

Environment Agency Reference:	<b>DRAFT</b>
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Please quote the reference number in all correspondence



## DRAFT Drought Permit – modify existing abstractions

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

The Environment Agency grants this Drought Permit to:

South West Water Limited                      ("the Water Company")  
 Peninsula House  
 Rydon Lane  
 Exeter  
 EX2 7HR

Company registration number                      02366665

This drought permit authorises the Water Company to abstract water pursuant to licence no. SW/047/0051/003 dated 07 February 2023 modified as set out in the Schedule of Conditions to this drought permit.

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 said Licence and Order shall remain in full force and effect.

Signed.....

Date of issue.....

Date effective.....

Date of expiry .....  
(date not exceeding 6 months from the date of becoming effective)

Environment Act 1995  
Water Resources Act  
1991

## **SCHEDULE OF CONDITIONS**

### **1 SOURCE OF SUPPLY AND AUTHORISED POINT OF ABSTRACTION**

1.1 The inland water known as the River Lyd at Lifton Devon at the National Grid Reference SX 39921 85071.

### **2 MEANS OF ABSTRACTION**

2.1 Pumps.

### **3 PURPOSE OF ABSTRACTION**

3.1 Transfer for the purpose of filling a reservoir for subsequent abstraction for public water supply.

### **4 PERIOD OF ABSTRACTION**

4.1 The following will be added to the period of abstraction.

4.2 From 01 April 2023 to 30 May 2023.

### **5 MAXIMUM QUANTITIES OF WATER AUTHORISED TO BE ABSTRACTED DURING A PERIOD OR PERIODS SPECIFIED**

5.1 The aggregate quantity of water abstracted for public water supply from the River Lyd shall not exceed the daily and annual maximum abstraction limits under this Licence and under licence serial number 15/47/013/S/2020 shall not exceed 148,000 cubic meters a day.

### **6 MEANS OF MEASUREMENT OF WATER ABSTRACTED**

#### **6.1 Measurement of flows at the River Lyd**

(i) No abstraction shall take place unless the Licence Holder has installed a meter to measure quantities of water abstracted.

(ii) The Licence Holder shall position and install the meter in accordance with any written directions given by the Agency

(iii) The Licence Holder shall calibrate, maintain, repair or replace the meter to ensure that accurate measurements are taken at all times.

(iv) The Licence Holder shall keep all records of meter repair or replacement including evidence of current certification and / or results of flow checking for inspection by the Agency for a period of 6 years.

## **7 RECORDS**

- 7.1 The water company shall take and record readings of the meter specified in condition 6.1 at the same time each day when abstraction is taking place during the whole of the period during which abstraction is authorised or as otherwise approved in writing by the Agency.
- 7.2 The water company shall send a copy of the record or summary data from it to the Agency at the same time each week for the duration of this permit, or within 24 hours of being so directed in writing by the Agency.

## **8 FURTHER CONDITIONS**

- 8.1 No abstraction shall take place unless the rate of flow in the River Lyd as measured immediately upstream of the authorised point of abstraction at National Grid Reference SX 39921 85071, marked as point 'A' on the maps, is equal to or greater than 537litres per second and the abstraction shall not cause the flow immediately downstream of the said abstraction point to fall below that rate.
- 8.2 The quantity of water abstracted shall not exceed 50 percent of the available flow in the River Lyd in excess of the hands off flow.
- 8.3 No abstraction shall take place unless the water company has submitted to the Agency in writing and the Agency has approved in writing, a method and/or formula to establish the rate of flow of the River Lyd upstream of the point of abstraction specified in condition.
- 8.4 No abstraction shall take place whilst any initiated discharge or augmentation of water is being made from Roadford Reservoir centred around National Grid Reference SX 42650 91300, except that which comprises any of the quantity of the daily compensation flow release authorised under Impoundment Licence serial number 15/47/52/1/1.
- 8.5 No abstraction shall take place unless the water company has installed a screen with 2 millimetre aperture size to prevent the entrapment, entrainment or impingement of fish species at the point of abstraction.
- 8.6 The water company shall maintain, repair or replace the screen in accordance with the manufacturer's specifications OR to ensure that it remains effective at all times and keep records of such maintenance.
- 8.7 The water company Holder shall keep records of such maintenance for 6 years and shall make them available during all reasonable hours for inspection by the Agency.
- 8.8 The water company shall return all of the water abstracted in pursuance of this licence to Roadford Reservoir at National Grid Reference SX 43090 90560 marked 'Q' on map 2 appended to this permit.

**9 ENVIRONMENTAL MONITORING**

9.1 The Water Company shall undertake environmental monitoring as set out in the 'Environmental Monitoring Schedule' attached to this permit at Appendix 1.

**10 FLOW MONITORING**

10.1 The Water Company shall undertake flow monitoring as set out in the 'Flow Monitoring Schedule' attached to this permit at Appendix 2A.

**11 MITIGATION CONDITIONS**

11.1 The Water Company shall notify the Agency by telephone as soon as reasonably practicable on 0800 807060 to provide details of any environmental impacts as specified in Appendix 1.

11.2 Following the closure of the deployment of the mitigation action set out in Appendix 3 a complete summary report shall be sent to the Agency within 7 working days.

**12 FURTHER CONDITIONS**

12.1 Abstraction under this permit for the purpose of public water supply shall not commence until the pre-implementation surveys specified in the 'Timing of monitoring' section of Appendix 1 and Appendix 2B have been completed, and the Agency has confirmed this in writing.

**APPENDIX 1 - ENVIRONMENTAL MONITORING SCHEDULE**

<p>Assessment Type</p>	<p>Visual monitoring “Walkover Surveys” to identify environmental impacts as a result of the water company abstracting water for public supply from the River Lyd.</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>
<p>Duration of Monitoring</p>	<p>The environmental monitoring surveys shall take place from the first day that this drought permit becomes effective, and then weekly until this drought permit expires or is revoked.</p>
<p>Environmental impacts</p>	<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 807060.</p> <ul style="list-style-type: none"> <li>• Fish in distress, for example gasping at the surface or leaping out of the water.</li> <li>• Dead fish.</li> <li>• Concentration of fish in restricted areas/pools which could increase susceptibility to predation.</li> <li>• Inhibition of movement of fish past river structures or other barriers.</li> <li>• Low levels of dissolved oxygen.</li> <li>• Signs of polluting discharges during walkover surveys, (e.g. increased sediment in the watercourse), impacts exacerbated during lower flows and/or reduced dilution.</li> <li>• Algal blooms.</li> <li>• Establishment and/or expansion of invasive non-native species.</li> </ul>
<p>Monitoring Method &amp; Standard of Assessment</p>	<p>‘Habitat impact assessment walkovers’ to identify signs of environmental stress (fish in distress etc.), conducted by a suitably experienced ecologist.</p> <p>The water company shall measure and record the following information during the walkover surveys.</p> <p>For all environmental impacts identified:</p> <ul style="list-style-type: none"> <li>• The date, time and location of the site of environmental impacts observed.</li> <li>• Dissolved oxygen concentration, water temperature, suspended solids, ammonia and pH measurements shall be taken and recorded anywhere in the survey area where (if) signs of environmental stress are identified.</li> </ul>

	<ul style="list-style-type: none"> <li>• A photo or photos shall be taken of any signs of environmental distress.</li> <li>• Weather conditions at the time of the observations.</li> </ul> <p>Where relevant to the environmental impacts observed:</p> <ul style="list-style-type: none"> <li>• Approximate number of dead fish.</li> <li>• Any signs of damage or disease.</li> <li>• Approximate number of fish in distress, gasping at the surface or leaping out of the water.</li> <li>• Whether the fish are being stranded in shallow pools.</li> <li>• Description of structures and stretches of any watercourses that have no flow or significantly reduced flow.</li> <li>• Approximate size of the fish affected.</li> <li>• The species affected.</li> <li>• Signs of pollution.</li> <li>• Presence of algal blooms/scums.</li> <li>• Species, location and extent of invasive non-native species.</li> </ul>
Frequency monitoring	<p>of 'Habitat impact assessment walkovers' to be completed:</p> <ol style="list-style-type: none"> <li>a) prior to the first day on which the water company commence abstraction for the purpose of public water supply; and</li> <li>b) weekly thereafter for the duration of the drought permit.</li> </ol> <p>The Water Company shall discuss and agree with the Agency any proposed changes to the frequency of monitoring.</p>
Location Monitoring	<p>of At the locations listed below:</p> <p>Site 1: Former intake SX 39893 85082 to Tamar confluence SX 37459 84076.</p>
Survey Results	<p>A copy of the monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team <a href="mailto:ieppdevonandcornwall@environment-agency.gov.uk">ieppdevonandcornwall@environment-agency.gov.uk</a> within 7 days of the 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>

**APPENDIX 2A – FLOW MONITORING SCHEDULE**

Assessment Type	Flow measurement
Duration of Monitoring	The flow measurement surveys shall start within seven days from the first day that this drought permit becomes effective, until this drought permit expires or is revoked.
Monitoring Method & Standard of Assessment:	<p>Unless otherwise advised by the Agency, the flow measurements shall be conducted using either:</p> <p>i) An impellor type current meter, or ii) acoustic doppler current profiling.</p> <p>Within each survey the date, time and local weather conditions shall be recorded, along with comment on any significant weather events during the preceding days that could influence the survey results.</p>
Frequency of monitoring	Continuous throughout the duration of the drought permit
Location of Monitoring	<p>At the locations listed below. National Grid References to be agreed in writing with the Agency:</p> <p><u>Site 1: Upstream of River Lyd (National Grid Reference SX 39921 85071)</u></p>
Standard	<p>All current meter flow measurements shall be conducted to ISO 748:2007 standard, or current equivalent.</p> <p>All flow measurement using an ADCP (Acoustic Doppler Current Profiler) method shall be conducted to the appropriate and accepted standard.</p>
Results	<p>Following the completion of the flow measurements the water company shall provide:</p> <ul style="list-style-type: none"> <li>• Confirmation of the daily mean flow and supply release value.</li> </ul> <p>A copy of the monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team <a href="mailto:ieppdevonandcornwall@environment-agency.gov.uk">ieppdevonandcornwall@environment-agency.gov.uk</a> within 7 days of the survey taking place.</p>
Responsibility	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.

	Health and safety requirements whilst carrying out the surveys are the responsibility of the Water Company.
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**APPENDIX 2B – WATER QUALITY MONITORING SCHEDULE**

Assessment Type	Water quality monitoring upstream of the River Lyd abstraction point to assess the effect of the abstraction upon the water quality.
Duration of Monitoring	The water quality monitoring shall take place from the first day that this drought permit becomes effective, until this drought permit expires or is revoked.
Monitoring Method & Standard of Assessment:	The Water Company shall take readings of the following parameters at fortnightly intervals: <ul style="list-style-type: none"> <li>• dissolved oxygen content;</li> <li>• water temperature;</li> <li>• pH; and</li> <li>• turbidity.</li> </ul>
Frequency of monitoring	A survey prior to the first day on which the water company commence abstraction for the purpose of public water supply, then weekly thereafter for the duration of the drought permit
Location of Monitoring	At the locations listed below:  <u>Site 1: Upstream of the River Lyd abstraction point (National Grid Reference SX 39921 85071).</u>
Results	A summary of the water quality monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team <a href="mailto:ieppdevonandcornwall@environment-agency.gov.uk">ieppdevonandcornwall@environment-agency.gov.uk</a> within 7 days of the survey taking place.
Responsibility	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.  Health and safety requirements whilst carrying out the surveys are the responsibility of the Water Company.

**APPENDIX 3 – MITIGATION PLAN**

<b>Environmental Impact</b>	<b>Mitigation Plan</b>
Pollution incident and/or where there is evidence of ecological distress and/or if reduced flows are having detrimental environmental consequences on the water quality of downstream waterbodies	The Lyd catchment upstream of the intake is part of the Safeguard Zone for Roadford Reservoir Drinking Water Protected Area. Catchment management, to minimise diffuse pollution from farming activities in the catchment, is to be maintained by the Water Company for the duration of the operation of this permit through the on-going Upstream Thinking programme. This is with the aim of managing the raw water quality of the water abstracted from the Lyd to reduce the risk of deterioration of Roadford Reservoir.
Loss of wetted width reducing available spawning and juvenile fish habitat below the intake on the River Lyd.	The Water Company shall undertake to fund and deliver an advisory visit by an EA approved contractor and subsequent programme of habitat improvement works in the reach directly impacted by the permit (the River Lyd from the Colmans intake SX3989585082 downstream to the Tamar confluence SX3745984076). The programme should be agreed with the EA. This could include (but is not limited to) installation of large woody debris or deflectors, stock fencing, gravel augmentation and gravel cleaning and should be undertaken collaboratively with local angling interests.
Reduced flow over barriers to fish migration	If the fish passage assessments specified in the Environmental Monitoring Plan conclude that the structures constitute a flow sensitive barrier to migration for any species or lifestage, the Water Company would be required to investigate and, where feasible, deliver removal or fish passage improvements. Where relevant, output to include an options appraisal for each structure. Scope to be agreed with the EA.
Redistribution of gravels at Wolf trib pipeline washout discharge location.  Displacement and/or loss of juvenile lifestages of salmonids at pipeline washout discharge locations.	Acknowledging the habitat quality and sensitivity of the Wolf tributary pipeline discharge location, the Water Company shall undertake to fund and deliver: <ul style="list-style-type: none"> <li>• An advisory visit by an EA approved contractor and subsequent programme of</li> </ul>

	<p>habitat improvement works in the reach directly impacted by the pipeline washout discharge location (discharge point SX 41774 88334 to Wolf confluence SX 40827 87753). The programme should be agreed with the EA. This could include (but is not limited to) installation of large woody debris or deflectors, stock fencing, gravel augmentation and gravel cleaning.</p> <ul style="list-style-type: none"><li>• An investigation into fish passage solutions at two Highways England structures located at SX40898778 and SX40838775 and a Devon County Council road bridge located at SX 41503 88353. The programme should be agreed with the EA. If environmental impacts (see left hand column of this table for definition) are confirmed by monitoring and observations at the site during discharge, SWW will (where possible) deliver fish passage improvements at these barriers.</li></ul>
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Environment Act 1995  
Water Resources Act  
1991



