

Please quote the reference number in all correspondence



Drought Permit – modify existing abstraction

Section 79A Water Resources Act 1991 as amended by the Environment Act 1995

The Environment Agency grants this drought permit to:

Severn Trent Water Limited (‘the Water Company’)
Severn Trent Centre
2 St. John’s Street
Coventry
CV1 2LZ

Company registration number: 02366686

This drought permit modifies Licence Number 03/28/38/0018 dated 6 December 1965 and varied on 27 March 2020 (‘the Licence’) as set out in the Schedule to this drought permit for such periods as specified in condition 4.2 in the Schedule.

This drought permit commences from the effective date shown below and shall remain in force until the date of expiry shown below.

All other provisions of the Licence and Acts relating to the Derwent Valley Reservoirs remain in full force and effect.

G.V. Broughton
Signed
Greg Broughton
Area Director

Date of issue.....14 October 2022
Date effective14 October 2022
Date of expiry.....31 March 2023

Environment Agency
Trentside Offices
Scarrington Road
West Bridgford
Nottingham
NG2 5BR

Note: References to ‘the map’ are to the map which is attached to this drought permit

SCHEDULE OF CONDITIONS

1. COMPENSATION FLOW REQUIREMENTS

- 1.1 In the Licence under the heading "Compensation requirements from Ladybower Reservoir to the River Derwent from 1 April 2009 to 22 December 2031" conditions 9.2 and 9.3 shall be substituted in full by the following words:

"Subject to the conditions 6.2 and 6.3 of this permit, the volume of water to be discharged from Ladybower Reservoir into the River Derwent shall not be less than 34 megalitres per day".

- 1.2 In the Licence under headings "Compensation requirements to Jagers Clough and discharge requirements of the River Noe and Ashop from 1 April 2009 to 22 December 2024, unless an earlier date is agreed with the Environment Agency" and "Combined compensation discharges measured at Yorkshire Bridge and immediately downstream of the Jagers Clough confluence with the River Noe" conditions 9.4, 9.9 and 9.10 shall be substituted in full by the following words:

"Subject to the conditions 6.2 and 6.3 of this permit, the total flow of the compensation discharges measured at Yorkshire Bridge Gauging Station at SK 19810 85090 and immediately downstream of the Jagers Clough confluence with the River Noe at approximately SK 1615 8620 shall not fall below 51 megalitres per day."

Note: a day means the period of 24 consecutive hours from midnight to midnight

2. POINTS OF ABSTRACTION

- 2.1 In the Licence under section 2 'Points of Abstraction' under the heading "River Derwent" a point of abstraction shall be added that will read:

"At National Grid Reference SK 20317 86231 (Ladybower Reservoir) marked 'G' on the map."

3. MEANS OF ABSTRACTION

- 3.1 In the Licence under section 3 Means of Abstraction, under the heading "River Derwent" a means of abstraction shall be added that will read:

"from Abstraction point G:

Ladybower Reservoir with mobile pumps."

4. FURTHER CONDITIONS

- 4.1 For the purpose of this permit "Above Level 0" is the drought trigger zone for the Derwent Valley reservoirs as defined in the Water Company's Drought Plan 2022.
- 4.2 The conditions of this permit shall cease to have effect when
- (i) the percentage storage within the Derwent Valley Reservoirs on the first occasion after the effective date is Above Level 0; or
 - (ii) the Water Company gives written notice to the Environment Agency that the permit is no longer required.
- 4.3 Up to and including the expiry date of this permit:
- (i) The aggregate quantity of water to be abstracted under the permit shall not exceed 8,100,000 cubic metres in any period of 60 consecutive days;
 - (ii) The period of the 60 days aggregate will start on the effective date of the permit and will take into account the 60 days previous to the effective date; and
 - (iii) The Water Company shall demonstrate how demand at Bamford treatment works and the Derwent Valley reservoirs is being managed by providing in writing to the Agency details of such management including but not limited to (a) weekly reports showing daily abstraction totals from the Derwent Valley Reservoirs and (b) monthly reports showing, strategic grid water production output targets, leakage control and re-zoning of supplies.
- 4.4 If the Water Company considers that it will not be able to comply with the maximum abstraction quantity in condition 4.3 above due to exceptional circumstances causing a risk to the security of public water supply in the Strategic Grid Water Resource Zone as defined in the Water Company's Drought Plan 2022 they shall notify the Agency in writing immediately, of:
- (a) the relevant circumstances;
 - (b) a proposal for a temporary increase in the limit specified in condition 4.3 above that is proposed in response, including any relevant time periods for such an increase; and
 - (c) the reasons why the temporary increase is in the public interest and will protect the security of public water supply in the Strategic Grid Water Resource Zone.
- 4.5 Such proposals as made pursuant to condition 4.4 will be deemed agreed by the Environment Agency within 72 hours of such proposal being received by the Agency, unless or until the Agency notifies the Water Company in writing that either (a) the proposed temporary increase specified in condition 4.4(b) is not agreed, and /or (b) an alternative temporary increase is agreed.
- 4.6 The Water Company shall carry out the actions specified in condition 6.2 and/or condition 6.3 if the Agency notifies them in writing that there is a risk of or actual environmental impacts, including but not limited to those defined in Appendix 1.

4.7 The Water Company shall carry out the actions specified in condition 6.3 if the Agency notifies them in writing that there is obstruction to fish passage on the River Derwent.

5. ENVIRONMENTAL MONITORING

5.1 The water company shall undertake environmental Monitoring as set out in Appendix 1 attached to this permit.

5.2 The Water Company shall carry out the actions specified in 6.2 and/or 6.3 if the environmental monitoring identifies any risk of or actual environmental impacts, including but not limited to those defined in Appendix 1.

6. MITIGATION

6.1 Immediately upon finding any signs of ecological distress the Water Company shall notify the Agency in writing and by telephone on 0800 80 70 60 and shall provide details of the signs of distress and the location.

6.2 If environmental impacts or a significant risk of environmental impacts, including but not limited to those defined in Appendix 1 is identified in accordance with condition 4.6 or 5.2, then

(i) The volume of water to be discharged from Ladybower Reservoir into the River Derwent shall not be less than 54 megalitres per day and

(ii) The total flow of the compensation discharges measured at Yorkshire Bridge Gauging Station and immediately downstream of the Jagers Clough confluence with the River Noe shall not fall below 74 megalitres per day

or such lesser volume or flow agreed in writing by the Agency.

(iii) The water company shall commence or cease the stated change in compensation flows as soon as possible and within 24 hours of receipt of written notification from the Agency.

6.3 Freshet flows

If the Agency notifies the Water company in writing that the River Derwent needs additional flow, then

(i) The volume of water to be discharged from Ladybower Reservoir into the River Derwent shall not be less than 54 megalitres per day and

(ii) The total flow of the compensation discharges measured at Yorkshire Bridge Gauging Station and immediately downstream of the Jagers Clough confluence with the River Noe shall not fall below 74 megalitres per day

or such lesser volume or flow agreed in writing by the Agency.

(iii) The water company shall commence or cease the additional flow as soon as possible and within 24 hours of receipt of written notification from the Agency.

6.4 The compensation releases invoked under conditions 6.2 and 6.3 shall continue to apply until the Water Company is notified in writing by the Agency.

APPENDIX 1

ENVIRONMENTAL MONITORING SCHEDULE

Assessment Type	<p>Visual monitoring “walkover surveys” of the riverine environments, fish barrier assessments, Habitat/wetted perimeter mapping, spot flow gaugings, fixed point photography, water level measurements, macroinvertebrate sampling and water quality (in-situ readings) to identify environmental impacts in locations that may be affected by the water company lowering compensation flows.</p> <p>The water company shall discuss and agree with the Agency any proposed changes to this monitoring schedule in advance of carrying out any of the survey work.</p>
Duration of Monitoring	<p>The environmental monitoring surveys shall take place from the first day that the total compensation flow from Ladybower Reservoir is at or below 44 MI/d (which is 50% of the reduction authorised by the drought permit) until this drought permit expires or is revoked.</p>
Environmental impacts	<p>The following are suggested signs of environmental impacts but are not exhaustive. If advice is required then the Agency can be contacted on 0800 80 70 60.</p> <ul style="list-style-type: none"> • Fish in distress, for example gasping at the surface or leaping out of the water. • Dead fish. • Concentration of fish in restricted areas/pools which could increase susceptibility to predation. • Inhibition of movement of fish past river structures or other barriers. • Low levels of dissolved oxygen. • Signs of polluting discharges during walkover surveys, impacts exacerbated during lower flows and/or reduced dilution. • Algal blooms. • Establishment and/or expansion of invasive non-native species.
Monitoring Method & Standard of Assessment	<p>The water company shall measure and record the following information.</p> <p>For all environmental impacts identified:</p> <ul style="list-style-type: none"> • The location of the site of environmental impacts observed. • Dissolved oxygen concentration, water temperature, turbidity, ammonia and pH measurements shall be taken and recorded anywhere in the survey area where (if) signs of environmental stress are identified. • A photo or photos shall be taken of any signs of environmental distress. • Weather conditions at the time of the observations. <p>Where relevant to the environmental impacts observed:</p> <ul style="list-style-type: none"> • Approximate number of dead fish. • Any signs of damage or disease. • Approximate number of fish in distress, gasping at the surface or leaping out of the water. • Whether the fish are being stranded in shallow pools. • Description of structures and stretches of any watercourses that have no flow or significantly reduced flow. • Approximate size of the fish affected.

	<ul style="list-style-type: none"> • The species affected. • Signs of pollution. • Presence of algal blooms/scums. • Species, location and extent of invasive non-native species.
Frequency of monitoring	<p>(a) Weekly: walkover surveys, habitat/wetted perimeter mapping, Fish barrier assessments, spot flow gaugings, fixed point photography, water level measurements, in-situ water quality readings.</p> <p>The water company shall discuss and agree with the Agency any proposed changes to the frequency of monitoring, the weekly surveys may be reduced to fortnightly or monthly, where appropriate.</p> <p>(b) In line with baseline monitoring set out in the River Derwent Drought Monitoring – Site Investigation Plan – Autumn 2022: Macroinvertebrates</p>
Location of Monitoring	<p>Yorkshire Bridge (AP1) National Grid Reference: SK 19823 84923</p> <p>Hathersage Leadmill Bridge (AP2) National Grid Reference: SK 23379 80621</p> <p>Grindleford Baslow Bridge (AP3) National Grid Reference: SK 25245 72148</p> <p>Matlock Bath (AP4) National Grid Reference: SK 29642 58662</p> <p>Whastandwell (AP5) National Grid Reference: SK 33103 54381</p> <p>Belper (AP6) National Grid Reference: SK 34278 47984</p> <p>Allestree Ford (AP7) National Grid Reference: SK 35947 40133</p> <p>St. Marys Bridge (AP8) National Grid Reference: SK 35360 36760</p> <p>River Noe at Derwent confluence (RD1) National Grid Reference: SK 20386 82602</p> <p>Calver (AP11) National Grid Reference: SK 24500 75300</p> <p>Grindleford (AP12) National Grid Reference: SK 24100 79200</p> <p>Hathersage (AP13) National Grid Reference: SK 23300 80600</p>

Chatsworth Estate (AP15)
National Grid Reference: SK 25746 69533

Masson Mill (AP16)
National Grid Reference: SK 29384 57214

Bamford Mill (RD2)
National Grid Reference: SK 20461 83368

Rowsley (RD3)
National Grid Reference: SK 25981 65533

Walkover surveys at:

10 reaches at:

	Start NGR	End NGR
1	SK 19790 85090	SK 19810 84850
2	SK 20382 83533	SK 20561 83220
3a	SK 23168 80649	SK 23331 80602
3b	SK 23348 80600	SK 23493 80582
4	SK 24144 79314	SK 24055 79059
5	SK 24441 75338	SK 24653 75221
6	SK 24774 74586	SK 24600 74361
7	SK 25186 72257	SK 25336 71990
8	SK 25992 65541	SK 25969 65314
9	SK 25621 70954	SK 26067 68452
10	SK 20570 82516	SK 21301 82003

Fish pass and barrier assessment at:

Calver (AP11), Grindleford (AP12), Hathersage (AP13)

Habitat and wetted perimeter mapping at:

Yorkshire Bridge (AP1), Hathersage Leadmill Bridge (AP2), Grindleford Baslow Bridge (AP3)

Spot flow gauging at:

Yorkshire Bridge (AP1), Hathersage Leadmill Bridge (AP2), Grindleford Baslow Bridge (AP3), Matlock Bath (AP4), Whastandwell (AP5), Belper (AP6) Allestree Ford (AP7), St. Marys Bridge (AP8), River Noe at Derwent confluence (RD1)

Fixed point photography at:

Yorkshire Bridge (AP1), Hathersage Leadmill Bridge (AP2), Grindleford Baslow Bridge (AP3), Calver (AP11), Grindleford (AP12), Hathersage (AP13), Chatsworth Estate (AP15), Masson Mill (AP16)

	<p>Water Level Measurements at:</p> <p>Calver (AP11), Grindleford (AP12), Hathersage (AP13)</p> <p>In-situ water quality readings at:</p> <p>Yorkshire Bridge (AP1), Grindleford Baslow Bridge (AP3), Grindleford (AP12), Hathersage (AP13), Rowsley (RD3).</p>
Results	<p>In addition to any notification given under condition 6.2 a copy of the monitoring results shall be sent to the Environment Agency Drought East Midlands mailbox at: Drought EMD <Drought.EMD@environment-agency.gov.uk> within 2 days of each survey taking place.</p>
Responsibility	<p>Unless otherwise discussed and agreed in writing with the Agency, the water company will be responsible for all of the costs associated with this monitoring programme.</p> <p>Health and safety requirements whilst carrying out the surveys are the responsibility of the water company.</p>

ADDITIONAL INFORMATION

Note: the following information is provided for information only. It does not form part of the permit.

REASONS FOR MODIFICATIONS

Condition 5 of this drought permit has been included to allow monitoring of signs of environmental impacts that may be caused by or affected by the water company reducing compensation flows.

Conditions 4.6, 4.7 and 6 of this drought permit have been included to mitigate against any environmental impacts that may be caused by or affected by the water company reducing compensation flows. Condition 6.2 has been included because this will revert the flows back to those in the licence when required.

IMPORTANT NOTES

Environmental Monitoring Plan

The conditions and monitoring schedule incorporated on this permit is in addition to the monitoring detailed in the Environmental Monitoring Plan in 'River Derwent Drought Monitoring – Site Investigation Plan – Autumn 2022) agreed between the Agency and the Water Company.

Notifications

The information required in condition 4.3 should be sent to the Drought East Midlands Mailbox at: Drought EMD, Drought.EMD@environment-agency.gov.uk and the East Midlands Land and Water Team at: eastmidwaterquality@environment-agency.gov.uk

The notification to the Agency, required in condition 4.4 and 6.1 will be sent to: the Drought East Midlands Mailbox at: Drought EMD, DroughtEMD@environment-agency.gov.uk and the East Midlands Land and Water Team at: eastmidwaterquality@environment-agency.gov.uk

The notification from the Agency, specified in conditions 4.5, 4.6 and 4.7 will be sent to the Future Consultations Mailbox at futureconsultation@severntrent.co.uk and the Network Control Manager will be contacted on: 02477715193

The notification from the Agency, specified in condition 6.2, 6.3 and 6.4 will be sent to the Future Consultations Mailbox at futureconsultation@severntrent.co.uk and the Network Control Manager will be contacted on: 02477715193



MAP ACCOMPANYING LICENCE NUMBER
DP2022-03/28/38/0018
Scale 1:10,000



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