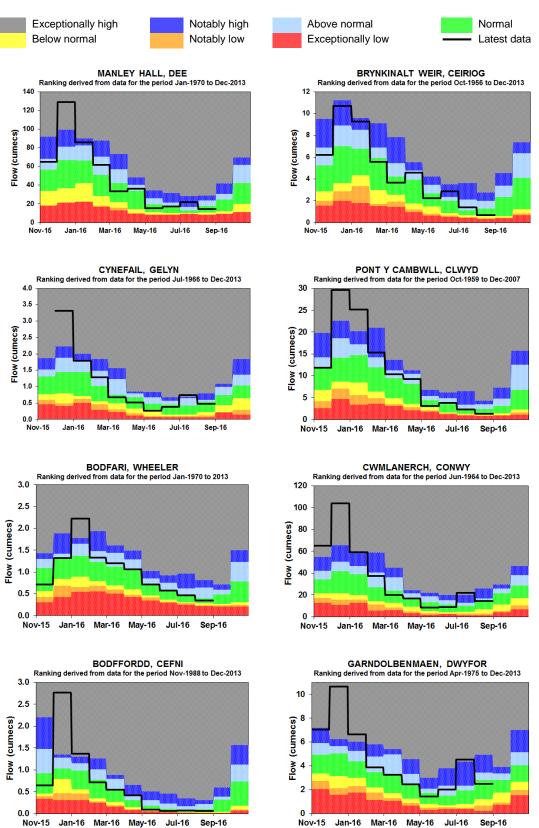
River Flow Charts

Figure 12: River Flow Charts: South East Wales

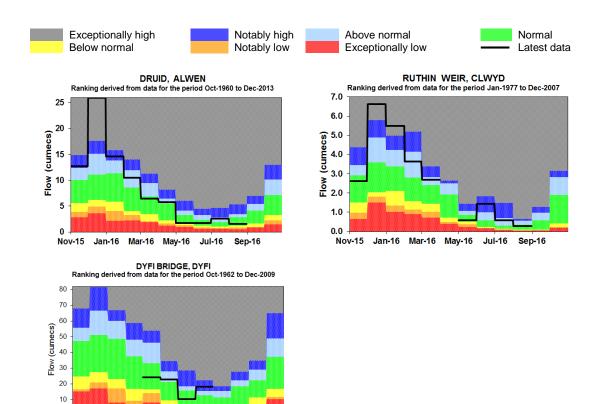


Monthly mean river flows for the last 10 months classed relative to the analysis of historic river levels (*Source: Natural Resources Wales*).

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). (Please note that there was no data available for River Gelyn at Cynefail in November 2015)



(Please note that there were no data available for River Dyfi at Dyfi Bridge before March 2016 and July and August 2016. For River Clwyd at Ruthin Weir there was no data available for April 2016)

Figure 14: River Flow Charts: South West Wales

May-16

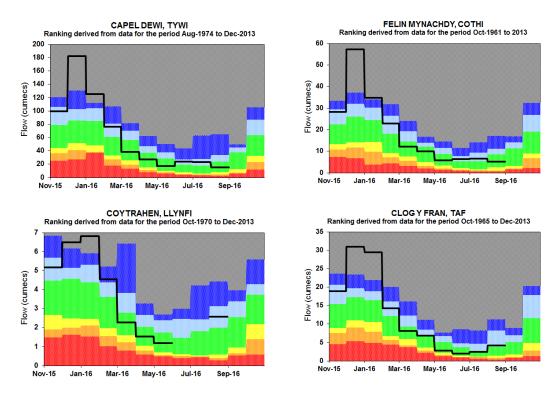
Jul-16

Sep-16

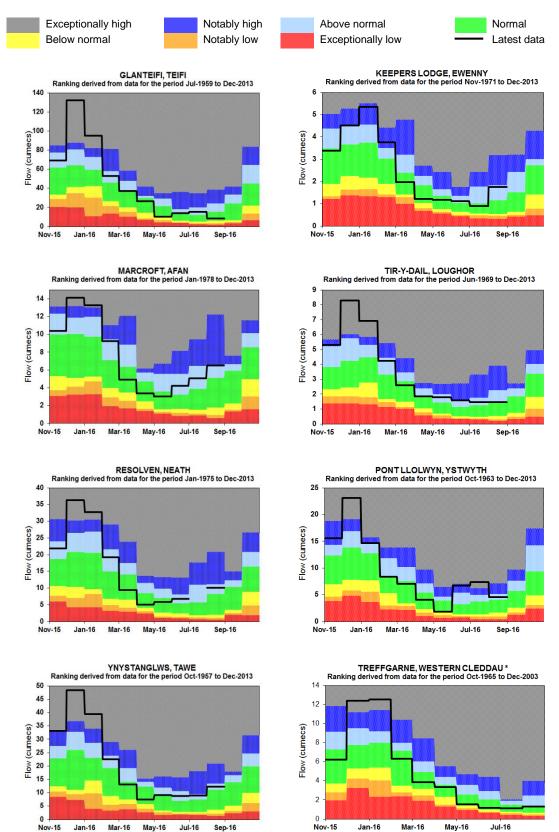
Jan-16

Nov-15

Mar-16



(Please note that there was no data for Coytrahen for June and July 2016 due to the river works)



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. There were no data for Resolven for July 2016 due to river works)

Groundwater Levels

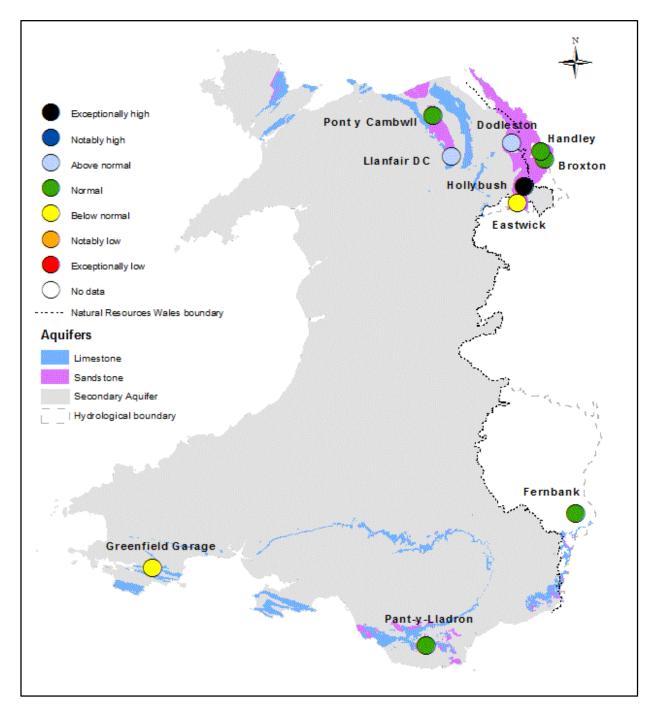


Figure 15: Groundwater levels at the end of month classed relative to an analysis of historic August groundwater levels (*Source: Natural Resources Wales and Environment Agency*).

Groundwater charts

Jan-16

Mar-16

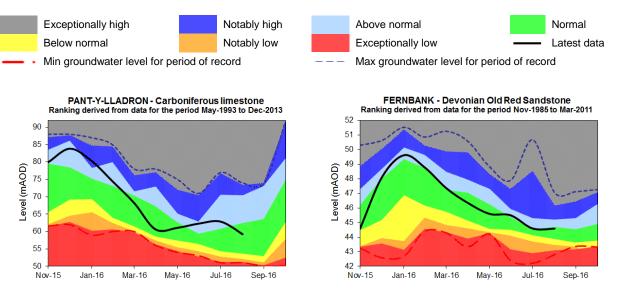
May-16

Jul-16

Sep-16

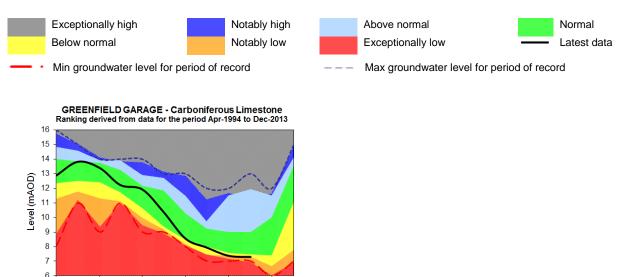
Nov-15

Figure 16: Groundwater level charts: South East Wales



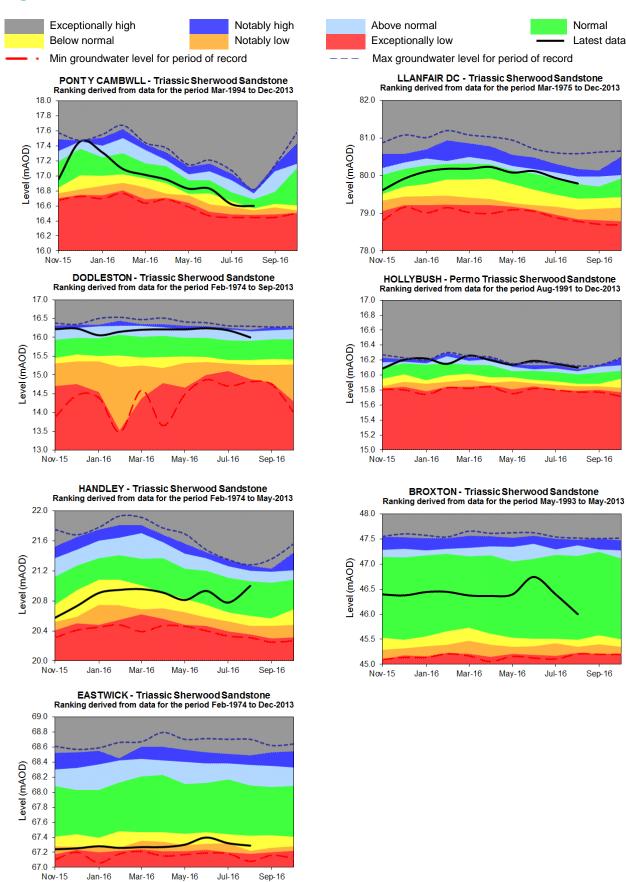
End of month groundwater levels for the past 10 months for index sites (Source: Natural Resources Wales).

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).

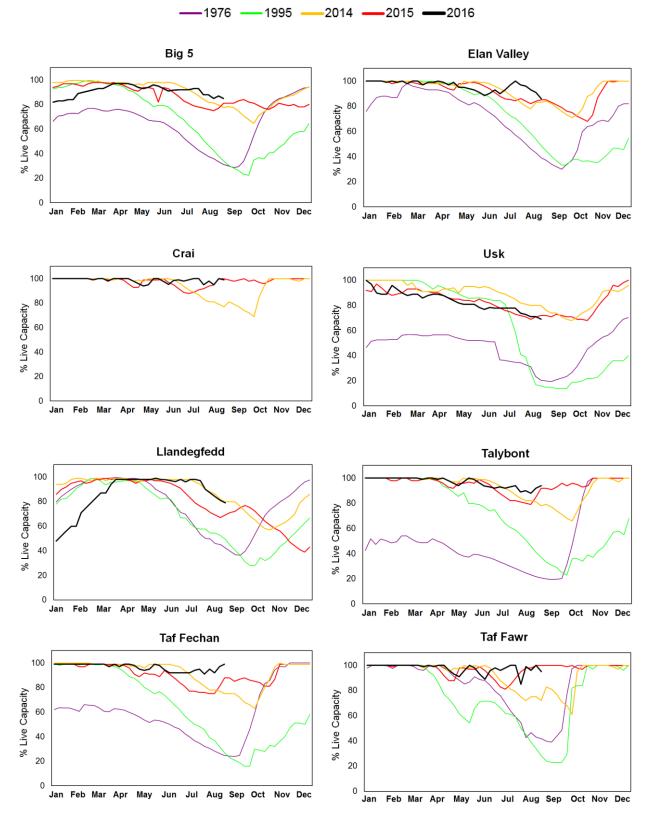
Figure 18: Groundwater level charts: North Wales



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

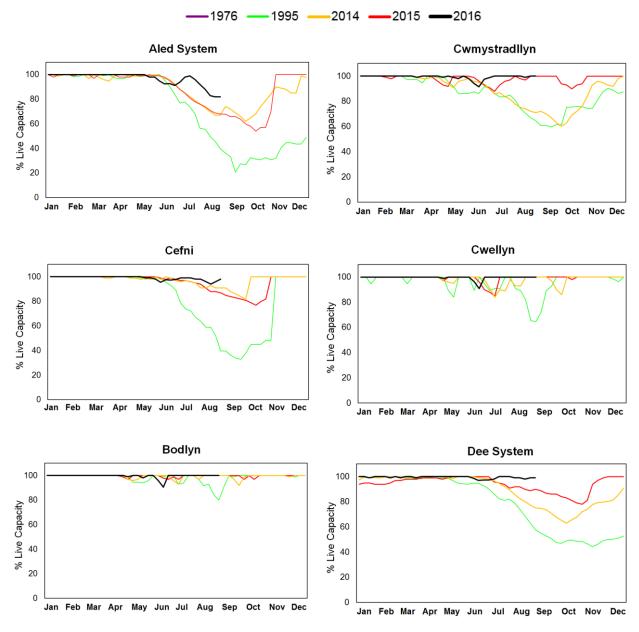
Reservoir Storage

Figure 19: Reservoir charts: South East Wales



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

Figure 20: Reservoirs charts: North Wales



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

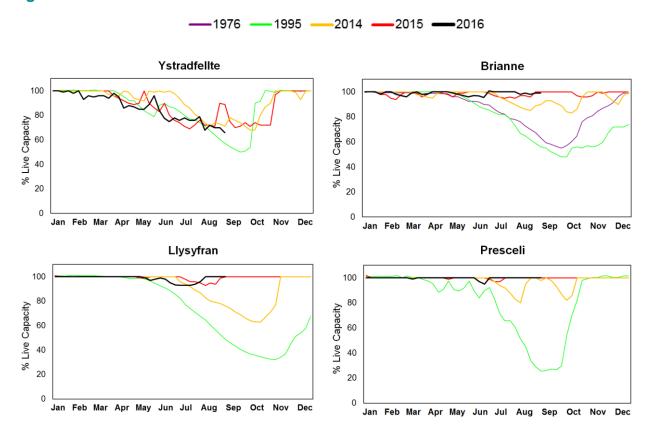


Figure 21: Reservoirs charts: South West Wales

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

Glossary

Term	Definition				
Aquifer Areal average rainfall	A geological formation able to store and transmit water. 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). The water found in an aquifer The Met Office provides climate data for grid squares measuring 40km by 40km across the UK using MORECS				
Groundwater Meteorological Office Rainfall and Evaporation Calculating System (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 mee established reservoir operating requirements. It is the tota 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 Notably high Above normal Normal Below normal Notably low Exceptionally low	Value likely to fall within this band 5% of the time Value likely to fall within this band 8% of the time Value likely to fall within this band 15% of the time Value likely to fall within this band 44% of the time Value likely to fall within this band 15% of the time Value likely to fall within this band 8% of the time Value likely to fall within this band 5% of the time				
Units cumecs mAOD	Cubic metres per second (m ³ s ⁻¹) Metres Above Ordnance Datum (mean sea level at Newlyn Cornwall).				