



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:

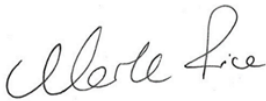
South West Water Limited (“the Water
Company”)

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. 15/48/018/G/118/R01 as issued on 30 January 2018 (“the **Licence**”), but with the provisions of that Licence suspended and/or 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 shall remain in full force and effect.


Signed

Mark Rice
Area manager

Environment Agency
Environment Agency
Manley House
Kestrel Way
Exeter
EX2 7LQ

Date of issue.....18 November 2022
Date effective18 November 2022
Date of expiry.....30 April 2023

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

SCHEDULE OF CONDITIONS

1. POINTS OF ABSTRACTION

1.1 The following point is added to Condition 2 of the Licence:

“For the purpose of transfer to the Trenant Stream:

At National Grid Reference SX 19681 70294 marked ‘B’ on the map.”

2. MEANS OF ABSTRACTION

2.1 Condition 3 of the Licence shall be substituted with the following:

“For the purpose of public water supply:

Pump, or pumps at Point ‘A’

“For the purpose of transfer to the Trenant Stream:

Pump, or pumps at point ‘B’.”

3. PURPOSE OF ABSTRACTION

3.1 The following purpose is added to the Condition 4 of the Licence:

“Transfer to the Trenant Stream for the purpose of flow augmentation.”

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

4.1 Condition 6.1 of the Licence shall be substituted with the following:

“For the purpose of public water supply:

The quantities authorised to be abstracted under this permit, subject to conditions 7.1.4 and 7.1.9:

(i) From 18 November 2022 to 31 December 2022 inclusive:

875 cubic metres per hour

14,000 cubic metres per day

3,232,000 cubic metres per year

At an instantaneous rate not exceeding 243 litres per second

(ii) From 1 January 2023 to 30 April 2023 inclusive:

875 cubic metres per hour

14,000 cubic metres per day

1,680,000 cubic metres between 1 January 2023 and 30 April 2023 (with any quantity abstracted within this period up to a maximum of 720,000 cubic metres being additional to the 2,920,000 cubic metres per annum limit in Condition 6.1 of the Licence for the calendar year 2023).

At an instantaneous rate not exceeding 243 litres per second

- 4.2 Condition 6.2 of the Licence is modified so that,
- (i) For the duration of this permit the aggregate quantity authorised to be abstracted does not apply, and
 - (ii) For the purpose of calculating the daily average of 4,000 cubic metres per day over the rolling 1,825 day period specified there, for each day this permit is effective, a figure of 2,706 cubic metres per day shall be used.

Note: an hour means any period of 60 consecutive minutes, a day means any period of 24 consecutive hours and a year means the 12 month period beginning on 1 January and ending on 31 December.”

5. **MEANS OF MEASUREMENT OF WATER ABSTRACTED**

- 5.1 Where, in Condition 7 of the Licence, the word ‘meter’ is used, it shall be substituted with ‘meter, or meters’.

6. **RECORDS**

- 6.1 Where, in Condition 8.1 of the Licence, the word ‘meter’ is used, it shall be substituted with ‘meter, or meters’.

- 6.2 Condition 8.4 of the Licence shall be substituted with the following:

“The Water Company shall send a copy of the records required by conditions 8.1, 8.2 and 8.3 of the Licence, 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.”

- 6.3 The following condition is added to Condition 8 of the Licence:

The Water Company shall measure and record the volume of water abstracted from Park Lake which is pumped to Colliford Reservoir each day. The Water Company shall send a copy of these 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.

6.4 **Records of flow in the Trenant Stream**

- (i) The Water Company shall continuously record flows in the Trenant Stream at 15 minute intervals 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 daily mean flow as specified in condition 6.4(i) above 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.

6.5 **Records of Park Lake storage:**

(ii) The Water Company shall record the volume of water in Park Lake 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 Park Lake as specified in condition 6.5(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.

7 FURTHER CONDITIONS

7.1 The following further conditions are added to Condition 9 of the Licence:

7.1.1 Unless no abstraction is taking place by virtue of condition 9.1 of the Licence, when the daily mean flow in the Trenant Stream as measured at National Grid Reference SX 19668 70268 marked 'Y' on the map is less than 26 litres per second for any period of five consecutive days, the Water Company shall make a continuous transfer of water, at a daily mean rate of 21 litres per second, from Park Lake to the Trenant Stream at the Park Lake Overflow at National Grid Reference SX 19681 70294, marked 'X' the map.

7.1.2 The Water Company shall notify the Agency in writing within 48 hours of the flow in the Trenant Stream triggering the transfer of augmentation water and the cessation of flow augmentation, as specified in Conditions 7.1.1 and 7.1.3.

7.1.3 The flow augmentation invoked under condition 7.1.1 of this permit shall not cease until the daily mean flow in the Trenant Stream measured at National Grid Reference SX 19668 70268 is equal to or greater than 26 litres per second for a period of 5 consecutive days.

7.1.4 Abstraction under condition 4.1 of this permit for the purpose of public water supply shall not exceed 8,000 cubic metres per day unless the requirements of conditions 7.1.1 and 7.1.2 above are met; and the total daily abstraction for both purposes specified in Condition 4.1 of the licence and Condition 3.1 of this permit shall not cause the level of water in Park Lake as measured at the Park Lake Outfall to fall below the point 7.5 metres below the outfall's invert level.

7.1.5 Within 7 calendar days from the date that abstraction under this permit commences, the Water Company shall install the infrastructure to enable the transfer of water from Park Lake to Trenant Stream as specified in condition 7.1.1.

7.1.6 (i) The Water Company shall install a screen with maximum 9 millimetre aperture size and approach velocity not exceeding 20 centimetres per second to prevent the entrapment, entrainment or impingement of eel at the point of abstraction specified in condition 1.1 of this permit.

(ii) The Water Company shall maintain, repair or replace the eel screen to ensure that it remains effective at all times and keep records of such maintenance.

- (iii) 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.

7.1.7 **Environmental monitoring**

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

7.1.9 The Water Company shall undertake water quality monitoring as set out in the 'Water Quality Monitoring Schedule' attached to this permit at Appendix 2.

7.1.10 Abstraction under condition 4.1 of this permit for the purpose of public water supply shall not exceed 8,000 cubic metres per day until the pre-implementation surveys specified in the 'Timing of monitoring' section of Appendix 1 and Appendix 2 have been completed, and the Agency has confirmed this in writing.

The Water Company shall, at the same time each day, measure and record shallow and deep piezometer readings of groundwater levels at the following locations:

7.1.11 National Grid Reference SX 1884 7118 (Piezometer 1)
National Grid Reference SX 1904 7107 (Piezometer 3)
National Grid Reference SX 1934 7055 (Piezometer 5)
National Grid Reference SX 1962 7030 (Piezometer 6)

The Water Company shall send a copy of the records required by 7.1.10 above to the Agency at the same time each week or within 24 hours of being so directed in writing by the Agency.

7.1.12 **Mitigation Conditions**

7.1.13 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.

7.1.14 If environmental impacts are notified under condition 7.1.12 by the Water Company, or if the Agency so notifies the Water Company in writing, the Water Company shall undertake such of the mitigation actions identified in the Mitigation Plan specified in Appendix 3 as the Agency may specify in writing, and in accordance with the Agency's written specifications.

7.1.15 Should the mitigation actions need to be implemented 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: the mitigation(s) implemented, and the effect of the mitigation(s) implemented.

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

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

APPENDIX 1 – ENVIRONMENTAL MONITORING SCHEDULE

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| Assessment Type: | <p>Visual monitoring “walkover surveys” of 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.</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: | 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: | <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"> • 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. • Increased turbidity in the watercourse. • Signs of polluting discharges (e.g. increased sediment in the watercourse) 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>a) ‘Preliminary habitat walkover’ 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.</p> <p>b) ‘Habitat impact assessment walkovers’ to identify signs of environmental stress (fish in distress, dry channel in identified spawning areas, etc.), conducted by a suitably experienced fisheries ecologist. Particular attention needs to be given to known spawning areas/mapped redds to ensure there is sufficient flow over them and that they are</p> |

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| | <p>not at risk of exposure. Should this be indicated augmentation flow from Park Lake will be required.</p> <p>c) 'Redd counting and mapping': Digital mapping of salmonid redds providing location, redd size/area, and georeferenced photos.</p> <p>Where an environmental impact is identified, the Water Company shall measure and record the following information. For all environmental impacts identified:</p> <ul style="list-style-type: none"> • The date, time and 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. <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. • The species affected. • Signs of pollution. • Presence of algal blooms/scums. • Species, location and extent of invasive non-native species. |
| Timing of Monitoring: | <p>a) 'Preliminary habitat walkover' to be completed immediately prior to the first day on which the Water Company abstract above 8,000 cubic metres per day for the purpose of public water supply (the pre-implementation survey).</p> <p>b) 'Habitat impact assessment walkovers': First survey on the first day on which the Water Company abstract above 8,000 cubic metres per day for the purpose of public water supply, then weekly thereafter for the duration of the drought permit.</p> <p>c) 'Redd counting and mapping': First survey on the first day on which the Water Company abstract above 8,000 cubic metres per day for the purpose of public water supply, then weekly for the period 1 November 2022 to 31 January 2023.</p> <p>The Water Company shall discuss and agree with the Agency any proposed changes to the frequency of monitoring.</p> |
| Location of Monitoring: | <p>At the locations listed below. National Grid References to be agreed in writing with the Agency:</p> <p>Trenant Stream from the outfall of Park Lake to the confluence of the Fowey, or reach, or reaches of this watercourse.</p> |

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| Results: | <p>In addition to any notification given under condition 7.1.12 a copy of the survey results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team ieppdevonandcornwall@environment-agency.gov.uk within 7 calendar days of each survey taking place.</p> <p>A final report shall be sent to the Environment Agency IEP team after the spawning run has finished, providing a review of the potential spawning population data gathered during the walkovers, and subsequent analysis against flow/level/rainfall data including consideration of:</p> <ul style="list-style-type: none"> a) fish/redd counts, patterns and trends, b) the influence of the drought permit on migration during implementation. |
| 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 2 - WATER QUALITY MONITORING SCHEDULE

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| Assessment Type: | Water quality monitoring in the Trenant Stream to assess the effect the change in abstraction has upon the water quality in Trenant Stream |
| 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"> • dissolved oxygen content; • water temperature; • pH; and • turbidity. |
| Timing of Monitoring: | A survey immediately prior to the first day on which the Water Company abstract above 8,000 cubic metres per day for the purpose of public water supply (the pre-implementation survey), and then fortnightly thereafter 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: <ul style="list-style-type: none"> - Trenant Stream above the outfall from Park Lake - Park Lake outfall (when the lake is overtopping) - Trenant Stream below the outfall of Park Lake |
| Results: | A summary of the water quality monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team ieppdevonandcornwall@environment-agency.gov.uk within 7 days of completion of the measurements. |
| 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

| Environmental Impact | Mitigation Plan |
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| <p>Pollution incident, where there is evidence of ecological distress and/or if reduced flows are having detrimental environmental consequences on the water quality of downstream waterbodies.</p> | <p>Releasing additional flows from Park Lake to Trenant Stream via temporary pumps. An eel screen with maximum 9 millimetre aperture size and approach velocity not exceeding 20 centimetres per second shall be installed on the pump(s) installed for this purpose.</p> |
| <p>Salmonid redds at risk of exposure during salmonid spawning season</p> | <p>Releasing additional flows from Park Lake to Trenant Stream via temporary pumps. An eel screen, with maximum 9 millimetre aperture size and approach velocity not exceeding 20 centimetres per second to prevent the entrapment, entrainment or impingement of eel at the point of abstraction shall be installed on the pump(s) installed for this purpose.</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 | <p>Releasing additional flows from Park Lake to Trenant Stream via temporary pumps. An eel screen, with maximum 9 millimetre aperture size and approach velocity not exceeding 20 centimetres per second to prevent the entrapment, entrainment or impingement of eel at the point of abstraction shall be installed on the pump(s) installed for this purpose.</p> <p>A number of additional mitigation measures can be taken, and the decision on which method to deploy shall be taken in discussion with the Agency, and according to the specific nature of the problem. Options may include:</p> <ol style="list-style-type: none"> a. Deployment of localised aeration; b. Installation of fish refugia in spatially limited areas; c. Fish rescue and relocation if no other suitable alternative is available. d. Funding of appropriate reasonable measures (e.g. habitat restoration) could |

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| | be made in mitigation of ecological damage occurring in reaches affected by reduced flows in the longer term. |
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ADDITIONAL INFORMATION

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

REASONS FOR CONDITIONS

Conditions 6.1.6 to 6.1.9 require the Water Company to monitor for signs of environmental impacts that may be caused by or affected by a reduction in levels and overflows at the Park Lake Outflow, as a result of the increased abstraction from the Lake.

Conditions 1.1, 2.1, 3.1, 6.1.1 to 7.1.4, and 7.1.12 to 7.1.15 have been included to mitigate against any environmental impacts that may be caused by or affected by a reduction in overflows at the Park Lake Outflow, as a result of the increased abstraction from the Lake.

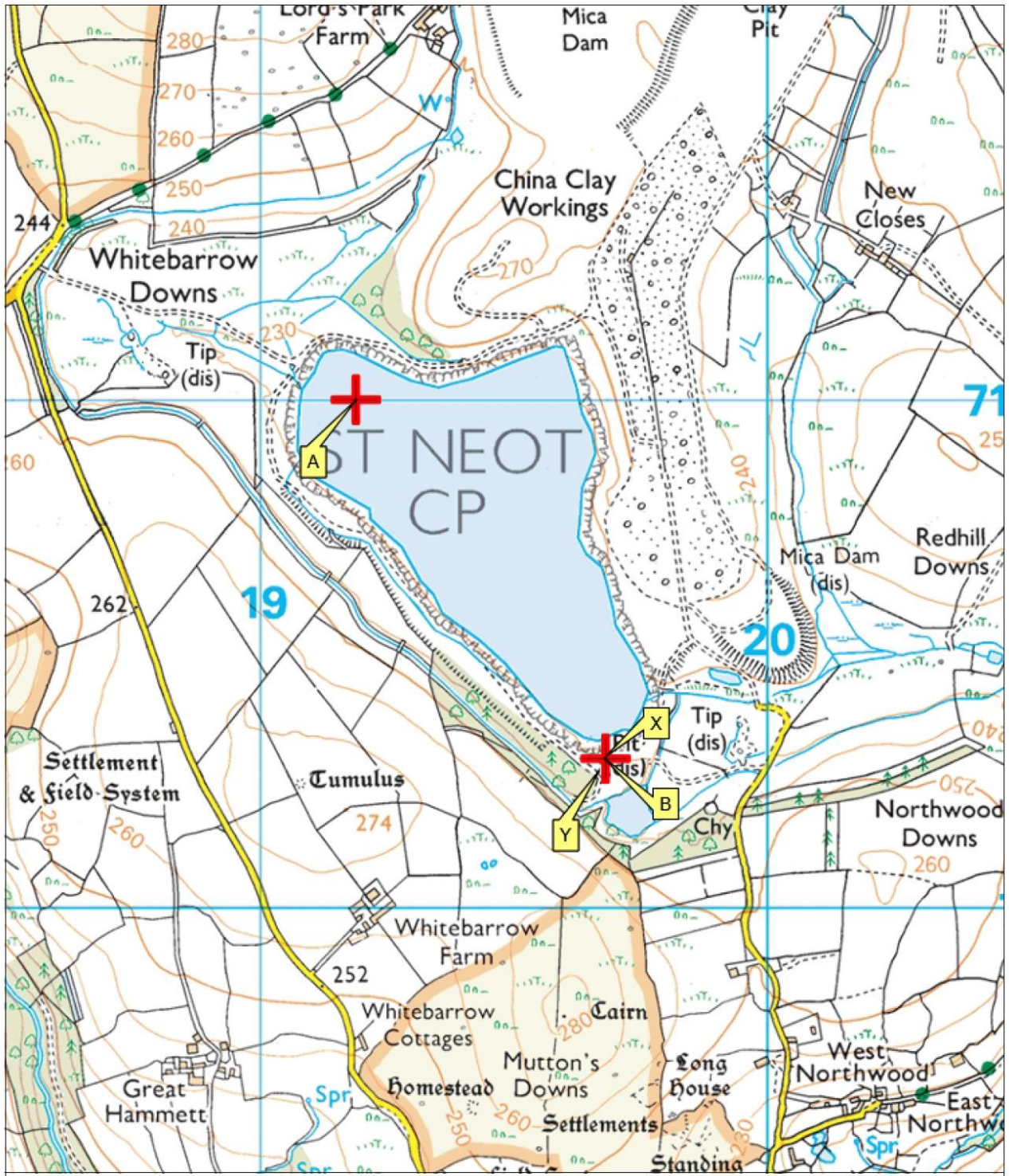
IMPORTANT NOTES

Environmental Monitoring Plan

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

Reports

The records required in conditions 6., 7.1.2 and 7.1.11 should be sent to the Environment Agency IEP (Integrated Environmental Planning) team mailbox at: ieppdevonandcornwall@environment-agency.gov.uk



0 500
Metres



**MAP ACCOMPANYING LICENCE NUMBER
DP2022-1548018G118R01**

Scale 1:10,000



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Environment Agency Reference:

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