Environment Agency Reference:

DP2022-1548018S040

Please quote the reference number in all correspondence



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

Company registration number 02366665

This drought permit authorises the Water Company to abstract water pursuant to Licence Number 15/48/018/S/040 dated 8 April 1987 ("the Licence") but with the provisions of the Licence, and the recording frequency condition of Licence Number 15/48/018/S/032 ("the Trekeivesteps Licence"), suspended and/or modified as set out in the Schedule 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 Licences shall remain in full force and effect.

Tim De WInton Date of expiry31 March 2023

Area manager

Environment Agency Manley House Kestrel Way Exeter, EX2 7LQ

SCHEDULE OF CONDITIONS

1. MAXIMUM QUANTITY OF WATER TO BE ABSTRACTED DURING THE SPECIFIED PERIODS

1.1 Subject to conditions 3.1(ii) and 4. 2.1, from 1 November 2022 to 31 December 2022 inclusive, the 'Quantities of water authorised to be abstracted during a period or periods specified' condition shall be substituted with the following:

Not exceeding 110,000 cubic metres per day Not exceeding 32,200,000 cubic metres per annum

Note: a day means any period of 24 consecutive hours, and per annum means the 12-month period beginning on 1 January and ending on 31 December.

- 1.2 From 1 January 2023 to 31 March 2023 inclusive, the 'Quantities of water authorised to be abstracted during a period or periods specified' condition shall be substituted with the following:
 - (a) Not exceeding 110,000 cubic metres per day
 - (b) Not exceeding 9,900,000 cubic metres between 1 January 2023 and 31 March 2023 (with any quantity abstracted within this period up to a maximum of 3,600,000 cubic metres being additional to the 28,900,000 cubic metres per annum limit in the Licence for the calendar year 2023, subject to condition 4.2.2(ii)).

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

2. RECORDS

- 2.1 <u>For the abstraction from the Restormel Water Treatment Works:</u>
 - (i) The Water Company shall take and record the abstraction quantities as specified in condition 1 at the same time each day during the whole of the period during which this permit is authorised or as otherwise approved in writing by the Agency, and record the proportion of water that is pumped to Colliford Reservoir.
 - (ii) The Water Company shall send a copy of the records or summary data from them to the Agency at the same time each week or within 24 hours of being so directed in writing by the Agency.
- 2.2 <u>For the abstraction from the River Fowey under abstraction licence</u> <u>15/48/018/S/032:</u>

The 'Provisions for determining, by measurement or assessment, the quantities of water authorised by this licence' condition of the the Trekeivesteps Licence shall be substituted with the following:

(i) The Water Company shall take and record the abstraction quantities as specified under licence 15/48/018/S/032 at the same time each day during the whole of the period during which this permit is authorised or as otherwise approved in writing by the Agency.

- (ii) The Water Company shall send a copy of the records or summary data from it to the Agency at the same time each week or within 24 hours of being so directed in writing by the Agency.
- 2.3 <u>For the flow from Colliford Reservoir which bypasses Colliford Weir gauging</u> station:
 - (i) The Water Company shall use a flow measuring device to continuously measure releases from Colliford Reservoir which bypass the Colliford Weir gauging station downstream of its location at National Grid Reference SX 17955 70936.
 - (ii)The Water Company shall continuously measure the flow as specified in condition 2.3(i) during the whole of the period during which this permit is authorised or as otherwise approved in writing by the Agency.
 - (iii) The Water Company shall send a copy of the daily mean flow records to the Agency at the same time each week or within 24 hours of being so directed in writing by the Agency.
- 2.4 For the volume of water in Colliford and reservoir:
 - (i) The Water Company shall record the volume of water in Colliford reservoir in megalitres each day for the duration of this permit, or at such other intervals as may be approved by the Agency in writing.
 - (ii) The Water Company shall submit records of the volume of water in Colliford reservoir as specified in condition 2.4(i) 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.

3. ENVIRONMENTAL MONITORING

- 3.1 (i)The Water Company shall undertake environmental monitoring as set out in the 'Environmental Monitoring Schedule' attached to this permit at Appendix 1.
 - (ii) Abstraction under condition 1.1 of this permit shall not exceed 28,900,00 cubic metres in the calendar year 2022 until the pre-implementation surveys specified in the 'Frequency of monitoring' section of Appendix 1 have been completed, and the Agency has confirmed in writing that it is satisfied with this.
- The Water Company shall undertake water quality monitoring as set out in the 'Water Quality Monitoring Schedule' attached to this permit at Appendix 2.

4 MITIGATION CONDITIONS

4.1 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.

- 4.2.1 During the period from 1 November to 31 December 2022, if:
 - a) the quantity of water abstracted within the calendar year has exceeded 28,900,000 cubic metres, and
 - b) environmental impacts are notified under condition 4.1 by the Water Company, or if the Agency so specify in writing,

the Water Company shall cease abstraction, and if the Agency so notifies in writing, undertake the mitigation actions identified in the Mitigation Plan specified in Appendix 3.

- 4.2.2 (i) During the period from 1 January to 31 March 2023, if environmental impacts are notified under condition 4.1 by the Water Company, or if the Agency so notify in writing, undertake such of the mitigation actions identified in the Mitigation Plan specified in Appendix 3 as the Agency may specify in writing.
 - (ii) Any abstraction from the time of notification under (i) above until condition 4.3 has been satisfied will form part of the 28,900,000 cubic metres per annum limit in the Licence for the calendar year 2023.
- The cessation of abstraction for public water supply and/or undertaking mitigation actions under conditions 4.2.1 and/or 4.2.2 shall continue to apply until the Water Company has indicated in writing that appropriate remedial action has been taken, and the Agency has confirmed in writing that it is satisfied with this.
- 4.4 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.
- 4.5 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.

5. FURTHER CONDITIONS

- 5.1 During the period 1 November to 31 December 2022 inclusive, after abstraction has exceeded 28,900,000 cubic metres within 2022, the Water Company must not abstract for up to five consecutive days following a prior written notification from the Agency where,
 - (i) following any antecedent period of at least two weeks, flows in the River Fowey as measured at the Restormel gauge have remained below 1.488 m³/s, and
 - (ii) The Agency consider, based on the best available information, that continued abstraction could result in a significant impact on migratory salmonid migration or wider fish populations;

unless an equivalent simultaneous release to the amount abstracted under the Licence that day is made from Colliford reservoir to St Neot River at National Grid Reference SX 17940 70990 and/or from Siblyback reservoirs to Siblyback Stream at National Grid Reference SX 23200 70300.

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The total period of cessation of abstraction arising from such notifications shall not exceed 10 days.

- 5.2 (i) The Water Company shall commission weekly analysis and review of the fish counter data at Restormel supplied by the Agency, to assess the upstream migration of adult salmonids and the downstream migration of fish and eels, between 1 November 2022 to 31 March 2023 inclusive.
 - (ii) The Water Company shall submit the currently available information as specified in condition 5.2(i) to the Agency at the same time each week for the duration of this permit (not later than within one week of receipt of the counter data / footage) or within 24 hours of being so directed in writing by the Agency (to the extent the same is available at that time) for review and quality assurance.
- 5.3 For the purposes of the analysis referred to at Condition 5.2, the analysis must include:
 - (i) "Blind watching" of video data and matching up events to the counter data, which allows an estimation of how many fish the counter may have missed (detection efficiency), with a minimum of 10 hours of "blind watching" per camera (there are three channels, each with a camera at Restormel weir) per month (i.e. a total of 30 hours per month).
 - (ii) "Measuring only", which involves checking up and downstream events in the counter data, verifying there are fish/eels in the accompanying video data and taking a length measurement with "measuring only" analysis of all potential counts recorded in the period 1 November 2022 to 31 March 2023.

APPENDIX 1

ENVIRONMENTAL MONITORING SCHEDULE

Assessment Type	A suite of environmental monitoring in the reach of the River Fowey which may be affected by the Water Company abstracting above 28,900,000 cubic metres of water per year. 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	The environmental monitoring surveys shall take place from the first day that this drought permit becomes effective, until this drought permit expires or is revoked.	
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 80 70 60. 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 or poaching. 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	Site 1: - 'Salmonid walkover surveys' of pools recording the number of adult salmonids holding below Restormel Weir conducted by a suitably experienced individual. - 'Redd counting and mapping'. Digital mapping of redds providing location, redd size/area, identification to species where possible and georeferenced photos. Site 2: - 'Visual checks at Restormel weir'. Visual check, photos and site notes to identify any signs of fish in distress or being unable to pass upstream over Restormel weir plus visual check of the pumped eel pass to ensure it remains operational. Site 3: - 'Habitat and impact assessment walkover surveys' to identify and map salmonid spawning habitat and lamprey ammocoete habitat, measure wetted widths at key locations and take a baseline photo record of all key locations conducted by a suitably experienced fisheries ecologist. Impact assessment element to identify signs of environmental stress (fish in distress, dry channel in identified spawning areas, etc.) Where an environmental impact is identified, 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, 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 impact. Weather conditions at the time of the observations.
	 Where relevant to the environmental impacts observed: 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. The species affected. Signs of pollution. Presence of algal blooms/scums. Species, location and extent of invasive non-native species.
Frequency of monitoring	 (a) 'Salmonid walkover surveys': Pre-implementation then first survey on day one of drought permit implementation and weekly for the period 1 November 2022 to 31 January 2023. (b) 'Redd counting and mapping': First survey on day one of drought permit implementation and fortnightly for the period 1 November 2022 to 31 January 2023. (c) 'Visual checks at Restormel Weir': Pre-implementation then first survey on day one of drought permit implementation and weekly thereafter. To be undertaken at least three times before needs to be reviewed. (d) 'Habitat and impact assessment walkover surveys': Pre-implementation then first survey on day one of drought permit implementation and weekly for the duration of the drought permit. The Water Company shall discuss and agree with the Agency any proposed changes to the frequency of monitoring.
Location of Monitoring	Site 1: Restormel Weir (SX 09803 62462) to tidal limit at Lostwithiel (SX 10555 60108) Site 2: Restormel Weir (SX 09803 62462) Site 3: Restormel Intake (SX 097 624) to tidal limit at Lostwithiel (SX 10555 60108)
Results	In addition to any notification given under condition 4 a copy of the monitoring results shall be sent to Environment Agency IEP (Integrated Environmental Planning) team ieppdevonandcornwall@environment-agency.gov.uk within 7 days of the survey taking place.

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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

WATER QUALITY MONITORING SCHEDULE

	Continuous vistor quality manitoring of the flower decomplete of Destance 100
Assessment Type	Continuous water quality monitoring of the flows downstream of Restormel Weir to measure the dissolved oxygen content and temperature as a minimum. 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 monitoring work.
Duration of Monitoring	The water quality environmental monitoring shall take place from the first day this drought permit becomes effective, until this drought permit expires or is revoked.
Monitoring Method & Standard of Assessment	Unless otherwise advised by the Agency, the water quality measurements shall be conducted using: • Water quality multiparameter logging instrument - sondes The water quality logging instrument shall be used to measure the following parameters downstream of Restormel Weir: • dissolved oxygen, • temperature The Water Company shall calibrate the probes regularly in accordance with the recommendations of the manufacturer, and shall ensure they are fully immersed in water, but suspended above the bed of the river, to prevent the probes from being fouled by sediment.
Frequency of Monitoring	15 minute intervals
Location of Monitoring	Downstream of Restormel Weir (SX 09803 62462)
Monitoring Results and Action	A weekly summary of the monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team ieppdevonandcornwall@environment-agency.gov.uk at the same time each week 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
 Inhibition of salmon and sea trout migration over Restormel Weir. Salmonid redds at risk of exposure during salmonid spawning season (November to March inclusive) Pollution incident, where 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 4.1 	The Water Company must ensure that a fisheries water bank of not less than 909.2 megalitres is available for use in the River Fowey for the duration of the drought permit. Use of the fisheries water bank (volume and timing) will be requested via written notification from the Agency. The full volume of the standard Colliford Operating Agreement fisheries water bank (909.2 megalitres) will be available when the drought permit ends or is revoked, even where water bank releases have occurred during drought permit implementation.
 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 	Arranging for a fish rescue team to rescue migratory fish and deposit them in a location agreed between the Agency and the Water Company, or failing that on written notification by the Agency.

ADDITIONAL INFORMATION

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

Condition 1 of this drought permit authorises the additional annual abstraction of water from the River Fowley.

Condition 2 of this drought permit requires the Water Company to record abstraction volumes and storage levels in order to ensure compliance with the permit conditions.

Condition 3 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 abstraction.

Conditions 4 of this drought permit has been included to mitigate against any environmental impacts that may be caused by or affected by the water company abstracting.

Condition 5 of this drought permit has been included to ensure further analysis and protection of fish populations.

IMPORTANT NOTES

Reservoir Storage Levels

Condition 2.3 of this drought permit requires the Water Company to submit storage levels for Colliford Reservoir. The Water Company also submits storage levels for Siblyback Lake. The Agency continues to require levels from Siblyback as well as the storage levels data required for Colliford in this permit.

Notifications

The records required in conditions 2.1, 2.2, 2.3 and 2.4 should be sent to the to Environment Agency IEP (Integrated Environmental Planning) team mailbox at: ieppdevonandcornwall@environment-agency.gov.uk

The weekly reports and summary report required in conditions 4.4 and 4.5 will be sent to the Environment Agency IEP (Integrated Environmental Planning) team mailbox at: ieppdevonandcornwall@environment-agency.gov.uk

Metering

The Agency will have regard to its Abstraction Metering Good Practice Manual (or equivalent guidance) in directing any of the following: where the meter should be located or how it should be installed; whether the meter measures accurately, and/or is properly maintained; whether it is necessary to require repair or replacement of the meter.

Environmental Monitoring Plan

The conditions and monitoring incorporated on this permit is in addition to the Environmental Monitoring Plan agreed annual between the Environment Agency and South West Water.