

Environment Agency Reference:

**DRAFT**

Please quote the reference number in all correspondence



## **DRAFT Drought Permit – abstraction from a new source**

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 from the source of supply described in the Schedule of Conditions to this permit and subject to the provisions of that 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 said Licence 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)

## **SCHEDULE OF CONDITIONS**

### **1. SOURCE OF SUPPLY**

1.1. Hawk's Tor Pit, a disused china clay pit.

### **2. POINT OF ABSTRACTION**

2.1. At National Grid Reference SX151745.

### **3. MEANS OF ABSTRACTION**

3.1. We have installed two electrically driven submersible pumps, horizontally mounted on a floating pontoon at SX14999 74589.

### **4. PURPOSE OF ABSTRACTION**

4.1. Public water supply

4.2. Pumped winter storage to Colliford Reservoir

### **5. ABSTRACTION PERIOD**

5.1. From the date the Permit is granted until 30 April 2023.

### **6. MAXIMUM QUANTITY OF WATER TO BE ABSTRACTED DURING THE SPECIFIED PERIOD**

6.1. 8,000 cubic metres per day up to the 'hands off level' of 12.0 metres from the Top Water Level ("TWR").

Note: a day means any period of 24 consecutive hours.

### **7. MEANS OF MEASUREMENT OF WATER ABSTRACTED**

7.1. No abstraction shall take place unless the Water Company has installed meters to measure quantities of water abstracted.

7.2. The Water Company shall position and install the meters in accordance with any written directions given by the Agency.

7.3. The Water Company shall maintain, repair or replace the meters to ensure that accurate measurements are recorded at all times.

7.4. The Water Company shall keep all record of meter repairs or replacement including evidence of current certification for a period of 6 years.

### **8. RECORDS**

From commencement of this permit the Water Company shall report to the Agency as follows:

(a) Weekly volume of Hawk's Tor Pit

The Water Company shall submit records of the volume of water in the Hawk's Tor Pit and Colliford Reservoir 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.

(b) Mitigation measures

Should mitigation measures need to be deployed as set out in Appendix 1 of this Permit, such measures shall be agreed with the Agency and notified to the Water Company in writing, following which the Water Company shall provide:

- (i) a weekly update on the effects of the measure; and
- (ii) a complete summary report within seven working days of the closure of their deployment.

## **9. ENVIRONMENTAL MONITORING**

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

## **10. BANKSIDE MONITORING**

The Water Company shall undertake bankside monitoring as set out in the 'Bankside Monitoring Schedule' attached to this permit at Appendix 2.

## **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 or any bankside impacts as specified in Appendix 1 and/or 2.
- 11.2. Should the mitigation actions need to be deployed as set out in Appendix 3, the Water Company shall submit updates weekly, or as otherwise agreed in writing with the Agency. The updates shall include but not be limited to the following: a weekly update on the effects of the action.
- 11.3. 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.
- 11.4. The Water Company shall provide the following compensation flows into the Warleggan River:

- 11.4.1. A compensation flow of 32l/s through temporary pumps from Hawk's Tor Pit into Warleggan River;
- 11.4.2. Provide three artificial spates for 12 hours duration November and December 2022 at 64l/s to aid migration of salmonid fish;
- 11.4.3. Provide a post drought permit compensation flow of 11l/s until 30 September 2023 or until recovery of Hawk's Tor Pit to TWL, whichever is the sooner; and
- 11.4.4. Provide three artificial spates for 12 hours duration during April and May 2023 at 32l/s to aid migration of salmonid smolts fish.

## **12. FURTHER CONDITIONS**

- 12.1. The Water Company must not abstract any volume of water from Hawk's Tor Pit unless a screen of a minimum aperture size of 2 millimetres is installed on the transfer pumps at Hawk's Tor Pit.
- 12.2. The Water Company shall maintain, repair or replace the screen in accordance with the manufacturer's specifications, to ensure that it remains effective at all times and keep records of such maintenance.
- 12.3. The Water Company shall keep records of such maintenance for 6 years and shall make them available during all reasonable hours for inspection by the Agency.
- 12.4. The Water Company shall submit an environmental assessment report to the Agency by no later than 31 December 2022, or as otherwise agreed in writing with the Agency.

**APPENDIX 1 - ENVIRONMENTAL MONITORING SCHEDULE**

<p>Assessment Type</p>	<ol style="list-style-type: none"> <li>1. Visual monitoring “Walkover Surveys” to identify signs of environmental stress, including taking a baseline photo record and site notes.</li> <li>2. Install appropriately located piezometer metres at location to be determined with the Agency and review of newly installed piezometer data.</li> <li>3. Measurements at manual gauging stations of in-flow and out-flow volumes as well as that of the Warleggan River.</li> <li>4. Continuous compensation flow readings to Warleggan River.</li> <li>5. Assessment of bankside stability of Hawk's Tor Pit SSSI exposed faces during draw-down.</li> <li>6. Usage of pump pontoon to measure continuous levels of Hawk's Tor Pit, recording results via telemetry, and collating daily abstraction volume via installed meter on pump pontoon.</li> <li>7. In-situ spot water quality monitoring downstream of Hawk's Tor outflow.</li> </ol> <p>Within each survey the 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> <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>Duration of Permit, unless specified otherwise</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> </ul>

	<ul style="list-style-type: none"> <li>• Signs of polluting discharges during walkover surveys, 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>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 location of the site of environmental impacts observed.</li> <li>• Dissolved oxygen concentration, water temperature, ammonia and pH measurements shall be taken and recorded anywhere in the survey area where (if) signs of environmental stress are identified.</li> <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>
<p>Frequency of monitoring</p>	<p>The Walkover Surveys shall be undertaken prior to implementation of the permit. During the permit, the first survey shall take place on week one of drought permit implementation and weekly thereafter until the duration of the Licence unless otherwise agreed with the Agency.</p> <p>Data from the Piezometers (to be installed within two weeks of commencement of the Drought permit) to be collected weekly for the duration of the permit.</p>

<p>Location of Monitoring</p>	<p>At the locations listed below:  Site 1: <u>Hawk's Tor Pit</u></p>
<p>Survey Results</p>	<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>
<p>Responsibility</p>	<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>

DRAFT

**APPENDIX 2 - BANKSIDE MONITORING SCHEDULE**

Assessment Type	<p>Visual monitoring of the banksides of Hawk's Tor Pit at Site 1 ("Bankside Monitoring Surveys")</p> <p>Within each survey the 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> <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	Duration of Permit, unless specified otherwise
Visual impacts	<p>The following examples are suggested signs of visual movement but are not exhaustive:</p> <ul style="list-style-type: none"> <li>• Cracks</li> <li>• Heaving</li> <li>• Rotational failure</li> <li>• Ponding at the crest</li> </ul>
Monitoring Method & Standard of Assessment	<p>The water company shall measure and record the following information during the Bankside Monitoring surveys.</p> <p>For all environmental impacts identified:</p> <ul style="list-style-type: none"> <li>• The aspect of the impact observed</li> <li>• location of the site of impacts observed.</li> <li>• A photo or photos shall be taken of any signs of impacts.</li> <li>• Weather conditions at the time of the observations.</li> </ul>
Frequency of monitoring	The Bankside Monitoring Surveys shall be undertaken prior to implementation of the permit. During the permit, the first survey shall take place on week one of drought permit implementation and weekly thereafter until the termination of the 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: Hawk's Tor Pit</u></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>

Environment Act 1995  
Water Resources Act  
1991



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.
----------------	--

DRAFT

**APPENDIX 3 – MITIGATION PLAN**

---

Environment Act 1995  
Water Resources Act  
1991

Environmental Impact	Mitigation Plan
<p>Pollution incident and/or where there is evidence of ecological distress</p>	<p>In the unlikely event that bank side stability issues at Hawk's Tor Pit are identified from the Bankside Monitoring Surveys, we will instruct an accredited supervising civil engineer to attend the site to provide specialist geotechnical advice and will cease pumping under this permit until advised by the accredited supervising civil engineer that it is safe to resume pumping under this permit.</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> </ul>	<p>Water quality monitoring shall be undertaken at the location to include water temperature, dissolved oxygen content and pH.</p> <p>Arranging for a fish rescue team to rescue fish (if necessary) and deposit them in a location agreed between the Environment Agency and the Water Company</p>

DRAFT