



Drought Permit Application Document 2 – Main Application

Farmoor

17th September 2026

Security notice

We have identified commercial confidentiality issues associated with our Drought Plan.

With respect to National Security, we have followed the guidance outlined in the Security and Emergency Measures Directions (SEMD) Framework, 2022 and further amended in 2024. The Guidance states that sensitive information must not be published, which includes identifying locations of abstractions.

On this basis, we have partially redacted this document to remove sensitive information, including:

- National grid references
- Maps
- Abstraction volumes

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Non-Technical Summary of our Drought Application

We are a water and sewerage undertaker appointed by the Secretary of State. We provide water supplies (approximately 2,600 million litres per day) to 10 million customers across London and the Thames Valley.

The spring and summer of 2026 have been exceptionally dry and hot in southern England¹. In the Swindon and Oxford (SWOX) Water Resource Zone (WRZ), between March and August 2026 there has been an exceptional shortage of rainfall. Rainfall ranking shows that this period was the sixth driest 6-month period to August on record².

The shortage of rain means that river flows in the Thames are notably low at Farmoor, as shown in the Environment Agency's August 2026 water situation report for the Thames area³. Throughout this drought event the flows have frequently been notably low. This has reduced the amount of surface water we have been able to abstract from the River Thames at Farmoor, resulting in below average storage at Farmoor reservoir for this time of year.

We are therefore applying for a drought permit under Section 79A of the Water Resources Act (WRA) 1991 to make temporary amendments to our abstraction licence at Farmoor, licence reference: 28/39/16/0078. A drought permit is a management action that, if granted, will allow more flexibility to manage water resources and the effects of drought on public water supply. The permit will authorise, but not require, us to abstract (or increase abstraction) from our source on the River Thames at Farmoor.

This drought permit application is a further drought measure in addition to the Temporary Use Ban (hosepipe ban) brought in across the SWOX part of our supply area on 23rd July 2026.

We have investigated the potential environmental impacts that the operation of this drought permit could have. These relate to the flow reduction downstream of Farmoor abstraction because we will be abstracting more water for public water supply. The adverse impacts include potential impacts to river habitats and fish in the River Thames and the distributaries as a result of reduced river levels and flows. Uncertain impacts are also assessed for Wolvercote Meadows SSSI and Kennington Pool SNCI. We have proposed monitoring and mitigation measures that are designed to reduce or mitigate environmental impacts. If necessary, we will also consider undertaking compensatory measures such as fish restocking to help ensure post-drought recovery and to reduce the significance of any post-drought permit impacts.

Our application is in alignment with our Drought Plan (Thames Water, 2022⁴). We have considered all other alternative options available to maximise our licensed abstraction sources to support and sustain storage levels at Farmoor reservoir.

We are undertaking a consultation on our application and all relevant parties, as required by the Environment Agency's latest Guidance, have been notified of our intentions.

A printed copy of this application is available for public viewing during normal working hours for 7 days from 17th September 2026 until the end of 23rd September 2026 at:

- Thames Water Utilities Limited, Farmoor Fishery, Farmoor Reservoir, Cumnor Road, Farmoor, Oxon OX2 9NS⁵
- Thames Water Utilities Limited, Clearwater Court, Vastern Road, Reading RG1 8DB⁶
- Environment Agency Local Office: The Environment Agency, Red Kite House, Howbery Business Park, Benson Lane, Crowmarsh Gifford, Wallingford OX10 8BD

The documents will also be available on our website at <https://www.thameswater.co.uk/farmoor-drought-permit>

¹ <https://www.metoffice.gov.uk/blog/2026/summer-2026-so-far-a-look-at-the-season-at-the-halfway-point->

² The rainfall data set used in this analysis is the HadUK areal rainfall for hydrological areas and has been provided by the Environment Agency (EA) under licence, and updated monthly. HadUK data, produced by the Met Office, is a 1 km gridded product derived from the interpolation of observed rainfall. The EA were provided with a shapefile comprising the areas listed in Section 1.1 The EA then produced a single time series of monthly rainfall for the selected area. The record covers the period from 1871 to August 2026.

³ <https://www.gov.uk/government/publications/water-situation-local-area-reports/thames-water-situation-july-2026-summary>

⁴ <https://www.thameswater.co.uk/media-library/home/about-us/regulation/drought-plan/drought-plan-2022/thames-water-drought-plan-2022.pdf>

⁵ <https://www.thameswater.co.uk/about-us/responsibility/days-out/farmoor-fishery>

⁶ <https://www.thameswater.co.uk/contact-us>

1. Introduction

1.1. Background

We are a water and sewerage undertaker and provide water supplies (approximately 2,600 million litres per day) to 10 million customers across London and the Thames Valley in an area shown in Figure 1-1.



Figure 1-1 – Our supply area.

The spring and summer of 2026 have been exceptionally dry and hot in southern England.

In the SWOX Water Resource Zone (WRZ), between March and August 2026 there was an exceptional shortage of rainfall. The 6-month rainfall total was 173.1 mm, equivalent to 46% of the long-term average rainfall for the period. Rainfall ranking demonstrates that this was the sixth driest March to August period in the historical record extending back to 1871 and statistical analysis indicates an annual probability of approximately 2.2%.

In the Environment Agency's (EA's) Thames Area Water Situation Report for August 2026³, the EA reported that *"Despite some rainfall at the end of the month, August was another drier than average month. Thames area received 28mm of rainfall, equivalent to 45% of the long term average (LTA). Thames area remained in drought status, having entered drought in July. Soil moisture deficits (SMDs) were still much higher than expected for the time of year. Monthly mean river flows decreased at all river indicator sites across Thames area. Groundwater levels continued their seasonal decline and ranged from exceptionally low to notably high across Thames area at the end of August."*

We are applying for a drought permit under Section 79A of the Water Resources Act (WRA) 1991 to make temporary amendments to our abstraction licence at Farmoor, licence reference: 28/39/16/0078.

A drought permit is a management action that, if granted, will allow more flexibility to manage water resources and the effects of drought on public water supply. The permit will authorise us to increase abstraction from our source on the River Thames at Farmoor.

This will build on a Temporary Use Ban which we brought in on 23rd July 2026, following similar demand restrictions imposed across numerous water resource zones by eight other water companies:

- Anglian Water - 11th July 2026
- Affinity Water - 17th July 2026
- Cambridge Water - 17th July 2026
- Essex & Suffolk Water - 3rd August 2026

- South East Water - 25th July 2026
- Southern Water - 10th July 2026
- South West Water - 8th August 2026
- Welsh Water (Dŵr Cymru) - 19th July 2026
- Wessex Water - 18th August 2026

1.2. Structure of our application

Our application consists of four documents, collectively referred to as our Application Document Set:

1. **Document 1: Form WR80** – Our formal application for the Farmoor drought permit
2. **Document 2: Main Application** - A report that makes up the main part of our application; it includes: a description of our proposal, a copy of the existing abstraction licence, details about our communication plans, the consultation we have undertaken and a draft permit.
3. **Document 3: The Statement of Reasons** - A report that explains that a drought permit is required due to an exceptional shortage of rain and the lack of rainfall is, or has, the potential to threaten water supplies. This report also includes a record of our actions undertaken to reduce demand and conserve supplies in-line with our drought plan; these include:
 - Customer engagement on enhanced water efficiency
 - Enhanced leakage control
 - Effective management of outage
 - Consideration of our other options and risks if the Drought Permit is refused.
4. **Document 4 Environmental Assessment Report** - A report that investigates the key hydrological, geomorphological, water quality and ecological issues that would be associated with the implementation of the drought permit and presents associated monitoring and mitigation.

Together these documents present the information and documentation requested by the EA in Appendix E of their guidance on applications for drought permits and drought orders, which was issued in 2019, revised in 2021 (Environment Agency, 2021) and re-issued in 2025.

Document 1, the Drought Order Application Form (WR80⁷), includes a checklist of accompanying information. The items on the checklist are reproduced in **Table 1-1** with details of where they can be found in the above documents.

⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/623252/LIT_8143.pdf

Table 1-1 – Application checklist

WR80 Checklist requirements	Reference within our Application Document Set
1 A description of the proposal	Document 2 – Section 2
2 A draft drought permit	Document 2 – Section 6
3 A statement of reasons	Document 3
4 A location map	Document 2 – Section 2
5 Navigation authority permission	Document 2 – Section 5.5
6 Notices to local councils	Document 2 – Section 5.2.1
7 Notices to protected organisations	Not required – No organisations protected by a statutory requirement including any subsidiary scheme or order, that the permit suspends or modifies (for example, for compensation water) are affected.
8 Notices to other water companies	Not required – no other water companies affected.
9 Notices to navigation authorities	Document 2 – Section 5.2.4
10 Notices on internal drainage boards	Not required – no internal drainage boards affected.
11 Advertisement in local newspapers	Document 2 – Section 5.2.6
12 Advertisement in the London Gazette	Document 2 – Section 5.2.7
13 Description of arrangements for public inspection	Document 2 – Section 5.1
14 Current abstraction licence	Document 2 – Appendix A
15 Statutory instrument or local Act of Parliament	NA
16 Water shortage strategy (evidence the company has followed its drought plan)	Document 2 – Section Error! Reference source not found.
17 Environmental assessment report	Document 4
18 Water quality information (if using new source)	NA
19 Consultation comments received	Document 2 – Section 5
20 Objections received and details of agreements with objectors	Document 2 – Section 5

2. Description of the proposals

Farmoor Reservoir is in our Swindon and Oxfordshire (SWOX) Water Resource Zone (WRZ). Water is abstracted from the Thames under Licence No. 28/39/16/0078. A copy of the Licence is included in Appendix B; its original date of issue was September 2002.

The location of the abstraction is indicated on Figure 2-1. The figure shows the abstraction is in proximity to the following Water Framework Directive (WFD) Waterbodies:

- Thames (Leach to Evenlode) (GB106039030333)
- Thames (Evenlode to Thame) (GB106039030334)
- Thames (Wallingford to Caversham) (GB106039030331)

Exceptionally low rainfall has led to low aquifer levels that have reduced the groundwater baseflow in the River Thames leading to the notably low naturalised river flows at Farmoor, as stated in the EA's water situation report³. Groundwater levels at Jackaments Bottom are now exceptionally low, and at Ampney Crucis are below normal. The low flows in the River Thames at Farmoor have constrained Farmoor abstraction due to licence conditions. This has resulted in low storage at Farmoor reservoir for the time of year. Further severe drawdown is predicted under low rainfall.

This Farmoor Drought Permit Application is the first such application of the current drought and allows for increased abstraction from the Thames, as this option provides a potentially significant gain in volume with manageable environmental risk. It is anticipated that approval can be gained as rapidly as possible to maximise its benefit before river flows potentially recede further.

The intended start date for the Drought Permit is 29/09/2026 with a duration of six months, expiring on 28/03/2027.

The proposed variation to the abstraction licence is specified in Table 2-1.

Table 2-1 – Existing and Proposed Drought Permit Abstraction

Measure (site name)	Licence No.	Normal Abstraction	Variation Sought
Farmoor	28/39/16/0078	Licensed to abstract 55,312 MI/year at an abstraction rate not exceeding 300 MI/d or 12.502 MI/hour. The following conditions also apply: At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is greater than 377.3 MI/d, abstraction shall not exceed 300 MI/d or 12.502 MI/hour. Under these circumstances, there would be a residual flow of at least 77.3 MI/d downstream of the abstraction. At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is between 136.4 MI/d and 377.3 MI/d, abstraction shall not result in the residual flow being reduced below 77.3 MI/d. Abstractions of at least 59.1 MI/d would still be possible. At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is less than 136.4 MI/d, abstraction shall not exceed 59.1 MI/d or 2.55 MI/hour.	Normal conditions apply other than: At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is less than 136.4 MI/d, abstraction shall not result in the residual flow being reduced below 46.38 MI/d. Abstractions of at least 90 MI/d would be possible. At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is less than 136.4 MI/d, abstraction shall not exceed 90 MI/d or 3.75 MI/hour. At any time when the naturalised flow at Farmoor flow gauging station, downstream of the abstraction is between 346.38 MI/d and 105.48 MI/d abstraction under this permit shall not allow flow at the gauging station to reduce below 46.38 MI/d. At any time when naturalised flow at Farmoor flow gauging station, downstream of the abstraction, is less than 105.48 MI/d, abstraction under this permit shall not exceed 59.1 MI/d

with a maximum hourly abstraction
rate of 2.55 MI/hour.

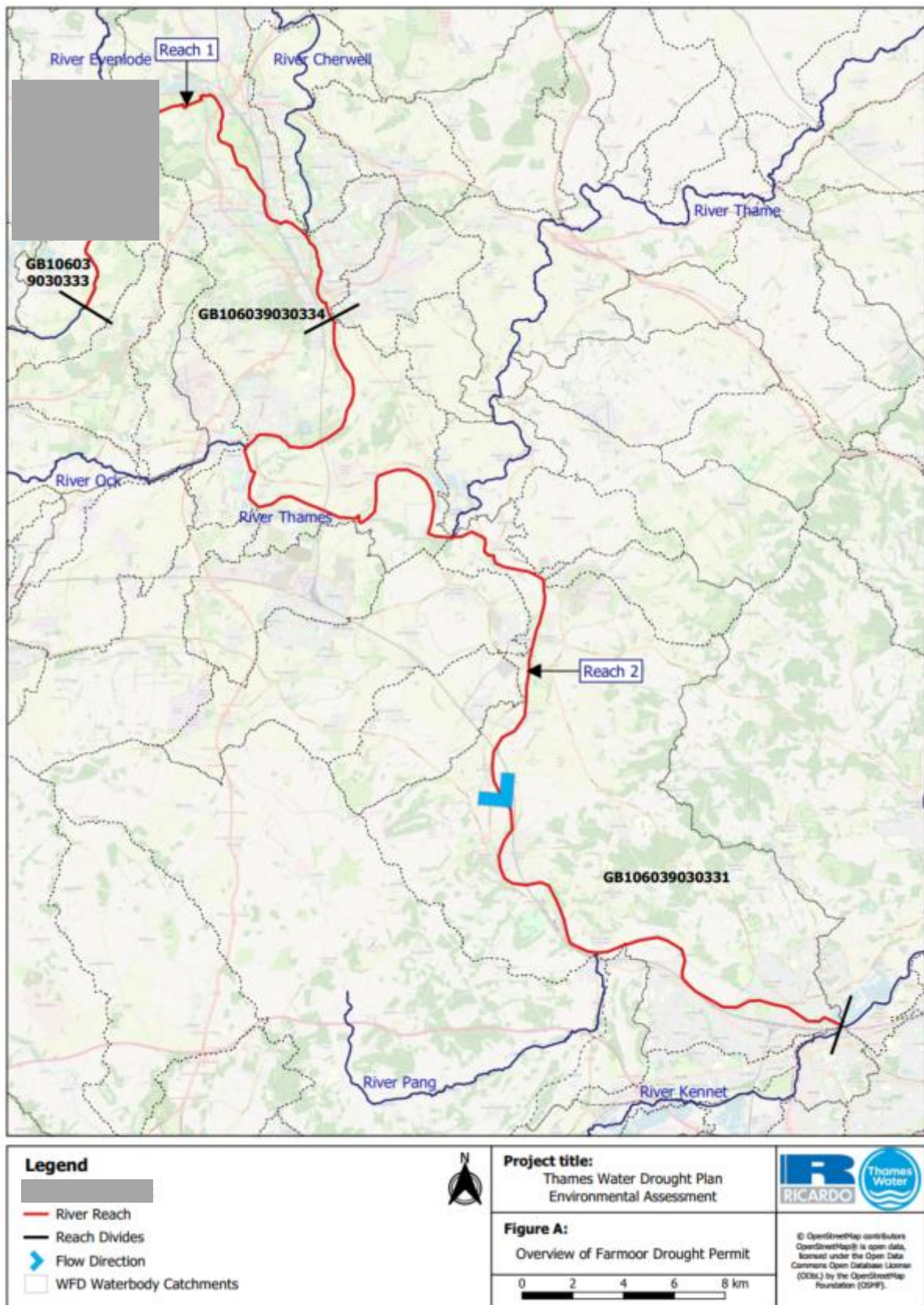


Figure 2-1 – Key locations associated with the Farmoor Drought Permit

As part of the Farmoor drought permit implementation, over pumping of flows is proposed, as and when necessary, to maintain a minimum flow in sensitive distributaries. The principle of the proposed over pumping operations is as follows:

- The River Thames downstream of the Farmoor abstraction intakes is effectively made up of a series of ponds (or pounds) when the weirs along the river are fully closed/fully shut in.
- Over pumping into the distributaries would allow direct augmentation into these sensitive distributaries and would be initiated if levels in the River Thames resulted in insufficient flow over the cresting key weir structures controlling inflow into the sensitive streams.
- The proposed operation would involve pumping water, when required, by use of temporary pumps to support the Seacourt Steam, Castle Mill Stream, Osney Stream, Bulstake Stream and Wolvercote Stream. The priority would be the Seacourt and Bulstake streams. Ensuring flow into other distributaries will be through management of flow structures and back-up pumping if management is insufficient.

The main aims of the over-pumping as part of the Farmoor drought permit would be to provide sufficient water to maintain minimum flows in the Seacourt Steam, Castle Mill Stream Osney Stream, Bulstake Stream and Wolvercote Mill.

Over-pumping would be initiated at Seacourt once levels at Kings Lock fall below 58.47 mAOD or as otherwise agreed with the Environment Agency. Other sites will be subject to regular monitoring and walkovers to establish when and if over-pumping is required. The minimum flows to be maintained in the streams are as follows, unless otherwise agreed with the Environment Agency:

- Seacourt Stream: 120 l/s
- Osney Stream: 25-50 l/s, initially with 50 l/s
- Bulstake Stream: 25-50 l/s, initially with 50 l/s
- Castle Mill Stream: 25-50 l/s, initially with 50 l/s
- Wolvercote Mill Stream: 25-50 l/s

It is likely that the Osney Stream will be protected by the undershot nature of the sluice which feeds it at low flows if levels are maintained in the Thames. Similarly, the Wolvercote Stream is likely to be safeguarded by the head in the Thames if levels are maintained.

For all streams pumping will be initiated if, and when, directed by the EA.

Over-pumping would be facilitated by installing submersible pumps. Water would be pumped over or around each weir structure.

3. Communication strategy

3.1. Introduction

Communication before, during and after a drought event is of paramount importance so that our customers and stakeholders understand the impact of the very dry weather and the need to implement appropriate measures in line with our Drought Plan. This communication provides information to provide the rationale for the steps we are implementing and sets out why we are taking them at specific times, given the dependence that exists on third parties.

From May onwards, we delivered a comprehensive programme of customer, stakeholder, media, marketing and colleague communications designed to increase awareness of water scarcity, encourage water-saving behaviours, explain the evolving water resource position and prepare customers and stakeholders for potential restrictions. Following implementation of the TUB on 23rd July 2026, communications activity remains at an enhanced level, supporting compliance with restrictions, sustaining behaviour change and communicating the actions Thames Water is taking to protect water resources, reduce leakage and improve network resilience over the long term.

In the context of the drought protocols, our Drought Plan (Thames Water, 2022⁸) sets out key aspects of our communications strategy. Key components of that strategy are summarised in this section.

3.2. The objectives for our drought plan's communication strategy

A key factor in developing our communications plan is the requirement to keep customers and stakeholders well informed during a drought or supply/demand event. The overall objectives of our drought communication plan are:

- To keep the public, stakeholders, and regulators aware of how the drought is developing, the potential for the requirement for drought measures and the impacts of planned measures.
- To simply and clearly provide customers with information on how to save water, such as water saving tips/advice.
- To promote and enhance ongoing water-efficiency messages through a multi-channel approach, thereby optimising the reach to our customers.

3.3. Key messages

Timely and clear messages are vital for a successful communications plan. The messages must be consistent, appropriate and effective, reflecting accurately the escalation or de-escalation of the drought and its impacts.

Drought messages will cover three main dimensions:

- Evidence-based information about the water resource situation (e.g. rainfall, reservoir levels, groundwater levels, river flows) and the probability of further restrictions if necessary
- Proactive information about what customers and the public can do to reduce water usage and mitigate the impacts of the drought (dealing with restrictions, water usage efficiency measures)
- Information about our contribution to reduce the impacts of the drought (leakage reductions, information around how we are helping etc)

3.4. Means of Communication

Throughout the period, we maintained regular engagement with political stakeholders, local authorities, environmental groups, regulators and partner organisations.

Monthly stakeholder newsletters provided updates on rainfall, river flows, groundwater levels, reservoir storage and customer demand. As the water resource position became more strained, communications escalated to include targeted updates regarding the introduction of the TUB and requests for stakeholders to help amplify water-saving messages within their own networks and communities.

Stakeholder engagement activities included:

⁸<https://www.thameswater.co.uk/media-library/home/about-us/regulation/drought-plan/drought-plan-2022/thames-water-drought-plan-2022.pdf>

- Monthly stakeholder newsletters beginning in May
- Political stakeholder updates
- Environmental NGO engagement through newsletters and meetings
- Dedicated stakeholder communications announcing the introduction of the Temporary Use Ban including to 154 Members of Parliament and 114 Council Leaders and Cabinet Members responsible for environment portfolios
- Ongoing engagement with regulators, local resilience forums, local authorities and government-stakeholders

At present, we continue to use our website as a central source of information. This includes updates on drought conditions, advice on using water efficiently, and access to webinars and other materials as needed. The website also provides links to relevant external organisations, helping to highlight joint initiatives with stakeholders and regulators. In parallel, we maintain active communication through social media platforms—such as X (formerly Twitter), LinkedIn, Instagram, and Facebook—as well as through traditional media. This multi-channel approach allows the company to share timely updates and practical advice, while aligning drought messaging with broader water efficiency campaigns.

As drought conditions continue, we will expand our communication efforts to ensure wider reach and relevance. Advertising will shift from general broadcast methods to more targeted campaigns in areas identified as being at greater risk. We will also increase direct engagement through meetings, briefings, workshops, and written updates to individual stakeholders. Where appropriate, drought-related messages will be included in other communications, particularly those focused on water efficiency, to encourage informed action and support public understanding.

4. Drought Plan

Our Drought Plan sets out the actions we would take to protect our water supplies during periods of water resources drought (Thames Water, 2022⁹), see in particular:

- Section 3. Water Resource Strategy and Drought Management
- Section 4. Drought Management Methodology
- Section 5. Demand-side measures
- Section 6. Supply-side measures

Our Drought Plan sets how we can meet the following:

- Our planned levels of service, for the twentieth century droughts in the historic record.
- A range of more severe drought scenarios, although with less resilience.

Evidence that we have operated in accordance with our drought plan is provided within our Statement of Reasons (Document 3 of this Application Document Set – Section 6 Alignment with Drought Plan 2022). Also, of relevance and included within our Statement of Reasons are details of how we have:

- Followed and acted upon triggers (**Document 3 – Section 1.4 Implementation policy and trigger for Drought Permit application**).
- Acted early and proactively to maintain levels of service (**Document 3 – Section 4.2 Levels of service**).
- Altered operations during periods of high demands/low rainfall to minimise impacts on supply or demand (**Document 3 – Section 4.3 Supply-demand balance**).
- Made any further changes to operational practices or policies that will help avoid or reduce the likelihood of future drought related problems (**Document 3 – Section 6.7: Future operational changes**).

⁹<https://www.thameswater.co.uk/media-library/home/about-us/regulation/drought-plan/drought-plan-2022/thames-water-drought-plan-2022.pdf>

5. Consultation

This section contains details of the public inspection arrangements for the required Application Documents.

After consultation is complete the final application will be included within this section, this section will also include comments, objections and notices will be provided in this document for the application.

Our application has been reviewed to ensure that it does not contain any information that would compromise national security interests. A notice from our security manager certifying that the information being made available for public inspection has been reviewed and the information in the application that is not available publicly is included in Appendix C. The information that has been placed on deposit for public inspection still allows for effective consultation and satisfies the requirements under Section 79A of the Water Resources Act 1991. The documents available for inspection include a copy of the application, including the supporting environmental report.

5.1. Description of public inspection arrangements for this application

A printed copy of this application is available for public viewing during normal working hours for 7 days from 17th September 2026 until the end of 23rd September 2026 at:

- Thames Water Utilities Limited, Farmoor Fishery, Farmoor Reservoir, Cumnor Road, Farmoor, Oxon OX2 9NS ¹⁰
- Thames Water Utilities Limited, Clearwater Court, Vastern Road, Reading RG1 8DB ¹¹
- Environment Agency Local Office: The Environment Agency, Red Kite House, Howbery Business Park, Benson Lane, Crowmarsh Gifford, Wallingford OX10 8BD¹²

The documents will also be available on our website at <https://www.thameswater.co.uk/farmoor-drought-permit>

¹⁰ <https://www.thameswater.co.uk/about-us/responsibility/days-out/farmoor-fishery>

¹¹ <https://www.thameswater.co.uk/contact-us>

¹² <https://www.gov.uk/government/organisations/environment-agency/about/access-and-opening#local-environment-agency-offices>

5.2. Copy of the notices and advertisements required under paragraph 1 of Schedule 8 to the WRA 1991

5.2.1. Notices to local councils

Notice to local councils to be provided at the point of application.

5.2.2. Notices to protected organisations.

No organisations protected by a statutory requirement including any subsidiary scheme or order, that the permit suspends or modifies (for example, for compensation water) are affected.

5.2.3. Notices to other water companies

There are no other water companies operating in the area to serve notice on.

5.2.4. Notices to Navigation Authorities

The Environment Agency are the Navigation Authority covering this area and the formal application will therefore act to serve notice on them.

5.2.5. Notices on internal drainage boards

There are no internal drainage boards operating in the area to serve notice on.

5.2.6. Advertisement in local newspapers

The advertisement for this Drought Permit application will be in the Oxford Mail on 17th September 2026.

5.2.7. Advertisement in the London Gazette

The advertisement for this Drought Permit application will be in the London Gazette on 17th September 2026.

5.3. Comments from consultees

To be provided after consultation

5.4. Details of any objections

5.4.1. Detailed list of objections

To be provided after consultation

5.4.2. Detailed list of agreements

To be provided after consultation

5.5. Consent from the navigation authority / authorities

The River Thames is highly valued for its navigational and recreational uses, which have their own flow and level requirements¹³. The River Thames is navigable for powered craft from the estuary as far upstream as Lechlade in Gloucestershire. Small craft can navigate the river further upstream to Cricklade. The greatest movement of boat traffic takes place between Easter and September. The Thames is by far the most significant river for competitive rowing in the UK, and several locations hold nationally important events¹⁴. The River Thames provides a facility for novices, training, casual and competitive canoeing. The River Thames can be an important stage for national and international events.

The Environment Agency is the Navigation Authority of the non-tidal River Thames and River Medway. The Environment Agency has a statutory duty to maintain public navigation on the River Thames (between Cricklade and Teddington) and maintain prescribed sections of the river channel to specific depths¹⁵.

¹³ Environment Agency (2008 update) Thames Corridor CAMS, 2004

¹⁴ Environment Agency (2006) River Thames Alliance: Thames Waterway Plan 2006-2011

There are businesses operating on or near the freshwater River Thames, houseboat communities and several marinas that are sensitive to lower water levels. The Environment Agency manages and maintains water levels to prescribed targets through a system of locks and weirs (see Figure 2-1) for locations of locks along the impacted reach of the River Thames). The Thames Area Waterways team of the Environment Agency holds and maintains the River Thames waterways DP, which outlines planned activities to maintain navigation and river levels during a drought.

Evidence of consent for this permit application from the EA will be provided in this report for the final application.

6. Summary

We are applying for a drought permit under Section 79A of the Water Resources Act (WRA) 1991 to make temporary amendments to its abstraction licence at Farmoor, licence reference: 28/39/16/0078. This report presents the main part of our application, see below. Other documentation that also makes up part of our application is also listed below:

1. **Document 1: Form WR80 – Our formal application for a drought permit**
2. **Document 2 : Main Application** – This document. A report that makes up the main part of our application; it includes: a description of our proposal, a copy of the existing abstraction licence, details about our communication plans, the consultation we have undertaken and a draft permit.
3. **Document 3: The Statement of Reasons** - A report that explains that a drought permit is required due to an exceptional shortage of rain and the lack of rainfall is, or has, the potential to threaten water supplies. This report also includes a record of our actions undertaken to reduce demand and conserve supplies in line with our drought plan; these include:
 - Customer engagement on enhanced water efficiency
 - Enhanced leakage control
 - Effective management of outage
 - Consideration of our other options and risks if permit is refused.
4. **Document 4 Environmental Assessment Report** - A report that investigates the key hydrological, geomorphological, water quality and ecological issues that would be associated with the implementation of the drought permit and presents associated monitoring and mitigation.

Appendices

Appendix A. Copy of abstraction licence and any statutory instrument or Local Act governing the abstraction, or discharge of compensation water relating to the permit

Application No.		Licence Serial No.	28/39/16/78
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Please quote this number in all correspondence about this licence



**ENVIRONMENT
AGENCY**

LICENCE TO ABSTRACT WATER

The Environment Agency ("the Agency") grants this licence to -

THAMES WATER UTILITIES LTD ("the licence holder")

CLEARWATER COURT
VASTERN ROAD
READING
BERKS
RG1 8DB

This licence authorises the licence holder to abstract water from the source of supply described in the Schedule of Conditions to this licence and subject to the provisions of that Schedule. The licence became effective on the date of issue shown below and shall remain in force until revoked.

Signed.....
Barry Sheppard
Environment Manager

Date of issue:8/4/04.....

Environment Agency
Thames Region, West Area
Isis House
Howbery Park
Wallingford
Oxfordshire OX10 8BD

Date of original issue: 18th September 2002
(if this document is a reissue or revision of the licence
originally granted for this abstraction.)

LICENCE HOLDERS AND SUCCESSORS: please read the notes on the licence cover. These contain important information, including about how you must act quickly to succeed to the licence if you become a new occupier of the land it relates to.

An abstraction licence confers valuable rights. This licence should be kept safe and its existence disclosed on any sale or change of occupation of the land to which it relates.

Note: In this licence references to "the map" are to the map which is attached to this licence and references to "the Agency" are to the Environment Agency or any successor body.

Environment Act 1995
Water Resources Act 1991
Water Resources (Succession to Licences) Regulations 1969
Water Resources (Licences) Regulations 1965

Licence Serial No. 28/39/16/78

SCHEDULE OF CONDITIONS

1. SOURCE OF SUPPLY

Inland water (River Thames) at Farnoor, Swinford and Kings Weir, Oxfordshire.

2. POINT(S) OF ABSTRACTION

At National Grid References S [REDACTED] 64, S [REDACTED] 85 and S [REDACTED] 02 at the points respectively marked 'A', 'B' and 'C' on the maps.

3. MEANS OF ABSTRACTION

At point 'A': river intake works comprising sluice control to an open channel with pumps of a combined maximum output not exceeding 9 [REDACTED] litres per second,

At point 'B': river intake with pumps of a combined maximum output not exceeding [REDACTED] litres per second, and

At point 'C': river intake with pumps of a combined maximum output not exceeding [REDACTED] litres per second.

4. PURPOSE(S) OF ABSTRACTION

Public water supply – storage.

5. LAND ON WHICH LICENCE AUTHORISES USE OF WATER

Area not specified, purpose being water supply to others: S46(4) Water Resources Act 1991.

6. PERIOD(S) OF ABSTRACTION

All year.

7. MAXIMUM QUANTITY OF WATER TO BE ABSTRACTED DURING THE SPECIFIED PERIOD(S) SUBJECT TO CONDITION 10

In aggregate from Points 'B' and 'C'

[REDACTED] cubic metres per hour
[REDACTED] cubic metres per day

In aggregate from Points 'A', 'B' and 'C'

[REDACTED] cubic metres per hour
[REDACTED] cubic metres per day
[REDACTED] cubic metres per year

Note: a day means any period of 24 consecutive hours and a year means the 12 month period beginning on 1st January and ending on 31st December.

8. MEANS OF MEASUREMENT OR ASSESSMENT OF WATER ABSTRACTED

The licence holder shall use a meter at each authorised point of abstraction to measure quantities of water abstracted. The licence holder shall provide and install the meters before any abstraction takes place. The licence holder shall maintain the meters in a condition so as to measure quantities of water abstracted accurately and efficiently, shall calibrate them regularly, in accordance with the recommendations of the manufacturer or at any time when required by the Agency, and shall replace them as necessary. The licence holder shall retain evidence of current certification for inspection by the Agency.

The Agency may have regard to its *Abstraction Metering Good Practice Manual* (or equivalent guidance) in directing any of the following:

- where the meters should be located or how they should be installed;
- whether the meters measure accurately, and/or efficiently and/or are properly maintained;
- whether it is necessary to require repair or replacement of the meters.

9. RECORDS

The licence holder shall take and record reading of the meters specified in condition 8 at the same time each day during the whole of the period during which water is authorised to be abstracted or as otherwise approved in writing by the Agency.

A copy of the records or summary data from them shall be sent to the Agency within 14 days of 31st December in each year or within 14 days of being so directed in writing by the Agency.

Each record shall be kept and be made available during all reasonable hours for inspection by the Agency for a period of not less than 7 years.

10. FURTHER PROVISIONS

At any time when the 'naturalised' mean daily flow in the River Thames as recorded by the Agency's flow gauging station at Farmoor (at National Grid Reference SP 438 068) is less than 136,380 cubic metres per day abstraction shall not exceed the following quantities:

- 2,546 cubic metres per hour
- 59,100 cubic metres per day.

The Agency's said gauging of flow shall be conclusive.

During periods when the 'naturalised' flow is less than 436,422 cubic metres per day the licence holder shall contact the Agency's River Control Room at 09.00 hours (GMT) each day, or other such time as may be agreed in writing by the Agency, to notify them of the quantity for abstraction in following 24 hour period. Also during such periods, the licence holder shall notify the Agency each day of the total quantity discharged into the River Thames during the preceding 24 hour period. All water discharged into the River Thames shall be metered.

The licence holder shall take and record readings of the discharge meters at the same time each day during the whole of the period during which water is authorised to be abstracted or

Licence Serial No. 28/39/16/78

as otherwise approved in writing by the Agency.

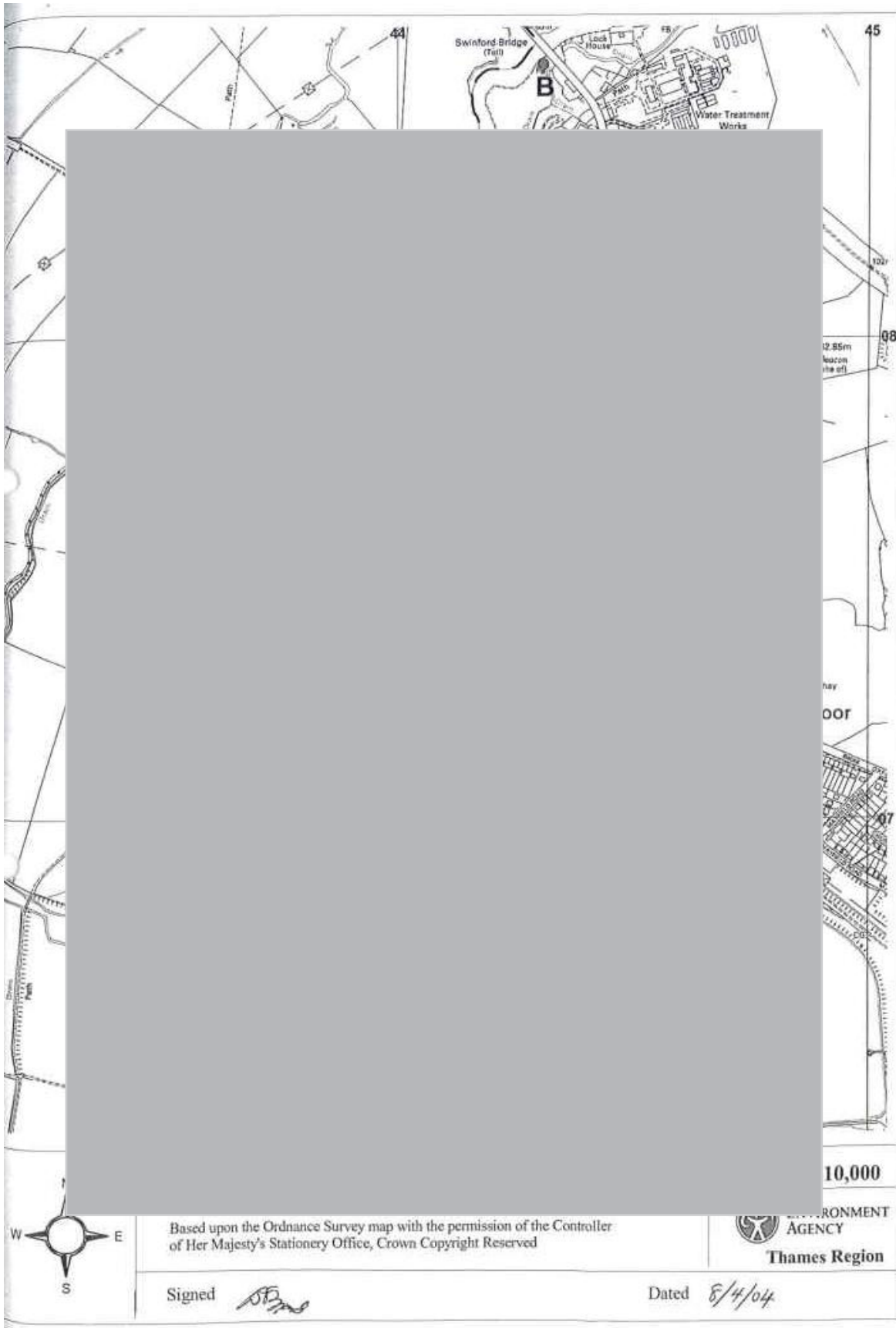
Each record shall be kept and be made available during all reasonable hours for inspection by the Agency for a period of not less than 7 years.

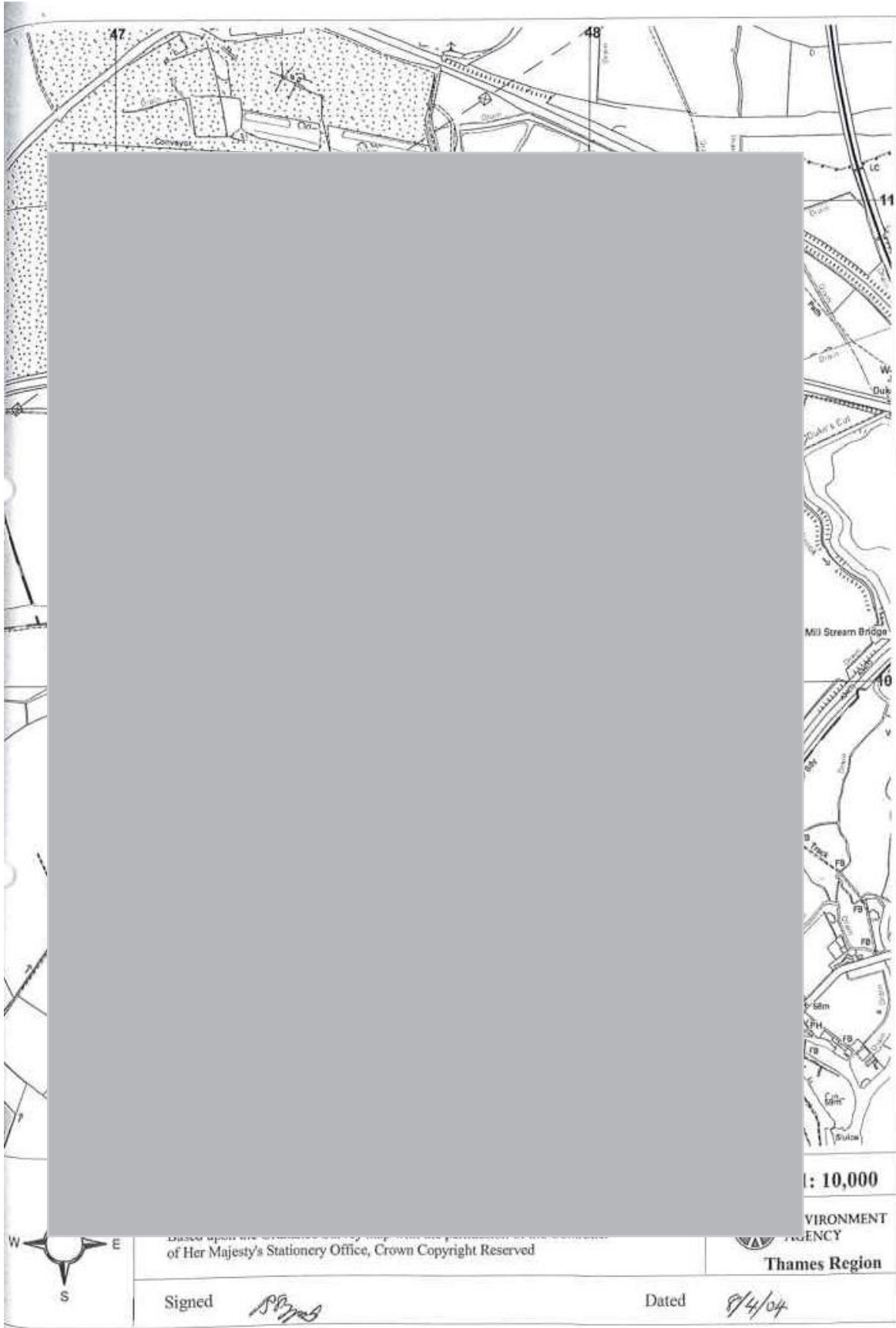
For the purpose of this Condition 'naturalised' shall mean the recorded mean daily flow at Farmoor Gauging Station plus the quantity abstracted at Farmoor intake (Point 'A') during previous 24 hour period plus the washwater discharge from the Farmoor treatment works to the River Thames during preceding 24 hour period. The washwater discharge quantity shall not exceed the consented daily volume.

REASONS FOR CONDITIONS

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

To conserve and secure the proper use of water resources.





Appendix B. Draft Permit

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

The Environment Agency grants this drought permit to:

Thames Water Utilities Limited (“the Water Company”)
Clearwater Court
Vastern Road
Reading
Berkshire
RG1 8DB

02366661

This drought permit authorises the Water Company to abstract water pursuant to 28/39/16/0078 (“the Licence”) but with the provisions of that 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 Licence remain in full force and effect.

Signed

<

Area manager
Environment Agency

Date of issue.....

Date effective

Date of expiry.....

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

SCHEDULE OF CONDITIONS

1. Further Conditions

1.1 In the Licence under section 10 'Further Provisions' the first paragraph which states,

'At any time when the 'naturalised' mean daily flow in the River Thames as recorded by the Agency's flow gauging station at Farmoor (at National Grid Reference SP 438 068) is less than 136,380 cubic metres per day abstraction shall not exceed the following quantities:

2,546 cubic metres per hour
59,100 cubic metres per day.'

Shall be replaced in its entirety by the following:

1.2 At any time when the 'naturalised' mean daily flow in the River Thames as recorded by the Agency's flow gauging station at Farmoor (at National Grid Reference SP 438 068) is less than 136,380 cubic metres per day abstraction shall not exceed the following quantities:

3,750 cubic metres per hour
90,000 cubic metres per day.

1.3 At any time when the 'naturalised' mean daily flow in the River Thames as recorded by the Agency's flow gauging station at Farmoor (at National Grid Reference SP 438 068) is between 346,380 cubic metres per day and 105,480 cubic metres per day abstraction under this permit shall not allow flow at the Agency's flow gauging station at Farmoor to reduce below 46,380 cubic metres per day.

1.4 At any time when the 'naturalised' mean daily flow in the River Thames as recorded by the Agency's flow gauging station at Farmoor (at National Grid Reference SP 438 068) is less than 105,480 cubic metres per day abstraction under this permit shall not exceed the following quantities:

2,546 cubic metres per hour
59,100 cubic metres per day.

The Water Company shall notify the Agency's River Control Room immediately by phone and in writing within 1 hour of making changes to the abstraction rate at Farmoor.

2. Environmental Monitoring

2.1 The Water Company shall undertake environmental monitoring as set out in Appendix 1 attached to this permit.

2.2 The Water Company shall undertake water quality monitoring and Storm Tank monitoring as set out in Appendix 2 attached to this permit.

2.3 The Water Company shall undertake flow monitoring as set out in Appendix 3 attached to this permit.

The Water Company shall carry out the actions specified in 3.1 and 3.2 if the environmental monitoring identifies signs of environmental impacts, including but not limited to those specified in Appendix 1.

3. Mitigation

3.1 Immediately upon finding any signs of environmental impacts, including but not limited to those specified in Appendix 1, the Water Company shall notify the Agency in writing and by telephone on 0800 80 70 60 and shall provide details of the signs of distress and the location.

3.2 If environmental impacts or a significant risk to the environment is identified in accordance with condition 3.1, or if the Agency so specifies in writing, over-pumping and abstraction under the drought permit shall cease and the Water Company shall return to the abstraction rates specified in licence 28/39/16/0078.

3.3 The Water Company shall return to the stated abstraction rates as soon as possible and within 24 hours of receipt of written notification from the Agency.

3.4 At any time when Condition 3.2 applies, the return to abstraction rates and cessation of over-pumping invoked under Condition 3.2 shall continue to apply until the Water Company has notified the Agency in writing that appropriate remedial action has been taken, and the Agency has confirmed in writing that it is satisfied with this.

At any time when the level at Kings Lock as recorded by the Agency's level monitor (at National Grid Reference SP 47897 10249) falls below 58.47 mAOD for 3 consecutive days, over-pumping will take place unless otherwise directed in writing by the Agency or specified by the Agency as follows:

Over-pumping requirements

Location	NGR	
Seacourt Stream		Variable rate mobile pump rated to

Osney Stream*		Variable rate mobile pump rated up to
Bulstake Stream		Variable rate mobile pump rated up to
Castle Mill Stream*		Variable rate mobile pump rated up to
Wolvercote Mill Stream*		Variable rate mobile pump rated up to

**Over-pumping only required at these locations if existing weir arrangements do not enable sufficient flow through the streams*

The appropriate variable rate at each location will be agreed in writing by the Agency

Triggers for all sites except Seacourt will be determined by weekly walkovers, implemented as agreed with the Agency

3.5 At any time when the determinant trigger for dissolved oxygen as specified under the heading Water Quality Monitoring in Appendix 2 is reached in the River Thames at Cassington Sewage Treatment Works for a period of 2 consecutive hours or if otherwise notified by the Agency, abstraction under this drought permit shall cease immediately and abstraction shall be carried out in accordance with licence 28/39/16/0078 until such time that the determinant trigger for dissolved oxygen is no longer reached for a minimum period of 2 consecutive hours.

3.6 At any time when the level monitor installed on the first storm tank shows that the tank is 60% full at Cassington Sewage Treatment Works abstraction under the drought permit shall cease immediately and abstraction shall be carried out in accordance with licence 28/39/16/0078.

3.7 At any time when the Event Duration Monitor installed between the storm tank and the environment records any spilling to the storm tank at Cassington Sewage Treatment Works to the River Thames abstraction under the drought permit shall cease immediately and abstraction shall be carried out in accordance with licence 28/39/16/0078.

3.8 At any time when abstraction is ceased in accordance with Condition 3.7 no abstraction under this permit shall recommence for a minimum period of 24 hours after the storming event has finished, unless otherwise agreed in writing by the Agency

3.9 If the flow monitoring specified in Appendix 3 shows the over-pumping efficacy is insufficient, the Water Company shall alter the operation of the over-pumping or carry out mitigation actions or revert to abstraction in accordance with licence 28/39/16/0078 as directed in writing by the Agency. The Agency's assessment of the back-pumping efficacy is conclusive.

(i) No over-pumping shall take place unless the Water Company has installed fish friendly pumps on the over- pumping abstraction points specified in conditions 3.4 of suitable aperture to be agreed in writing with the Agency to prevent the entrapment, entrainment or impingement of fish at points of abstraction associated with back-pumping.

(ii) The Water Company shall maintain, repair or replace the fish friendly pump in accordance with the manufacturer's specifications OR 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 and shall make them available during all reasonable hours for inspection by the Agency.

ADDITIONAL INFORMATION

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

REASONS FOR SUSPENSIONS AND/OR MODIFICATIONS

Condition 1 the hourly and daily volume at the Farmoor intake. This is to allow the Water Company to abstract at higher rates at lower flows in order to fill Farmoor Reservoir during low flows.

Condition 2 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 reducing abstracting higher rates at low flows and using over-pumping to augment flows within the Oxford Watercourses downstream of the abstraction.

Condition 3 of this drought permit has been included to mitigate against any environmental impacts that may be caused by or affected by the Water Company reducing abstracting at lower flow and using over-pumping to augment flows downstream of the Farmoor intake.

IMPORTANT NOTES

Important notes to be included based on final conditions of the permit.

APPENDIX 1

Walkover and environmental monitoring schedule

Assessment Type	Visual monitoring “walkover surveys” of the riverine environment. Visual monitoring “spot checks” of the riverine environment. Water quality monitoring using spot water quality samples in the center of the channel to measure real-time values of dissolved oxygen concentration (mg/l) and saturation (%), conductivity, temperature, and pH. Water quality monitoring using laboratory analysis of a water sample for E.coli and Intestinal Enterococci at Wolvercote Mill Stream bathing water. Water quality monitoring using laboratory analysis of orthophosphate and total oxidised nitrogen concentration to identify environmental problems on the fine lined pea mussel which may be affected or caused by the water company implementing use of the drought permit. 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 visual monitoring walkover surveys in Reach 1 and Reach 2 shall take place within the first three days from when this permit is implemented and then monthly unless required more frequently as specified in writing by the Agency. The Subset of walkover surveys shall be carried out every two weeks from the second week that this permit is implemented. Walkover surveys shall be carried out until the drought permit expires or is revoked. The visual monitoring spot checks shall take place every three working days following completion of the first walkover surveys in Reach 1 and Reach 2 until the Subset of walkover surveys commences in the second week that this permit is implemented. The spot checks shall also take place every three working days from the commencement of back-pumping until the next Reach 1 or Subset walkover surveys are carried out following the commencement of back-pumping. The frequency of spot checks may be modified in writing by the Agency. The water quality monitoring shall take place within the first three days from when this permit is implemented and then monthly unless required more frequently as specified in writing by the Agency until the drought permit expires or is revoked.
Environmental impacts	The following are suggested signs of environmental problems 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 or dying 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. • Reduced habitat availability for adult and juvenile life stages (including spawning/nursery areas). • Low levels of dissolved oxygen. • Signs of polluting discharges during walkover surveys, problems exacerbated during lower flows and/or reduced dilution. • Algal blooms. • Changes in wetted width and exposure or normally submerged marginal feature in the watercourse. • Exposure of key functional habitat, particularly where there are reduced flows over or siltation of brown trout redds. • Stranding of fish in marginal areas

	Spot checks: A general check of watercourse condition from bridges. Fixed features on the first spot check could be used as a marker for changes to the water course condition in subsequent spot checks at locations where suitable fixed features exist to assess the changes to the level of flow. The following are suggested signs for observing any noticeable change to river conditions from the first spot check but are not exhaustive: A drop or rise in water level against a fixed feature. • A change in the wetted perimeter, including width and depth of the watercourse channel. • Changes in the character of the flow in the watercourse • Any reduction in the flow to any flow dependent features • Changes in the extent of exposure or submerging of in-river and marginal features
Monitoring Method & Standard of Assessment	The Water Company shall measure and record the following information. For all environmental problems identified: • The location of the site of environmental problems observed. • Dissolved oxygen concentration, water temperature and pH measurements should be taken and recorded anywhere in the survey area where (if) signs of environmental stress are identified. • A photo or photos should be taken of any signs of environmental distress. • Weather conditions at the time of the observations. Where relevant to the environmental problem 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. Fish and eel rescue and relocation: • If fish continue to show signs of distress, they should be captured and held for a short period, allowing recovery of both the fish and the levels of instream dissolved oxygen. • If water levels fail to recover, the fish should be moved to a suitable release site downstream where appropriate conditions exist on the day. • Fish should be relocated across barriers where fish movement is restricted between two areas as a result of an instream barrier. • Any eel captured should be kept in a separate tank to all other fish species as they secrete mucus which can infest the gills of other fish. • Dissolved oxygen concentration should be monitored and optimum concentrations maintained by continuous infusion, using an oxygenation unit. Spot checks: • The nature of any noticeable changes in watercourse condition shall be recorded in a comparison to the first spot check

	• The location of the spot check and the watercourse observed shall be recorded • If any acute changes in river condition is observed, this will direct a need as soon as possible for a further walkover survey at all locations relevant to the affected watercourse. • • The record of any acute changes to river condition and location shall be considered in the subsequent walkover survey.																																		
Location of Monitoring	<table><tr><td></td><td></td><td></td><td></td></tr><tr><td rowspan="24">Walkover surveys following the River Condition Assessment Form – Baseline, on-set and during drought monitoring</td><td>Control site</td><td>Control</td><td rowspan="24"></td></tr><tr><td rowspan="4">Reach 1</td><td>Walkover 1</td></tr><tr><td>Walkover 2</td></tr><tr><td>Walkover 3</td></tr><tr><td>Walkover 4</td></tr><tr><td rowspan="12">Reach 2 (Distributaries)</td><td>Walkover 1</td></tr><tr><td>Walkover 2</td></tr><tr><td>Walkover 3</td></tr><tr><td>Walkover 4</td></tr><tr><td>Walkover 5</td></tr><tr><td>Walkover 6</td></tr><tr><td>Walkover 7</td></tr><tr><td>Walkover 8</td></tr><tr><td>Walkover 9</td></tr><tr><td>Walkover 10</td></tr><tr><td>Walkover 11</td></tr><tr><td>Walkover 12</td></tr><tr><td rowspan="7">Reach 3</td><td>Walkover 1</td></tr><tr><td>Walkover 2</td></tr><tr><td>Walkover 3</td></tr><tr><td>Walkover 4</td></tr><tr><td>Walkover 5</td></tr><tr><td>Walkover 6</td></tr><tr><td>Walkover 7</td></tr></table>					Walkover surveys following the River Condition Assessment Form – Baseline, on-set and during drought monitoring	Control site	Control		Reach 1	Walkover 1	Walkover 2	Walkover 3	Walkover 4	Reach 2 (Distributaries)	Walkover 1	Walkover 2	Walkover 3	Walkover 4	Walkover 5	Walkover 6	Walkover 7	Walkover 8	Walkover 9	Walkover 10	Walkover 11	Walkover 12	Reach 3	Walkover 1	Walkover 2	Walkover 3	Walkover 4	Walkover 5	Walkover 6	Walkover 7
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Survey Results	In addition to any notification given under condition 3.1 a copy of the monitoring results shall be sent to the Environment Agency IEP (Integrated Environmental Planning) team IEP_THM@environment-agency.gov.uk within 14 days of the survey taking place.																																		
Responsibility	It is the responsibility of the water company to ensure that the environmental monitoring is carried out to the satisfaction of the Agency. Unless otherwise discussed and agreed in writing, 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

Back-pumping monitoring schedule

Assessment Type	Water quality monitoring using in situ probe reading and spot water quality samples in the centre of the channel to measure real-time values of dissolved oxygen concentration (mg/l) and saturation (%), conductivity, temperature, and pH. Storm tank monitoring by means of the Storm Tank Level Monitor and the Event Duration Monitor relating to Sewage Treatment Works Storm Tanks to prevent spilling from the storm tank at Cassington Sewage Treatment Works to the River Thames. This is in order to minimise the risk of environmental problems on the River Thames that may be affected or caused by the water company back-pumping water during storm events. The water company shall discuss and agree with the Agency any proposed changes to this monitoring schedule in advance of carrying out any back-pumping.								
Duration of Monitoring	From the commencement of use of this permit and for the entire period of use of this permit.								
Monitoring Method & Standard of Assessment	<u>Water quality monitoring</u> The water company shall measure and record the level of Dissolved Oxygen. The trigger is reached if Dissolved Oxygen drops below 6.0 mg/l or 80% saturation. <u>Flow monitoring</u> The water company shall gather the results of flow monitoring in accordance with Appendix 3 to direct the appropriate variable rate of the pump at Seacourt Stream. The water company shall discuss and agree with the Agency any proposed changes to the pumping rate based on using the visual assessment of channel condition from walkovers in accordance with Appendix 1 and contemporary flow data gathered in accordance with Appendix 3. <u>Storm tank monitoring</u> At any time when storm tank level monitoring indicates the first storm tanks being 60% full at Cassington Sewage Treatment Works. An event where the Event Duration Monitor installed on the storm weir between the main works and the storm tank records any spilling from the storm tanks at Cassington Sewage Treatment Works. At any time when abstraction or back-pumping is ceased, abstraction or back pumping will not commence for a minimum period of 24 hours.								
Frequency of monitoring	Continuous for the duration of monitoring.								
Location of Monitoring	<u>Water quality monitoring</u> <table><tr><td colspan="2">River Thames at Cassington Sewage Treatment Works in-river monitoring</td></tr><tr><td>Upstream location</td><td>In the reach between [redacted] and [redacted]</td></tr><tr><td>Downstream location</td><td>In the reach between [redacted] and [redacted]</td></tr></table> <u>Storm tank monitoring</u> <table><tr><td>Cassington Sewage Treatment Works</td></tr></table>		River Thames at Cassington Sewage Treatment Works in-river monitoring		Upstream location	In the reach between [redacted] and [redacted]	Downstream location	In the reach between [redacted] and [redacted]	Cassington Sewage Treatment Works
River Thames at Cassington Sewage Treatment Works in-river monitoring									
Upstream location	In the reach between [redacted] and [redacted]								
Downstream location	In the reach between [redacted] and [redacted]								
Cassington Sewage Treatment Works									

Survey Results	Monitoring results recorded upstream and downstream of the Cassington Sewage Treatment Works shall be shared with the Environment Agency Integrated Environmental Planning team IEP_THM@environment-agency.gov.uk in real-time, or in any near real-time method as is available. Any data recorded by the Event Duration Monitors at Cassington Sewage Treatment Work will be shared with the Environment Agency IEP (Integrated Environmental Planning) team IEP_THM@environment-agency.gov.uk in real-time, or in any near real-time method as is available.
Responsibility	It is the responsibility of the water company to ensure that the environmental monitoring is carried out to the satisfaction of the Agency. Unless otherwise discussed and agreed in writing, 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

Flow measurement survey schedule

Assessment Type:	Flow measurement on the Seacourt Stream, Bulstake Stream, Wolvercote Mill Stream, Castle Mill Stream and Osney Stream. 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:	Before the commencement of abstraction under this drought permit the flow measurement surveys shall take place and within 7 days of the first day that any back-pumping commences. For the life of the permit at any time a walkover is conducted in accordance with Appendix 1. The flow measurement surveys shall take place within 7 days before the first day the water company abstract for public water supply from River Thames and within 7 days of the first day that any back-pumping commences.
Monitoring Method & Standard of Assessment:	Unless otherwise advised by the Agency, the flow measurements shall be conducted using either: i) An impellor type current meter, or ii) acoustic doppler current profiling. The flow monitoring survey shall endeavor to establish current conditions; understand better the accretion at the specified and assess the effect the back-pumping has upon the distributaries of the River Thames. 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.
Frequency of Monitoring	Once before the commencement of abstraction under this drought permit. As soon as possible after back-pumping commences and at any time a walkover is conducted in accordance with Appendix 1.
Location of Monitoring:	At the locations listed below. National Grid References to be agreed in writing with the Agency: • Seacourt Stream, • Bulstake Stream, • Wolvercote Mill Stream, • Castle Mill Stream • Osney Stream. At the walkover locations in accordance with Appendix 1.
Standard:	

	All current meter flow measurements shall be conducted to ISO 748:2007 standard, or current equivalent. All flow measurement using an ADCP (Acoustic Doppler Current Profiler) method shall be conducted to the appropriate and accepted standard.
Results:	Following the completion of each of the flow measurements the water company shall provide: • Confirmation of the calculated flow value. The results shall be sent to the Environment Agency (Integrated Environmental Planning) team IEP_THM@environment-agency.gov.uk 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.