Environment Agency Reference: DRAFT

# STANNON LAKE DROUGHT PERMIT TO MODIFY EXISTING ABSTRACTION SOUTH WEST WATER LIMITED

SECTION 79A OF THE WATER RESOURCES ACT 1991 AS AMENDED BY THE ENVIRONMENT ACT 1995

The Environment Agency grants this	Drought Permit to:			
South West Water Limited Peninsula House Rydon Lane Exeter EX2 7HR	("the Water Company")			
Company registration number	02366665			
No. SW/049/0281/001/R01 as issued	Vater Company to abstract water pursuant to Licence d on 20 November 2016 (the <b>Licence</b> ), but with the d and/or modified as set out in the Schedule of			
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 remain in full force and effect.				
Signed	Date of issue			
	Date effective			
[Name/Position of EA official] [EA area address]	Date of expiry			

# SCHEDULE OF CONDITIONS

#### 1. ABSTRACTION

- 1.1 From 1 November 2022 to 31 March 2023 inclusive:
  - Subject to Conditions 2, 3, 4 and 5, the Water Company shall be permitted to abstract up to 6 megalitres per day from the existing abstraction point located at National Grid Reference SX 12381 80929 at Stannon Lake for public water supply (including, for the avoidance of doubt, winter recharge of Colliford Reservoir and direct to treatment).
  - ii. Subject to Conditions 2, 3, 4 and 5, the annual abstraction limit of 1464 megalitres shall be replaced by a limit of 1766 megalitres in respect of all water abstracted from Stannon Lake under the Licence and as authorised by this Drought Permit for the abstraction year 2022/2023

## 2. RECORDING AND REPORTING

From commencement of this Drought Permit, in addition to the reporting requirements set out in the Licence, the Water Company shall report to the Agency as follows:

# (a) Records of abstraction from Stannon Lake

The Water Company shall submit records of the weekly abstraction volume from the Stannon Lake at the same time each week for the duration of the Drought Permit, or within 24 hours of being so directed in writing by the Agency.

## (b) Weekly volume of Colliford Reservoir;

The Water Company shall submit records of the volume of water in the Colliford Reservoir at the same time each week for the duration of this Drought Permit, or within 24 hours of being so directed in writing by the Agency.

# (c) EMP Reports

The Water Company shall submit EMP Reports in the frequencies set out therein.

#### (d) Mitigation Measures

Should mitigation measures need to be deployed as set out in Appendix 3 of this Drought 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.

# 3. ENVIRONMENTAL MONITORING

The Water Company shall undertake environmental monitoring as set out in the 'Environmental Monitoring Schedule' attached to this Drought Permit at Appendix 1. The Water Company shall undertake water quality and flow measurement monitoring as set out in the in the Flow Measuring and Water Quality Survey Schedule attached to this Drought Permit at Appendix 2

# 4. MITIGATION CONDITIONS

- 4.1 The Water Company shall ensure it mitigates the environmental impacts in accordance with the '*Mitigation Plan'* attached to this Drought Permit at Appendix 3.
- 4.2 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.

## 5. FURTHER CONDITIONS

- 5.1 If the flow in New North Leat at SX 12248 80927 falls below 10 litres per second then enhanced monitoring will be undertaken, including additional walkover surveys and increased frequency of data review from level loggers
- 5.2 If the flow in the New North Leat at SX 12248 80927 shall fall below 5 litres per second then the Water Company shall make additional releases from Stannon Lake to the New North Leat via temporary augmentation unless the level of water in Stannon Lake as measured at the Stannon Lake outfall is equal to or greater than 3.0 metres below the outfall's invert level.

# **APPENDIX 1 - ENVIRONMENTAL MONITORING SCHEDULE**

Assessment Type	Visual monitoring "walkover surveys" of Site 1, Site 4 and the reach between Site 1 and Site 2 to identify and map salmonid spawning habitat, identify barriers to fish migration and any salmonid redds, measure wetted widths at key locations and take a baseline photo record of all key locations.  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.	
Duration of Monitoring	Duration of Drought Permit	
Environmental impacts	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.	
	<ul> <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, 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>	
Monitoring Method & Standard of Assessment	The water company shall measure and record the following information.  For all environmental impacts identified:  • The location of the site of environmental impacts observed.  • 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.  • A photo or photos shall be taken of any signs of environmental distress.  • Weather conditions at the time of the observations.  Where relevant to the environmental impacts observed:	
	<ul><li>Approximate number of dead fish.</li><li>Any signs of damage or disease.</li></ul>	

	<ul> <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 of monitoring	<ul> <li>One survey immediately prior to implementation to establish baseline conditions</li> <li>During Drought Permit: First survey during the first week of Drought Permit implementation and fortnightly thereafter</li> <li>Post Drought Permit: One survey after the end of the Drought Permit to establish change from baseline (if any)</li> </ul>	
Location of Monitoring	At the locations listed below. National Grid References to be agreed in writing with the Agency:  Site 1: Stannon Lake  Site 2: Stannon Stream upstream of Crowdy Brook confluence  Site 4: New North Leat	
Survey Results	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 14 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 2 – FLOW MEASUREMENT AND WATER QUALITY SURVEY SCHEDULE

Assessment Type	1. Spot flow gauging at Sites 2, 3 and 4	
	2. Review of level logger and piezometer data at Site 4.	
	3. Water quality monitoring surveys at Sites 2 and 3	
	The water company shall discuss and agree with the Agency any proposed changes to this schedule in advance of carrying out any of the survey work.	
Duration of Monitoring	For the duration of the Drought Permit	
Monitoring Method & Standard of	The flow monitoring survey shall assess the effect the change in the abstraction has upon the flows in Stannon Stream.	
Assessment	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.	
	The water quality monitoring survey shall assess the effect the change in the abstraction has upon the water quality in Stannon Stream.	
Frequency of Monitoring	Spot flow gauging shall take place prior to the implementation of the Drought Permit and fortnightly thereafter.	
	Water quality monitoring shall take place immediately prior to the implementation of the Drought Permit and fortnightly thereafter.	
	Data from the level logger to be collected prior to the implementation of the Drought Permit and monthly for the duration of the Drought Permit.	
	Data from the Piezometer to be collected prior to the implementation of the drought permit and monthly for the duration of the Drought Permit.	
Location of Monitoring	At the locations listed below. National Grid References to be agreed in writing with the Agency:	
	Site 2: Stannon Stream upstream of Crowdy Brook confluence	
	Site 3: Stannon Stream downstream of the Crowdy Brook confluence	
	Site 4: New North Leat	
Results	Following the completion of each of the flow measurements the water company shall provide confirmation of the calculated flow value.	

	The water quality monitoring shall include water temperature, dissolved oxygen content and pH in the water.  The 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 completion of each of the surveys, unless otherwise agreed in writing with the Agency.
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**

Environmental Impact	Mitigation Plan
Pollution incident, where there is evidence of ecological distress and/or if reduced flows are having detrimental environmental consequences on the water quality of	Releasing additional flows from Stannon Lake to New North Leat via installation of temporary pumps; and/or
downstream waterbodies.	Releasing from Crowdy Reservoir compensation release as either a freshet or longer-term temporary discharge to supplement the Stannon Stream reach downstream of Crowdy Brook confluence
Salmonid redds at risk of exposure during salmonid spawning season	Releasing additional flows from Stannon Lake to New North Leat via installation of temporary pumps; and/or
	Releasing from Crowdy Reservoir compensation release as either a freshet or longer-term temporary discharge to supplement the Stannon Stream reach downstream of Crowdy Brook confluence
<ul> <li>Fish in distress, for example gasping at the surface or leaping out of the water.</li> <li>Dead fish.</li> </ul>	Releasing additional flows from Stannon Lake to New North Leat via installation of temporary pumps; and/or
<ul> <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>	Releasing from Crowdy Reservoir compensation release as either a freshet or longer-term temporary discharge to supplement the Stannon Stream reach downstream of Crowdy Brook confluence