

## Determination Report

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

As part of a river corridor improvement scheme, the Environment Agency is applying for a Transfer Licence at Blackwell Hatches, Salisbury River Park, Salisbury, Wiltshire to abstract water from the River Avon into the re-aligned Summerlock Stream to provide a flow for stream and wetland support, as required at times of low to medium flow in the Avon.

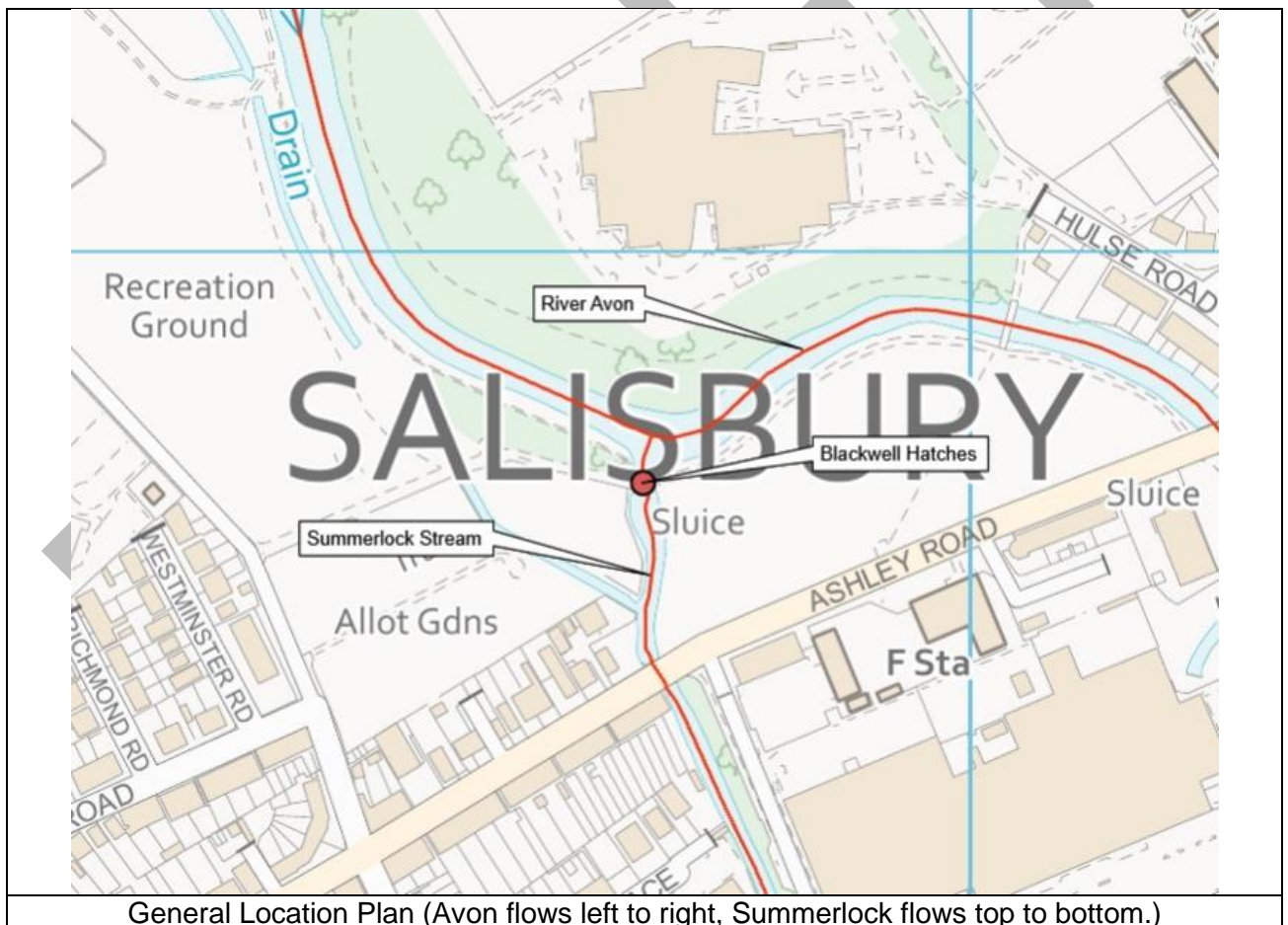
The application is necessary as part of a wider project, in partnership with Wiltshire Council, called the 'Salisbury River Park Phase 1 Scheme.' This scheme provides improvements to landscape, biodiversity and amenity in combination with flood risk reduction measures and will comprise the construction of flood defence embankments and walls, flood control measures, new bridges and culverts and river channel modifications to reduce flood risk to people and property in Salisbury. The design also incorporates improved recreational green space through biodiversity habitat enrichment, improved fish passage and enhanced, accessible routes for all groups of people, including pedestrians and cyclists.

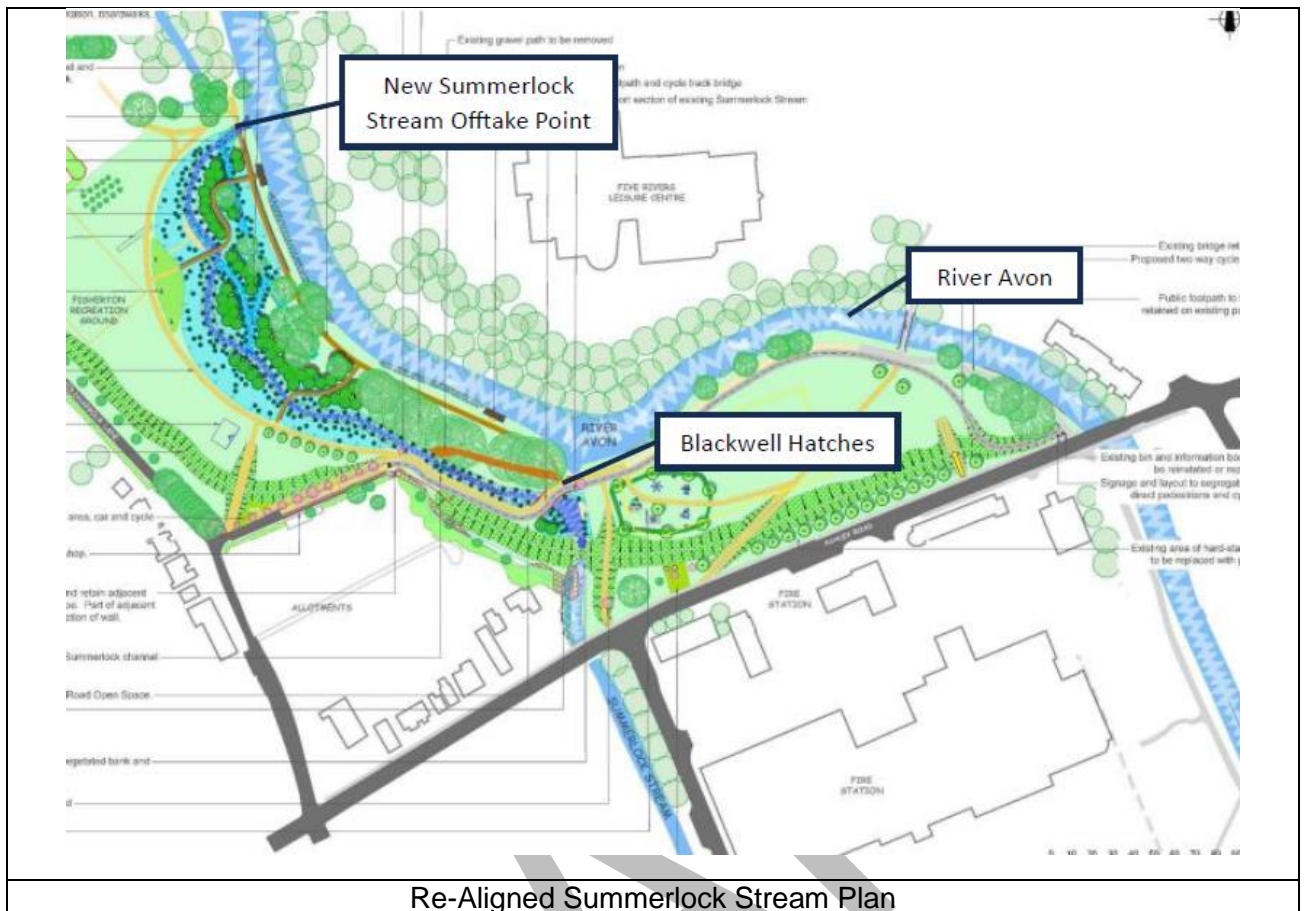
The original offtake of the Summerlock Stream from the River Avon is at Blackwell Hatches. The scheme includes the diversion and re-alignment of the Summerlock Stream, including moving the offtake approximately 250 metres upstream on the Avon. The 'new' offtake will connect to an existing ditch – as remodelled – to then flow parallel to the Avon through a newly created wetland, before rejoining with the existing Summerlock Stream approx. 30 metres downstream of Blackwell Hatches. The Summerlock Stream then flows

south for approx. 1,250 metres where it flows into the River Nadder, which almost immediately re-joins the River Avon (near Salisbury Cathedral.)

It is intended to keep Blackwell Hatches and their ability to abstract water from the Avon into the revised Summerlock Stream. Modelling has shown that at low to medium River Avon flows additional flow may need to be abstracted into the Summerlock Stream, downstream of the new wetland being created, to fully support its remaining habitats, species and amenity value. This Transfer Licence application has been submitted to authorise this abstraction at the existing Hatches' structure through two new pipes controlled by new penstock sluices.

Note: no Abstraction Licence is required for the new offtake of the Summerlock Stream as an entire (100%) diversion of a watercourse is not deemed 'abstraction.' (Other permissions are required and these are noted within section 7.10 of this Report.)





### 1.1. Details of proposal

Administrative details	
New licence number	SW/043/0021/030
Existing licence number	N/A
Application reference number	NPS/WR/037978
Applicant name and address	Environment Agency Horizon House Deanery Road Bristol BS1 5HA
Application contact details	Andy Wallis - Flood Risk Management Technical Advisor Dorset & Wiltshire Partnership & Strategic Overview Team
Hydrometric catchment Abstraction Licensing Strategy (ALS)	Avon Hants Upper C043021 Hampshire Avon ALS
Agency Area	Wessex

<b>Administrative details</b>	
Administratively complete date	28/09/22
Relevant date	28/09/22
Determination date	No statutory determination date for Environment Agency applications.
Agreed extended determination date	N/A
Applicant entitled to apply	Yes, the Applicant is entitled to apply
Supplementary reports	No supplementary reports were requested or submitted.

<b>Abstraction details</b>	
Location of abstraction	Salisbury River Park
Source of supply	River Avon
Point of abstraction	SU 13855 30897
Purpose of abstraction	Transfer for the purpose of stream and wetland support.
Period of abstraction	All year
Quantities and rates*	1,433 m <sup>3</sup> /hour. 34,387 m <sup>3</sup> /day. 10,469,952 m <sup>3</sup> /year.
Aggregate conditions	N/A
Means of abstraction	Two gravity feed pipes of an internal diameter not exceeding 750 mm controlled by penstocks.
Other details	Cill level of gravity feed pipes on River Avon side set to no lower than 46.550 mAOD. Point of return to Summerlock Stream – SU 13855 30885

\*Quantities and rates are included here for assessment purposes only, they are not required to be included in a Transfer Licence.

## 2. Case history

Nothing of relevance to document.

**3. Water Resources (Environmental Impact Assessment Regulations) 2003 as amended by the Water Resources (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2006**

We have confirmed that the proposal is not a “relevant project”, as defined by the Regulations. No environmental statement is therefore required to be submitted in respect of this application and project proposal.

**4. Justification of requirements**

The proposal is a small part of the wider 'Salisbury River Park Phase 1 Scheme.'

From Wiltshire Council's 'Salisbury Central Area Framework' page on their website ([Salisbury Central Area Framework - Wiltshire Council](#)) it summarises the Salisbury River Park Scheme as follows:

***Salisbury River Park***

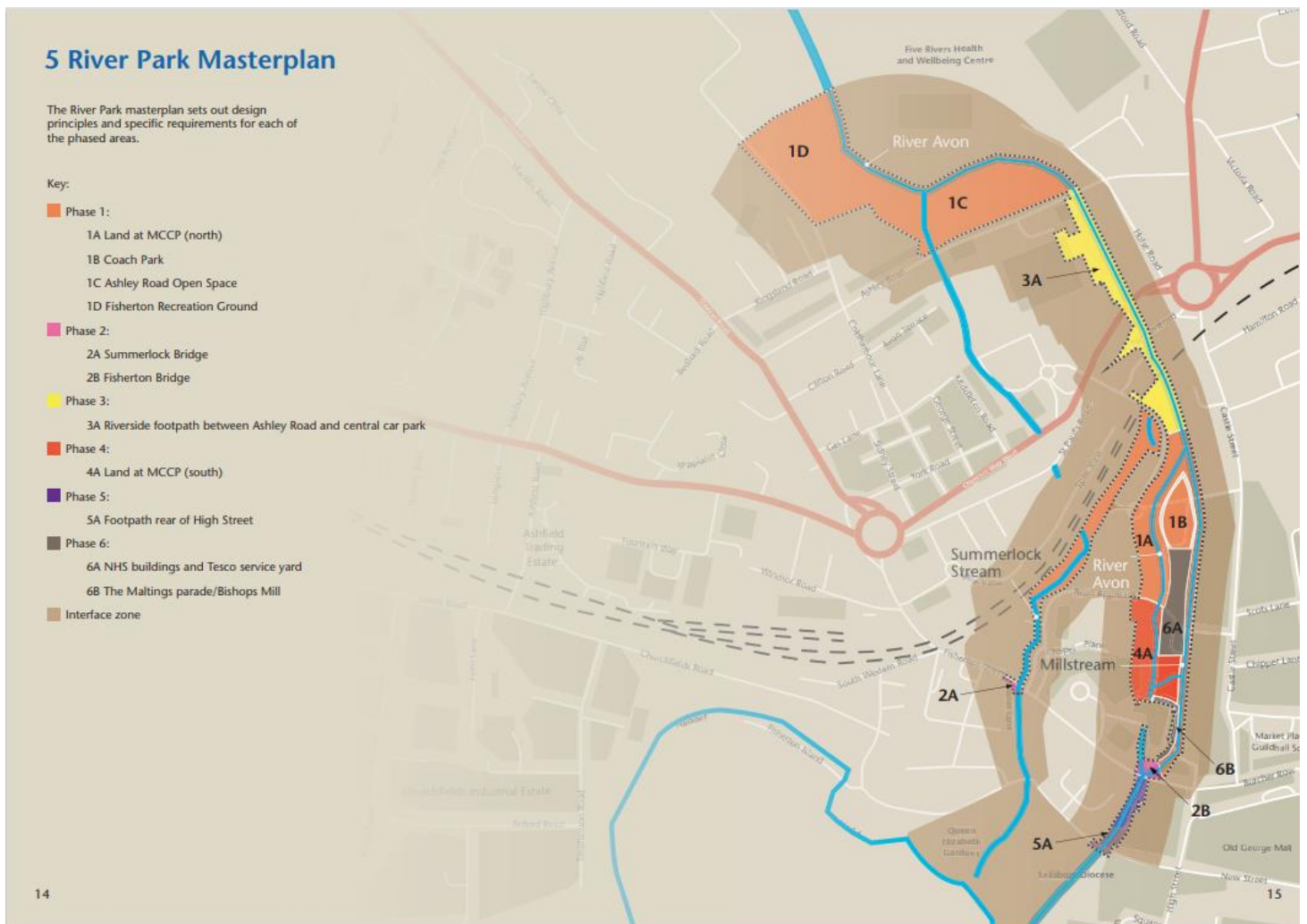
*The Salisbury River Park is the centrepiece of the Salisbury Central Area Framework and is a collaborative project between Wiltshire Council and the Environment Agency to reduce flood risk to various areas in the city, to provide environmental improvements and opportunities for biodiversity, to improve leisure and recreation and to support the regeneration of the Maltings and Central Car Park area. It will be transformational and provide a lasting legacy for future generations.*

*The Salisbury River Park will deliver a green infrastructure link through the centre of the city, incorporating the rivers that run through The Maltings and Central Car Park at its core, extending to the Ashley Road/Fisherton Recreation Ground to the north, and towards Elizabeth Gardens to the south.*

*The outcomes being sought through the delivery of the Salisbury River Park are:*

- To reduce flood risk on the Maltings and Central Car Park site and enable strategically important redevelopment of the central car park.*
- To reduce flood risk to existing residents and businesses in central Salisbury and the Ashley Road area.*
- To improve and enhance the internationally designated habitat and ecology of the River Avon watercourse and its margins.*
- To create new and improved spaces for public enjoyment of the river and dwell time in the city centre, in line with the endorsed Masterplan for the Maltings and Central Car Park.*
- To build climate change resilience, in response to the climate emergency.*

The entire Scheme is to be achieved in 6 phases as shown in the Salisbury River Park Masterplan, dated 14 July 2021 (from the above Wiltshire Council website link) below:



The Scheme is currently in Phase 1 with the current Summerlock Stream off-take from the River Avon shown between 1D and 1C. The re-aligned Summerlock Stream will take place in Phase 1 in the area marked 1D Fisherton Recreation Ground.

The Masterplan shows the works and benefits of 1C and 1D in the following diagram (Note: the indicative diagram shows an open, unhindered flow from the River Avon to the Summerlock Stream, but it will actually be blocked and contain the Blackwell Hatches pipes and penstocks as better indicated in the 'Re-Aligned Summerlock Stream Plan' shown in the section 1. Summary above):

### Phase 1C: Ashley Road Open Space and Phase 1D: Fisherton Recreation Ground

Phase 1C and 1D will deliver significant flood risk mitigation infrastructure and environmental improvements at Ashley Road Open Space and Fisherton Recreation Ground. Any works in proximity to service infrastructure is to be agreed with statutory service providers, such as Wessex Water.

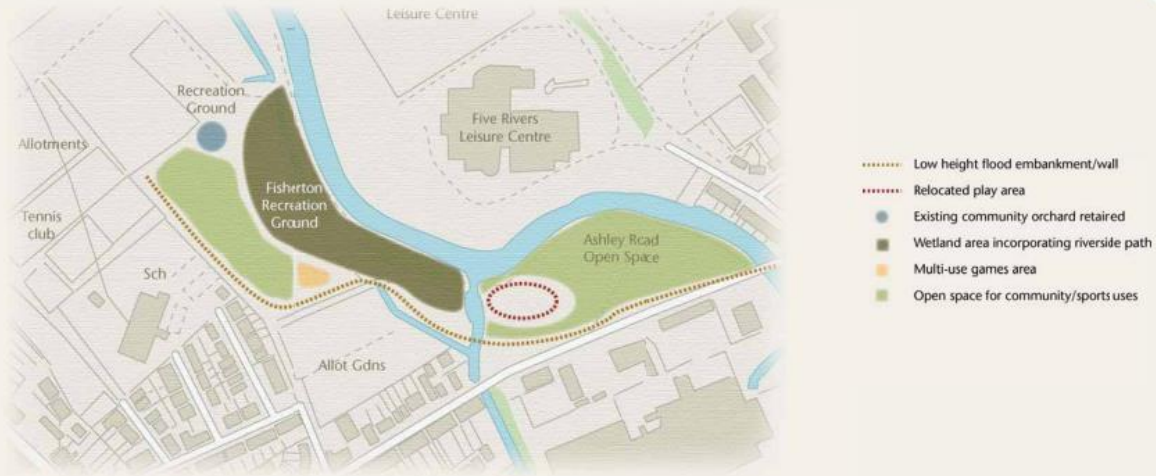
#### Phase 1C will deliver:

- flood alleviation infrastructure and improvements, including a low height flood embankment
- additional tree planting
- retention of open space for community/sports uses
- relocation and significant improvement of the existing play area

- improvements to the River Avon bank including enhanced river access.

#### Phase 1D will deliver:

- flood alleviation infrastructure and improvements, including a low height flood embankment and removal of existing sluice gate structure
- formation of new area of wet woodland
- enhancement of pedestrian and cycle routes through the area, with the potential to improve links to residential areas north of the city.



As stated in the diagram, the existing Blackwell Hatches sluices will be removed and this application proposes to replace them with two 750 millimetre internal diameter pipes controlled by penstocks to supply water to the Summerlock Stream, as required.

The design of the re-aligned Summerlock Stream - to be created in area 1D – to include a wetland habitat was modelled for the flow it will pass against that of the current flow in the Stream. Initially, modelling found that it would pass less flow than currently and the re-alignment was modified with a widened offtake from the River Avon and widened flow channel throughout up to the limit of that which would provide the intended wetland habitat. Modelling of the re-design still showed a lower flow than currently, partly through the low gradient, partly through the uptake of water and slowing of flow from the created wetland and caveated that the model has a greater range of ‘error’ at the lower flows being modelled (less than Q70 - the flow in cubic metres per second which was equalled or exceeded for 70% of the flow record.) At a Q70 flow in the River Avon, the model indicates a current flow to Summerlock Stream of 480 litres per second (l/s) against 350 l/s for the re-design, a deficit of 130 l/s.

To ensure that the remainder of the Summerlock Stream – the 1,250 metres from (nominally) Blackwell Hatches through to the River Nadder – receives the flow, including the flow velocity and water level, it and its incumbent habitat, species and amenity value

requires, the solution was to replace the existing Blackwell Hatches sluices with two 750 millimetre internal diameter pipes controlled by penstocks to supply water to the Summerlock Stream during low to medium flow scenarios. There is no intention (or need) to supply flow to the Stream at high and flood flows.

For assessment purposes, quantities were included with the application based on multiplying up the maximum flow that could pass through both pipes at a River Avon Q5 flow, which is 398 litres per second, giving 1,433 cubic metres per hour and 34,387 cubic metres per day. The annual of 10,469,952 cubic metres is based on multiplying up the Q50 maximum pipe flow of 332 l/s into a year of 365 days. These figures are deemed reasonable for assessment purposes (see section 7.2 below), reiterating that the proposal is only likely to use one pipe at any given time (on a duty/stand-by arrangement) to provide approx. 130 l/s at the low to medium flow range, being shut or otherwise throttled down at higher and flood flows. For information, 130 l/s per second represents 5.7% of the Q70 flow (2,270 l/s) of the River Avon.

On the basis that the proposed quantities are based on supporting the Summerlock Stream to its current extent to maintain its existing habitats and species, we consider the application justified.

#### **4.1. Water efficiency**

The proposal has been designed to provide the flow necessary to support the Summerlock Stream to its current extent to maintain its existing habitats and species. This will be achieved through a hard engineered structure consisting of two 750 millimetre internal diameter pipes controlled by penstocks set to a specified level to abstract from the River Avon, as required.

The original sluices at Blackwell Hatches provided the necessary flow to Summerlock Stream under a written Operation and Maintenance Manual and the operation and maintenance of the new system of pipes and penstocks will be incorporated into the same document for the same level of control.

And, as this is an application to transfer all the water from one source of supply (the River Avon) to another (the Summerlock Stream) without intervening use, it can be considered non-consumptive – no water is lost from the environment, and eventually this water flows back into the River Avon approx. 1,500 metres downstream.

On the basis that the proposal is, effectively, non-consumptive, has been designed and engineered to provide the flow necessary to support Summerlock Stream to its current



extent as operated and maintained under written instructions, we consider that the water will be use efficiently.

## 5. Advertising

Application was advertised	
Date when advertised	01/02/2024
Name of newspaper	Salisbury Journal
Representations were received and these are addressed in section 5.1. <0>	
No representations were received.	

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

Statutory Bodies	Date
Statutory Water Undertaker (SWU)	01/02/2024
Wessex Water Services Ltd	

### 5.1. Representations and decision document

<Choose between the below options and/or edit as needed.>

<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>>.>

## 6. External consultation

In accordance with our obligations, we have consulted the following bodies about the proposal:

Statutory Consultee	Date
National Park Authority (NPA)	N/A
Natural England (NE)	27/07/2023
NE have been sent an Appendix 4* and a Habitats Risk Assessment 1 (HRA 1) for information only. Please see section 7.6 for further information.	

<b>Statutory Consultee</b>	<b>Date</b>
Broads Authority (Anglian areas only)	N/A
Others, where relevant, e.g. IDB, Historic England, Local Authority	None

\*An Appendix 4 template was drafted when an Appendix 3 template is required for an Environment Agency application. But on the basis that the only difference is the Appendix 3 template contains a line to state the Agency Area applying (Wessex Area) and it was 'for information only' we have not transposed our assessment into an Appendix 3 template and resent it as a risk-based decision.

### **Technical assessment of the proposal**

#### **Licensing Strategy:**

The abstraction point is within the Salisbury – Avon AP5 in the Hampshire Avon Abstraction Licensing Strategy (ALS).

The water availability is as follows:

<b>Q Percentile</b>	<b>Water Resources availability colour</b>	<b>Water resource status</b>
Q30	Green	Water available
Q50	Green	Water available
Q70	Yellow	Restricted water available
Q95	Red	Water not available

#### **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 Hampshire Avon (Upper) downstream of Nine Mile River confluence, GB108043022352. It is not classed as an Artificial/Heavily Modified water body.

<b>Consideration</b>	<b>Status</b>		
	<b>Cycle 3 baseline status (2019)</b>	<b>Cycle 3 current status (2022)</b>	<b>Cycle 3 Objective</b>
Overall WB status	Moderate	Not assessed	Good by 2063

Consideration	Status		
	Cycle 3 baseline status (2019)	Cycle 3 current status (2022)	Cycle 3 Objective
Ecological status	Moderate (uncertain)	Moderate (quite certain)	Good by 2021
Fish	High	High	Good by 2015
Invertebrates	High	High	Good by 2015
Macrophytes and Phytobenthos Combined	Moderate (uncertain)	Moderate (quite certain)	Good by 2015
Hydrological regime	Supporting Good	Supporting Good	Supports Good by 2015
Morphology	-	-	-
Physico-chemical	Good	Good	Good by 2021
Chemical	Fail (very certain)	DNRA	Good by 2063

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

Macrophytes and Phytobenthos Combined element failing due to probable suspect data.

Mercury and its compounds and Polybrominated diphenyl ethers (PBDE) element failing, measures delivered to address reason, awaiting recovery.

We have considered the RFNAG of the affected waterbody (ies) and have no concerns about this application aggravating the cause(s) of failure.

#### 6.1. Designated and protected conservation sites and species

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
Special Areas of Conservation (SACs)	River Avon (OID:147985, 148776)	0.00km d/s from '1'
	The New Forest (OID:148828)	13.18km d/s from '1'
	Dorset Heaths (OID:148874)	33.64km d/s from '1'
Ramsar sites	The New Forest (OID:126930)	13.18km d/s from '1'
	Avon Valley (OID:126919, 126920)	18.61km d/s from '1'
	Dorset Heathlands (OID:127019)	33.64km d/s from '1'
Special Protection	The New Forest (OID:117690)	13.18km d/s from '1'

<b>Nearest conservation sites</b>		
<b>Designation type</b>	<b>Name of feature</b>	<b>Distance and direction from abstraction point '1'</b>
Areas (SPAs)	Avon Valley (OID:117679, 117680)	18.61km d/s from '1'
	Solent and Dorset Close (OID:117679, 117680)	28.77km d/s from '1'
	Dorset Heathlands (OID:117823)	33.64km d/s from '1'
Sites of Special Scientific Interest (SSSIs)	River Avon System (OID:744865, 744872)	0.00km d/d from '1'
	East Harnam Meadows (OID:740673)	1.94km d/s from '1'
	Britford Water Meadows (OID:739467)	3.94km d/s from '1'
	The New Forest (OID:747333)	12.91km d/s from '1'
	Avon Valley (Bickton to Christchurch) (OID:745756, 745757, 745764)	18.61km d/s from '1'
	Town Harbour (OID:747788)	33.64km d/s from '1'
	Christchurch Harbour (OID:744918)	38.49km d/s from '1'
National Nature Reserves (NNRs)	None	---
Local Nature Reserves (LNRs)	Avon Valley (OID:196838)	0.00km d/s from '1'
	Stanpit Marsh, Christchurch (OID:198835)	38.49km d/s from '1'
	Hengistbury Head (OID:197755)	38.69km d/s from '1'
Ancient Woodland	None	---
Scheduled Ancient Monuments (SAMs)	None	---
Restoring Sustainable Abstraction (RSA) Programmes	Barford Fish Farm (OID:2951, 2952, 2953)	8.41km d/s from '1'
	Hampshire Avon SAC (OID:2955, 2956, 2957, 2958)	17.87km d/s from '1'
Local Wildlife Sites (LWSs)	Avon Valley Meadows (OID:271566)	0.01km d/s from '1'
	River Avon South (OID:271518)	0.27km d/s from '1'
World Heritage Site	None	
Current Protected Wetland Sites	River Avon System (OID:6555, 6878, 7075)	0.00km d/s from '1'
Current Wetland Sites	Current wetlands (OID:9367, 9639)	0.00km d/s from '1'

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
Protected Species	European Eel Migratory Route (OID:3925789)	0.00km d/s from '1'
	Atlantic Salmon Migratory Route (OID:3925526)	0.00km d/s from '1'
	River Lamprey Migratory Route (OID:3926334)	0.00km d/s from '1'
	European Water Vole (OID:3839834, 3839982, 3840140, 3840670, 3840794, 3840933, 3841018, 3841026, 3841027, 3841060, 3841083, 3841084, 3841085, 3841088, 3841089, 3841090, 3841116, 3841126, 3841128, 3841162, 3841193, 3841206, 3841207, 3841208, 3841209, 3841210, 3841211, 3841236, 3841237, 3841238, 3841239, 3841279, 3841282, 3841283, 3841285, 3841297, 3841298, 3841299, 3841300, 3841301, 3841302, 3841303, 3841304, 3841305, 3841306, 3841307, 3841308, 3841309, 3841335, 3841371, 3841372, 3841373, 3841374, 3841388, 3841449, 3841450, 3841455, 3841456, 3841457, 3841521, 3841562, 3841762, 3841763, 3841820, 3841824, 3841825, 3841838, 3841941, 3841942, 3841946, 3841947, 3841948, 3841949, 3841950, 3841972, 3841983, 3842008, 3842009, 3842010, 3842011, 3842012, 3842014, 3842015, 3842016, 3842017, 3842018, 3842020, 3842021, 3842022, 3842023, 3842103, 3842181, 3842184, 3842187, 3842322, 3842323, 3842335, 3842414, 3842420, 3842423, 3842523, 3842529, 3842603, 3842682, 3842683, 3842684, 3842685, 3842703, 3842743, 3842744, 3842745, 3842747, 3842749, 3842750, 3842751, 3842752, 3842753, 3842754, 3842755, 3842756, 3842757, 3842758, 3842848, 3842995, 3842997, 3843058, 3843060, 3843061, 3843134, 3843135, 3843136, 3843137, 3843138, 3843139, 3843145, 3843192, 3843253, 3843259, 3843271, 3848003, 3848282, 3848284, 3848287, 3848294, 3848585, 3848586, 3848587, 3848588, 3848589, 3848590, 3848591, 3848593, 3848594, 3848595, 3848596, 3848597, 3848598, 3848599, 3848601, 3848602, 3848612,	0.04km d/s from '1'

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3848877, 3848878, 3848879, 3848986, 3848987, 3848988, 3849265, 3849551, 3849552, 3850047, 3850344, 3850345, 3851056, 3851057, 3851065, 3851070, 3851256, 3851361, 3851362, 3851370, 3851549, 3851633, 3851635, 3851656, 3851657, 3851658, 3851659, 3851660, 3851667, 3851668, 3851671, 3918694, 3918708, 3920597, 3923188, 3923509, 3924796, 3925658, 3925852, 3925880, 3926045, 3926871, 3927027, 3927091, 3928245, 3930243, 3936994, 3937205, 3938091, 3938584, 3939805, 4063431, 4063435, 4063677, 4063944, 4063946, 4067467, 4068888, 4069156, 4075845, 4076025, 4076318, 4076436, 4076910, 4077173, 4078341, 4080157)	
	European Eel (OID:3778720, 3956016, 3968222, 3968557, 3968562, 3968895, 3968901, 3969235, 3969246, 3969247, 3969250, 3969908, 3969911, 3969916, 3973274, 3973280, 3973549, 3973685, 3973872, 3974468, 3975022, 3975216, 3976608, 3976736, 3977300, 3977507, 4011473, 4011474, 4011475, 4011476, 4011758, 4011759, 4011761, 4011763, 4011764, 4011765, 4011766, 4011767, 4011768, 4011769, 4012056, 4012057, 4012343, 4024877, 4024878, 4024879, 4025154, 4025155, 4025165, 4025166, 4025443, 4025444, 4025445, 4025447, 4025448, 4025449, 4025455, 4025456, 4025738, 4025741, 4025748, 4026029, 4026030, 4026033, 4026034, 4026036, 4026037, 4026039, 4026316, 4026317, 4026322, 4026609, 4026616, 4026617, 4026894, 4026895, 4026896, 4026897, 4073122, 4073123, 4073127, 4074572, 4074573)	0.10km d/s from '1'
	Bullhead (OID:3774178, 3774180, 3774183, 3774184, 3774250, 3774251, 3774418, 3960683, 3968634, 3968704, 3972610, 3972659, 3972943, 3976525, 3976534, 3978062, 3985031, 3985035, 3987545, 4005584, 4005881, 4006250, 4006251, 4006488, 4006544, 4006545, 4006546, 4006553, 4006554, 4006555, 4006556, 4006557, 4006558, 4006559,	0.10km d/s from '1'

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	4006560, 4006561, 4006861, 4006862, 4006872, 4007116, 4007167, 4007176, 4007181, 4007482, 4007483, 4007484, 4007487, 4007488, 4007489, 4007780, 4007781, 4007796, 4008047, 4008104, 4008357, 4008714, 4008715, 4008721, 4008722, 4008723, 4008724, 4008727, 4008728, 4008969, 4008979, 4009018, 4009019, 4009280, 4009580)	
	Atlantic Salmon (OID:3954474, 3955900, 3956045, 3956120, 3956357, 3956364, 3956654, 3956711, 3956712, 3956731, 3956732, 3956735, 3956737, 3956738, 3956739, 3956740, 3956741, 3956742, 3956743, 3956744, 3956745, 3956746, 3956747, 3956748, 3956750, 3956751, 3956753, 3956754, 3956755, 3956757, 3956758, 3956760, 3956761, 3956762, 3956763, 3956764, 3956765, 3956766, 3956767, 3956768, 3956769, 3956770, 3956810, 3956811, 3956812, 3956813, 3956814, 3956815, 3956816, 3956817, 3956819, 3956821, 3956822, 3956823, 3956824, 3956825, 3956826, 3956830, 3956831, 3956832, 3956833, 3956834, 3956836, 3956837, 3956838, 3956839, 3956841, 3956842, 3956843, 3956875, 3956876, 3956878, 3956879, 3956880, 3956881, 3956882, 3956884, 3956885, 3956886, 3956887, 3956888, 3956889, 3956890, 3956892, 3956893, 3956896, 3956897, 3956898, 3956899, 3956901, 3956902, 3956903, 3956904, 3956905, 3956906, 3956907, 3956910, 3956914, 3956915, 3956916, 3956917, 3956918, 3956922, 3956923, 3956924, 3956925, 3956927, 3956929, 3956951, 3956952, 3956953, 3956954, 3956955, 3956959, 3956960, 3956966, 3956968, 3956971, 3956972, 3956974, 3956976, 3956978, 3956980, 3956981, 3956982, 3956983, 3956987, 3956988, 3956989, 3956994, 3956995, 3956996, 3956997, 3957003, 3957004, 3957005, 3957006, 3957007, 3957008, 3957009, 3957010, 3957032, 3957033, 3957034, 3957035, 3957036, 3957037, 3957038, 3957039, 3957040, 3957044, 3957047, 3957049,	0.10km d/s from '1'

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3957050, 3957055, 3957056, 3957057, 3957058, 3957059, 3957060, 3957063, 3957064, 3957065, 3957066, 3957067, 3957068, 3957069, 3957074, 3957080, 3957082, 3957083, 3957084, 3957085, 3957086, 3957087, 3957088, 3957090, 3957112, 3957114, 3957115, 3957116, 3957117, 3957119, 3957120, 3957121, 3957122, 3957124, 3957125, 3957127, 3957128, 3957129, 3957130, 3957131, 3957132, 3957133, 3957134, 3957135, 3957136, 3957140, 3957141, 3957143, 3957144, 3957145, 3957146, 3957149, 3957150, 3957191, 3957193, 3957195, 3957196, 3957197, 3957198, 3957199, 3957204, 3957205, 3957206, 3957207, 3957208, 3957211, 3957212, 3957213, 3957217, 3957218, 3957219, 3957221, 3957222, 3957223, 3957224, 3957225, 3957226, 3957227, 3957230, 3957273, 3957274, 3957275, 3957276, 3957277, 3957279, 3957281, 3957282, 3957283, 3957285, 3957286, 3957287, 3957289, 3957292, 3957297, 3957299, 3957300, 3957301, 3957305, 3957307, 3957308, 3957309, 3957310, 3957351, 3957353, 3957354, 3957357, 3957358, 3957359, 3957360, 3957361, 3957362, 3957363, 3957364, 3957366, 3957368, 3957370, 3957371, 3957372, 3957374, 3957377, 3957378, 3957379, 3957381, 3957382, 3957383, 3957384, 3957385, 3957386, 3957387, 3957388, 3957389, 3957390, 3957431, 3957435, 3957436, 3957437, 3957438, 3957439, 3957441, 3957442, 3957443, 3957444, 3957445, 3957447, 3957448, 3957449, 3957450, 3957458, 3957459, 3957460, 3957461, 3957462, 3957463, 3957465, 3957466, 3957467, 3957468, 3957469, 3957470, 3957511, 3957512, 3957513, 3957514, 3957515, 3957516, 3957518, 3957519, 3957520, 3957521, 3957524, 3957525, 3957526, 3957530, 3957532, 3957533, 3957534, 3957535, 3957541, 3957542, 3957543, 3957544, 3957545, 3957546, 3957548, 3957549, 3957591, 3957592, 3957593, 3957594, 3957595, 3957596, 3957597, 3957601, 3957602, 3957603, 3957604,	



Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3957605, 3957607, 3957611, 3957612, 3957616, 3957618, 3957619, 3957620, 3957621, 3957622, 3957625, 3957626, 3957627, 3957628, 3957629, 3957671, 3957672, 3957673, 3957674, 3957675, 3957676, 3957677, 3957678, 3957680, 3957681, 3957682, 3957683, 3957684, 3957690, 3957700, 3957701, 3957702, 3957703, 3957704, 3957706, 3957707, 3957708, 3957751, 3957752, 3957753, 3957754, 3957755, 3957756, 3957757, 3957758, 3957759, 3957760, 3957761, 3957762, 3957768, 3957770, 3957775, 3957776, 3957777, 3957778, 3957779, 3957780, 3957781, 3957788, 3957789, 3957831, 3957832, 3957833, 3957834, 3957835, 3957837, 3957838, 3957839, 3957840, 3957841, 3957842, 3957843, 3957845, 3957847, 3957848, 3957849, 3957851, 3957853, 3957854, 3957857, 3957859, 3957860, 3957863, 3957870, 3957914, 3957915, 3957916, 3957917, 3957920, 3957921, 3957922, 3957923, 3957924, 3957927, 3957928, 3957929, 3957930, 3957931, 3957932, 3957933, 3957937, 3957938, 3957939, 3957940, 3957941, 3957942, 3957943, 3957948, 3957949, 3957950, 3957975, 3957978, 3957980, 3957985, 3957986, 3957987, 3957988, 3957989, 3957990, 3963242, 3963244, 3963245, 3963246, 3963247, 3963248, 3963250, 3963251, 3963262, 3963267, 3963268, 3963269, 3963270, 3963271, 3963272, 3963273, 3963274, 3963275, 3963280, 3963285, 3963286, 3963288, 3963289, 3963290, 3963291, 3963292, 3963293, 3963294, 3963295, 3963297, 3963298, 3963299, 3963303, 3963304, 3963305, 3963306, 3963308, 3963526, 3963528, 3963529, 3963530, 3963531, 3963532, 3963533, 3963534, 3963535, 3963538, 3963539, 3963540, 3963541, 3963542, 3963543, 3963544, 3963557, 3963558, 3963559, 3963563, 3963566, 3963567, 3963568, 3963570, 3963571, 3963572, 3963573, 3963574, 3963575, 3963576, 3963577, 3963578, 3963583, 3963584, 3963586, 3963587, 3963588, 3963589, 3963590, 3963591,	

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3963592, 3963597, 3963598, 3963599, 3963600, 3963601, 3963602, 3963603, 3963825, 3963842, 3963843, 3963844, 3963855, 3963856, 3963857, 3963859, 3963860, 3963861, 3963864, 3963865, 3963866, 3963867, 3963868, 3963870, 3963871, 3963875, 3963876, 3963877, 3963883, 3963884, 3963885, 3963886, 3963887, 3963899, 3963900, 3963906, 3963907, 3963908, 3963911, 3963912, 3963913, 3963914, 3963917, 3963919, 3963920, 3963921, 3963924, 3964132, 3964136, 3964137, 3964138, 3964144, 3964145, 3964146, 3964147, 3964148, 3964149, 3964151, 3964152, 3964153, 3964154, 3964156, 3964161, 3964162, 3964169, 3964170, 3964171, 3964174, 3964177, 3964178, 3964179, 3964181, 3964184, 3964185, 3964186, 3964188, 3964193, 3964194, 3964196, 3964197, 3964201, 3964202, 3964203, 3964204, 3964205, 3964208, 3964438, 3964439, 3964440, 3964444, 3964450, 3964451, 3964452, 3964453, 3964455, 3964459, 3964460, 3964461, 3964462, 3964463, 3964468, 3964470, 3964471, 3964472, 3964473, 3964476, 3964483, 3964484, 3964485, 3964486, 3964487, 3964488, 3964490, 3964491, 3964492, 3964494, 3964495, 3964499, 3964500, 3964508, 3964509, 3964510, 3964743, 3964745, 3964746, 3964747, 3964749, 3964750, 3964751, 3964752, 3964753, 3964754, 3964755, 3964756, 3964757, 3964767, 3964768, 3964780, 3964781, 3964790, 3964791, 3964792, 3964793, 3964796, 3964797, 3964801, 3964805, 3964806, 3964807, 3964808, 3964817, 3964818, 3964819, 3964937, 3964946, 3965052, 3965053, 3965054, 3965055, 3965056, 3965057, 3965061, 3965062, 3965063, 3965064, 3965071, 3965072, 3965073, 3965074, 3965075, 3965076, 3965086, 3965101, 3965103, 3965104, 3965105, 3965106, 3965117, 3965118, 3965119, 3965120, 3965121, 3965124, 3965351, 3965352, 3965357, 3965358, 3965360, 3965361, 3965362, 3965364, 3965365, 3965366, 3965367, 3965368, 3965369,	

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3965370, 3965376, 3965377, 3965378, 3965379, 3965380, 3965389, 3965390, 3965394, 3965395, 3965396, 3965405, 3965406, 3965410, 3965411, 3965415, 3965422, 3965657, 3965658, 3965659, 3965660, 3965661, 3965662, 3965663, 3965664, 3965665, 3965666, 3965667, 3965670, 3965671, 3965672, 3965673, 3965674, 3965675, 3965677, 3965678, 3965679, 3965680, 3965700, 3965701, 3965703, 3965711, 3965712, 3965713, 3965714, 3965722, 3965723, 3965724, 3965725, 3965726, 3965733, 3965734, 3965735, 3965736, 3965963, 3965966, 3965970, 3965972, 3965973, 3965974, 3965975, 3965976, 3965977, 3965978, 3965979, 3965982, 3965992, 3965993, 3965994, 3965995, 3965997, 3965998, 3965999, 3966000, 3966008, 3966009, 3966010, 3966011, 3966012, 3966013, 3966020, 3966021, 3966022, 3966023, 3966024, 3966028, 3966029, 3966030, 3966031, 3966032, 3966033, 3966034, 3966035, 3966036, 3966038, 3966039, 3966040, 3966041, 3966042, 3966155, 3966272, 3966278, 3966283, 3966284, 3966285, 3966291, 3966295, 3966296, 3966297, 3966298, 3966299, 3966300, 3966301, 3966302, 3966303, 3966305, 3966306, 3966311, 3966312, 3966313, 3966314, 3966315, 3966316, 3966323, 3966327, 3966328, 3966331, 3966332, 3966333, 3966344, 3966346, 3966347, 3966348, 3966350, 3966584, 3966586, 3966587, 3966593, 3966594, 3966595, 3966596, 3966597, 3966598, 3966602, 3966603, 3966604, 3966605, 3966606, 3966607, 3966613, 3966614, 3966615, 3966629, 3966630, 3966639, 3966640, 3966693, 3966780, 3966884, 3966885, 3966886, 3966888, 3966890, 3966891, 3966892, 3966893, 3966894, 3966895, 3966896, 3966897, 3966898, 3966899, 3966900, 3966901, 3966902, 3966903, 3966910, 3966911, 3966913, 3966914, 3966915, 3966916, 3966924, 3966925, 3966926, 3966930, 3966931, 3966947, 3966963, 3967185, 3967187, 3967188, 3967192, 3967193, 3967194, 3967196,	

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3967198, 3967204, 3967210, 3967211, 3967219, 3967221, 3967225, 3967226, 3967227, 3967228, 3967229, 3967231, 3967233, 3967236, 3967237, 3967238, 3967242, 3967243, 3967244, 3967245, 3967246, 3967247, 3967485, 3967487, 3967488, 3967489, 3967491, 3967492, 3967504, 3967506, 3967507, 3967510, 3967511, 3967514, 3967515, 3967516, 3967517, 3967518, 3967519, 3967523, 3967524, 3967525, 3967526, 3967527, 3967528, 3967532, 3967535, 3967536, 3967542, 3967543, 3967550, 3967551, 3967552, 3967553, 3967557, 3967558, 3967784, 3967785, 3967786, 3967787, 3967788, 3967789, 3967799, 3967800, 3967801, 3967802, 3967803, 3967804, 3967805, 3967806, 3967807, 3967809, 3967812, 3967815, 3967818, 3967819, 3967820, 3967828, 3967829, 3967830, 3967831, 3967832, 3967833, 3967856, 3967857, 3967858, 3967859, 3967860, 3967861, 3967862, 3968217, 3968535, 3971914, 3972262, 3972924, 3972933, 3978373, 3978374, 3978375, 3978376, 3978378, 3978379, 3978380, 3978381, 3978382, 3978653, 3978654, 3978658, 3978918, 3978920, 3978921, 3978922, 3978923, 3978924, 3978925, 3978926, 3978927, 3978928, 3978929, 3978930, 3978931, 3978932, 3978933, 3978934, 3979194, 3979195, 3979202, 3979206, 3979471, 3979476, 3979478, 3979753, 3979754, 3979755, 3979756, 3979757, 3979758, 3979759, 3979760, 3979761, 3979762, 3980311, 3980586, 3980865, 3981126, 3981129, 3981130, 3981131, 3981132, 3981135, 3981136, 3981137, 3981138)	
	Brook Lamprey (OID:3956697, 3970194, 3971892, 3971904, 3983715, 3993193, 3993194, 3993197, 3993201, 3993202, 3993203, 3993487, 3993488, 3993494, 3993495)	0.10km d/s from '1'
	Brown/Sea Trout (OID:3774092, 3775119, 3775212, 3959276, 3960113, 3960206, 3960848, 3968214, 3968546, 3968882, 3968885, 3969558, 3970224,	0.10km d/s from '1'

Nearest conservation sites		
Designation type	Name of feature	Distance and direction from abstraction point '1'
	3970226, 3992734, 3992735, 3992740, 3992741, 3992742, 3993029, 3993030, 3993031, 3993032, 3993034, 3993035, 3993036, 3993037, 3993038, 3993334, 3993335, 3993629, 3993636, 3993927, 3993932, 3993934, 3994232, 3994233, 3994234, 3994237, 3994238, 3994239, 3994240, 3994241, 3994523, 3995432, 3996032, 3996033, 3996321, 3996322, 3996323, 3996326, 3996327, 3996328, 3997213, 3997214, 3997215, 3997216, 3997218, 3997219, 3997220, 3997221, 3997222)	
	White-clawed Freshwater Crayfish (OID:3846677, 4058107, 4058639, 4058642)	0.61km d/s from '1'
	Unidentified Lamprey (OID:4020152, 4020153, 4020154, 4020155, 4020438, 4020529, 4023704, 4023705, 4023850, 4023858, 4024174, 4024182, 4024183, 4024186)	0.67km d/s from '1'
	Spined Loach (OID:4033817)	0.73km d/s from '1'
	Desmoulin's Whorl Snail (OID:3838748, 3838889, 3838891, 3838892, 3838894, 3838947, 3840189, 3840191, 3927052, 4030622, 4032554, 4033166, 4036286, 4036570, 4036839, 4054908, 4054912, 4058265, 4058266, 4077298)	0.97km d/s from '1'
	Tubular Water-dropwort (OID:3847159, 3918726, 3923266, 3923270, 3923330, 3924130, 3925674, 3925813, 3925946, 3926249, 3926258, 3926343, 3926501, 3927328, 3927338, 3928781, 3929209, 3929302, 3930007, 3930227, 3937517)	1.27km d/s from '1'
	River Lamprey (OID:3952709, 3953292, 3954161, 4023736)	4.46km d/s from '1'
	Fine-lined Pea Mussel (OID:4058402, 4076635)	5.83km d/s from '1'
	Southern Damselfly (OID:4049947)	31.92km d/s from '1'
	code 2 (OID:4073343)	32.94km d/s from '1'
	Sand Lizard (OID:3914911, 3915744, 3915746, 3915747, 3915748, 3915749, 3915750, 3915751)	33.62km d/s from '1'

<b>Nearest conservation sites</b>		
<b>Designation type</b>	<b>Name of feature</b>	<b>Distance and direction from abstraction point '1'</b>
	Sea Lamprey migratory route (OID:3927154)	36.87km d/s from '1'
Protected Habitats	Deciduous Woodland (OID:3331057, 3369342, 3456137, 3840987)	0.00km d/s from '1'
	Chalk Rivers (OID:3356912, 3976161)	0.00km d/s from '1'
	Lowland Meadows (OID:3636414)	1.07km d/s from '1'
	Coastal and Floodplain Grazing Marsh (OID:3456448)	1.07km d/s from '1'

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 WRST results and table above have been considered within this determination. Where there was a risk of impact, we have discussed this in sections 7.2 to 7.7.

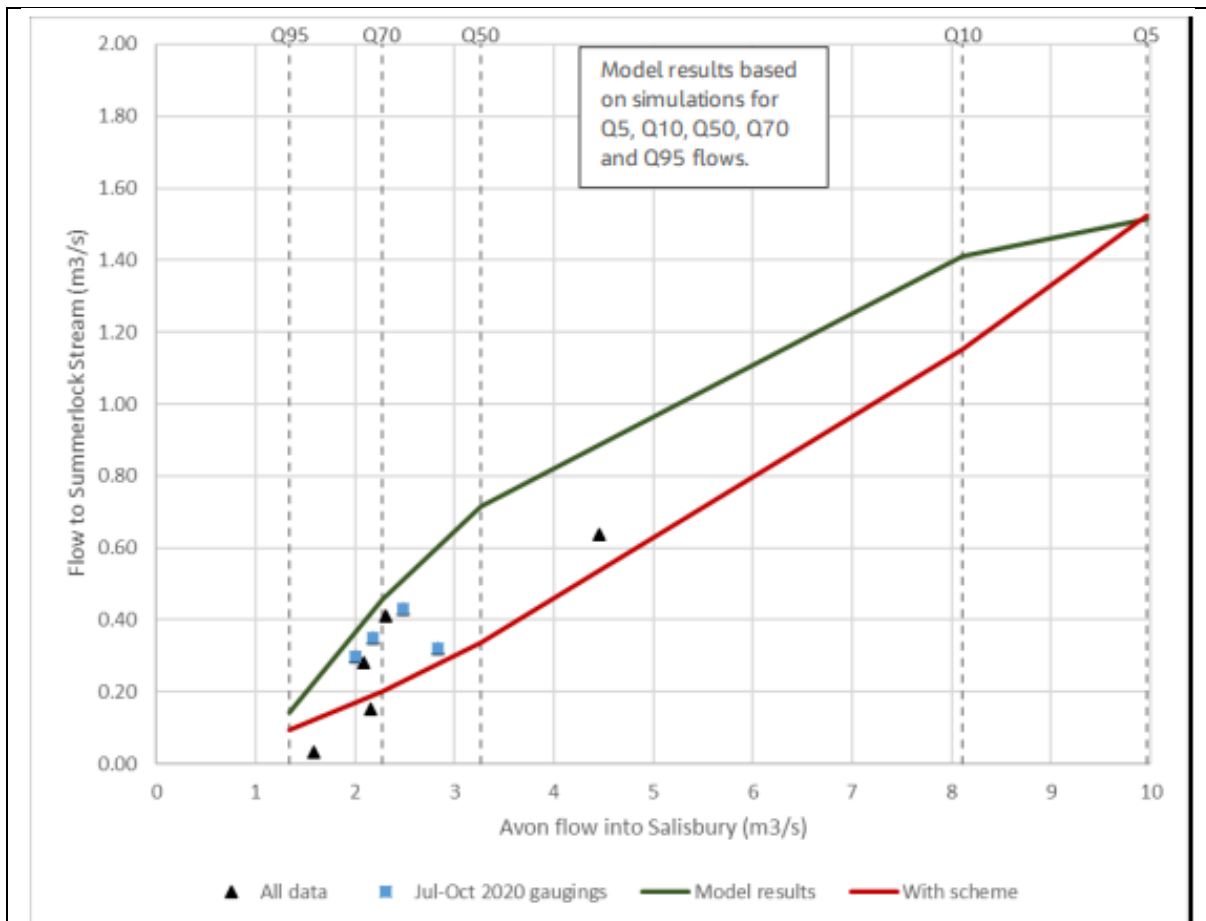
## **6.2. Hydrology and impact on flows**

The published ALS contains background information on the relevant catchments.

As stated in the Section 1 Summary, the aim of the 'Salisbury River Park Phase 1 Scheme' is to provide improvements to landscape, biodiversity and amenity along with flood risk reduction measures to reduce flood risk to people and property in Salisbury. As part of this, the Summerlock Stream will be diverted with a new offtake and re-aligned to create a new wetland habitat, after which it will rejoin with the existing Summerlock Stream approx. 30 metres downstream of Blackwell Hatches and then flow south for approx. 1,250 metres into the River Nadder, which almost immediately re-joins the River Avon.

Hydraulic modelling was undertaken for the re-design of the Summerlock Stream and the wetland habitat to be created. The 'Salisbury River Park Phase 1 Indicative Low Flow Estimation' technical note, dated February 2021, compiled current and historic flow data for the River Avon, Summerlock Stream, River Nadder and River Wylye (a tributary of the Nadder.)

The data was modelled to provide the current flow in the Summerlock Stream (black line in Figure 4-1 below) and the flow of the re-aligned Stream with created wetland and Balckwell Hatches completed removed and closed off (red line in Figure 4-1 below.)



**Figure 4-1: Comparison of baseline and with scheme results for flow split at Blackwell Hatches (Summerlock)**

Figure 4-1 from 'Salisbury River Park Phase 1 Indicative Low Flow Estimation' technical note, dated February 2021.

To better show the difference between the current Summerlock Stream flow and that proposed for the new re-aligned Stream (with Blackwell Hatches removed and closed off), the above graph Figure 4-1 has been transposed into flow figures in Figure 4-1A below.

<b>Figure 4-1A Comparison transposed into flow - cubic metres per second (m/sec)</b>					
River Avon Flow	Q95 Flow*	Q70 Flow	Q50 Flow	Q10 Flow	Q5 Flow
Current Summerlock Flow	0.14	0.45	0.72	1.41	1.51
New Scheme Summerlock Flow	0.10	0.20	0.34	1.15	1.53

Difference	-0.04 (-40 l/s)	-0.25 (-250 l/s)	-0.38 (-380 l/s)	-0.26 (-260 l/s)	+0.02 (+20 l/s)
*Q values represent the flow that would be exceeded for 'x' percent of the time in the watercourse based on the historic record e.g. Q95 is a flow that would be exceeded for 95% of the time and is considered a low flow.					

In summary, the technical note stated;

*'...the flows into the Summerlock Stream resulting from the scheme are expected to be in a similar range to those experienced in existing conditions, allowing for uncertainty in the data. It is important to note that the proposed offtake and wetland area at this location will be subject to further detailed design where there will be opportunity to further improve the agreement between existing and with scheme conditions. However, these preliminary results indicate that the conceptual design developed for this area achieves a flow split that is in the desired range, in terms of replicating existing flow conditions.'*

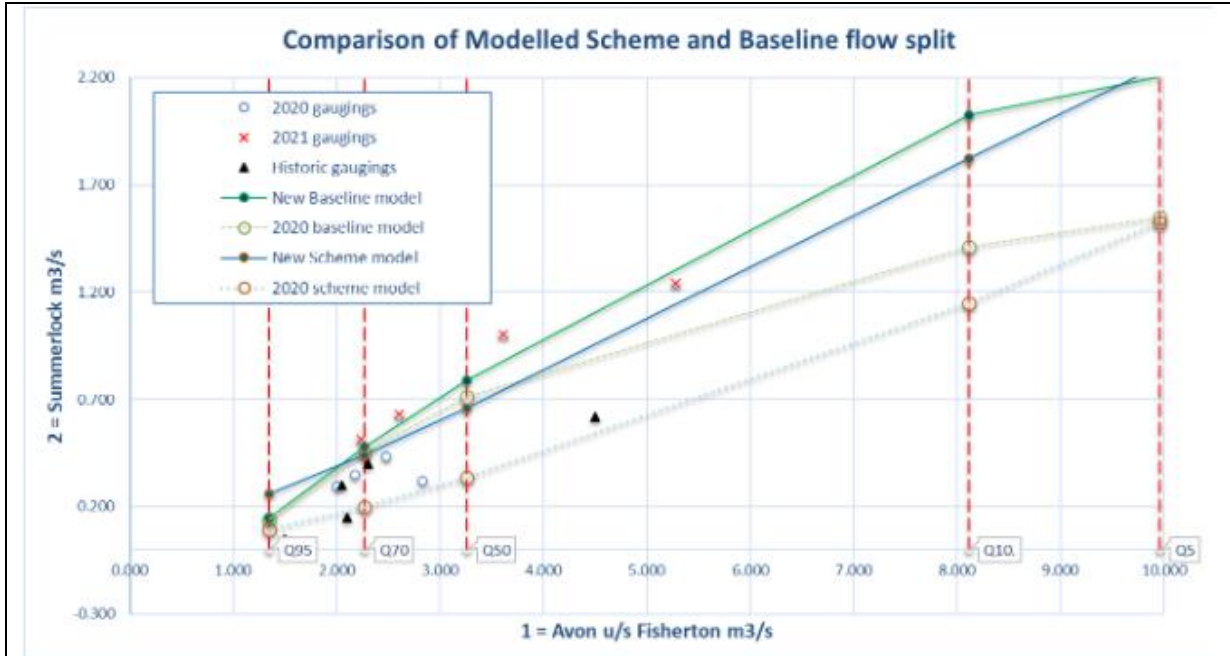
On data uncertainty, the technical note devotes a section to the limitations (section 5) and states;

*In addition to the uncertainty in the flow estimates themselves there is also considerable uncertainty in both the gauged and modelled flow splits due to the high level of variation in factors such as the hydraulic roughness of the channels and the gate operating rules both of which can have a significant influence on flows in the watercourses. ...it is recommended that the modelling is revisited should more information become available with which to calibrate it. Further sensitivity testing should also be undertaken on key parameters. It is also noted that the existing spot gaugings have not necessarily been undertaken at consistent locations or using consistent methods so there is likely to be some variation in the collected data. Additional spot gaugings could be undertaken using the locations and methods used in the July-October 2020 monitoring to provide improved confidence in the conditions observed and over a wider range of flows. It may also be beneficial to include metadata on observed weed growth and gate settings for any future spot gaugings. Further work should also be undertaken at detailed design stage to confirm the flow conditions at each structure for the final design.*

To address the stated limitations above, further spot gaugings were undertaken between May and September 2021 and input into the models, which were re-run and presented in an update to the February 2021 Low Flow technical note, entitled 'Salisbury River Park Phase 1 – Low Flows' dated 06/07/2022.



The updated technical note presented a revised comparison of the current flow in the Summerlock Stream (green line in Figure 3-3 below) and the flow of the re-aligned Stream with created wetland and Balckwell Hatches completed removed and closed off (blue line in Figure 3-3 below.)



**Figure 3-3 - Comparison of Scheme and Baseline flow split at Blackwell Hatches**

The “New Scheme model” is the updated with-Scheme design including the passive feed pipe at Blackwell Hatches.

Figure 3-3 from ‘Salisbury River Park Phase 1 Low Flow’ updated technical note, dated 06/07/2022 with current Summerlock Stream flow (solid green line) and the new Scheme Summerlock Stream flow including the piped support from this proposal (solid blue line.)

To better show the difference between the current Summerlock Stream flow and that proposed for the new re-aligned Stream (with Blackwell Hatches removed and closed off), the above graph Figure 3-3 (and data from Table 3-1 in the updated technical note) has been transposed into flow figures in Figure 3-3A below.

**Figure 3-3A Comparison transposed into flow - cubic metres per second (m/sec)**

River Avon Flow	Q95 Flow	Q70 Flow	Q50 Flow	Q10 Flow	Q5 Flow
Current Summerlock Flow	0.15	0.48	0.79	2.03	2.20
New Scheme Summerlock Flow	0.19	0.35	0.56	1.75	2.20

(No Support)					
Difference	+0.04	-0.13	-0.23	-0.28	0.00
	(+40 l/s)	(-130 l/s)	(-230 l/s)	(-280 l/s)	(0 l/s)

The revised data and assessment removes and/or reduces the deficit to the new re-aligned Summerlock Stream in the low to medium flow range. However, it still leaves a deficit of approx. 130 litres per second at a River Avon Q70 flow.

On this deficit, the updated technical note stated;

*Both the 2020 and updated 2021 modelling demonstrates that the new wetland channel and offtake is unable to pass the same amount of flow into the Summerlock Stream. This is not least a result of the shallow gradient of that channel and the additional length of watercourse with its respective hydraulic controls.*

*The design implication of this is the need to provide additional flows into the Summerlock Stream, which will be accommodated via a feed pipe being laid through the abandoned/removed Blackwell Hatches. For example, at a 70-percentile flow in the Avon, the modelling predicts a deficit of 130 l/s passing into the Summerlock Stream (480l/s baseline - ~350l/s scheme, taken from the model at Ashley Road). This can be provided using a passive pipe arrangement taking water from the Avon into the Summerlock in the vicinity of the existing Blackwell Hatches. Note that the predicted deficits are smaller than predicted in 2020. Including this piped connection also has additional advantages in allowing for future adjustments to be made to this flow split following future monitoring, and would also allow additional flow to be passed into the Summerlock if required during a low flow incident. The passive pipe is included as a single 600dia culvert in the updated with-Scheme hydraulic model. The Scheme design drawings present this as twin 600dia culverts, controlled by a penstocks to permit flow flexibility should it be required. There is no intention of this penstock being operated during any high flow event.*

The graph in Figure 3-3 above includes a plot (the solid blue line) of flow in the Summerlock Stream as supported by a single 600 millimetre internal diameter passive pipe.

To better show the difference between the current Summerlock Stream flow and that proposed for the new re-aligned Stream (with flow support provided by a single 600 millimetre internal diameter passive pipe at Blackwell Hatches), the above graph Figure 3-3 (and data from Table 3-1 in the updated technical note) has been transposed into flow figures in Figure 3-3B below.

<b>Figure 3-3B Comparison transposed into flow - cubic metres per second (m/sec)</b>					
River Avon Flow	Q95 Flow	Q70 Flow	Q50 Flow	Q10 Flow	Q5 Flow
Current Summerlock Flow	0.15	0.48	0.79	2.03	2.20
New Scheme Summerlock Flow (With Support)	0.26	0.44	0.66	1.82	2.26
Difference	+0.11 (+110 l/s)	-0.04 (-40 l/s)	-0.13 (-130 l/s)	-0.21 (-210 l/s)	+0.06 (+60 l/s)

This support further increases the flow through the Summerlock Stream system at very low flows (Q95) and further reduces the deficit at, particularly, Q70 and at Q50 – the low to medium flow range of concern.

(It is noted that the design at Blackwell Hatches is now for an increased pipe internal diameter of 750 millimetres (from 600 mm) which should provide more flow than the modelling shown in Figure 3-3B.)

The inclusion of passive support from a gravity fed pipe and penstock arrangement at Blackwell Sluices ensures that the new and remaining section of the Summerlock Stream receives a similar flow from the River Avon as currently. That this has been achieved can be seen in Figure 3-3C, noting an increase in flow at Q95 to benefit the new wetland and onward flows through the Summerlock system.

<b>Figure 3-3C Comparison of Summerlock Stream Abstraction as a Percentage of River Avon Flow shown in brackets - cubic metres per second (m/sec)</b>					
River Avon Flow	Q95	Q70	Q50	Q10	Q5

	(1.34)	(2.27)	(3.26)	(8.11)	(9.96)
Current Summerlock Abstraction As % of River Avon Flow	11.2%	21.1%	24.2%	25.0%	22.1%
New Scheme Summerlock Flow (With Support) Abstraction As % of River Avon Flow	19.4%	19.4%	20.2%	22.4%	22.7%
Difference – New Scheme Against Current	+8.2%	-1.7%	-4.0%	-2.6%	+0.6%

In summary, to provide a near 'like for like' flow to the revised Summerlock Stream from that which it previously received requires additional flow support at Blackwell Hatches via a gravity fed pipe and penstock arrangement at low to medium River Avon flows. We consider that the changes (+ and -) in the quantity abstracted overall from the River Avon are within an acceptable range as to have no likely impact on the Avon from that currently experienced. Without the support, flow through the Summerlock Stream would be significantly reduced e.g. ~27% less flow from Q70 to Q50 with a likely resultant impact on incumbent habitats, species and amenity value.

On this basis, we consider that the proposal to support the Summerlock Stream at Blackwell Hatches will not deteriorate the current WFD Hydrological regime status or prevent the achievement of WFD Hydrological regime objectives.

### 6.3. Impact on water quality

There are two Discharge Consents which authorise a discharge of site drainage into the Summerlock Stream downstream of Blackwell Hatches held by Waitrose Limited from their store at Churchill Way West, Salisbury. There are no discharges to the River Avon from the new offtake of the Summerlock Stream to where it rejoins the Avon (via the River Nadder.) A reduction in flow to the Summerlock Stream may impact water quality through less dilution of discharges and/or a change in the dissolved oxygen, temperature of the water that incumbent habitats and species etc. rely upon.

As set out in the 7.2 Hydrology section above, the flow through the new and existing lengths of the Summerlock Stream have been modelled and the design modified to provide a flow very similar to that the Stream historically experienced through flow support at Blackwell Hatches. We consider that the proposed quantities to be abstracted overall

from the River Avon are within an acceptable range as to have no likely impact on the water quality in the Summerlock Stream from that currently experienced.

On this basis, we consider that the proposal to support the Summerlock Stream at Blackwell Hatches will not deteriorate any current WFD water quality related statuses or prevent the achievement of any WFD water quality related objectives.

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

A change in flow regime to the Summerlock Stream from that currently experienced may affect sedimentation and sediment movement through the watercourse affecting its incumbent habitats and species and its amenity value.

As set out in the 7.2 Hydrology section above, the flow through the new and existing lengths of the Summerlock Stream have been modelled and the design modified to provide a flow very similar to that the Stream historically experienced through flow support at Blackwell Hatches. We consider that the proposed quantities to be abstracted overall from the River Avon are within an acceptable range as to have no likely impact on the geomorphological processes in the Summerlock Stream from that currently experienced.

On this basis, we consider that the proposal to support the Summerlock Stream at Blackwell Hatches will not deteriorate any WFD Morphology status or prevent the achievement of any WFD Morphology objectives.

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

The Summerlock Stream and River Avon at this point are designated as migratory routes for Atlantic Salmon, European Eel and River Lamprey. Other noted species include Bullhead, Brook Lamprey, Brown/Sea Trout, White-clawed Freshwater Crayfish, Spined Loach, Desmoulin's Whorl Snail, Water Crowfoot, Tubular Water-dropwort, Fine-lined Pea Mussel, Southern Damselfly and Sand Lizard. Noted habitats include the Chalk rivers themselves, deciduous woodland, lowland meadow, floodplain grazing marsh and wetland. The full list is set out in the table in section 7.1 above.

The overall aim of the Salisbury River Park Scheme is to provide improvements to landscape, biodiversity and amenity in combination with flood risk reduction measures for people and property in Salisbury. The design incorporates improved biodiversity habitat enrichment through the creation of a wetland in the new re-aligned section and improved fish passage from the removal of the existing Stream offtake through hatch gates at Blackwell Hatches. Maintaining a like for like flow through the new and re-aligned Summerlock Stream and its remaining reach to that currently experienced will ensure that

the incumbent habitats and species, including migratory species will receive the water they require.

As set out in the 7.2 Hydrology section above, the flow through the new and existing lengths of the Summerlock Stream have been modelled and the design modified to provide a flow very similar to that the Stream historically experienced through flow support at Blackwell Hatches. We consider that the proposed quantities to be abstracted overall from the River Avon are within an acceptable range as to have no likely impact on the flow regime to either the Summerlock Stream or the River Avon from that currently experienced. It is emphasised that at the low flow end (Q95), flow has been increased by approx. 110 l/s to the Summerlock Stream to ensure the new wetland receives the quantities it needs, and thereafter providing this flow down the remainder of the Stream's reach for its incumbent habitats and species, including migratory species. This increase to the Summerlock Stream represents a reduction in flow to the River Avon of approx. 8% at Q95, which is not deemed significant.

On this basis, we consider that the proposal to support the Summerlock Stream at Blackwell Hatches may improve, rather than deteriorate, any WFD ecological (including fish) statuses and may assist, rather than prevent, the achievement of any WFD ecological (including fish) objectives.

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

The Summerlock Stream and River Avon at this point are designated as the River Avon System Site of Special Scientific Interest (SSSI) and River Avon Special Areas of Conservation (SAC). The proposal has the potential to adversely impact the flow, flow velocity, water level, water chemistry and habitat loss within the River Avon System. (All the other applicable SSSI's, SAC's, Special Protected Areas (SPA's) and Ramsar sites listed in the table in section 7.1 above are either upstream or downstream of the new offtake to the Summerlock Stream from the River Avon to where it rejoins the Avon (via the River Nadder) and therefore, cannot be impacted by the proposal.)

An Appendix 4\* to assess the identified SSSI and a Habitats Risk Assessment 1 (HRA1) for the identified SAC were completed.

#### **Habitats Risk Assessment 1 (HRA1)**

The River Avon and Summerlock Stream are designated as part of the same River Avon SAC. Therefore, although this transfer supports Summerlock Stream at the expense of the River Avon, as it always has, it does not take water from the SAC system and

Summerlock requires a flow in its own right to maintain its contribution to the SAC designation.

As set out in the 7.2 Hydrology section above, the flow through the new and existing lengths of the Summerlock Stream have been modelled and the design modified to provide a flow very similar to that the Stream historically experienced through flow support at Blackwell Hatches. We consider that the proposed quantities to be abstracted overall from the River Avon are within an acceptable range as to have no likely impact on the flow regime, including to flow velocity, water level, water chemistry and habitat loss etc. to either the Summerlock Stream or the River Avon from that currently experienced. It is emphasised that at the low flow end (Q95), flow has been increased by approx. 110 l/s to the Summerlock Stream to ensure the new wetland receives the quantities it needs, and thereafter providing this flow down the remainder of the Stream's reach for its incumbent habitats and species, including migratory species. This increase to the Summerlock Stream represents a reduction in flow to the River Avon of approx. 8% at Q95, which is not deemed significant.

On this basis, the HRA1 concluded that;

*This proposal is to ensure that current flows through the River Avon, and Summerlock Stream are maintained. Modelling and gauging suggests that this proposal in conjunction with the Salisbury River Park scheme will maintain very similar flows as per the current regime and that any changes will be negligible. We are satisfied that this proposal will have no significant effect on the integrity of the River Avon SAC. We conclude no likely significant effect alone.*

*No permitted abstractions, or impoundments have been identified in this area. Two discharge permits were identified and concluded unlikely to act in combination with this proposal. Therefore, we are satisfied that this proposal will have no effect in combination. We conclude no effect in combination.*

An overall Agency decision concluded 'no likely significant effect' from the proposal and the HRA1 was sent to Natural England 'for information only' with no response requested or expected.

#### **Appendix 4.**

The River Avon and Summerlock Stream are designated as part of the same River Avon System SSSI. Therefore, although this transfer supports Summerlock Stream at the expense of the River Avon, as it always has, it does not take water from the SSSI system

and Summerlock requires a flow in its own right to maintain its contribution to the SSSI designation.

As set out in the 7.2 Hydrology section above, the flow through the new and existing lengths of the Summerlock Stream have been modelled and the design modified to provide a flow very similar to that the Stream historically experienced through flow support at Blackwell Hatches. We consider that the proposed quantities to be abstracted overall from the River Avon are within an acceptable range as to have no likely impact on the flow regime, including to flow velocity, water level, water chemistry and habitat loss etc. to either the Summerlock Stream or the River Avon from that currently experienced. It is emphasised that at the low flow end (Q95), flow has been increased by approx. 110 l/s to the Summerlock Stream to ensure the new wetland receives the quantities it needs, and thereafter providing this flow down the remainder of the Stream's reach for its incumbent habitats and species, including migratory species. This increase to the Summerlock Stream represents a reduction in flow to the River Avon of approx. 8% at Q95, which is not deemed significant.

On this basis, the Appendix 4 concluded that;

*The proposed permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest.*

The Appendix 4 was sent to Natural England 'for information only' with no response requested or expected.

\*As this is an application by the Environment Agency, the correct template to assess SSSI's is an Appendix 3 and an Appendix 4 was used in error. But on the basis that the only difference is the Appendix 3 template contains a line to state the Agency Area applying (Wessex Area) and it was 'for information only' we have not transposed our assessment into an Appendix 3 template and resent it as a risk-based decision.

#### **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**

No protected rights or lawful uses have been identified within the area affected by this proposal.



## 6.9. Other considerations

The overall Salisbury Park scheme is to alleviate flooding by creating a new wetland habitat.

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
Flood Risk Activity Permit (FRAP)	Yes	FRAP EPR/VB3359ME granted by EA on 20/06/2023.
Environmental permit for a discharge activity	No	
Other	Yes	Planning Permission PL/2021/03601 granted with conditions by Wiltshire Council on 15/11/2021.

## 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 availability of water to support the surface water environment of the re-aligned and existing Summerlock Stream. The Applicant will incur the cost of installing, operating and maintaining the method of abstraction.
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.

### Alternative approaches considered

(1) Refuse.
<b>(2) Grant as applied for by Applicant.</b>
(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.
The overall aim of the Salisbury River Park Scheme is to provide improvements to

landscape, biodiversity and amenity in combination with flood risk reduction measures for people and property in Salisbury. The design incorporates improved biodiversity habitat enrichment through the creation of a wetland in the new re-aligned section and improved fish passage. Modelling showed that to achieve these aims through providing a like for like flow through the new and re-aligned Summerlock Stream and its remaining reach, flow support to the Stream is required in the low to medium flow range. The proposal as applied for provides the like for like support necessary and different terms do not need to be imposed. There is no valid reason to refuse the application.

**8. Time limit**

An expiry date of 01/03/2037 will be applied to this licence in accordance with the common end date for the Hampshire Avon abstraction licensing strategy and the Environment Agency's approved policy. We have applied the 'skipping' common end date principle so the licence period is for greater than 12 years. The licence will not include a minimum value condition as it is a Transfer Licence with no quantities specified.

**9. Measurement of water abstracted**

The Applicant will not be required to measure their abstraction as no abstraction quantities are required for a Transfer Licence.

**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)	N/A	
(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	

### **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.

#### **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, 7.3 and 7.5 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).

#### **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, 7.3 and 7.5 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 8.0 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 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 licences 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 5, 7.2, 7.3, 0.8 and 7.9 above.

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

Section 40 of the Natural Environment and Rural Communities Act 2006 places a duty on us to have regard, so far as is consistent with the proper exercise of its functions, to conserving biodiversity. 'Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or enhancing a population or habitat.'

When issued the activity authorised by the new abstraction or impoundment licence will not compromise the biodiversity of the area. 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/these licences 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 7 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 4.0 and 8.0 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.

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 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 7.6 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 7.5 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 7.5 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**

**<Choose between the below options and/or edit as needed.>**

**<It is recommended that the application is refused for the following reasons:>**



<<Describe reasons for refusal>>.>

<It is recommended that the application is approved <as modified> and licence number <<xx/xxx/xxxx/xxx>> should be issued with the conditions as drafted.>

Conditions will be required in order to control the abstraction and protect the environment as follows;

- Construction specifications and drawings condition.
- Point of return of abstracted water condition – NGR: SU 13855 30855 marked ‘Q’ on the map.
- Works remain free of obstruction condition.
- Maintained flow during construction and any subsequent maintenance condition.
- Self-destruct condition so as not to commit water resources if the scheme isn’t built – to be set to three years from the issue date.

<<Add any other recommendations as required.>>

## 15. Authorisation

The application was referred to Defra on XX XX 202X. Defra replied by <email / letter> on XX XX 202X to confirm they are not calling the application in for the Secretary of State to determine (see DMS).

Applicant: Environment Agency		
Application Reference: NPS/WR/037978		
<b>Report by:</b> Graham Melhuish <b>Position:</b> Senior Permitting Officer	<b>Date:</b> 31/03/2024	<b>Signed:</b> G.Melhuish
I have reviewed all permitting documents in line with appropriate regime-specific process and checklists <and I hereby approve the proposed permit for issue>.		

<p><b>Peer Review (full) / Licence Check by:</b> <b>Position:</b></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></p>	<p><b>Signed:</b></p>
<p><b>Endorsed by:</b> &lt; EA own auditor name &gt; <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></p>	<p><b>Signed:</b></p>
<p><b>Authorised by:</b> <b>Position:</b> Permitting Team Leader</p>	<p><b>Date:</b></p>	<p><b>Signed:</b></p>

DRAFT