Test Surface Water Licence 11/42/18.16/54 Stage 0.1 Drought Order 2025

2.1 Environmental Statement

July 2025

from Southern Water

Table of Contents

List of Figures

1 Introduction

1.1 This Environmental Statement

Southern Water Services (SWS) are applying for a Stage 0.1 Drought Order for the Test Surface Water Licence 11/42/18.16/546, to relax the Hands-Off' Flow condition (HOF) for the Total Test Flow (TTF) from 355 Ml/d to 265 Ml/d.

This is to secure supplies for customers in the Hampshire Southampton West and Isle of Wight water resource zones once the current HOF level is reached.

The lowered river flow condition does not mean that abstraction will be increased to reduce the flow to the lower limit; only that SWS may continue abstracting until reaching the relaxed HOF flow of 265 Ml/d if necessary, depending on the recession of flows in the river.

The Stage 0.1 Drought Order application is subject to the provisions of the Habitats Regulations.

Regulations 63 and 64 of the Habitats Regulations transpose the provisions of Articles 6(3) and 6(4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive') as they relate to plans or projects in England and Wales. Regulation 63 states that if a plan or project is "(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and (b) is not directly connected with or necessary to the management of the site" then the competent authority must "…make an appropriate assessment of the implications for the site in view of that site's conservation objectives" before the giving consent or authorisation. The plan or project can only be given effect if it can be concluded (following an 'appropriate assessment') that it "…will not adversely affect the integrity" of a European site, unless the provisions of Regulation 64 are met.

This assessment process is known as 'Habitats Regulations Assessment' (HRA). A HRA principally determines whether there will be any 'likely significant effects' (LSE) on any European site as a result of a project's implementation (either on its own or 'in combination' with other plans or projects) and, if so, whether there will be any 'adverse effects on site integrity' Additional steps may be required depending on the outcomes of these assessment stages

This document presents the summary of the HRA[1] that has been completed for the River Test Stage 0.1 Drought Order application. In addition to the HRA, an Environmental Assessment Report[2] (EAR) has been produced for this Drought Order Application.

[1] TEST SURFACE WATER LICENCE 11/42/18.16/54 STAGE 0.1 DROUGHT ORDER 2025
Report to inform an assessment under Regulations 63 and 64 of the Conservation of Habitats and Species Regulations 2017. 17th July 2025
[2] Environmental Assessment of Test Surface Water Stage 0.1 Drought Order 2025. July 2025

1.2 Consultation

Consultation with Natural England (NE) and the Environment Agency (EA) was undertaken at an early stage in the preparation of this Stage 0.1 Drought Order application.

The 90-day River Test flow trigger was first crossed on Sunday 15th June 2025. In response, Southern Water started preparing for a Stage 0.1 Drought Order application and informed the EA and Natural England (NE) on Monday 16th June 2025. The first “pre-application” meeting was scheduled for the 24th June, with weekly meetings scheduled thereafter, that are ongoing.. The 60-day trigger was then crossed on Sunday 29th June 2025.

2 Hydrological context

When assessing the environmental impact of the River Test Surface Water Stage 0.1 Drought Order, it is important to define the potential zone of influence.

This section sets out the baseline hydrology of the Test, downstream of Romsey, in the vicinity of the Test Surface Water abstraction, downstream of the Testwood Bridge Gauging Station (GS) and closest to the designated sites that are within the scope of the HRA

The hydrology of the River Test is complicated by the number of channels and diversions, and therefore it is important to understand the flow routings that could impact the downstream designated sites. Figure 1 provides an overview of the routing downstream of Romsey.

Those carriers that are important to consider in relation to impacts to the designated sites are those downstream of the abstraction intake, namely the Great Test, Little Test and Wirehouse Streams.

The greatest potential impact of abstraction upon flows can be expected in the freshwater reach of the Great Test upstream of the confluence with the River Blackwater but, also to the weirs at Testwood Mill. This reach, above the normal tidal limit ("NTL"), will also be where the potential direct influence of the abstraction on river water quality, hydraulics, geomorphology and ecology will be greatest.

Great and Little Test split

This is the main split of the River Test into the Great Test and Little Test. The flow division is regulated by the agreement introduced in 1831, known as the Coleridge Award, to fairly manage the flow between the different river users and riparian owners. The agreement states that one third of the flow should pass down the Little Test and two thirds down the Great Test. However, flow data indicate that, historically, there has been significantly more than two thirds of the flow passing down the Great Test in normal to high flow periods. Under low flow conditions, less than two thirds of flow typically pass down the Great Test. The Little Test re-joins the Great Test just above the Test estuary. The Great Test – Little Test flow split is now controlled by Little River Management (LRM), who operate the fishery.

Wirehouse Streams

The Wirehouse Streams are fed from an offtake from the Great Test downstream of the Testwood Bridge gauging station, approximately half-way between Testwood Bridge and Testwood Mill. Flow to the stream is controlled by a sluice, which is understood to be kept locked open to provide a constant small flow to the two Wirehouse streams (there is a bifurcation a short distance from the Great Test offtake), one flowing in directly in a north-easterly direction to the Little Test (the "northern" Wirehouse Stream) and the other flowing south-east initially before flowing north-easterly to the Little Test ("southern" Wirehouse Stream).

Tidal Influence

The NTL is marked on Ordnance Survey maps near Testwood Mill / Testwood Pool. During very high tides, the NTL may be exceeded and there can be extensive inundation of the Lower Test Valley SSSI and the lower reaches of the River Test more generally.

The precise location of the "natural" hydraulic limit of the tide on the Great Test is uncertain due to the presence of river control structures, most notably those at Testwood Mill, but also the EA's flow gauging station immediately downstream of the abstraction. However, the fact that tidal signals are occasionally seen in the records from the gauging station suggests that in a more natural un-impounded context the hydraulic limit would extend further upstream of the Testwood abstraction

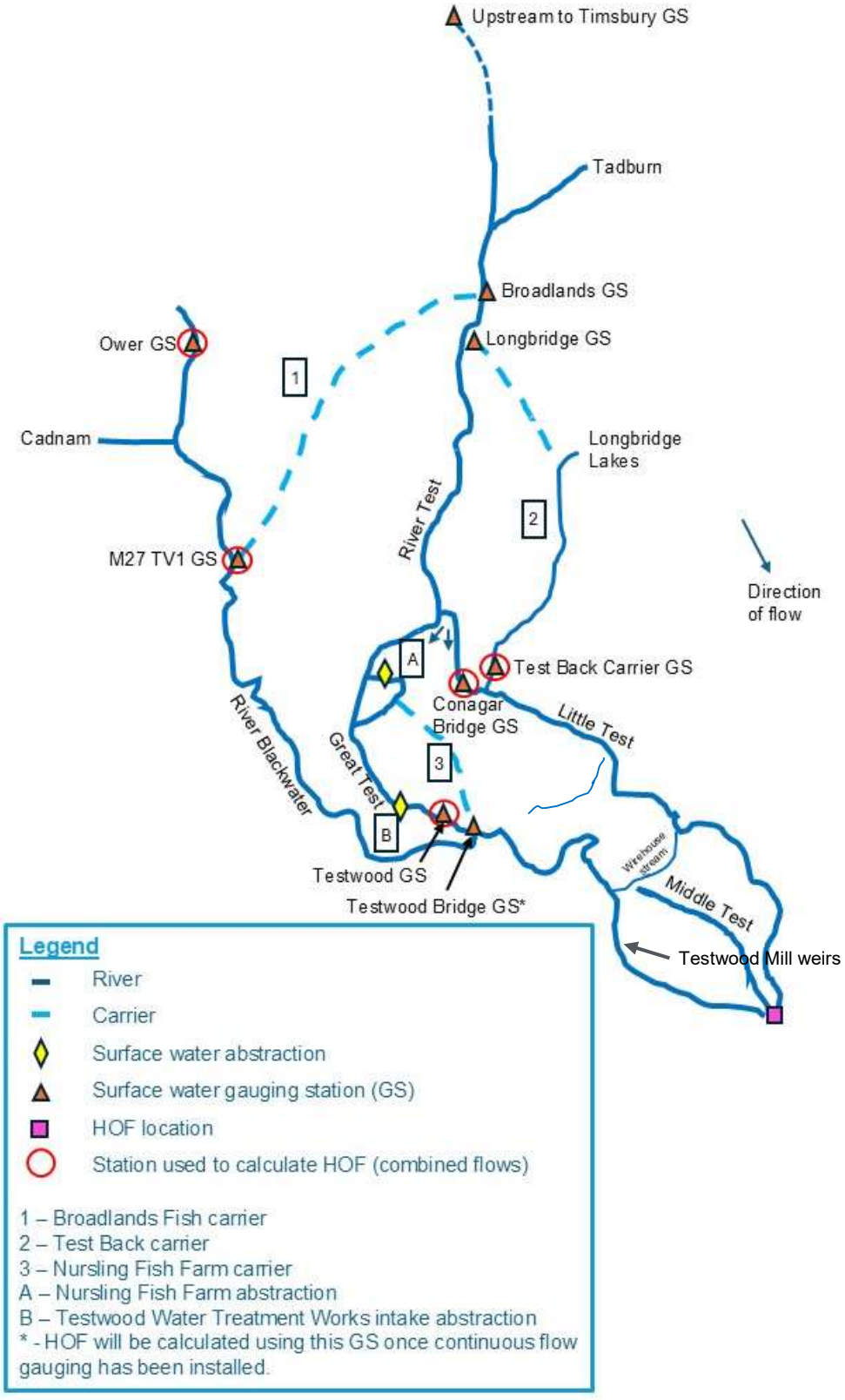

Figure 1 - Schematic of the hydrology of the lower River Test. Adapted from Figure 27 of the Test and Itchen CAMS (Environment Agency, 2006).

3 HRA Summary

Abstraction of surface water by SWS at Testwood is on-going. However, the potential to lower flows below the current HOF under the Stage 0.1 Drought Order could theoretically affect European Sites, or their interest features, through the two following principal aspects and mechanisms:

- Damage to habitats or species from changes in hydrology; and
- Damage to habitats or species from changes in water quality.

There is potential for the abstraction under the Stage 0.1 Drought Order to impact Habitat Sites via the mechanisms detailed above, albeit there is uncertainty, and other factors may be more significant. This potential impact may extend into the tidal reaches, most likely into the upper estuary, approximately to the Eling channel/Test confluence and possibly as far as the middle estuary. The downstream boundary of the middle estuary could therefore be regarded as the lower limit of the zone of influence. However, the assessment has considered all five zones as shown in Figure 2**Error! Reference source not found.**.

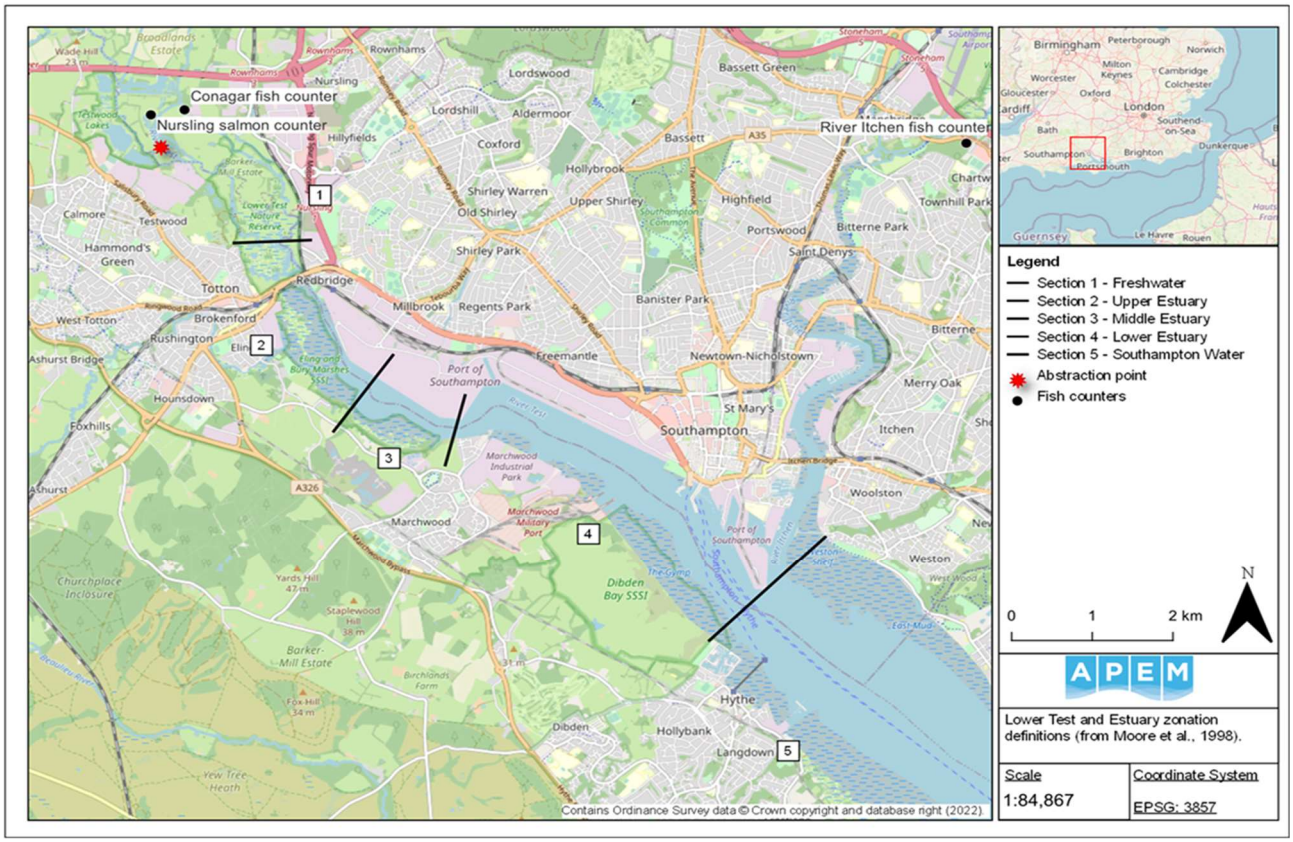

Figure 2 - Zone of Influence (adapted from Moore et al., 1998)

Therefore, designated sites within the same surface water catchment are identified to ensure that any hydrological connectivity that might affect water-dependent sites, qualifying features and designated mobile species has been considered. Hence sites that are hydrologically connected and downstream of the abstractions are included. Sites that are not hydrologically linked are not included because there is no pathway for effect.

Full assessment of the potential impacts of the Test Surface Water Drought Order is reported in the HRA Report provided with the Stage 0.1 Drought Order application, only a summary is presented here.

HRA Stage 1 - Screening

Stage one of the HRA identified the zone of influence of the River Test Drought Order to be between the River Test just south of the M27 near Nursling to within Southampton Water. Seven European designated sites were identified as part of the HRA, with only the River Test Compensatory SAC habitat screened out at this initial stage based on the absence of a pathway for effect on its qualifying features.

HRA Stage 2 - Appropriate Assessment

The stage two Appropriate Assessment determined that, for those mechanisms of effect where a likely significant effect was identified, operation of the proposed Test Surface Water Stage 0.1 Drought Order will not cause or contribute to a failure to meet the attributes of the SAC, SPA or Ramsar sites listed below either alone or in combination with other plans or projects:

- Solent and Southampton Water SPA.
- Solent and Southampton Water Ramsar site.
- Solent Maritime SAC.
- Solent and Dorset Coast SPA.

However, no adverse effect on integrity could not be concluded for the River Itchen SAC or for the River Meon Compensatory SAC Habitat, even with mitigation in place, in respect of operation of the Test Surface Water Stage 0.1 Drought Order alone. It remains the case that no plan or project included in this assessment is considered to result in effects that could act in combination with the potential effects arising from the proposed Test Surface Water Stage 0.1 Drought Order in respect of the River Itchen SAC or River Meon Compensatory SAC Habitat.

HRA Stage 3 – Assessment of Alternative Solutions

As a result, the Appropriate Assessment progressed to a stage three assessment and assessed alternative solutions to the Test Surface Water Stage 0.1 Drought Order. To allow a derogation there must be clear evidence that there is no alternative solution that would meet the relevant public interest need whilst being less damaging to, or avoid damaging, the River Itchen SAC. It was concluded that there were no feasible alternative solutions to the Proposed Stage 0.1 Drought Order, and so the HRA progressed to Stage four - imperative reasons of overriding public interest (IROPI).

HRA Stage 4 - IROPI

In the absence of feasible alternative solutions, for the Stage 0.1 Drought Order to be granted it is necessary to demonstrate that there are agreed imperative reasons of overriding public interest (IROPI). It is concluded that there are no feasible alternative solutions to the proposed Test Surface Water Stage 0.1 Drought Order, and that the supply of sufficient drinking water to meet demand, in order to sustain public health during a period of water scarcity in the environment, meets the requirement that there are ‘imperative reasons of overriding public interest’.

Proposed Compensation Measures

To qualify for derogation, adequate compensatory measures need to be secured that are proportionate and effective at fully offsetting the damage which may be caused to the River Itchen SAC by the Stage 0.1 Drought Order abstraction. The measures also need to benefit the salmon of the River Meon Compensatory SAC Habitat. However, the highly uncertain and precautionary assessment conclusion makes it a challenge to define the extent of compensation needed but given the uncertainty and because of the metapopulation nature of the salmon population, it has been assumed that the compensation defined in respect of the Itchen SAC is sufficient in respect of both the SAC and Compensatory SAC Habitat.

Compensatory measures that have been proposed as part of the Test Surface Water Stage 0.1 Drought Order application are associated with the proposed acquisition by SWS of Woodmill Activity Centre which connects Woodmill Salmon Pool to the River Itchen. The proposed compensatory measures at Woodmill are to:

- Improve fish passage between Woodmill Salmon Pool and the River Itchen, with the known current issues of the sluice structures and current fish pass;
- Alter management of Salmon angling on the pool and areas controlled by SWS; and
- Improve in channel conditions for salmon in the pool by, for example, increasing shade provision to reduce the warming effects of the sun on the pool.

The proposed measures are located outside, immediately downstream of, and bordering, the River Itchen SAC. Whilst it is possible that some of the planned enhancement work will be required on the bank of the river in the designated reach, the measures will result in significant enhancement of fish passage, improved habitat conditions for salmon when refuge within the pool is required and reduced stress for fish related to angling that will significantly outweigh any potential for very localised disturbance of the bank.

Alongside the development of detailed proposals, SWS will develop and implement a monitoring plan in consultation with the EA and NE, which will include both pre- and post-scheme monitoring.

The principles of the proposals have been discussed with the EA and NE during the bidding process for the purchase and have been agreed as significantly beneficial to the salmon population on the River Itchen.

References

Environment Agency (2006) Test and Itchen Catchment Flood Management Plan Final Strategy. Environment Agency.

Moore, A., Ives, S., Mead, T.A. and Talks, L., 1998. The migratory behaviour of wild Atlantic salmon (Salmo salar L.) smolts in the River Test and Southampton Water, southern England. *Hydrobiologia*, *371*(0), pp.295-304.

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