

## Determination Report

**Report under the Water Resources Act 1991 (as amended) and the Environment Act 1995 of an application for a new impoundment licence.**

### **Executive Summary**

The Secretary of State for the Environment, Food and Rural Affairs is deemed to have granted this application in accordance with section 64 of the Water Resources Act 1991.

In determining this application, the Environment Agency has exercised its duties and powers under the Water Resources Act 1991 (as amended) and the Environment Act 1995.

#### **1. Summary of the proposal**

This application is for the Environment Agency for an impoundment licence, to make alterations to install a new fish pass on Benson Weir and carry out works to repair the existing structure and footbridge. Benson weir is located on the River Thames, (see Figure one below) with the structure consisting of a weir A and B. Weir A consists of two small hand radial gates and four large hand radial gates. Weir B consists of 8 small hand radial gates and two over falls. Crossing over the weir complex is the Thames path on a suspended walkway.

The Environment Agency is the Navigation Authority for the non-tidal River Thames and has a statutory duty to maintain and operate Benson weir as part of their assets. Failure to repair the current impoundment and install the fish pass could result in increased flood risk and loss of control over water levels, as well as reducing the ability for the migration of fish upstream. The current impoundment's fixed crest level is 44.19 metres Above Ordnance Datum (mAOD) and the river is maintained at a standard head (upstream of the weir) water level of 44.19mAOD and a standard tail (downstream of the weir) water level of 42.33mAOD. There is no anticipated change to these levels during the construction or following the completion of the works.

Benson Weir is currently impassable to Fish & Eels. A significant aspect of the works will be the installation of a Technical Baffle-Brush Pass that is going to

provide passage for Fish & Eels. The fish pass has been recommended for approval by the national Fish Pass Panel.

The Technical Fish Pass is to be built "mid-channel" through an existing overspill fixed crest weir. The fixed crest of the fish pass entrance will be lower than the remainder of the weir section it sits in, which will remain unchanged. The current fixed crest is set to level 44.19mAOD where the lowest fixed crest of the new Fish Pass being set to 43.45mAOD. The weir will work and function as normal during the works. A Fish Rescue Plan during piling and dewatering is required as part of the works. Refurbishment works will include modifying the weir gates and place rock armour (rip-rap protection) with a like for like to the original design. Without carrying out these works the structure has the potential to fail completely, therefore these modifications are essential in its refurbishment.

During the work, there will be dams installed that will dry out a partial section of the Weir. The water will continue to flow over the spillways and through open gate bays. These temporary scenarios have been modelled and the impact of water levels analysed. The project to refurbish the weir and to instal a fish pass is intended to benefit the ecology of the watercourse.

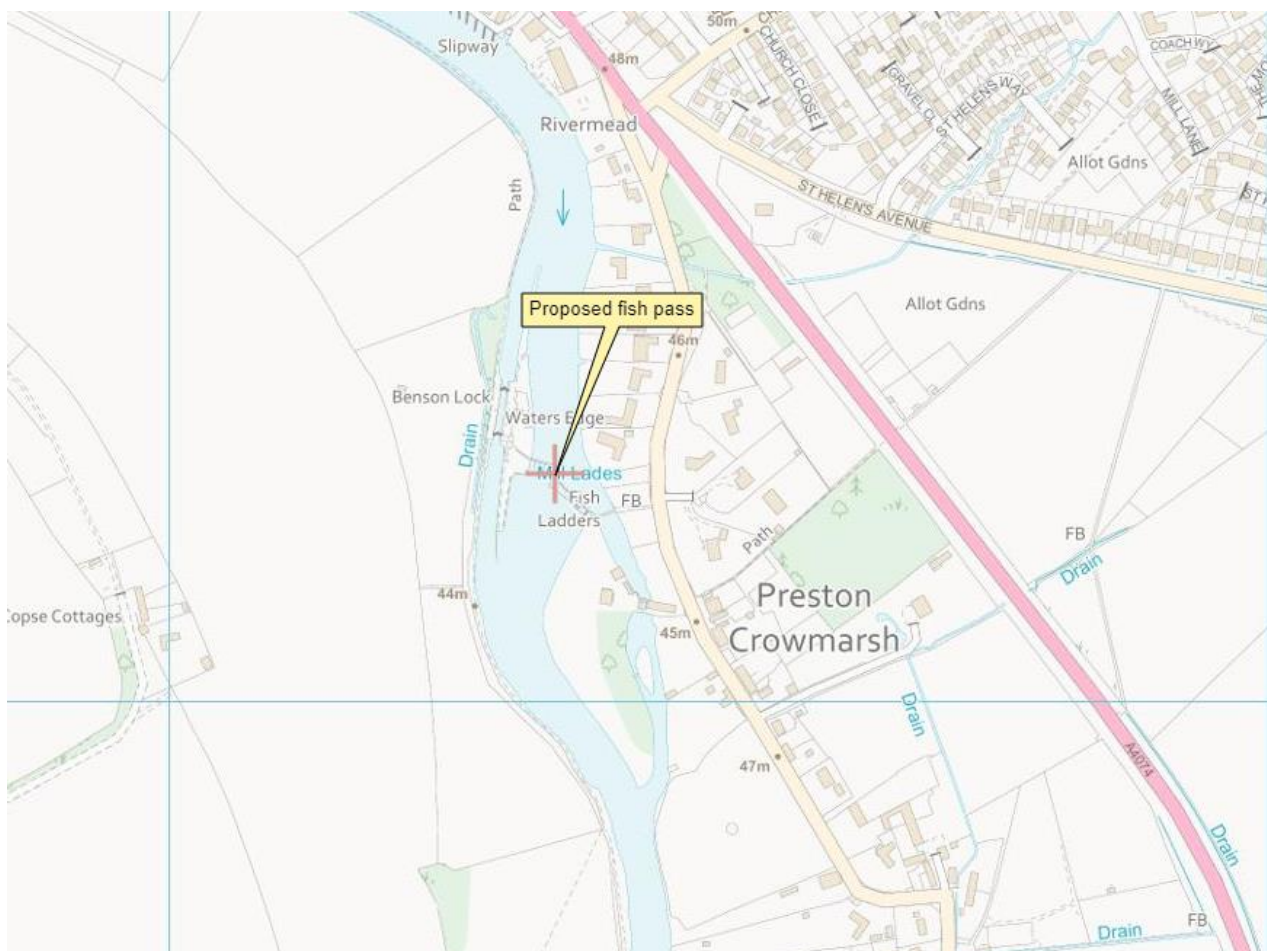


Figure one: Proposed fish pass and location of Benson weir

### 1.1. Departures from application forms

During the determination of this application, it was confirmed that the impoundment should be licenced bank to bank, rather than the fish pass alone as was originally applied for. The Agency requested further details about the current maintenance of the weir and operational instructions which have been incorporated into the licence.

### 1.2. Details of proposal

Administrative details	
New licence number	TH/039/0018/017
Application reference number	NPS/WR/040734
Applicant name and address	Environment Agency Horizon House Deanery Road Bristol BS1 5AH

Administrative details	
Application contact details	Paul Warrington 07917 174 662 paul.warrington@environment-Agency.gov.uk
Hydrometric catchment	Thames C039018
Agency Area	West Thames
Administratively complete date	02/04/2024
Relevant date	02/04/2024
Determination date	No statutory determination date for Environment Agency applications.
Applicant entitled to apply	yes
Supplementary reports	The following supplementary reports were submitted: <ul style="list-style-type: none"> <li>- Fish pass modelling report</li> <li>- Impounding structure information</li> <li>- Environmental action plan (AEP)</li> <li>- Detailed fish pass diagrams</li> <li>- Outline buildability statement</li> <li>- Fish pass demolition details</li> <li>- Weir operational instructions</li> <li>- Fish pass general arrangement</li> </ul>

Impoundment details	
Name and/or description of inland water to be impounded	The River Thames at Benson Weir, Preston Crowmarsh, Wallingford, Oxon.
Point of impoundment	SU6135191207
Manner and extent of impoundment	The impounding works at 'proposed fish pass' marked on figure one will consist of a technical fish pass (baffle-brush) on the existing fixed crest. Located "mid-weir". As well as the repairing of Substructure elements by provision of scour protection upstream and downstream of the weir.
Further conditions	<ul style="list-style-type: none"> <li>- Approved fish and eel pass.</li> <li>- Construction method statement.</li> <li>- Notification prior to and post construction.</li> </ul>

Impoundment details	
	<ul style="list-style-type: none"> <li>- Maintaining downstream quantity and quality of flow during construction.</li> <li>- Engineers report and as build drawings to confirm construction as authorised</li> <li>- Maintain structure to prevent leakage and be free of obstruction at all times</li> <li>- Self-destruct clause on licence if not built in 3 years</li> </ul>
Other details	N/A

## 2. Case history

Nothing of relevance to document.

## 3. Justification of requirements

The Environment Agency has a duty to continue to maintain and operate its assets on the River Thames to carry out its statutory functions e.g. navigation. Benson weir is owned and operated by the Agency and failure to maintain it may result in increased flood risk, an impact upon navigation, as well as damage to downstream assets.

The project is a priority weir for upgrade on the Thames for safety and environmental reasons and is currently at risk of failure impacting recreational users, navigation etc. The weir is also a barrier for fish migration. Refurbishment will reduce the risk of failure and will ensure the structure continues to operate effectively and the inclusion of a fish pass will remove it as a barrier to migration. The aim of this project is to refurbish the weir, whilst also installing a fish pass. In undertaking repair works the Environment Agency can carry out improvements to the weir to increase fish passage and allow better fish populations, thus improving upon the water framework directive (WFD) status. There are direct ecological and WFD benefits linked with this proposal increasing migration to fish and eel upstream. Installing a new fish pass and eel pass will significantly improve species movement and help contribute to improving the WFD objective for ecological potential, which is currently at moderate status.

The works are not anticipated to change the flow regime of the weir and will work to upgrade the waterbody to allow for better navigation and recreational use of the river and weir.

The Environment Agency is responsible for maintaining and improving this weir and associated structures, as it is owned and managed by the Agency and any repair works must be undertaken by the Agency. Not being able to undertake this repair work could result in compensation payments to organisations such as Thames waterways (loss of navigation), Thames Water (water extraction), environmental bodies (detrimental impact on environmentally designated natural conservation sites) as well as lawful users and protected rights.

On this basis, it is confirmed that the application is justified, and that the Agency is the appropriate body to hold the licence.

3.1. Water efficiency

The aim of this proposal is to maintain the impoundment to and improve upon fish passage. Repair works are expected to help sustain the current level of flood risk management and ability to control the waterway for navigation, water supply and recreation. Therefore, it has been confirmed that the applicant has demonstrated efficient use of water to prevent flooding, control water levels for navigation, and to support water supply, amenity and environmental needs.

4. Advertising

Application was advertised	
Date when advertised	
Name of newspaper	
Representations were received and these are addressed in section 4.1.	
<input type="checkbox"/> No representations were received.	

As the application was advertised, Statutory Notification was served to:

Statutory Bodies	Date
Internal Drainage Board (IDB)	

Statutory Bodies	Date
Navigation Authority (NA)	
Statutory Water Undertaker (SWU)	
Thames Water	

#### 4.1. Representations and decision document

<No representations were received as the application was not advertised.>

< <<X>> representations were received and no decision statement is required.>

<No representations were received and no decision statement is required.>

<More than 10 representations were received so a decision statement has been published to Gov.uk website on <<date>>.>

<As a result of refusing this application a decision statement has been placed on Gov.uk website on <<date>>. >

#### 5. External consultation

It was not necessary to consult external bodies about this proposal.

The WRST report highlighted the Hartslock Wood special area of conservation (SAC), Southwest London Waterbodies Special Protection Areas (SPA) and Ramsar, and the Hartslock Wood Site of Special Scientific Interest (SSSI).

The Southwest London Waterbodies SPA and Ramsar sites were at a considerable distance to the impoundment structure and are unlikely to have any impact, considering there is no consumptiveness of this licence and no expected changes to flow regime or split in the watercourse. The migratory fish species highlighted within the WRST report are not designated species of these sites.

A Habitats regulation assessment and Appendix 4 was sent to Natural England for information only for the Hartslock Wood SAC and SSSI.

## 6. Technical assessment of the proposal

### Licensing Strategy:

The abstraction point is within the Thames Wallingford to Caversham, GB106039030331 waterbody. in the Thames Corridor Abstraction Licensing Strategy (ALS).

The water availability is as follows:

Q Percentile	Water Resources availability colour	Water resource status
Q30	Orange	Water not available
Q50	Red	Water not available
Q70	Purple	Water not available
Q95	Purple	Water not available

As this application is for an impoundment licence that is non-consumptive, it will not have an impact upon the water availability of this watercourse, and we deem it suitable given the water availability of the catchment.

### Water Framework Directive (WFD) status information

The proposal will be assessed against the WFD status throughout sections 6.2 to 6.7 below.

This is a surface water abstraction that is within surface waterbody Thames Wallingford to Caversham, GB106039030331. It is classed as an Artificial/Heavily Modified water body.

Consideration	Cycle 3 baseline status (2019)	Cycle 3 current status (2022)	Cycle 3 objective
Overall WB status	Moderate	Not assessed	Moderate by 2015
Ecological potential	Moderate	Moderate	Moderate by 2015



<b>Consideration</b>	<b>Cycle 3 baseline status (2019)</b>	<b>Cycle 3 current status (2022)</b>	<b>Cycle 3 objective</b>
Invertebrates	High	High	Good by 2021
Macrophytes	High	High	N/A
Phytobenthos	N/A	N/A	N/A
Hydrological regime	Sup good	Sup good	Sup good by 2021
Mitigation measures	Mod/less	Mod/less	Good by TBC
Physico-chemical	Moderate	Moderate	Good by 2015
Chemical	Fail	DNRA	Good by 2063

We have considered the WFD status of the affected waterbody and concluded this proposed impoundment does not compromise the achievement of the objectives for the waterbody.

### **Reasons For Not Achieving Good (RFNAG)**

The overall classification of the waterbody has not been reassessed in 2022 due to only a selected number of both waterbodies and elements being reassessed at this time. This means that an overall classification cannot be determined at this time and so the baseline classification remains valid.

Chemical status in 2019 is fail, which is a change from the good status reported in 2015. However, 2019 surface water chemical classifications are not comparable to previous years' classification results. The environment has not deteriorated since the last assessment. The significant change in results is due to changes in approach and methods that enables us to more accurately assess the environment. This includes targeted biota sampling to assess the presence of more persistent chemical substances and more accurate reflection of the extent of these chemicals in the environment. There is little underlying change in chemical status for other chemicals.

We have considered the RFNAG of the affected waterbody and have no concerns about this application aggravating the causes of failure.

## 6.1. Designated and protected conservation sites and species

Nearest conservation sites (distance searched – 30.25 downstream)		
Designation types	Name of site	Distance and direction
Special Areas of Conservation (SACs)	Hartslock Wood	11.72km downstream of impoundment
Ramsar sites	South West London Waterbodies	54.18km downstream of impoundment
Special Protection Areas (SPAs)	South West London Waterbodies	54.18km downstream of impoundment
Sites of Special Scientific Interest (SSSIs)	Hartslock	11.57km downstream of impoundment
Groundwater Dependent Terrestrial Ecosystems (GWDTEs) that are not designated as SSSIs – GW only	//	//
National Nature Reserves (NNRs)	//	//
Local Nature Reserves (LNRs)	//	//
Ancient Woodland	HARTSLOCK WOOD	11.74km downstream of impoundment
	BERRYS/LONG DEAN COPSES	13.97km downstream of impoundment
Scheduled Ancient Monuments (SAMs)	Wallingford Castle	1.40km downstream of impoundment
	Wallingford Bridge	1.78km downstream of impoundment
Local Wildlife Sites (LWSs)	Cholsey Marsh	5.16km downstream of impoundment
	South Stoke Marsh (north)	6.83km downstream of impoundment
	South Stoke Marsh (south)	7.79km downstream of impoundment
	Thames Island near Streatley	9.85km downstream of impoundment
	Streatley Meadows	10.15km downstream of impoundment
	Common Wood, Checkendon Wood	10.76km downstream of impoundment

	Child Beale meadows	11.82km downstream of impoundment
	Berry's Copse	13.97km downstream of impoundment
	Whitchurch on Thames Wet Meadow	14.02km downstream of impoundment
	Hardwick Riverside Pasture	14.05km downstream of impoundment
	Purley Meadows & Mapledurham Weir	14.39km downstream of impoundment
	The Warren Woodlands complex	17.58km downstream of impoundment
National Parks	//	//
Areas of Outstanding Natural Beauty (AONBs)	//	//
Heritage Coast	//	//
Restoring Sustainable Abstraction (RSA) Programmes	Hartslock	11.72km downstream of impoundment
	Current wetlands	0.17km downstream of impoundment
Protected Species	Atlantic Salmon migratory route	0.00km downstream of impoundment
	European Eel migratory route	0.00km downstream of impoundment
	European Water Vole	1.03km downstream of impoundment
	Depressed (or Compressed) River Mussel	1.09km downstream of impoundment
	Marsh Fritillary	4.49km downstream of impoundment
	Desmoulin's Whorl Snail	5.50km downstream of impoundment
	Tubular Water-dropwort	7.38km downstream of impoundment
	European Eel	9.51km downstream of impoundment
	code 2	13.32km downstream of impoundment
Protected Habitats	Deciduous woodland	0.14km downstream of impoundment
	Coastal and floodplain grazing marsh	1.01km downstream of impoundment
	Lowland fens	7.85km downstream of impoundment

	Lowland calcareous grassland	11.61km downstream of impoundment
	Reedbeds	13.21km downstream of impoundment
	Lowland meadows	14.05km downstream of impoundment

This application has been screened using the Water Resources Screening Tool (WRST) and lists of designated and protected conservation sites and species are shown within the output report.

The designated and protected conservation sites and species within the table above have been considered within this determination. Where there was a risk of impact we have discussed this in sections 6.2 to 6.7.

## 6.2. Hydrology and impact on flows

The published ALS contains background information on the relevant catchments.

The Thames Wallingford to Caversham is a heavily modified river connected to the lower Thames waterbody. The waterbody is significant in maintaining navigation and recreation, as well as supporting the environment and public and private water supplies. Benson Weir is located upstream of Wallingford, Oxfordshire. It is 1 of 44 weir complexes along the non-tidal section of the River Thames that the Environment Agency maintain and operate to maintain a navigable depth to ensure adequate flows downstream. The Weir is also owned and operated by the Agency for navigation and flood protection duties, through the waterways team.

The proposed fish pass will be a Hassinger Baffle Brush type designed to operate between Thames Q95 (4.3 cubic metres per second) and Q10 (82.9 cubic metres per second) flows and suitable for Sea trout, Brown trout, Eels, Grayling and course fish. It will be approx. 25 metres long, 4.6 metres wide with a 1:12.5 (8%) gradient and split into two parallel sections. The baffle section on one side of the pass will be 2.4 metres wide and sub-divided into two sections; one section 1.4 metres wide containing 175 millimetre high baffles, the other section 1.0 metre wide containing 125 millimetre high baffles, but on a base 50 millimetres higher so all the baffle tops are level. The other side of the pass will contain 500 millimetre high brush blocks with thin dividing walls to create a switchback route for eels and fish to ascend. The

upstream inlet to the fish pass will be set at 43.45 metres Above Ordnance Datum and be designed to take a flow of 2.81 cubic metres per second at Q95 and a maximum design flow of 4.62 cubic metres per second at Q10.

Benson weir has two sections, Weir A and Weir B. Weir A has 2 small radial gates and 4 deep radial gates, and Weir B has 2 overfall sections on either side of the 8-small radial gate section. Hence, the weir structure incorporates 14 weir gates (4 deep sills and 10 smaller radials), and these are operated to maintain a navigable depth in the River Thames through managing high and low flows.

The Thames ALS currently classes the waterbody as 'water not available for licencing' with limited flows available for licencing. Investigations to date show that there are multiple pressures on the Lower Thames; with abstraction not being the only barrier to its improvement. These investigations have shown that due to the heavily modified nature of the Lower Thames, reductions to abstraction are not required, therefore water is licenced with restrictions in place. As this is a non-consumptive licence with all water being returned to the watercourse, with no depleted reach, there is no anticipated impact upon flows or water availability. The impounding structure is non-consumptive in nature and will not impact upon flows.

Refurbishment works to both modify the weir gates and place rock armour (rip-rap protection) will be like for like to the original designs, and therefore is not anticipated to alter flows. This application is for an impounding structure to install a fish pass that will improve migration and fish populations across the river. In addition, this scheme is expected to contribute towards the Environment Agencies WFD objectives and contribute towards supporting the waterbody overall.

Mitigation has been put in place to ensure that during construction all flows will continue downstream of the impoundment works uninterrupted, therefore impact to flows downstream are likely to be negligible. This is a requirement on the licence through a condition to ensure that the necessary flow continues downstream at all times during construction.

Therefore, we are confident that this impoundment will not have any significant impact on hydrology and flow and will not negatively impact on the WFD status of the waterbody nor prevent it from achieving its objectives.

### **6.3. Impact on water quality**

Significant effects to the dilution capacity are unlikely, as this impoundment will remain non-consumptive, with water flowing through the waterbody with no depleted reach and no change to the existing structure other than an improved fish pass. The current flow regime/split over the weir is unlikely to be significantly impacted upon through the installation of the fish pass, therefore any changes to water quality or flow are likely to be minimal and considering the benefits from this scheme for fish passage, negligible. During construction, flows will continue downstream uninterrupted, and the improved maintenance of the weir will likely benefit the waterbody. An Environmental Action Plan has been submitted in support of the proposal to ensure the mitigation of any pollution during construction. The impact of the works to this impoundment is therefore seen to be insignificant and negligible.

### **6.4. Impact on geomorphology**

This impoundment and its revised flow regime/split has the potential to impact the geomorphology of the waterbody. New or increased abstraction could reduce the flow of the river and subsequently impact the ability of the waterbody to repair and maintain its natural geomorphic processes (such as river beds and channels), in turn effecting the species within it.

However, for the reasons discussed in section 6.2 (above) we do not consider there to be a direct risk of impact on this waterbody, as this licence is non-consumptive with water being almost immediately discharged back into the watercourse and no significant changes to the flow regime or existing structure. Therefore, we do not anticipate any impacts on geomorphology.

### **6.5. Impact on ecology (including fish)**

New impoundments have the potential to disrupt ecological features and migratory routes of fish through altered flow rates, flow splits, geomorphology and chemical changes in the waterbody which will in turn have detrimental effects on both ecological features and fish habitats and food supply. The fish species outlined within the WRST output require stable environments to breed and live, and any disruption to this has the potential to impact them negatively. In addition, the WRST

report has identified a series of migratory fish species which could be impacted by this abstraction (for example, Eel and river Lamprey).

The proposed fish pass will be a Hassinger Baffle Brush type designed to operate between Thames Q95 (4.3 cubic metres per second) and Q10 (82.9 cubic metres per second) flows and suitable for Sea trout, Brown trout, Eels, Grayling and coarse fish. It will be approx. 25 metres long, 4.6 metres wide with a 1:12.5 (8%) gradient and split into two parallel sections. The baffle section on one side of the pass will be 2.4 metres wide and sub-divided into two sections; one section 1.4 metres wide containing 175 millimetre high baffles, the other section 1.0 metre wide containing 125 millimetre high baffles, but on a base 50 millimetres higher so all the baffle tops are level. The other side of the pass will contain 500 millimetre high brush blocks with thin dividing walls to create a switchback route for eels and fish to ascend. The upstream inlet to the fish pass will be set at 43.45 metres Above Ordnance Datum and be designed to take a flow of 2.81 cubic metres per second at Q95 and a maximum design flow of 4.62 cubic metres per second at Q10.

This impoundment does not pose a risk to the ecological or fish species associated with this site, as it is non-consumptive, with water being discharged back into the watercourse almost immediately. Therefore, there is unlikely to be any significant impact relating to reduced dilution capacity or reductions in flow rates. There are Salmon and European eel migratory routes recorded and supported through the Thames waterway. Refurbishing the weir will enable the Agency to fit a technical baffle brush pass to provide passage for fish and eels providing the ability for fish to migrate and improve fish populations within the river. The inclusion of this fish and eel pass will remove barriers to migration for these fish and likely improve upon the overall WFD classification. This application will therefore benefit the migratory fish currently within the waterbody. These improvements will in turn will help to support the wider ecology of the waterbody and provide improvements to the WFD status of the waterbody.

There are several Scheduled Ancient Monuments (SAMS) sites and Local wildlife sites located downstream of this impoundment. However, for the reasons outlined in section 6.2 and 6.4, there is unlikely to be any significant effect to these sites and consultation was not deemed necessary.

For the reason outlines above we can conclude that this impoundment will not have a negative impact upon the ecology of this river.

#### **6.6. Conservation of Habitats and Species Regulations 2017 and Wildlife and Countryside Act 1981**

There are several Habitats Regulations or Wildlife and Countryside Act sites that could be impacted by this abstraction.

The WRST report highlighted the Hartslock Wood Special Area of Conservation (SAC), Southwest London Waterbodies Special Protection Areas (SPA) and Ramsar, and the Hartslock Wood Site of Special Scientific Interest (SSSI). The Southwest London Waterbodies SPA and Ramsar sites were at a considerable distance to the impoundment structure to have an impact. Additionally, these sites are not linked to any of the migratory fish highlighted within the water resources screening output.

Hartslock Wood SAC and SSSI were highlighted in the results because they are adjacent to the Thames and contain species that are on the migratory route along with other ecological features that could be impacted by any increases or changes to flow rates. Many of the species within these sites rely on specific conditions of the waterbody such as level, flows and geomorphology. Any changes to flow rates fromew impounding structures therefore could impact these factors.

However, the Thames migratory route and these sites were not considered to be negatively impacted from this proposal for the reasons outlined in section 6.2. The Hartslock SSSI was assessed through an appendix 3 form which was then put on file. This was not formally sent for consultation with Natural England as there was no anticipated impact to these sites nor the need to place mitigation to protect the site. In addition, a Habitat regulation assessment was filed for audit and information only for the Harslock Wood SAC.

#### **6.7. WFD summary impact statement**

We are satisfied that in granting this licence there will be no deterioration in the status of the waterbody and we will support the achievement of the objectives for the waterbody.



## 6.8. Protected rights and lawful uses

This application has been screened using the Water Resources Screening Tool (WRST) and lists of protected rights and/or lawful uses are shown within the output report.

Licence Type	Licence number	Licence holder	Distance and direction from proposal*
NALD Abstraction licence points	28/39/18/0079	HR WALLINGFO RD LTD	1.29km downstream of impoundment
	28/39/20/0012	R BISHOP & PARTNERS	8.40km downstream of impoundment
	28/39/23/0089	BULLOCK	8.53km downstream of impoundment
	28/39/20/0063	TRUSTEES CHILD BEALE TRUST	13.21km downstream of impoundment
	28/39/23/0185	THE MAPLEDURHAM 1997 TRUST	15.54km downstream of impoundment
NALD Abstraction licence reaches	28/39/23/0100	THE MAPLEDURHAM 1997 TRUST	15.80km downstream of impoundment
Large non-consumptive abstraction points	TH/039/0023/036	Martin Bishop	14.63km downstream of impoundment
	28/39/23/0200/R01	The Trustees of the Mapledurham 1997 Trust	15.51km downstream of impoundment
	TH/039/0026/015	Dick	19.45km downstream of impoundment
	TH/039/0023/004	Pridewater Estates Limited	20.91km downstream of impoundment
Large non-consumptive impoundments	TH/039/0023/019	//	20.14km downstream of impoundment
	TH/039/0027/004	//	38.07km downstream of impoundment
	TH/039/0027/017	//	44.58km downstream of impoundment
	TH/039/0031/005	//	59.07km downstream of impoundment

HEP Preapp Recommend to Apply	TH/039/0018/008	Benson Parish Council	0.06km downstream of impoundment
	TH/039/0018/010	Adrian Tilbury	0.06km downstream of impoundment

The protected rights and lawful uses within the WRST results have been considered within this determination.

Impacts to flows through the installation of a fish pass present issues most commonly to upstream users. The closest abstraction upstream of the fish pass is around 7km upstream but the Thames here, and for most of its non-tidal reach, is managed by the Agency on level, not flow. The Agency will still be able to operate Benson Weir to the same level regime following installation of the fish pass and any upstream abstraction will not be impacted.

This is a non-consumptive abstraction, with no depleted reach. The fish pass is not anticipated to significantly change the flow split downstream or impact upon downstream users. The improvement works expected to be carried out in support of this impoundment are expected to be essential for the upkeep and accessibility of navigation purposes and therefore should have a positive impact upon the lawful users of the waterbody. Flow downstream will remain uninterrupted during construction and is not anticipated to have a significant impact downstream of the structure. Considering the distance of the downstream and upstream abstractions, the impact to flows is seen as negligible.

Therefore, there will be no impact on protected rights or lawful users.

#### 6.9. Other considerations

There are no concerns about flooding, archaeology, recreation/amenity, subsidence or desiccation.

#### 6.10. Other permits that might be required or related to the proposal

Permits	Yes/No	Comments
Environmental permit for a discharge activity	No	/

Permits	Yes/No	Comments
Flood Risk Activity Permit	Yes	A flood risk activity permit has been submitted in support of this application and will be required before commencement of works.
Other	Yes	Planning permission has been obtained for this project.

## 7. Assessment of likely Costs & Benefits of proposed approach

Water Resources/ The environment	The licence accords with local Water Resources policy and is sustainable.
The applicant	The Applicant will benefit from the ability to continue to reliably maintain the weir for navigation, amenity and environmental purposes, including adding fish passage for migratory species. This will ensure the applicant fulfil their legal duties.
The Agency	In determining the licence in accordance with the local and national policy, we are fulfilling our duties as a regulator.
The economic and social wellbeing of the rural community	No adverse effects on the social and economic wellbeing of local communities in the rural area or the beauty or amenity of urban or rural areas are perceived as a result of this proposal. This proposal will benefit the local community through upgrading the walkway associated with this weir and giving individuals easier access across the river.

### Alternative approaches considered

- (1) Refuse.
- (2) Grant as applied for by applicant.**
- (3) Grant with different terms than applied for by applicant.

### Reason for choosing preferred approach over alternative approaches

- (2) Grant as applied for by applicant.

This proposal is to carry out works on an existing weir in order to repair the existing structures and put in place a fish pass. The fish pass will allow migration for fish species and improve upon fish populations upon the waterbody, helping contribute towards meeting the WFD targets of the waterbody. The repair works will help improve upon the

weirs ability to maintain water levels for water supply, navigation, amenity and environmental purposes. In addition, repairing the footbridge will allow the public to access the weir again after its closure due to safety concerns.

There is no reason to refuse the application as it is not seen to negatively impact upon flow, species or habitats and will have a positive impact upon the environment, lawful users and migratory species.

**8. Time limit**

A time limit has not been included because the licence applied for is to impound water.

**9. Measurement of water abstracted**

This is an impoundment licence therefore no metering will be included or required.

**10. Special agreements**

None.

**11. Enforcement – Criticality Class**

The licence enforcement criticality level will be Less Critical because it is a fixed, static site where experience has shown that securing compliance is a relative formality.

## 12. Charging factors

### Chargeable status

(a) Is the whole licence non-chargeable? (Yes / No)	Yes	
(b) Is one of the purposes with a specified authorised quantity non-chargeable? (Yes / No / N/A)	No	
(c) If (b) is 'Yes' specify purpose		
If 'Yes' to (a) or (b) identify non chargeable reason	EA is the licence holder	Yes
	Chloride Content	/
	S125 electricity production up to 5MW	/
	100% s126 Abatement	/
	Temporary licence	/
	Transfer licence	/
	Impounding licence	Yes

## 13. Other statutory duties

### 13.1. Section 4 Environment Act 1995 (pursuit of sustainable development)

We have considered whether additional requirements should be imposed in relation to our principal aim of contributing to attaining the objective of sustainable development under section 4 of the Environment Act 1995, the existing requirements are sufficient in this regard and no other appropriate requirements have been identified.

We have had regard to Government guidance issued under section 4(2) of the Act, namely '*The Environment Agency's Objectives and Contribution to Sustainable Development: Statutory Guidance (December 2002)*'. Regarding the exercise of our water resources functions, we are required:

*'To plan to secure the proper use of water resources by using strategic planning and effective resource management which takes into account environmental, social and economic considerations, and in particular:'*

*'To ensure that the abstraction of water is sustainable, and provides the right amount of water for people, agriculture, commerce and industry and an improved water-related environment; and to develop and maintain a framework of integrated water resources planning for the Agency and water users.'* The principles of

sustainable development and biodiversity are embodied in the conditions attached to the licence(s).

**13.2. Section 6(1) Environment Act 1995 (conservation duties with regard to water)**

We have considered our duty to promote the conservation and enhancement of the natural beauty and amenity of inland and coastal waters and the land associated with such waters, and the conservation of flora and fauna which are dependent on an aquatic environment and are satisfied that these proposals meet this duty. We have taken these factors into account through the process of screening for features of ecological and conservation value (sections 6.1, 6.3 and 6.5 of this report).

**13.3. Section 6(2) Environment Act 1995**

In reaching our decision we have taken all such action as we consider necessary or expedient for the purposes of conserving water resources, and securing their proper use (including the efficient use of those resources).

We have taken these factors into account by considering the justification of requirements and water efficiency, as set out in section 3 of this report.

**13.4. Section 7 Environment Act 1995 (pursuit of conservation interests)**

**Section 7(1)(a) of the Environment Act 1995** places a duty on us, when considering any proposal relating to our functions, to exercise our functions so as to further the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological or physiographical features of special interest. We have taken these factors into account through the process of screening for features of conservation value (sections 6.1, 6.3 and 6.5 of this report).

**Section 7(1)(c) of the Environment Act 1995** places a duty on us to have regard to the desirability of protecting and conserving buildings, sites and objects of archaeological, architectural, engineering or historic interest and to take into account any effect which the proposals would have on the beauty or amenity of any rural or urban area, on any such flora fauna features buildings sites or objects,

and any effect which the proposals would have on the economic and social well-being of local communities in rural areas.

We have had regard to these factors as indicated (amongst others) in above and consider that we have met these duties. We have taken these factors into account as indicated in section 6.9 and 7.0 above.

### **13.5. Section 8 Environment Act 1995 and Sections 28G and 28I Wildlife and Countryside Act 1981**

Under section 28G of the Wildlife and Countryside Act 1981 we have a duty to take reasonable steps to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which a site is of special scientific interest (SSSI). We have taken these factors into account as indicated in section 6.6 above.

### **13.6. Section 39 Environment Act 1995**

We have a duty under section 39 of the Environment Act 1995 to take into account the likely costs and benefits of granting the applications ('costs' being defined as including costs to the environment as well as any person). This duty, however, does not affect our obligation to discharge any duties imposed upon us in other legislative provisions. We have taken these factors into account as indicated in section 7.0 above.

### **13.7. Regulation 63 Conservation of Habitats and Species Regulations 2017**

Under regulation 63 of these Regulations, we must, before granting any abstraction or impoundment licence, assess whether it is likely to have a significant effect on a European site (Special Areas of Conservation (SAC) or Special Protection Area (SPA), either alone or in combination with other projects; and if so undertake an appropriate assessment of the implications of the abstraction or impoundment upon that site in light of its conservation objectives. In the light of the conclusions of the assessment (and subject to regulation 64) we will only grant a licence after having ascertained that it will not adversely affect the integrity of the European site. We have taken these factors into account as indicated in section 6.6 above.

### **13.8. Sections 40(2) and 21(4) and (5) Water Resources Act 1991 (Minimum Acceptable Flows)**

No Minimum Acceptable Flow has been determined under Section 21(1) Water Resources Act 1991 for any waters related to this application. As a result, we have considered these aspects by reference to our obligations under Section 40(2) Water Resources Act 1991.

We are satisfied that when granting these licence the river flow will not be less than is necessary for meeting (in respect of both the quality and quantity of water) the requirements of public health, navigation and land drainage; and that we have had regard to

- The flow in the inland waters from time to time
- The character of these waters and their surroundings, and
- Any water quality objectives established under Part III of the Water Resources Act 1991 which may be affected by flows.

We have taken these factors into account as indicated in sections 4, 6.2, 6.3, 6.8 and 6.9 above.

### **13.9. Section 40 Natural Environment and Rural Communities Act 2006**

Section 40 of the Natural Environment and Rural Communities Act 2006 has been amended with effect from 1 January 2023 to require consideration of the general biodiversity objective, which is to further the conservation and enhancement of biodiversity through the exercise of our functions. We have considered the general biodiversity objective when carrying out our licence application determination and no additional measures are required in the final licence. We have taken these factors into account as indicated in sections 6.1 and 6.5 above.

### **13.10. Regulations 3 and 33 Water Environment (Water Framework Directive) (England and Wales) Regulations 2017**

As required by regulations 3 and 33 of these Regulations, in reaching our decision we have exercised our water resources functions so as to secure compliance with the Water Framework Directive and we have had regard to the relevant river basin district river basin management plan which has been approved under regulation 31 of these Regulations. We are satisfied that in granting this licence there will be



no deterioration in the status of the waterbody and we will support the achievement of the objectives for the waterbody. We have taken these factors into account as indicated in section 6.0 above.

#### **13.11. Section 38(3)(b) Water Resources Act 1991**

We consider our duty to have regard to the applicant's requirements, in so far as they are reasonable, under section 38(3)(b) of the Water Resources Act 1991. We have taken these factors into account as indicated in sections 3.0 and 7.0 above.

#### **13.12. Environmental Impact Assessment Directive 2011/92/EU**

This Directive is implemented by the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. These Regulations apply to applications for planning consent made to a local planning authority; they do not apply to applications for a licence made to us under the Water Resources Act 1991.

#### **13.13. Section 108 Deregulation Act 2015 – Growth duty**

We considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this licence/these licences.

Paragraph 1.3 of the statutory guidance issued by the Department of Business, Energy and Industrial Strategy in March 2017 says:

*“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”*

We have addressed the legislative requirements and environmental standards to be set for this abstraction or impoundment in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this licence/these licences are reasonable and necessary to avoid a risk of unacceptable effects on the environment and the rights of other existing lawful water users. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

#### **13.14. Countryside and Rights of Way Act 2000**

Section 85 of this Act imposes a duty on the Environment Agency to have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty (AONB). We have had regard to these factors through the process of screening for features of conservation value as indicated in sections 6.1 and 6.6 above.

#### **13.15. National Parks and Access to the Countryside Act 1949**

Section 11A and section 5(1) imposes a duty on the Environment Agency when exercising its functions in relation to land in a National Park, to have regard to the purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the areas, and of promoting opportunities for the understanding and enjoyment of National Parks by the public. We have had regard to these features through the process of screening as indicated in section 6.1 and 6.5 above.

#### **13.16. Section 6(6) Environment Act 1995**

It is our duty to maintain, improve and develop salmon fisheries, trout fisheries, freshwater fisheries and eel fisheries.

Any licence we issue which affects surface waters will incorporate the appropriate eel, and/or fish passage arrangements; fish protection measures and appropriate flow constraints and we consider that this duty has been met. We have taken these measures as indicated in section 6.5 above.

### **14. Conclusion and recommendation**

#### **14.1. Conclusion**

Full and due consideration has been given to any comments and representations made, and due regard has been taken of protected rights and other lawful uses.

The conditions incorporated on the licence are considered to be necessary and reasonable in the light of the available and presented evidence. The conditions are also considered to be clear enough to be enforced by us and understood by the Licence Holder.

**14.2. Recommendations**

It is recommended that the application is approved and licence number TH/039/0018/017 should be issued with the conditions as drafted.

Conditions will be required in order to:

- Notify the Agency prior to, and post construction
- Maintain the downstream quantity and quality of flow during construction
- Provide an Engineers Report and as built drawings to confirm constructed as authorised
- Maintain the structure to prevent leakage and to be free of obstruction at all times.

**15. Authorisation**

The application was referred to Defra on xx/xx/xxxx. Defra replied by <<letter/email>> on xx/xx/xxxx to confirm they are not calling the application in for the Secretary of State to determine (see DMS).

Applicant: The Environment Agency		
Application Reference: NPS/WR/040734		
<b>Report by:</b> Gabrielle Pryor <b>Position:</b> Permitting officer  I have reviewed all permitting documents in line with appropriate regime-specific process and checklists and I hereby approve the proposed permit for issue.	<b>Date:</b> 18/06/2024	<b>Signed:</b>

<p><b>Peer Review (full) by:</b> Graham Melhuish</p> <p><b>Position:</b> Senior Permitting Officer</p> <p>I have reviewed the required permitting documents in line with appropriate regime-specific process and checklists and I hereby approve the proposed permit for issue.</p>	<p><b>Date:</b> 02/10/2024</p>	<p><b>Signed:</b> G.Melhuish</p>
<p><b>Authorised by:</b></p> <p><b>Position:</b> Permitting Team Leader</p>	<p><b>Date:</b></p>	<p><b>Signed:</b></p>

Advertising DRAFT

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**Water Resources  
LICENCE TO**

**IMPOUND**

**WATER**

Advertising DRAFT

Environment Act 1995  
Water Resources Act 1991 as amended by  
the Water Act 2003  
Water Resources (Abstraction and  
Impounding) Regulations 2006

# IMPORTANT NOTES

## Need for safekeeping

This licence is an important document. The permission or right to impound water may be valuable to your landholding. So -

- Keep the licence safe, preferably with your deeds etc.
- Read these notes and the licence conditions carefully to ensure you have a full understanding of its meaning.

This is to ensure that the permission and any rights granted by the licence continue if you need to pass it on to someone else.

The impounding works may also be conditional on, or otherwise involve, you entering into a related agreement with the Environment Agency. This may be registered and will bind you and any change in owner of your land. This licence and any such Agreement should therefore be disclosed on any change of title or occupation.

### If you want to:

- **revoke (cancel) the licence;**
- [notify us of the death or bankruptcy of the licence holder;](#)
- [vary \(change/amend\) the licence in any way](#)
- [change the owner of the licence](#) or
- [change your contact address \(but you continue to hold the licence\).](#)

You can find our forms on [GOV.UK](#) or alternatively contact us for advice on how to make any changes by calling our National Customer Centre on 03708 506 506

## Scope of this licence

This licence has effect only for the purposes of Part II of the Water Resources Act 1991 as amended by the Water Act 2003. In granting this licence, and in considering any drawings submitted, you should assume that the Environment Agency has taken into account only considerations relevant to the conservation and proper use of water resources in the area. Grant of this licence does not imply that the Environment Agency has approved the details of construction of the impounding works, including whether the proposed construction is adequate or safe. The licence holder is entirely responsible for ensuring compliance with all other requirements. Grant of this licence does not in any way suggest that these have been fulfilled.

## Changes to the impounding works or revocation of this licence

If you want to alter the impounding works and/or the way you operate them, you will need to vary the terms of the licence (and, if applicable, any related agreement). If you want to revoke this licence, you may be required to satisfy certain conditions that the Environment Agency may specify for the removal of the works.

Contact us for advice if you want to vary or revoke this licence by calling our National Customer Centre on 03708 506 506.

## Transfer of this licence

If you need to pass this licence to someone else, you must contact the Environment Agency and obtain the appropriate application forms. The licence holder remains responsible for compliance with the terms of the licence until it has been transferred.

## Death or bankruptcy of the licence holder

'Vesting' is the transfer of responsibility and ownership of a licence when an existing licence holder is no longer able to hold the licence either through death or bankruptcy.

If a licence has been 'vested' in you, as a result of the death or bankruptcy of the licence holder, please contact the Environment Agency in writing, telling us the licence number(s) and the date that the licence vested in you as a personal representative or trustee of the licence holder. This is necessary in order to enable you to subsequently transfer the licence.

You must notify us in writing within **15 months** of the date of vesting, being either death or bankruptcy of the licence holder giving the full names of all personal representatives or trustees and a contact address

## Other requirements for impoundments

Depending on circumstances, you may also have to comply with other legal requirements, i.e. apart from obtaining this licence, before carrying out or operating the impoundment. These may include:

- obtaining a [flood risk activities: environmental permit](#) (relating to structures on main rivers);
- obtaining consent under section 23 Land Drainage Act 1991 from the relevant internal drainage board or lead flood authority (relating to obstructions in watercourses);
- obtaining planning permission from your local [planning authority](#);
- complying with requirements of the Reservoirs Act 1975 (in relation to

safety of larger raised reservoirs). The Environment Agency became the regulatory body on 1 October 2004;

- obtaining consent from the owner of the other bank of the watercourse to the proposed impoundment;
- not contravening pollution control provisions of the Water Resources Act 1991, particularly in relation to allowing matter to be carried away in suspension when sluices etc. are opened;
- complying with the provisions of the Salmon and Freshwater Fisheries Act 1975 relating to the passage of fish.

Some of these matters are under the control of the Environment Agency, but for administrative and legal reasons are kept separate from the issue of this licence. If you require information or assistance about them, contact the Environment Agency, and you will be directed to the right person to help you.

For advice about planning permission contact your local planning authority.

## Offences

This impounding licence authorises you, the licence holder, to obstruct or impede the flow of a specified inland water at a specified point by means of impounding works.

"Impounding works" means either, any dam, weir or other works by which water may be impounded; or, any works for diverting the flow of waters in connection with the construction or alteration of such dam, weir or other works.

Under the Water Resources Act 1991 it is an offence to construct or alter, or cause or permit any other person to construct or alter, any impounding works in inland waters or cause or permit the flow of any inland waters to be impeded or obstructed at any point by means of impounding works unless:

- an impounding licence is in force;
- the flow of the inland waters is not obstructed or impeded except to the extent and in the manner authorised by a licence;
- any other requirements of the licence, whether as to provision of compensation water or otherwise, are complied with.

It may be an offence not to comply with the other legal requirements mentioned above. For details, check with the Environment Agency or the authority concerned.

## Right of appeal

If you are dissatisfied with our decision on your licence application, you have the right to appeal against our decision.

You should write to the Secretary of State for the Environment, Food and Rural Affairs, care of The Planning Inspectorate at:  
Environment Appeals  
The Planning Inspectorate  
3A Eagle Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol  
BS1 6PN

Alternatively you can obtain an online appeal form at:

<https://www.gov.uk/government/publications/water-abstraction-and-impoundment-appeal-form>

You must serve notice of appeal within 28 days of the date of receipt of this licence (although the Secretary of State has power to allow a longer period for serving notice of appeal). See [Water Resources Act 1991, section 43](#)

## Disclosure of Information

Details of this licence are placed on a register, kept by the Environment Agency and open for inspection by the public. The public may also obtain further details about it by virtue of the Environmental Information Regulations 2004, except in special cases (for advice please contact us at the address shown on the front page of the licence).

Members of the public are also entitled to ask us for other "environmental information" we hold, including any activities likely to affect "the state of any water" or any "activities or other measures designed to protect it". That would include the information additional to the licence document e.g. any related Agreement. In certain restricted circumstances it is possible to claim that information should be kept confidential. If you require more information about keeping this information off the public register because it is confidential, please contact us by writing to the address shown on the front page of the licence within 28 days of receiving this licence.

Licence Serial No:

TH/039/0018/017

Please quote the serial number in all correspondence about this licence



## LICENCE TO IMPOUND WATER

The Secretary of State for the Environment, Food and Rural Affairs is hereby deemed to grant a licence to:

Environment Agency ("the licence holder")

Horizon House  
Deanery Road  
Bristol  
BS1 5AH

This licence authorises the licence holder to obstruct or impede the flow of the inland water described in the schedule of conditions (to extent and manner authorised by those conditions) to this licence and subject to the provisions of that Schedule.

The licence commences from the effective date shown below.

**Signed**..... **Date of issue** ..... <day/month/year>

Deputy Director of Water Resources **Date effective** ..... <day/month/year>

Horizon House  
Deanery Road  
Bristol  
BS1 5AH

This licence should be kept safe and its existence disclosed on any sale of the land and the impounding works to which it relates.

Note: References to "the map" are to the map which forms part of this licence.  
References to "the Agency" are to the Environment Agency or any successor body.

---

Environment Act 1995  
Water Resources Act 1991 as amended by the Water Act 2003  
Water Resources (Abstraction and Impounding) Regulations 2006

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## SCHEDULE OF CONDITIONS

### 1. NAME AND DESCRIPTION OF INLAND WATER TO BE IMPOUNDED

- 1.1 Inland water known as the River Thames, at Benson Weir, Preston Crowmarsh, Wallingford, Oxfordshire.

### 2. POINT OF IMPOUNDMENT

- 2.1 Between National Grid References SU 61328 91220 and SU 61384 91171 marked 'A' and 'B', respectively on the map.

### 3. MANNER AND EXTENT OF IMPOUNDMENT

- 3.1 The impounding works at Point between Points 'A' and 'B' on the map shall consist of Weir A (true right bank) consisting of 2 small radial gates and 4 deep radial gates, Weir B (true left bank) consisting of 2 overfall sections either side of 8 small radial gates, a centrally located Hassinger Baffle Brush type fish and eel pass 25 metres long, 4.6 metres wide with a 1:12.5 gradient in two sections: a sub-divided baffle section of 1.4 metres wide containing 175 millimetre high baffles and 1.0 metre wide containing 125 millimetre high baffles with the baffle crests set level across the sections; and a brush section containing 500 millimetre high brush blocks with thin dividing 'switchback' walls, and an over-weir walkway and associated civils in accordance with drawings:

- Thames Weirs - Site GA - ENV0003198C-JAC-ZZ-00-DR-C-1005-Revision C03 dated 18/12/2023;
- Benson Weir - Seal and Compression Strip - ENV0003198C-JAC-ZZ-00-DR-C-1303 - Revision C04 dated 18/12/2023;
- Benson Weir - Hand Gate GA - ENV0003198C-JAC-ZZ-00-DR-C-1350 - Revision C04 dated 18/12/2023;
- Benson Weir Refurbishment - General Arrangement - ENV0003198C-JAC-SF-00-DR-C-1001 - Revision C04 dated 07/06/2023;
- Benson Weir Refurbishment - Fish Pass General Arrangement - ENV0003198C-JAC-SF-00-DR-C-1520 - Revision C04 dated 07/06/2023;
- Benson Weir Refurbishment - Fish Pass Long Sections Through Fish Pass (Brush & Baffles) - ENV0003198C-JAC-SF-00-DR-C-1513 - Revision C04 dated 06/07/2023;
- Benson Weir Refurbishment - Fish Pass Cross Section (Sheet 1 of 2) - ENV0003198C-JAC-SF-00-DR-C-1535 - Revision C05 dated 14/02/2024,
- Benson Weir Refurbishment - Fish Pass Cross Section (Sheet 2 of 2) - ENV0003198C-JAC-SF-00-DR-C-1536 - Revision C05 dated 14/02/2024
- Benson Weir Refurbishment - Fish Pass Cross Section (Sheet 3 of 3) - ENV0003198C-JAC-SF-00-DR-C-1537 - Revision C04 dated 14/02/2024;

which are appended to this licence, or such minor amendments to these documents that are accepted in writing by the Agency prior to the date of commencement of construction.

### 4. FURTHER CONDITIONS

- 4.1 The Licence Holder shall ensure that during construction and any subsequent maintenance of the works authorised by this licence that the flow in the lower



Thames is allowed to pass downstream unchanged in quantity and quality at all times

- 4.2 The Licence Holder shall notify the Agency in writing 14 calendar days inclusive before the commencement of construction of the works authorised by this licence.
- 4.3 (i) No water shall pass through the impounding structure until the Licence Holder has been granted approval by the Agency for installation at the weir of a fish pass and approval for installation of an eel/elver pass.
- (ii) The Licence Holder shall maintain, repair or replace the fish pass and eel pass and ensure that it remains free of obstruction in order that it is effective at all times
- (iii) The Licence Holder shall keep records of maintenance, repair or replacement of the fish pass and eel pass for 6 years and shall make them available during all reasonable hours for inspection by the Agency.
- 4.4 The Licence Holder shall give the Agency notice in writing of completion of the works authorised by this licence within 14 calendar days of completion.
- 4.5 The Licence Holder shall provide written confirmation (including drawing/s that clearly detail and show the impounding works as it has been built) to the Agency from an independent qualified civil engineer, or other suitably qualified person, that the impounding works has been constructed in accordance with the submitted specification and drawings specified in condition 3.1 of this licence (or such minor amendments to these documents that have been accepted in writing by the Agency).
- 4.6 The Licence Holder shall maintain such impounding works to prevent leakage and to be free from obstruction and remain effective at all times.
- 4.7 This licence shall cease to be of any effect if the impounding works authorised by it have not commenced by three years from Issue Date>.

## ADDITIONAL INFORMATION

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

### REASONS FOR CONDITIONS

To enable the Agency to carry out its functions under the Water Resources Act 1991 as amended.

The licence includes a 'self-destruct' condition in order to secure the proper use of water resources and to avoid commitment of water resources to an abstraction right which cannot be exercised.

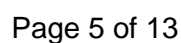
### IMPORTANT NOTES

#### Contact details

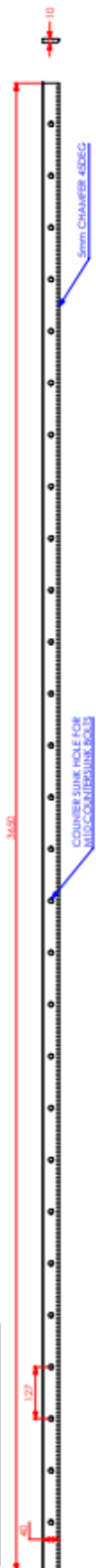
For the purpose of conditions 4.2, 4.4 and 4.5 the licence holder should contact Integrated Environmental Planning team by email sent to [IEPTHM@environment-agency.gov.uk](mailto:IEPTHM@environment-agency.gov.uk) including the licence number in any correspondence.

#### Eel Passes

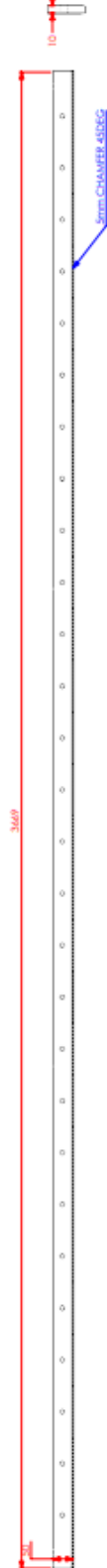
The Agency may have regard to its best practice guide, the Eel Manual: Elver & Eel Passes (or equivalent guidance) in agreeing where, how and what type of eel pass should be installed and together with the results of any monitoring in determining whether the eel pass is properly effective and maintained, and in judging whether it is necessary to require repair or replacement of the eel pass.



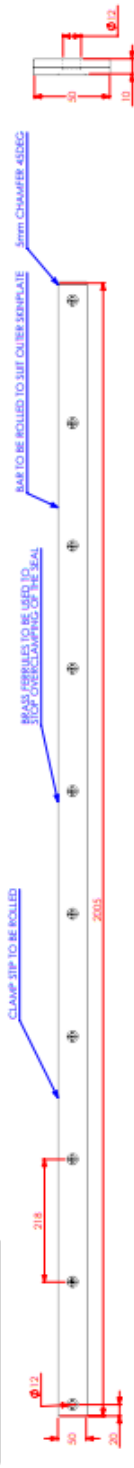
4 NO. BOTTOM CLAMP BAR - 304 STAINLESS STEEL



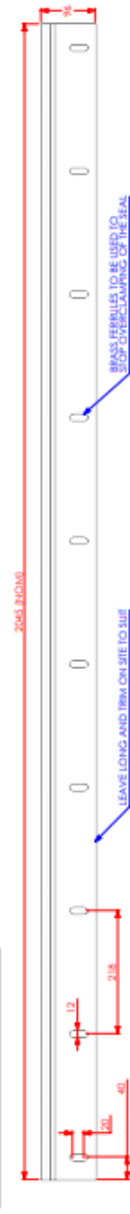
**4 NO. BOTTOM SEAL - 65 SHORE NEOPRENE**



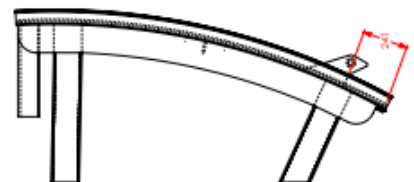
**8 NO. CLAMP SIDE BAR - 304 STAINLESS STEEL**



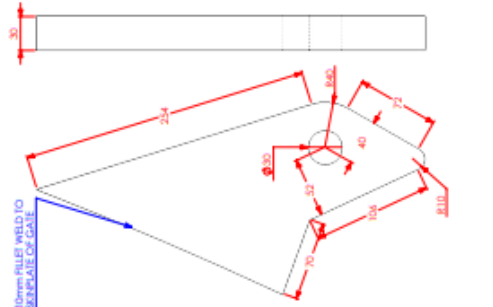
**8 NO. SIDE SEAL - NEROPHENE 45 SHORE HARDNESS**



### LIFTING PRE-LOCATION



### USING EYE DETAIL



- ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
- MANUFACTURE TO BS EN 1090 DISCUSSION CLASS 3, UNCE MARKED.
- ALL STRUCTURAL STEEL TO BE S355J0. ANCHORAGE STEEL TO BE S275 JR.
- ALL FILL WELDS TO BE CONTINUOUS ARM CRW OR TP WELD UNLESS OTHERWISE STATED.
- SUBMERGED COMPONENTS TO BE PAINTED TO CS-WH SPECIFICATION TO COLOUR RAL 7031.
- ALL DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

### THIRD ANGLE PROJECTION



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**FOR CONSTRUCTION**

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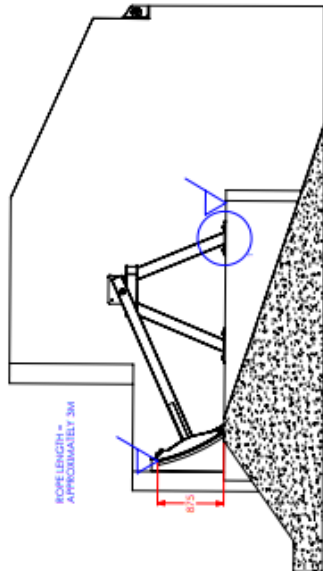
NAME	DATE
L. ROBERTS	18/12/2023
P. WARD	18/12/2023
S. TROW	18/12/2023

**DO NOT SCALE DRAWING**

[illegible]

**Jacobs**  
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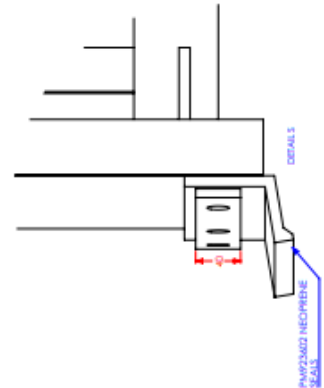
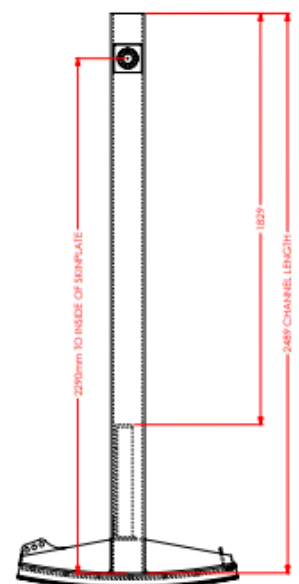
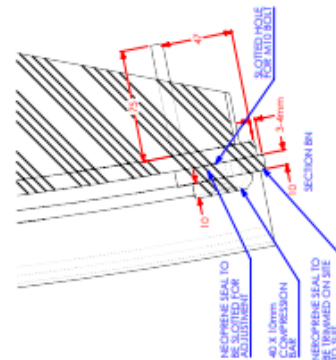
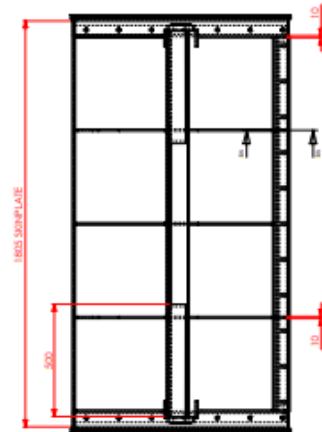
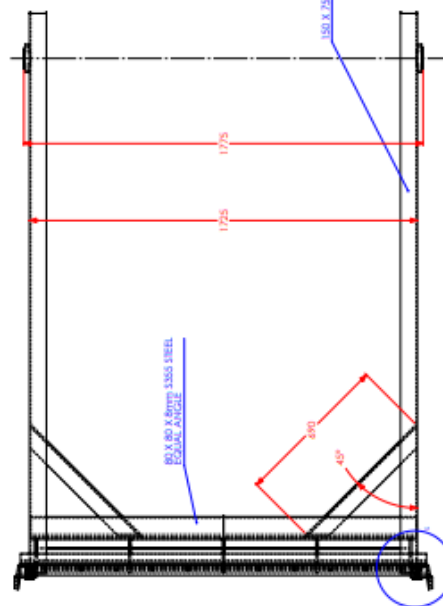
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BENSON WEBB							
PROJECT NAME							
MATCH DRAWING NO. 81-480-01-04-00							
SHEET No. 3 of 14							
SEAL AND COMPRESSION							
53MP							
REV No. C04							



[DETAIL T](#)



[DETAIL T](#)

[DETAILS](#)

- ALL DIMENSIONS ARE IN MM UNLESS STATED OTHERWISE.
- MANUFACTURERS TO BEH/ISO9000 CERTIFICATION CLASS 3, BRICA MARKED.
- ALL STRUCTURAL STEEL TO BE S355JO, ANGULAR STEEL TO BE S275 JO.
- ALL RILET WELDS TO BE CONTINUOUS UNLESS OTHERWISE STATED.
- DIMENSIONED COMPONENTS TO BE PAINTED TO CONFORM TO COLOUR RAL 7031.
- GALVANIZED PARTS E.G. HANDRAILS, HANDMADE POST AND RACK SYSTEMS TO BE HOT DIP GALVANIZED TO ISO 1461.
- ALL DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR.



MON

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**FOR CONSTRUCTION**

[illegible]

	NAME	DATE
DRAWN	L.ROBERTS	18/12/2000
CHECKED	P.WARD	18/12/2000
APPROVED	S.TROW	18/12/2000

**DO NOT SCALE DRAWING**

**DO NOT SCALE DRAWING**



PROCESSES AND PROCEDURES  
**WORLDWIDE MANAGEMENT SYSTEMS LTD.**  
 15110 42ND AVE. SUITE 100  
 VANCOUVER, BC V6V 2G6  
 TEL: 604 427 6266 FAX: 604 427 6267

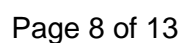
**Jacobs**  
www.jacobs-engineering.com

STATION	WORK PAGE	SURVEY CODE	LOG
ELEVATION SURFACE	B-200	6A1	5M

ENV0003198C-JAC-JZ-00-DIR-C-1350

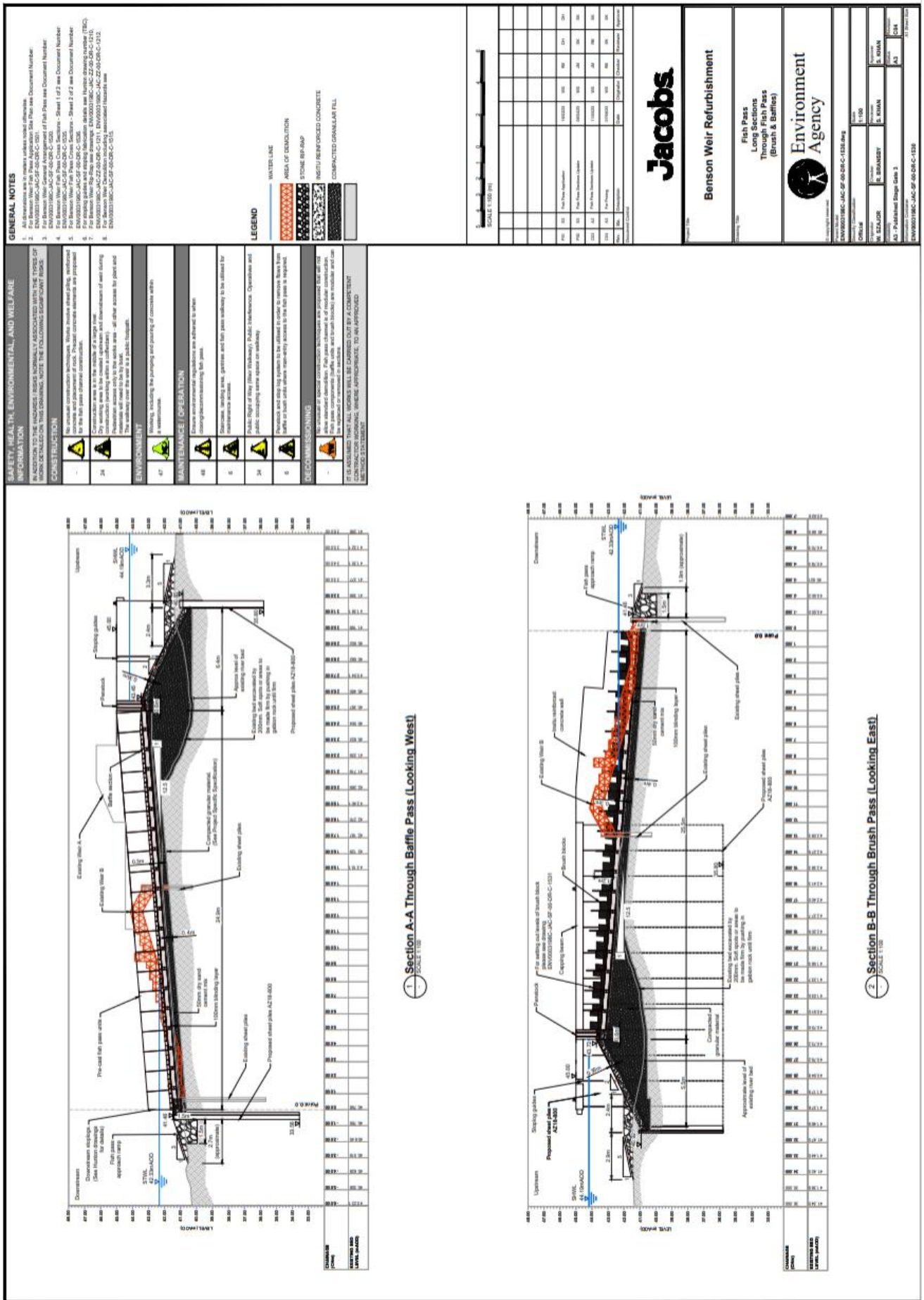
PROJECT NAME	BENSON WEIR	SHEET No.	5 of 5
DESIGN DRAWING No.	8148-BEN-DEA-00		

[illegible]













**LEGEND**

	IN SITU REINFORCED CONCRETE
	COMPACTED GRANULAR FILL
	PRECAST CONCRETE

SCALE 1:50 (m)

0 0.5 1 1.5 2 2.5

[illegible]

## SAFETY, HEALTH, ENVIRONMENTAL, AND WELFARE INFORMATION

**CONSTRUCTION**

## CONSTRUCTION

	-		-	<p>No unusual construction techniques. Work involves shovel piling, reinforced concrete and placement of rock. Precast concrete elements are prepared for the full pipe chamber construction.</p>
	34		-	<p>Construction area is in the middle of a large river.          Very wetting area to be created upstream and downstream of wet during the construction (working with a cofferdam).          Protection (working with a cofferdam).          The construction will need to be done in all other access for plant and materials must be used by the river.          This work must be done in a water body.</p>

## ENVIRONMENT

47		Working, including the pumping and pouring of concrete within a watercourse.
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## MAINTENANCE / OPERATION

48		Ensure environmental regulations are defined to when closing/decommissioning fish pass.
----	---	---

	Staircase, landing area, gate
--	-------------------------------

46		MAINTENANCE SCORES.
----	---	---------------------

34

Penstock and stop log system to be utilized in order to remove flows from baffle or bush units where man-entry access to the fish pass is required.

## RECOMMISSIONING

No unusual or special construction techniques are proposed that will not allow standard demolition. Fish pass channel is of modular construction.

IT IS ASSURED THAT ALL

CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD

DATA SOURCE:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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**Jacobs**

## Benson Weir Refurbishment

Fish Pass  
Cross Sections  
Sheet 1 of 3



Parent Number  
ENR0007198C-JAC-97-00-DRLC-1536.dwg

Security Classification

Official +20

Signature	Print Name	Applicant

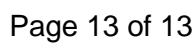
W. SZAJDOR	R. GRANSLEY	S. KHAN	S. KHAN
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Ad - Published Stage Gate 4

Information Contained	A1 B1

ENV3002186C-JAC-SF-00-DR-C-151E









0 500  
Metres



# **MAP ACCOMPANYING LICENCE NUMBER** **TH/039/0018/017**

Scale 1:10,000



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