ANNEX A2.2

Hydraulic Model Upgrade

This document has been written in line with the requirements of the RAPID gate two guidance and to comply with the regulatory process pursuant to Severn Trent Water's and Affinity Water's statutory duties. The information presented relates to material or data which is still in the course of completion. Should the solution presented in this document be taken forward, Severn Trent Water and Affinity Water will be subject to the statutory duties pursuant to the necessary consenting process, including environmental assessment and consultation as required. This document should be read with those duties in mind.

Grand Union Canal Transfer SRO

Affinity Water, Severn Trent Water, Canal & River Trust

JBA consulting

Grand Union Canal SRO Gate 2: Hydraulic Model Upgrade

Final Report

October 2022

www.jbaconsulting.com

Affinity Water

SEVERN TRENT

Author names redacted

JBA Project Manager

[redacted]
JBA Consulting, Pipe House, Lupton Road, WALLINGFORD, Oxfordshire, OX10 9BS

Revision History

Revision Ref/Date	Amendments	Issued to
FYZ-JBAU-XX-XX-RP-HM-0005-S1-P01-Hydraulic_Model_Upgrade_Report 07/10/2022	Draft Report	Affinity Water
FYZ-JBAU-XX-XX-RP-HM-0005-S3-P02-Hydraulic_Model_Upgrade_Report 07/10/2022	Final Report	Affinity Water, Severn Trent Water, Canal & River Trust

Contract

This report describes work commissioned by Affinity Water Limited, by purchase order AWP120016343 dated 18/05/2021. Affinity Water's representatives for the contract were [redacted]. [redacted] of JBA Consulting carried out this work.

Prepared by .... [redacted] (BSc, MSc)

Analyst

.... [redacted] (BSc, MSc, GGA)

Analyst

.... [redacted] (BEng PGDip MSc MCIWEM C.WEM)

Principal Analyst

Reviewed by .... [redacted] (BA CertWEM CEnv MCIWEM C.WEM)

Technical Director

Purpose

This document has been prepared as a Final Report for Affinity Water Limited. JBA Consulting accepts no responsibility or liability for any use that is made of this document other than by the Client for the purposes for which it was originally commissioned and prepared.

JBA Consulting has no liability regarding the use of this report except to Affinity Water Limited.

Acknowledgements

JBA are grateful for technical input and review from Affinity Water, Severn Trent Water and Canal & River Trust.

Copyright

Carbon Footprint

A printed copy of the main text in this document will result in a carbon footprint of 198g if 100% post-consumer recycled paper is used and 252g if primary-source paper is used. These figures assume the report is printed in black and white on A4 paper and in duplex.

JBA is aiming to reduce its per capita carbon emissions.

Contents

List of Figures

List of Tables

Abbreviations

BCN	Birmingham Canal Network
CC	Coventry Canal
EA	Environment Agency
FRA	Flood Risk Assessment
GIS	Geographic Information System
GUC	Grand Union Canal
GUS	Grand Union South
GUT	Grand Union Tring
mAOD	Metres Above Ordnance Datum
NWL	Normal Water Level
NOZ	Normal Operating Zone
OD	Ordnance Datum
OxGU	Oxford Grand Union
PMB	Project Management Board
SRO	Strategic Resource Option
STWL	Severn Trent Water Ltd
WCM	Water Control Manual

1 Introduction

This report provides a summary of the hydraulic model upgrade, including build and calibration, for the Gate 2 Affinity Water Grand Union Canal (GUC) Strategic Resource Option (SRO) option.

Further information on the modelling approach can be found in the hydraulic model method statement (Appendix E of this report).

1.1 Model development

During Gate 1, two high level models were developed for the Oxford-Grand Union (OxGU) and Grand Union Tring (GUT) branches using best available information. Additionally, a more detailed model of Grand Union South (GUS) was developed using the Environment Agency's River model. At the outset of Gate 2, a topographic survey was commissioned to enable a detailed combined model of OxGU and GUT to be built. The structures surveyed included full canal pound cross sections, full dimensions and long sections of waste and by-pass weirs, full survey of lock gates, cross sectional survey of bridges and culverts.

During the survey phase, the GUC Project Management Board (PMB) confirmed that the preferred option for the GUC SRO is for a discharge of effluent from Minworth WwTW to the Coventry Canal at Atherstone Top Lock and abstraction from the Grand Union Canal south of Leighton Buzzard. Consequently, sections of the canal not hydraulically impacted by the transfer, including the Grand Union South and the Birmingham and Fazeley Canal were removed from the scope of the hydraulic model upgrade.

1.2 Software

The model has been developed using Flood Modeller Pro (FMP) version 4.5.1.6163. FMP is an industry standard 1-dimensional and 2-dimesional solver that is capable of modelling sub-critical, supercritical and transitional flow regimes.

1.3 Pound characterisation

At the commencement of Gate 2 work, a Pound Characterisation activity was undertaken in order to identify pounds with key risks and sensitivities, as identified by multiple Gate 1 investigations. The Pound characterisation process involved a description of the features and components of each pound on the various SRO route options under consideration at the start of Gate 2,and presenting these in a summarised or simplified format. For a more detailed description of the Pound Characterisation, please see Annex A2.4, section 3. The Pound Characterisation spreadsheet it provided in Appendix A of this report.

2 Hydraulic Model build

2.1 Overview of the modelling approach

The hydraulic model was built using the industry standard software Flood Modeller Pro, selected for its ability to model all of the hydraulic structures present within the canal and the transfer infrastructure. The model is 1-dimensional due to the physical characteristics of the system and because modelling floodplain interactions was not a requirement in this study.

At the start of Gate 2, it was also planned to undertake water quality modelling using the hydraulic model, which Flood Modeller Pro has capacity to do. Following advice from the Environment Agency, the water quality modelling platform was changed to River Quality Planner (RQP), however the potential to use the model for water quality assessment in the future remains.

The Gate 1 work identified the need for a topographic survey to collect levels and dimensions at by-weirs, waste-weirs, bridges and cross-sections. This survey was carried out early in 2022. See Annex A2.4 for further details of the topographic survey.

The need for hydrometric surveys to enable recalibration of the Aquator water resources model (which provides the flow boundaries for the hydraulic model) was also identified at Gate 1. This was carried out over November 2021 to March 2022, and included level monitoring in selected pounds, in order to inform the validation of the hydraulic model. See Annexes A2.1 and A2.4 for further details.

The model build commenced upon completion of the topographic survey. By this time, the preferred route had been selected, which enabled the geographic extents of the hydraulic model to be tailored to that route. The model covers the following sections of Canal:

- Coventry Canal from Lock 12 (Glascote Top Lock) to its junction with the Oxford Canal at Hawksbury Junction,
- Oxford Canal from Hawksbury Junction to Lock 8 (Napton Bottom Lock),
- Grand Union Canal from its junction with the Oxford Canal at Braunston Junction to Lock 30 (Slapton Lock),
- Grand Union Canal from its junction with the Oxford Canal at Napton Junction to Lock 13 (Itchington Bottom Lock).

Given the volume of updating and detailing required compared to the Gate 1 model, a full rebuild was carried out.

Inflow boundaries from canal feeders were imported from the Aquator model (see Annex A2.1 for details), using a new data converter built for this project. Similarly, seepage and lockage flows through locks were imported from the Aquator model (where they had been defined by The Trust) and represented as abstractions moving water from the upstream side of each lock to the downstream side. Seepage values obtained from the Aquator model (and defined by The Trust) were relatively low and were not included in the final model simulations for Gate 2. For the large majority of locations, seepage values are lower than 0.001m^3/s, which is the minimum flow accepted by the software.

All other flow movements were modelled using hydraulic units defined in Flood Modeller, including channels, aqueducts and tunnels were represented as cross sections.

Locks were represented as two sluice gates, with a reservoir feature representing the lock chamber. Lock by-weirs were represented as spill units, with paddles within letterbox by-weirs represented using orifices. Back-pumps were represented as abstractions, moving water upstream, controlled by water levels.

Bridges which constricted the flow were represented using two cross sections to constrict the channel width and a bridge unit. Where a bridge did not constrict the channel width or have a limited headroom it was not modelled (typically larger and more modern road and railway bridges).

Additional extra-detailed 1D models were constructed for GUC locks 23 to 24 and locks 30 to 31 to investigate velocities and the potential for sudden changes in water level as a result of surge, and a 3D Computational Fluid Dynamics (CFD) model was constructed to provide more insight into velocity profiles. Outputs from these 1D models are presented in the test case reports in Appendices B and C.

In the With-Scheme scenarios, several waste weirs were raised between CC Lock 1 and OX Lock 1 (Hawksbury lock) and between, OX lock 7 and 8. This was done to improve model stability allowing the model to establish a constant transfer flow for the different scenarios. In addition, by-weirs that convey water in the opposite direction than the transfer flow, were also raised to avoid flow recirculation around these locks.

2.2 Survey data

The survey data (where available) used in the hydraulic model build is from a topographic survey completed by Storm Geomatics in the winter of 2022. as instructed by the GUC PMB. The Trust's 50m interval bathymetric survey was incorporated to represent cross sections of the canal channel, 1m LiDAR data was used to extend the bathymetric survey to include the canal banks.

2.3 Modelled extents

The extent of the combined OxGU and GUT model is shown in Figure 2-1. The model extends from Lock 13 on the Coventry Canal to Lock 30 – Slapton on the Grand Union Canal (GUC), south of Leighton Buzzard.

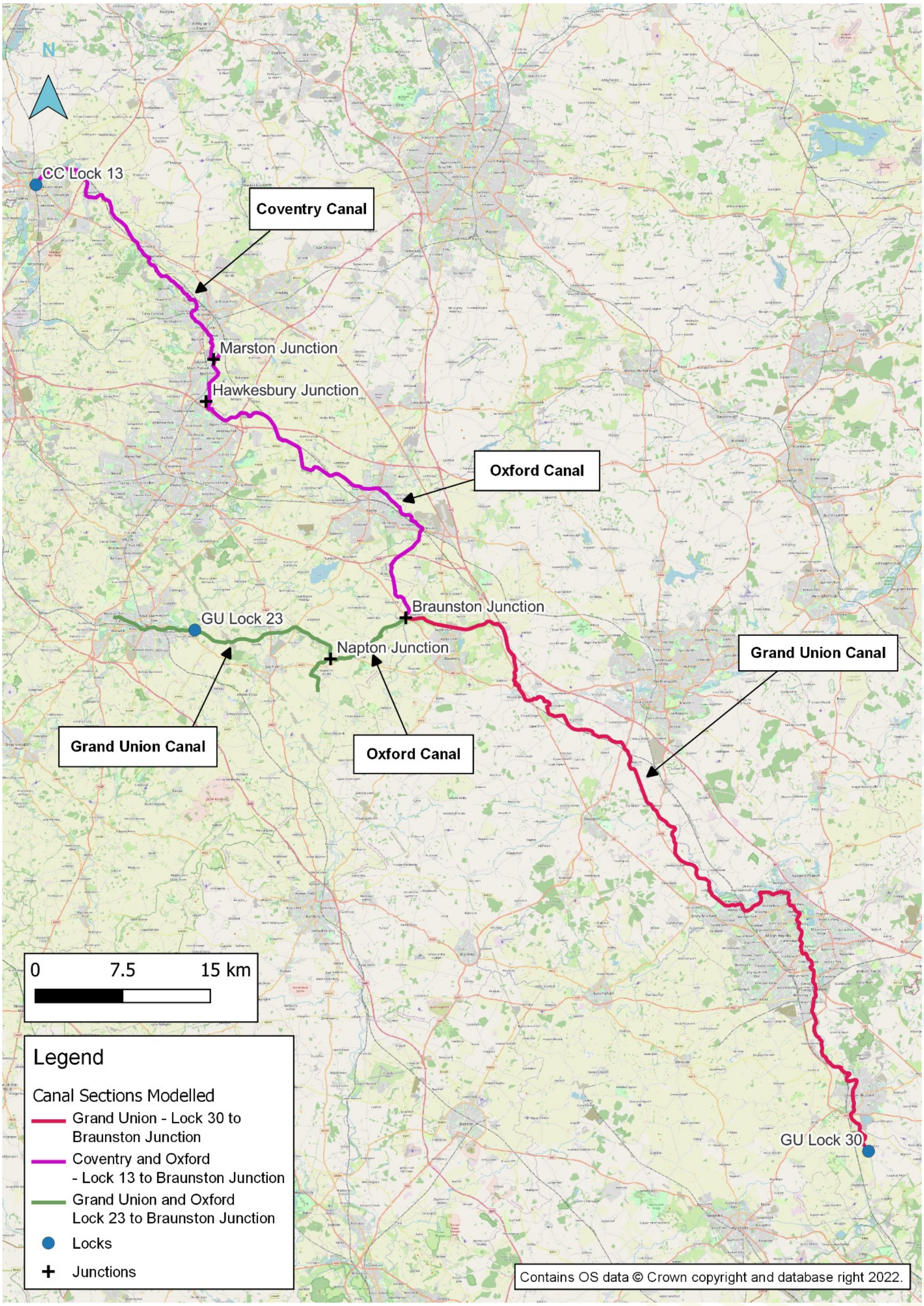


Figure 2-1: Extent of combined hydraulic model

2.4 Model geometry

2.4.1 Pounds

Pounds have been represented using River Sections. Where possible, in order that the model runs stably, surveyed bathymetry was combined with LiDAR to create a detailed cross section of the canal. At other key locations fully surveyed cross sections were included from the 2022 survey, such as at locks and bridges. Where the above was not possible the canal sections use an indicative width, which is taken from the Aquator model build information provided by The Trust.

In total there are 1,101 river sections and 831 interpolates.

Long section profiles showing bed elevation for the three main reaches modelled and shown in Figure 2-2, Figure 2-3 and Figure 2-4 below. These reaches include the Coventry and Oxford canals to Braunston Junction, Oxford and Grand Union canals from Radford Bottom lock to Braunston Junction and Grand Union canal from Braunston Junction to lock 30 (Slapton).

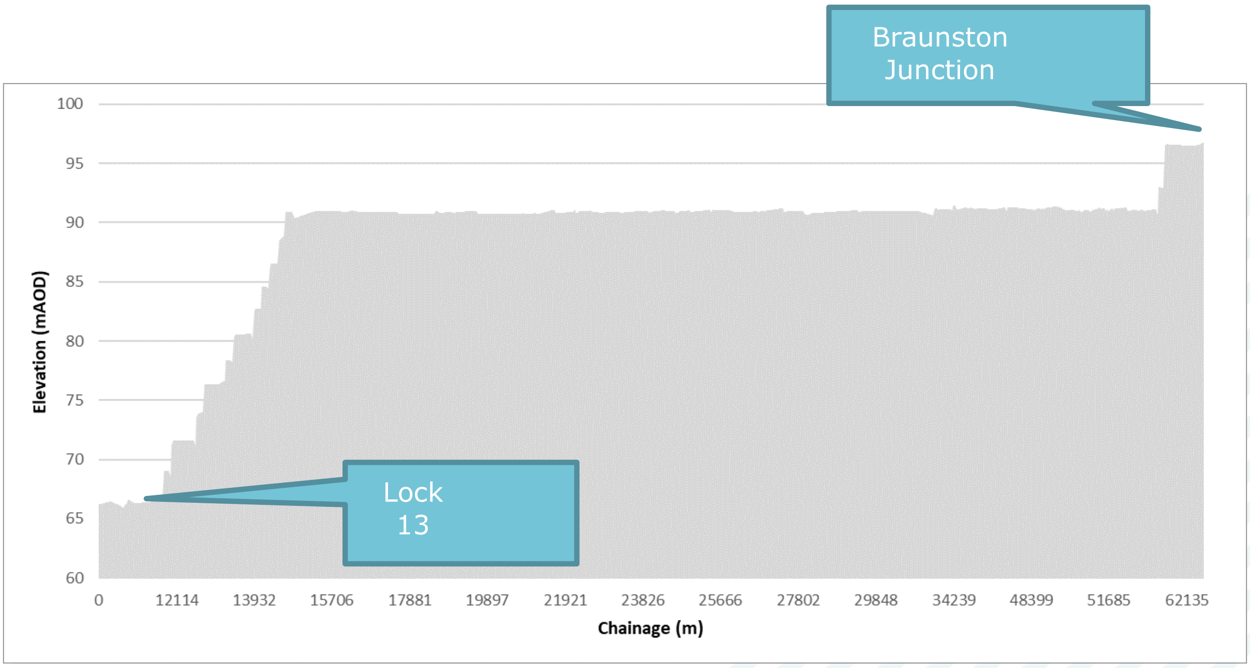


Figure 2-2: Coventry and Oxford canals long section from CC Lock 13 (Glascote Bottom to Braunston Junction

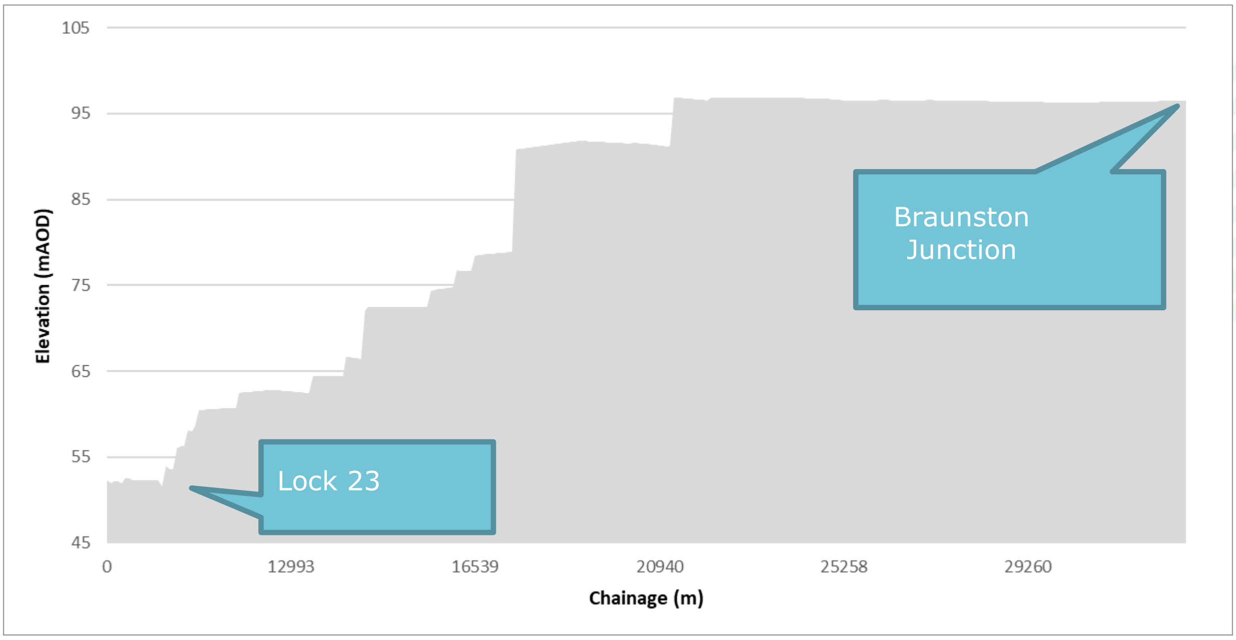


Figure 2-3: Grand Union and Oxford Canals from Lock 23 (Radford bottom) to Braunston Junction

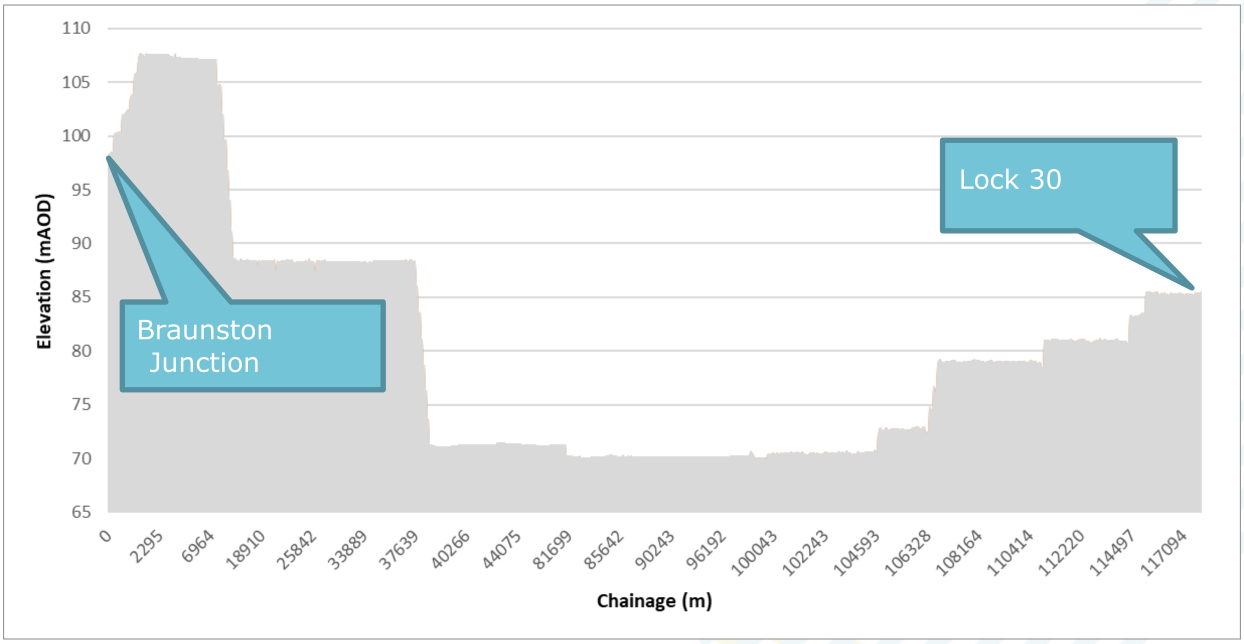


Figure 2-4: Grand Union Canal from Braunston Junction to lock 30 (Slapton)

2.4.2 Weirs

Waste and by-weirs have been represented in the model using data from the 2022 Storm Geomatics topographic survey.

In total 55 waste weirs have been modelled, 30 of these are represented using the 2022 survey data.

In total 31 by-weirs have been modelled which have all been represented using the 2022 survey data.

2.4.3 Locks

Locks have been represented in the model by two sluice gate units with a reservoir feature representing the storage of the lock chamber between the two (Figure 2-5). An abstraction unit that joins the two lock gates accounts for lockage (Figure 2-6), leakage and operating of sluices and paddles. The majority of lock by-weirs were represented as spill units, with some as orifices. Paddles within letterbox by-weirs were represented using orifices.

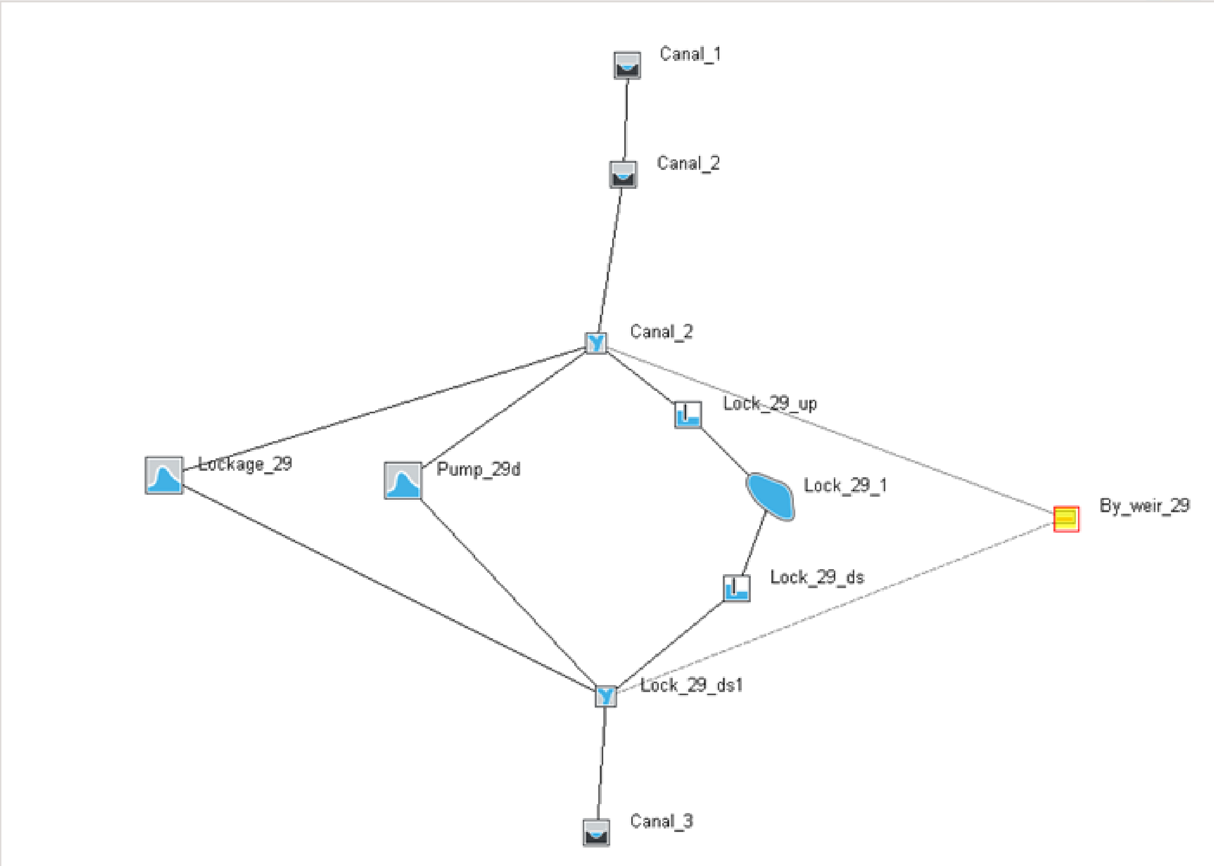


Figure 2-5: Schematic of a typical modelled lock

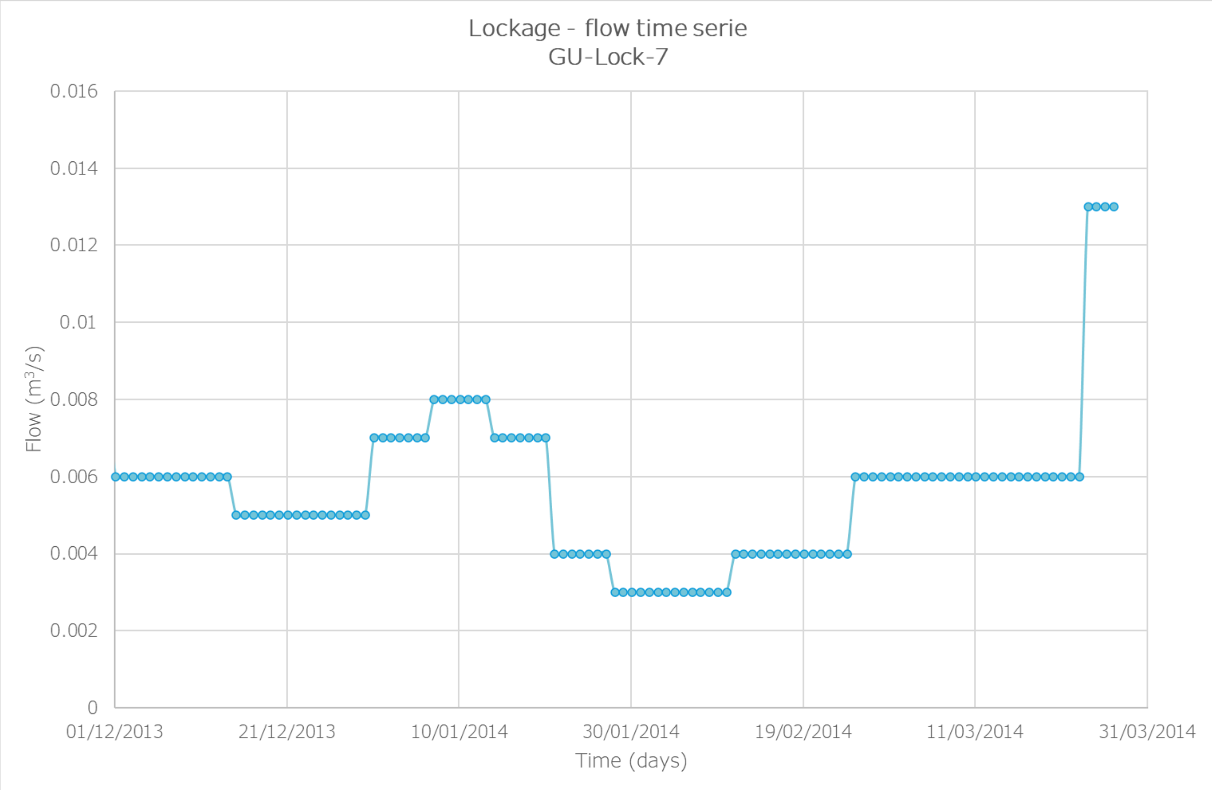


Figure 2-6: Example lockage flow series.

2.4.4 Back pumps

Not all locks have a back-pump, but where one is present, they were represented as abstraction units, these pumps move water around locks, from the lower pound to the higher pound. The flow time series used to inform each back-pump\abstraction unit were derived from the Aquator model, taking into account the operation of the pumping which are related to the water levels upstream and downstream of the lock. An example of a flow series is shown in Figure 2-7.

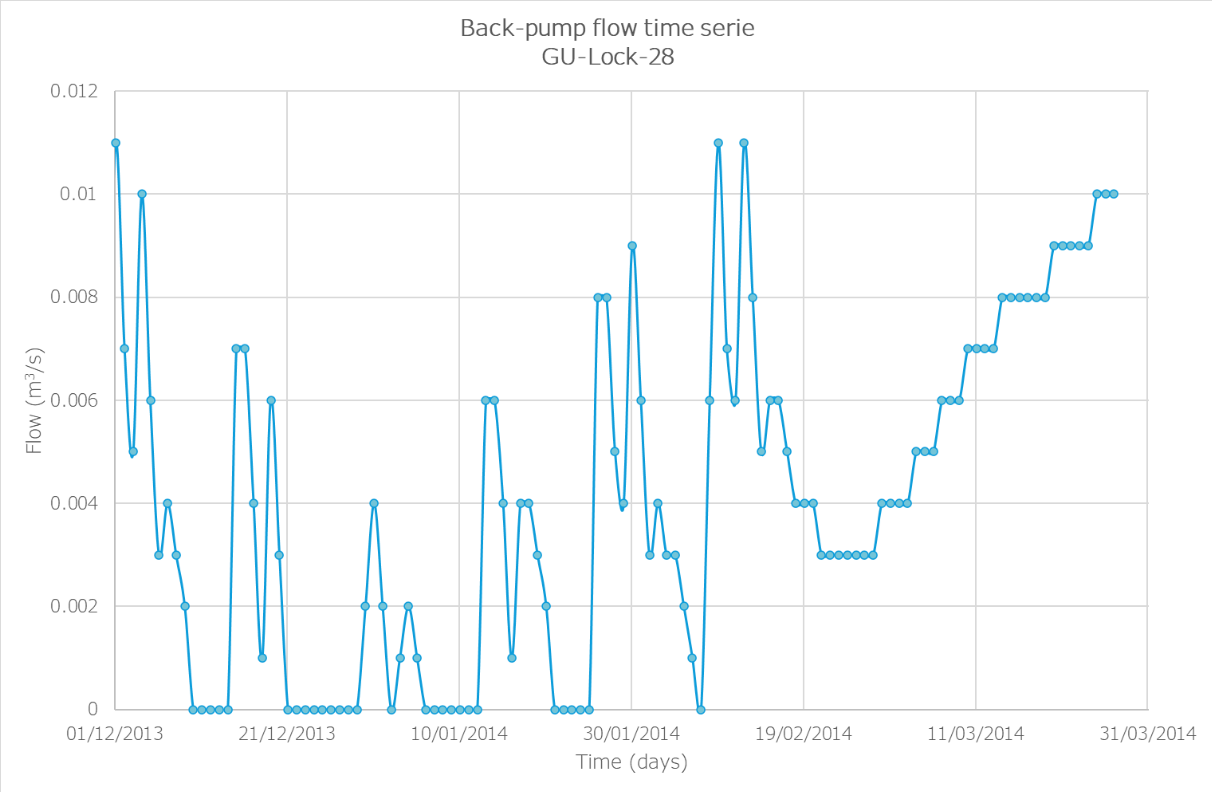


Figure 2-7: Example back pumping flow series

2.5 Example pound set-up

An example of how the model is set up for a pound is shown in Figure 2-8.

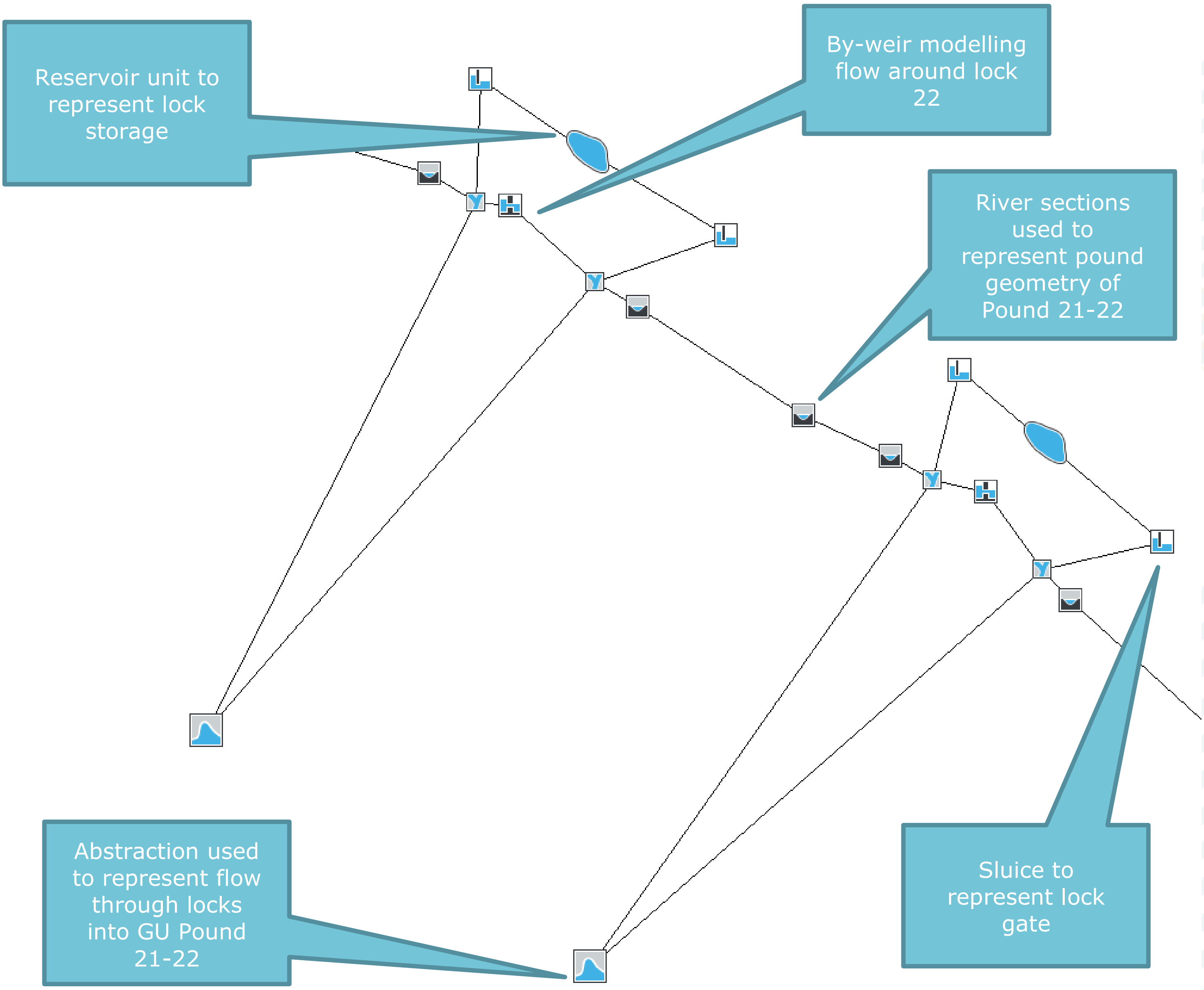


Figure 2-8: GU Pound 21-22 example model set-up

2.6 Hydraulic roughness values

Manning's n roughness values of 0.035 and 0.045 have been applied to all canal pound River Sections in the hydraulic model, this is an enhancement over the phase 1 model which used 0.021 for all sections. These new values were based the V. T. Chow (Chow, 1973) using the photographs collected as part of the 2022 Storm Geomatics survey. In the vicinity of lock structures, a Manning's n roughness value of 0.021 was applied. This value corresponds to 'masonry, concrete or brick protected banks with excavated channel bed' as recorded in the British Waterways Approved Standard: hydraulic design of canal works (British Waterways, 2012).

It should be noted that during Gate 1, a sensitivity test to Manning's n value (+/-20%) was carried out concluding that the model was insensitive to a change in Manning's n coefficient. Therefore, it was not deemed necessary to repeat these tests during Gate 2. However, during the development of the models for the test case scenarios (Appendix B and Appendix C), Manning's n value of 0.021, 0.03 & 0.04 were tested showing that:

- mean water level increases by 0.005m and mean velocity decreases by 0.021m/s, when Manning's n is increased from 0.021 to 0.03; and

- mean water level increases by 0.009m and mean velocity decreases by 0.034m/s, when Manning's n is increased from 0.021 to 0.04.

No further sensitivity to roughness values were carried out to the model during Gate 2, however it is recommended that testing is undertaken following further development of the with-scheme model at Gate 3, to confirm any sensitivities which might impact upon scheme design or performance.

2.7 Boundary conditions

Inflow boundary conditions have been taken from the Aquator model. The boundary conditions used in the hydraulic model are detailed in Table 2-1.

Table 2-1: Model inflow boundaries

Name	Type	Details
Tove	Inflow (flow-time)	Applied to GU Pound 20-21
Drayton	Inflow (flow-time)	Applied to GU Pound 6-7
Welton	Inflow (flow-time)	Applied to GU Pound 6-7
Daventry	Inflow (flow-time)	Applied to GU Pound 6-7
Watford	Inflow (flow-time)	Applied to GU Pound 6-7
Whilton	Inflow (flow-time)	Applied to GU Pound 6-7
Tunnel	Inflow (flow-time)	Applied to GU Pound 6-7
RSwift_In	Inflow (flow-time)	Applied to Ox Pound 1-2
GU13IN	Inflow (flow-time)	Applied to Ox Pound 1-2
Kilsby_In	Inflow (flow-time)	Applied to Ox Pound 1-2
Will'by_In	Inflow (flow-time)	Applied to Ox Pound 1-2
Merevale_In	Inflow (flow-time)	Applied to CC Pound 7-8
CURDWORTH	Inflow (flow-time)	Applied to CC Pound 11-12
GREENDON	Inflow (flow-time)	Applied to CC Pound 11-12
RawnHill_In	Inflow (flow-time)	Applied to CC Pound 1-1
Mancetter_In	Inflow (flow-time)	Applied to CC Pound 1-1
Hartshill_In	Inflow (flow-time)	Applied to CC Pound 1-1
GriffArm_In	Inflow (flow-time)	Applied to CC Pound 1-1
WemBrook_In	Inflow (flow-time)	Applied to CC Pound 1-1
LeicesterOut	Outflow (Abstraction)	Applied to GU Pound 6-7
North	Outflow (Abstraction)	Applied to GU Pound 13-14
Napton	Outflow (Abstraction)	Applied to Ox Pound 7-8
Redrow_Out	Outflow (Abstraction)	Applied to CC Pound 1-1
Redburn_in	Inflow (flow-time)	Applied to GU Pound 27-28
Cowroast_bh	Inflow (flow-time)	Applied to GU Pound 21-22
Ouse	Inflow (flow-time)	Applied to GU Pound 21-22

2.8 -Assumptions and limitations

Developing a hydraulic model requires the application of simplifications and generalisations. As such, several assumptions were made when building the model. This can lead to model uncertainties and subsequent limitations in the results. Assumptions and limitations apply to the high-level models of the OxGU and the GUT:

- No tunnels have been represented fully in the model due to limited canal channel data through them. Instead, the narrowing of the canal at the openings has been included, with high vertical banks and assuming limited change in the cross sections of the canal through the tunnel. Whilst these structures will likely have a local impact on water levels and velocities in the pounds, they are not the main control on water levels with the GU system.
- Where aqueducts are present the bed and bank geometry has been taken from the Trust's nearest available cross section, with the width reduced to represent the constriction. The aqueduct widths were taken from the Trust's database, or where not available, from GIS mapping.
- The river sections geometry representing the canal pounds has been updated to include detailed survey data and bathymetric survey combined with LiDAR. However, there is a large variability in how many cross sections have been used for different pounds (number of cross sections used and spacing between them). This was necessary to provide model stability within the time constraints of Gate 2. The use of LiDAR to represent the banks for cross sections can introduce some error. However, this approach was found to be suitable when tested at the outset of the Gate 2 work.
- The locks have been represented explicitly in the model. Where the data has not been available for individual locks within a flight, the first and last locks have been modified to provide the change in elevations. This preceding situation only occurs on the Braunston to Hatton section, which is not part of the main transfer route.
- The Hillmorton flight consists of double locks, these were represented with only single locks in the model.
- The back-pumps have been represented using flow time series obtained from the Aquator model and they are not represented explicitly in the hydraulic model. The Trust's water control manual does not record with enough detail the operation rules for each back-pump to be implemented directly into the model. Further analysis looking at the SCADA data set will be required at Gate 3.
- For those locks modelled, not all by-weirs were surveyed in the 2022 Storm survey. This has led to some modelled by-weir structures bypassing water for multiple locks in a flight. We have deemed this a suitable method for representing the bypass flows of the by-weirs, as a next best method, where data was not available.
- The hunting (frequent switching) condition of the pumps is generated by the sample time used in the model to check the water level in the pound throughout the simulation and adjust the pumping rates. While a number of tests were carried out optimise the sample time, it remains as a limitation of the model.

3 Validation

In order to test the model's representation of water levels in the canal network, the modelled mean water level results have been compared against observed data captured during the hydrometric survey. The method used is further outlined below in section 3.1.

3.1 Validation method

- Continuous water level gauging was undertaken during the hydrometric survey at five pounds along the transfer route (plus at other pounds no longer within the preferred route). These pounds were selected for gauging because they were predicted to experience significant spills from waste weirs in the Gate 1 study.
- Flow boundaries for the validation period December 2021 to February 2022 were extracted from the Aquator model and applied to the hydraulic model.
- The observed daily mean water levels have been plotted against modelled levels for the period December 2021 to February 2022.
- The observed and validation period modelled results have been normalised (using the long-term mean) to take out issues relating to differences in datum between the observed timeseries and the section of the model (bed level and/or weir crest level).
- Daily rainfall for the canal feeder catchments that supply each pound have been included on the graphs for the validation period, to indicate where the observed or modelled results may be responding to wet weather events.

3.2 Validation scenario

Table 3-1: Validation scenario FMP data files

Run Reference:	*Comb_GU_Phase2_072_TOFF_01_11_2021*
	File Names:
	Comb_GU_Phase2_T_072.dat
	Comb_GU_Phase2_072_TOFF_01_11_2021.ief
	Transfer_OFF.ied Validation_01_11_2021_No_Seepage_v6.ied
Run Time:	December 2021 - February 2022 model event duration: 116 days (2794 hours)
Run Settings:	Timestep = 10 seconds Save interval = 300 seconds Matrix Dummy Coefficient = 0.001 Global Matrix Dummy Coefficient = 0.00001

3.3 Validation Results

The normalised water level plots for the 5 validation pounds and rainfall depths are shown and discussed below.

3.3.1 GU Pound 6-7

Observed levels fluctuate within +/- 0.05m of the mean, showing some relationship with wet-weather events, although not in all cases, for example water levels rose during mid-January, despite there being very little rainfall during this period at the nearest rain gauge. Some fluctuation is also observed in the model results in response to wet-weather events, but the timing of water level changes does not match the observed. This suggests that unmodelled factors, such as operational changes or peaks of boat movements may have impacted the observed levels. The Trust provided the following possible interpretation of the observed water level changes: *"There was a rainfall event on Christmas eve, boaters stop moving around over Christmas. Observed water levels increase 2-3 days later, office based employees are on annual leave and don't see this raise, or boaters/public are not calling in incidents over festive period. When employees get notification of a HiHI (operational call out) they then take out stop boards to lower water levels. At this point boaters start to move around the network again."*

This underlines the fact that the canal network is subject to changes in water levels which can neither be predicted nor represented (short of force-fitting) in a hydraulic model.

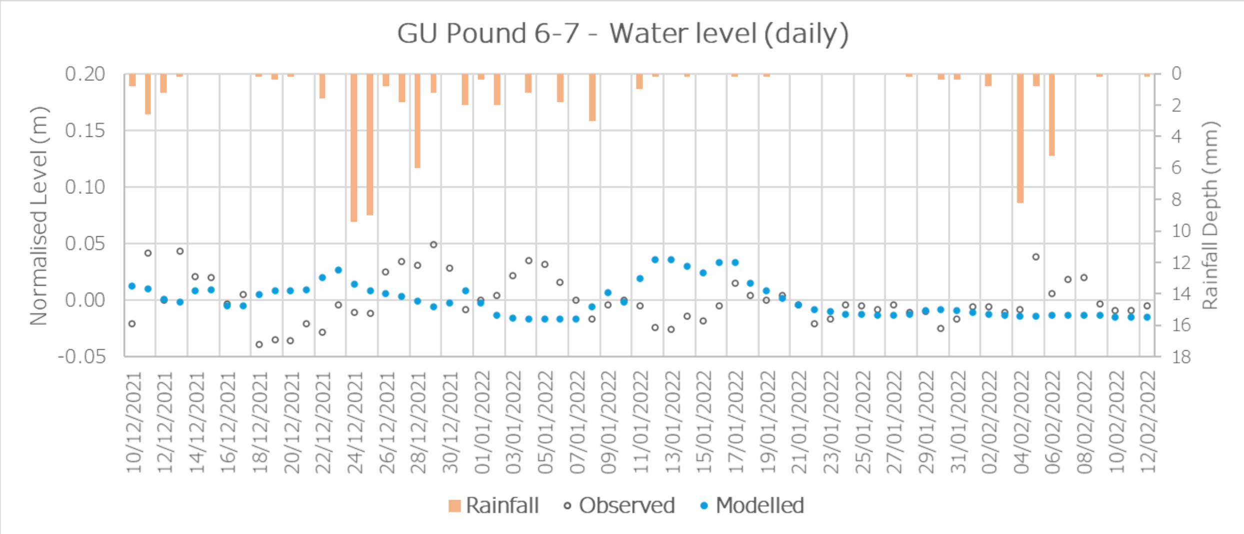


Figure 3-1: Observed vs predicted water levels, rainfall depth for Watford Feeder, GU Pound 6-7

3.3.2 GU Pound 20-21

Observed levels are characterised by two peaks up to 0.2m above the mean, interspersed with periods of stable levels. These peaks correlate well with wet-weather events. The modelled water levels remain stable throughout the period. This suggests that unmodelled factors, such as operational changes or unidentified feeders may have impacted the observed levels.

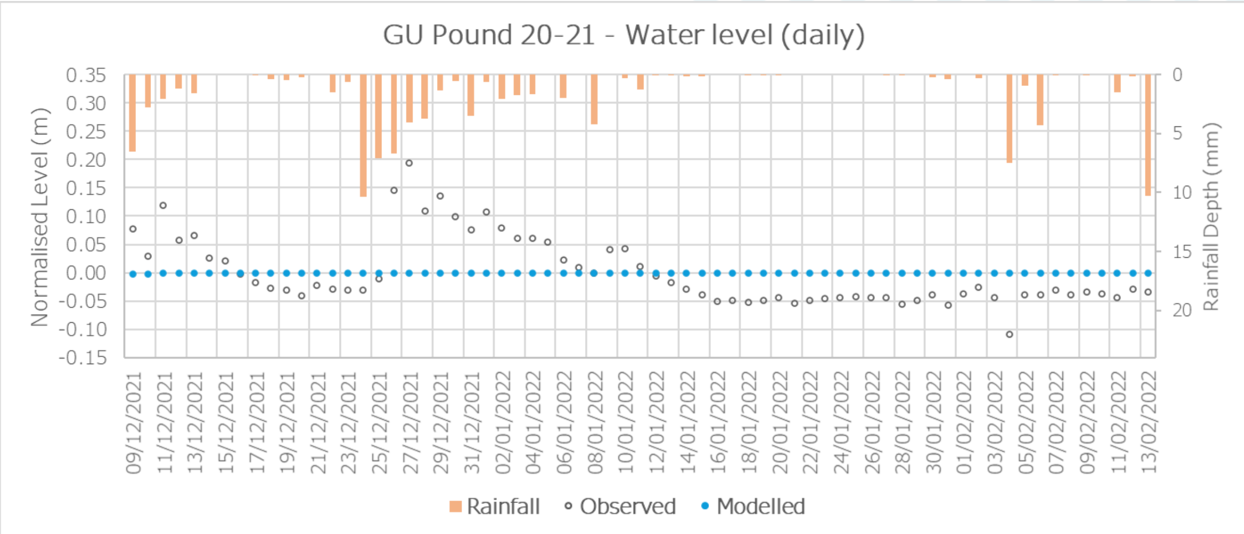


Figure 3-2: Observed vs predicted water levels, rainfall depth for River Tove feeder, GU Pound 20-21

3.3.3 GU Pound 21-22

As in GU Pound 20-21, observed levels are characterised by two peaks up to 0.1m above the mean, interspersed with periods of stable levels. The peaks correlate with wet-weather events. The modelled water levels remain stable throughout the period. This suggests that unmodelled factors, such as operational changes or unidentified feeders may have impacted the observed levels.

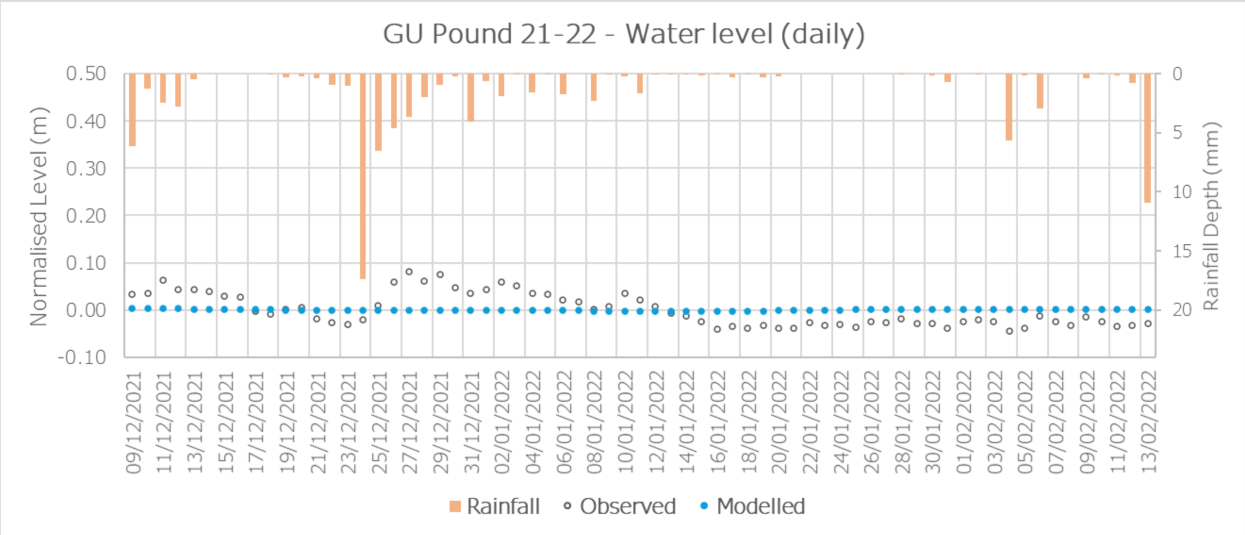


Figure 3-3: Observed vs predicted water levels, rainfall depth for River Ouse feeder, GU Pound 21-22

3.3.4 GU Pound 22-23

Observed levels fluctuate within +- 0.05m of the mean, increasing in response to wet-weather events. The modelled results are consistent throughout. This suggests that unmodelled factors, such as operational changes or peaks of boat movements may have impacted the observed levels.

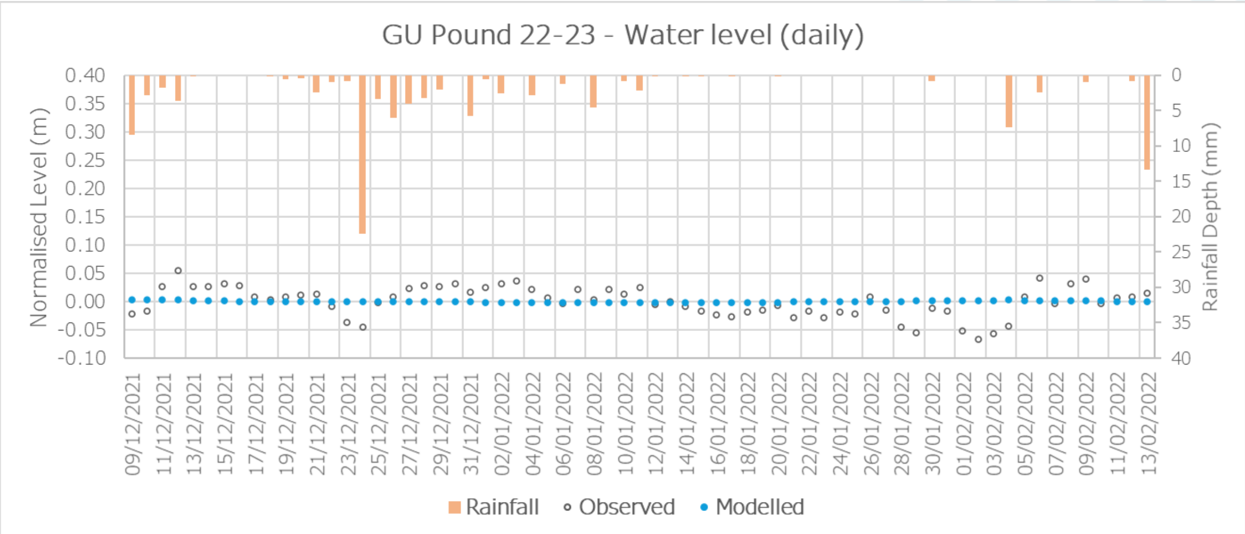


Figure 3-4: Observed vs predicted water levels, rainfall depth for Leburn Brook feeder, GU Pound 22-23

3.3.5 GU Pound 26-27

Observed levels show a sharp drop of 0.17m below the mean in late December, perhaps due to an operational change. Thereafter, water levels are generally around 0.05m higher than in early December, with several smaller fluctuations. The modelled water levels drop steadily by around 0.03m across the period, with no fluctuations. Again, this suggests that unmodelled factors may have impacted the observed levels for example a paddle being left open at lock 26..

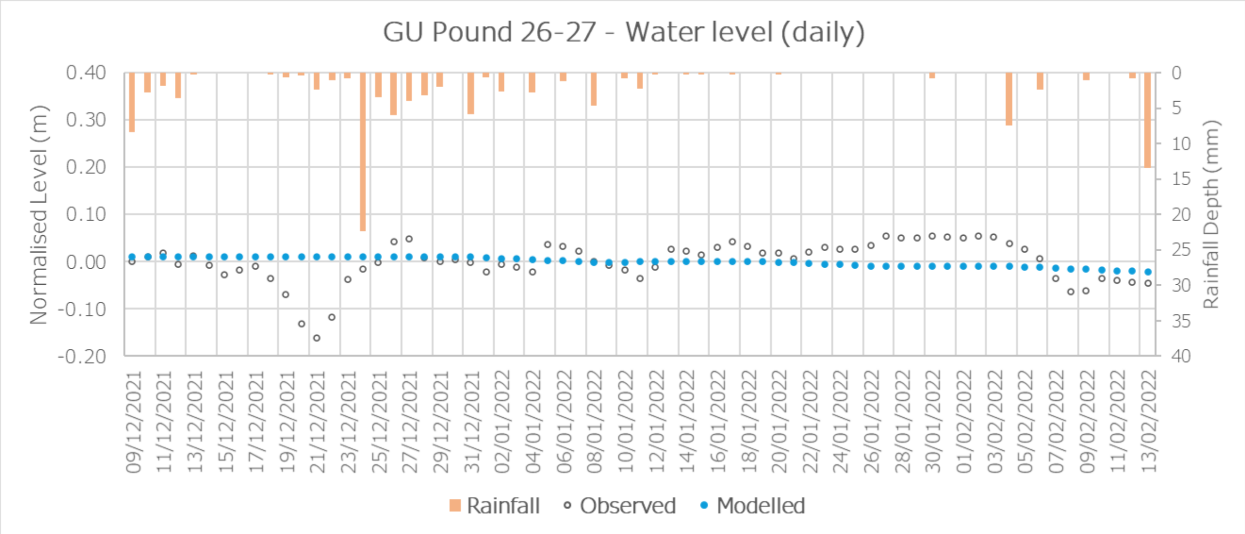


Figure 3-5: Observed vs predicted water levels, rainfall depth for Leburn Brook feeder, GU Pound 26-27

3.4 Conclusions

Observed results across all of the monitored pounds some response to rainfall, plus at some locations other changes in levels which are likely to be due to operational issues. In the modelled results, response to rainfall is only predicted in GU Pound 6-7, although these responses do not match the timing of observed changes. This suggests a range of unmodelled factors may be impacting water levels. These might include operational changes, faults such as leaky lock gates, boater errors, or unmodelled surface water inflows to the canals. Of these, unmodelled surface water inflows may be most impactful, since they would be at their largest during flood events when the system's capacity would be under pressure from known inflows. This suggests that additional checks would be warranted to identify possible sources of inflows, alongside longer-term monitoring of flows and water levels.

This said, a satisfactory overall calibration of the hydrological model (which provides flow boundaries for the hydraulic model) has been achieved (see Annex A2.1), providing confidence that the main inflows to the canal system are known and suitably modelled. The baseline performance of the model is tested further in the following section, in particular section 4.3.1.on baseline water levels.

4 Results

4.1 Introduction

The main hydraulic modelling results are presented in the Gate 2 final modelling report (Annex A2.4), which explores the impacts of the SRO on surge, velocity, water levels, and waste weir spills. This section explores the results in more detail and is aimed at a more technical audience.

For readers wishing to explore the results further, a full tabular presentation of results is provided in Appendix D.

4.2 Modelled scenarios

4.2.1 Baseline model scenario

The December 2013 to April 2014 (Wet) scenario has been applied to the model for the baseline and with transfer scenarios.

Details of the baseline run files and parameter used are provided in Table 4-1.

Table 4-1: Model baseline scenario details

Run Reference:	*Comb_GU_Phase2_074_TOFF_01_12_2013.ief*
	File Names:
	Comb_GU_Phase2_T_074.dat
	Comb_GU_Phase2_074_TOFF_01_12_2013.ief
	Transfer_OFF.ied Baseline_01_12_2013_No_Seepage_trimmed.ied
Run Time:	December 2013 to April 2014 model event duration: 119 days (2854 hours)
Run Settings:	Timestep = 10 seconds Save interval = 3600 seconds Matrix Dummy Coefficient = 0.001 Global Matrix Dummy Coefficient = 0.00001

4.2.2 With scheme scenario modelling

The 'with-scheme' scenario was represented by applying the target flow into the model in the Atherstone pound (Coventry Canal pound 1-1), at the south face of the Coventry Canal lock 1 (CC Lock 1). To represent the transfer, the following changes were made to the baseline model.

- At the inflow locations, a constant flow of either 57.5ML/d (0.68m3/s) or 115ML/d (1.33m3/s) was applied to the model, per each transfer scenario respectively.
- To allow water to be transferred downstream against gravity through the locks, an abstraction unit was added which transferred the target flow of 57.5Ml/d and 115ML/d between pounds, per each transfer scenario respectively. This represented the proposed new pumps to be constructed as part of the SRO, with locations advised by the GUC Gate 2 engineering consultants. The operation rules used in the abstraction units that represents the new pumps were set up as follows:

- If water levels in the pound (WL) is ≥ NWL, then pumped flow (Q) = transfer target flow;
- If WL is between NOZ- and NWL, then Q = % of transfer target flow based on the water level at each timestep; and
- If WL < NOZ-, then Q = 0 (pumped flow off).

- To allow water to be transferred downstream through the locks, an abstraction unit was also added. This represent the proposed new or upgrade by-weir to be constructed as part of the SRO. These abstraction units were set up to take the remaining flow needed to be transfer which is not conveyed by the existing by-weirs, at downhill locks.
- The inflows, outflows, flows through the locks and back-pumps boundary units in both models were updated with flows from the Aquator model, per each transfer scenario respectively.

Details of the scenario runs files and parameter used are provided in Table 4-2 and Table 4-3.

Table 4-2: 57.5 Ml/d transfer scenario model run

Run Reference:	***Comb_GU_Phase2_074_T57MLd_01_12_2013_IT2_300s_3***
	File Names:
	Comb_GU_Phase2_T_074.dat
	Comb_GU_Phase2_074_T57MLd_01_12_2013_IT2_300s_v3.ief
	Baseline_01_12_2013_No_Seepage_trimmed.ied Transfer_57MLd.ied Transfer_Iteration_2_300s_v3.ied Byweir_and_WasteWeir_Controls_v4.ied
Run Time:	December 2013 – April 2014 model event duration: 116 days (2794 hours)
Run Settings:	Timestep = 10 seconds Save interval = 300 seconds Matrix Dummy Coefficient = 0.001 Global Matrix Dummy Coefficient = 0.00001

Table 4-3: 115 Ml/d transfer scenario model run

Run Reference:	**Comb_GU_Phase2_074_T115MLd_01_12_2013_IT2_75s_4**
	File Names:
	Comb_GU_Phase2_T_074.dat
	Comb_GU_Phase2_074_T115MLd_01_12_2013_IT2_75s_v4.ief
	Baseline_01_12_2013_No_Seepage_trimmed.ied

	Transfer_115MLd.ied Transfer_Iteration_2_75s_v4.ied Byweir_and_WasteWeir_Controls_v4.ied
Run Time:	December 2013 – April 2014 model event duration: 116 days (2794)
Run Settings:	Timestep = 10 seconds Save interval = 300 seconds Matrix Dummy Coefficient: 0.001 Global Matrix Dummy Coefficient: 0.00001

In addition, by-weirs that convey water in the opposite direction than the transfer flow, were also raised to avoid flow recirculation around these locks. Figure 4-1 illustrates the location of these raised features.

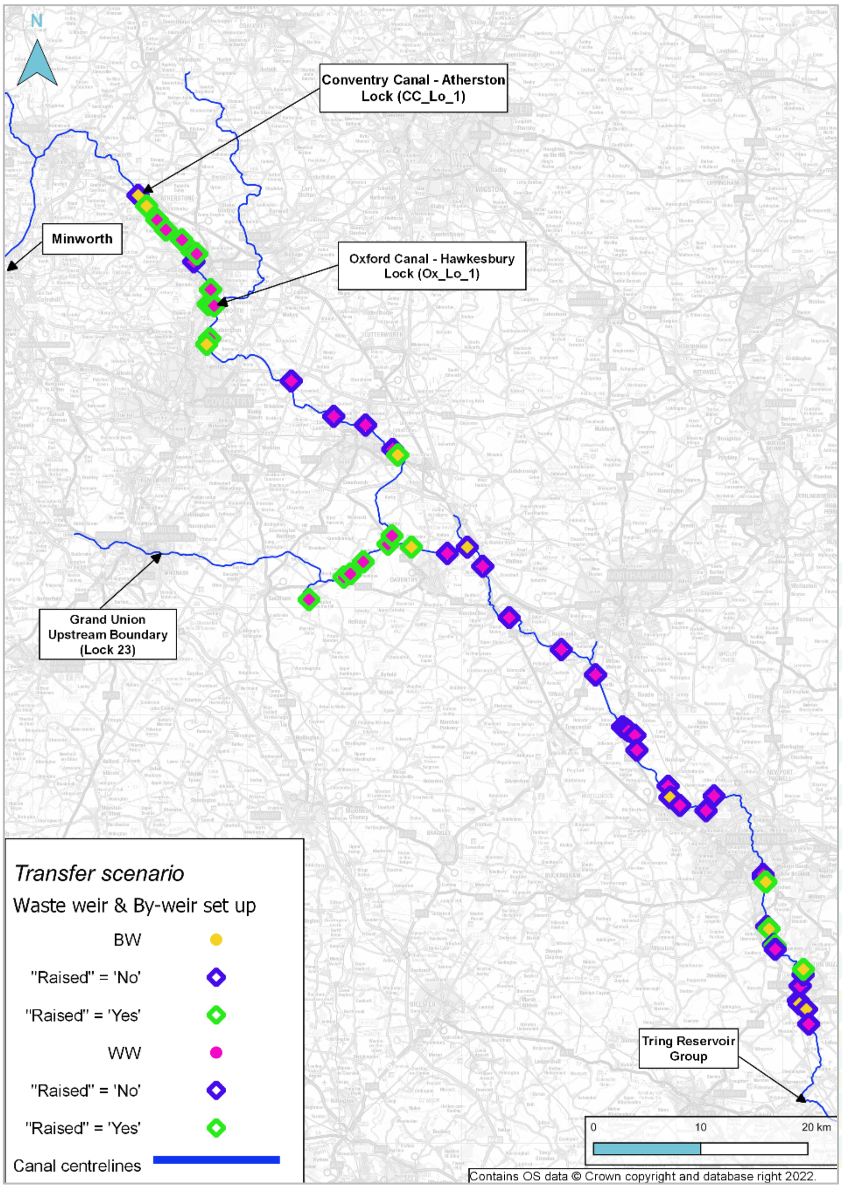


Figure 4-1: Setting of the waste weirs and by-weirs in the With-Scheme scenarios

4.2.3 Sensitivity testing

Sensitivity testing to understand the sensitivity of the hydraulic models developed to changes in key input parameters was undertaken during Gate 1. It was not deemed necessary to repeat these tests during Gate 2, for reference the tests were:

- Manning's n +/-20%;
- Weir spill coefficients +/-20%;
- Initial water level (test not run, as model became unstable); and
- Back-pumping rate (+/-20%).

Results from the sensitivity testing showed that:

- When Manning’s n is varied by +/-20% there is limited increase/decrease in canal pound water level – as such it is considered that the model is insensitive to a change in Manning’s n coefficient.
- When the weir spill coefficients are increased/decreased by 20%, there is an increase/decrease in spill volume over the spill weirs -however the impact on canal pound levels is minimal.
- When back pumping rate is increased/decreased by 20% there is a minimal change in canal pound water level.

No further sensitivity tests were carried out to the model parameters during Gate 2; however it is recommended that testing is undertaken following further development of the with-scheme model at Gate 3, in order to confirm any sensitivities which might impact upon scheme design or performance.

4.3 Baseline and ‘With Scheme’ results

This section reports the predicted water levels in the baseline compared to the stated Normal Water Level (NWL), and changes in water levels between the baseline and the with-scheme scenarios and the implications they have for water level management and flood risk. All model outputs presented here are for the wet period December 2013 to April 2014.

Normal water levels (NWL) and the range of operational water levels (NOZ- & NOZ+) were obtained from The Trust’s Water Control Manuals (WCM) and water control points (GIS layer).

Predicted minimum, mean and maximum water levels for the baseline and with-scheme scenarios were derived for each pound and compared against the normal water levels (NWL) and the operation zone range.

4.3.1 Baseline water levels

Baseline vs. Normal Water Level (NWL)

Table 4-4 shows the comparison between the baseline simulation and the NWL, for each node in the model. In most locations, predicted mean water levels are within +/- 0.15m of the NWL (Table 4-4a).

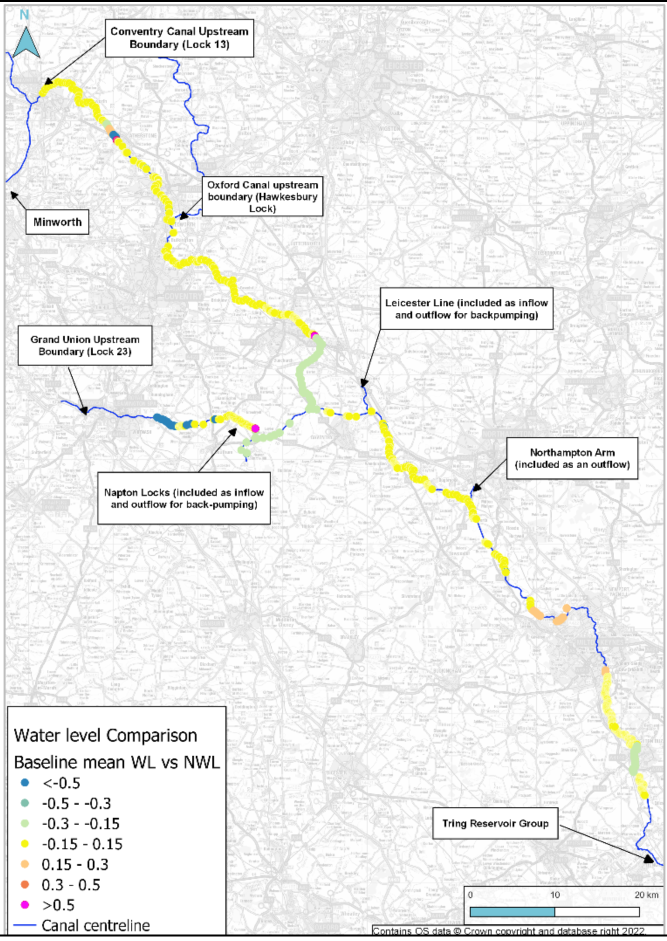
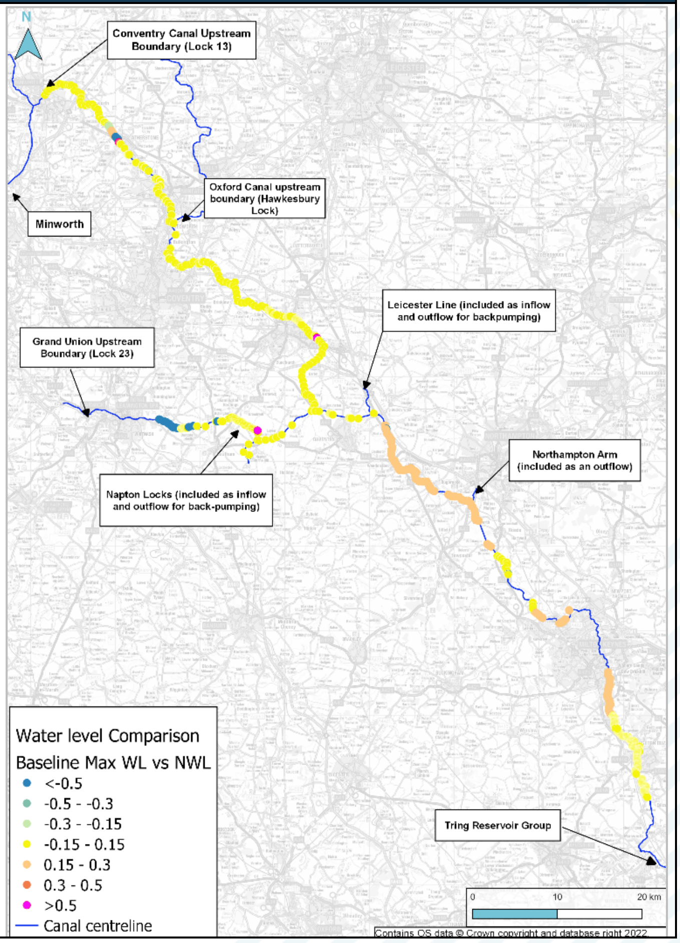
Baseline water levels are predicted to be up to 0.3m below NWL in the Oxford Canal between locks 7 and 8. Engagement between JBA and The Trust has improved the modelling of waste weir levels in this pound, but these results indicate that there may still be other factors causing an under-prediction of water levels, albeit much improved on previous model iterations. This should be rechecked when all aspects of water control are reviewed at Gate 3.

The GUC Pound between locks 27 and 28, through Leighton Buzzard, is also predicted to operate some 0.2m below NWL.

The comparison between predicted maximum water levels and NWL for the baseline case exhibits a different pattern. Again, most pounds are predicted to remain within 0.15m of the

NWL. The exceptions are GUC pounds 13-14, 21-22 and 22-23, which all predict water levels 0.15 to 0.20m above NWL.

Table 4-4: Water level comparison – Baseline vs Normal Water Level (m)

a. Baseline mean WL vs Normal Operation WL	b. Baseline max WL vs Normal Operation WL
	

4.3.2 Conveyance of the transfer scheme

In the with-scheme model, modelling issues have been identified in establishing a continuous conveyance of 115Ml/d (1.33m3/s). This has meant that the maximum modelled conveyance achieved in this scenario is 106Ml/d (1.23m^3/s) where pumping is required to convey the transfer against gravity. At Leighton Buzzard, the target abstraction flow of 115Ml/d is achieved most of the time. However, there are short periods where the abstraction flow decreases to a value of 93Ml/d (1.1 m3/s). Figure 4-2 illustrates the conveyance through Hawkesbury Lock (blue line) and the transferred flow abstracted at Leighton Buzzard (green line). To reiterate, this is a modelling constraint and not a physical constraint, as it does not relate to the specific geometry or capacity of existing canal assets.

This constraint with the model is related to the sample time used in the operational rules of the transfer pumps to check the water levels within the pound. As mentioned in Section 4.2.2, the operation rules have been set up to avoid water levels dropping below the NOZ-. This is achieved by allowing the pumping rate to vary from the target transfer flow when the levels in the pound are between the NWL and NOZ-, using the sample time to check the water levels and adjust the flow rate, generating the hunting (frequent switching) condition of the pumps.

We consider that the differences in velocities and water levels between 115Ml/d and 106Ml/d will be minor and therefore that this issue does not adversely impact the conclusions of this report, but that further work will be required at Gate 3 to overcome this issue.

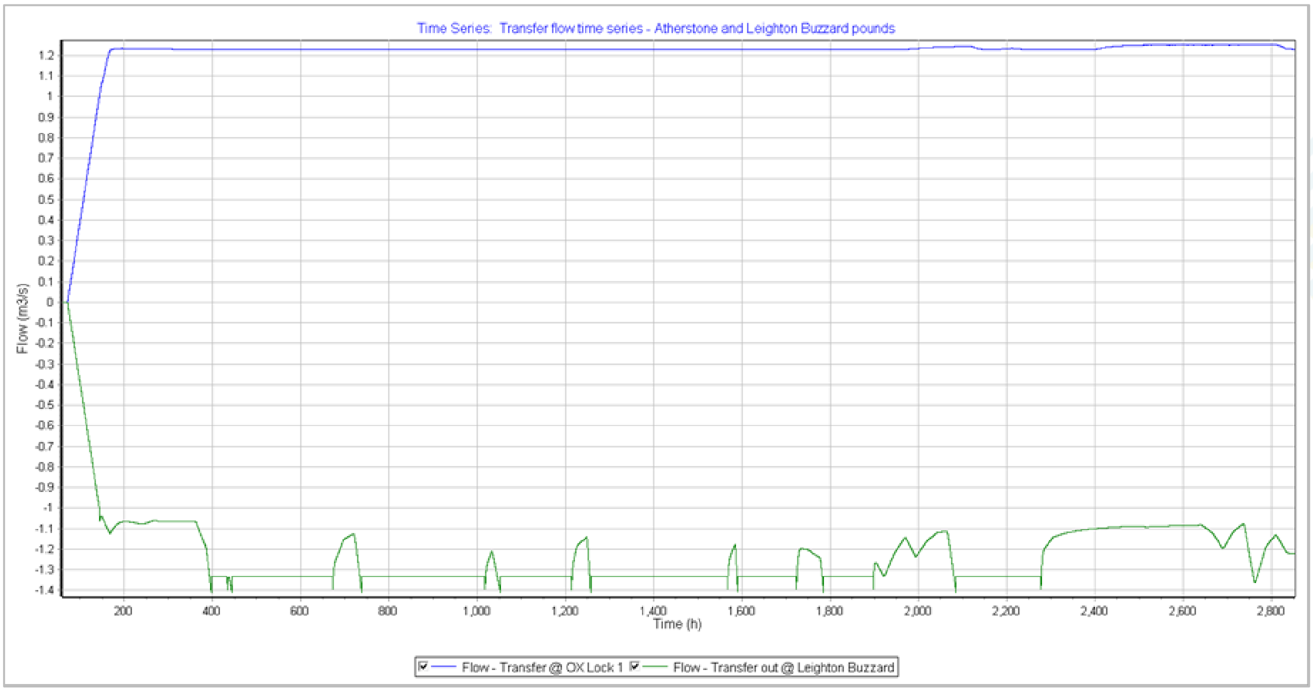


Figure 4-2: Conveyance through Hawkesbury Lock (OX lock 1) and transfer outflow at Leighton Buzzard

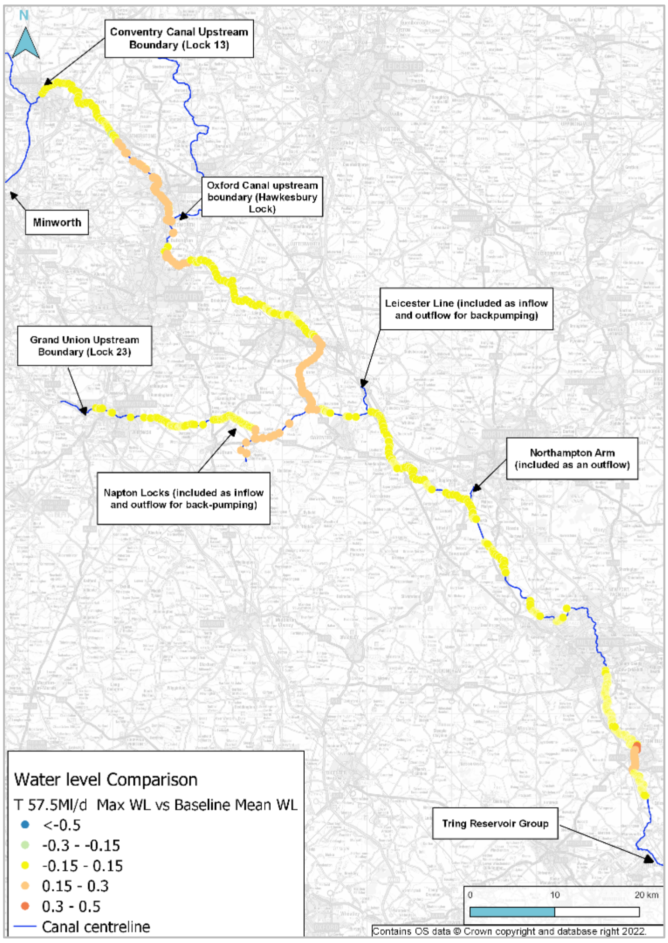
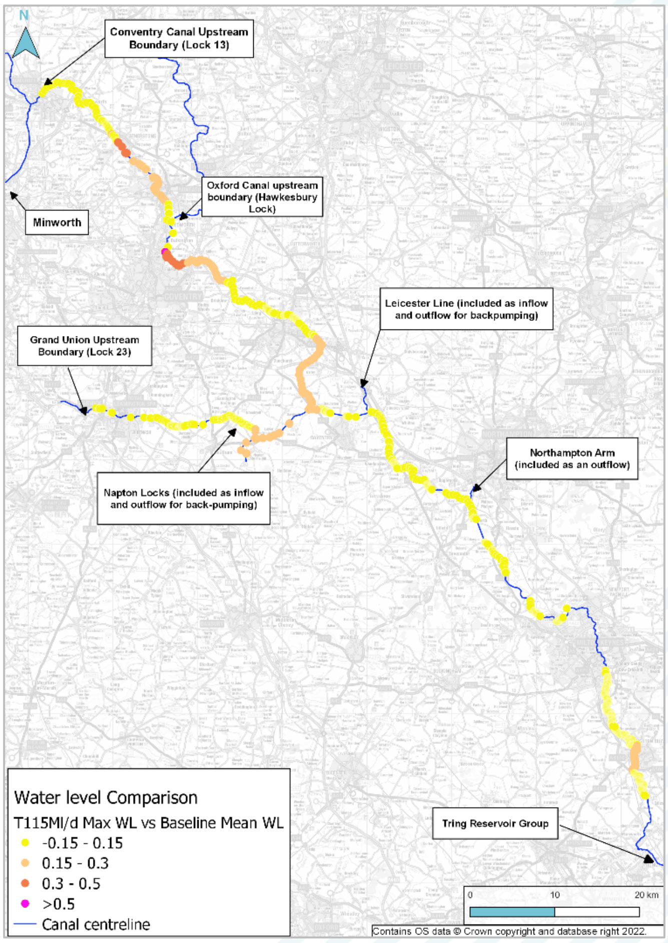
4.3.3 'With Scheme' water levels

Table 4-5 illustrates the comparison of both with-scheme flow scenarios against the baseline, per each model node. In most locations, predicted mean water levels are within +/- 0.15m of the baseline for both the 57.5Ml/d and 115Ml/d target transfer rates.

Areas of increases greater than 0.15 are predicted:

- Between Atherstone and Nuneaton on the Coventry Canal with increases up to 0.32m at Atherstone, gradually reducing to 0.15m in Nuneaton, for 115Ml/d.
- Between Lock 1 (Hawkesbury Lock) and the M6 on the Oxford Canal, with increases up to 0.3m in the 115Ml/d scenario. Increases are below 0.15m in the 57.5Ml/d transfer scenario.
- Oxford Canal Lock 7 (Hillmorton Top Lock) to Lock 8 (Napton) and the GUC from Braunston Junction to Lock 1 (Braunston, including increases up to 0.33m at Hillmorton with 115 Ml/d, and 0.29m with 57.5Ml/d.

Table 4-5: Water level comparison – with-scheme scenarios vs Baseline (m)

T 57.5Ml/d max WL vs Baseline mean WL	T 115Ml/d max WL vs Baseline mean WL
	

4.3.4 Tabulated water level comparison

Table 4-6 presents a comparison between the operation levels and the predicted mean water levels for the baseline and both with-scheme scenarios (as average water values per canal pound for the simulated period December 2013 to April 2014). Light green cells indicate the locations where predicted mean water levels are within the Normal Operating Zone. Light blue is used to indicate the locations outside of the operational range. Of the 12 pounds with a NOZ and NWL to compare against:

- Eight pounds are predicted as within the NOZ for baseline and both transfer flow scenarios.
- OX Pound 7-8 is below the NOZ in the baseline, but within it in the with-scheme scenarios.
- GU Pounds 13-14 and 21-22 are above the NOZ in all scenarios.
- GU Pound 27-28 is below the NOZ in all scenarios.

The same approach is used in Table 4-7 which compares maximum predicted water levels (existing operational vs baseline and with-scheme). It also shows the water level range, defined as the difference between the maximum and minimum water level recorded in any node within each pound.

Table 4-6: Comparison of existing operation water levels and predicted mean water levels for the baseline and with-scheme scenarios (mAOD)

Canal pound	NOZ-	NWL	NOZ+	Baseline	T 57.5Ml/d	T 115Ml/d
CC Pound 1-1	92.21	92.275	92.32	92.25	92.45	92.45
OX Pound 2-1	92.49	92.56	92.61	92.51	92.55	92.58
OX Pound 7-8	98.07	98.117	98.22	97.84	98.11	98.09
GU Pound 6-7	108.9	108.95	109.05	109.01	109.01	108.98
GU Pound 7-8 (**)	-	-	-	106.58	106.57	106.53
GU Pound 13-14 (*)	89.79	89.79	89.89	89.92	89.92	89.91
GU Pound 20-21	72.69	72.84	72.99	72.88	72.87	72.82
GU Pound 21-22 (*)	71.36	71.41	71.48	71.64	71.54	71.54
GU Pound 22-23	71.35	71.51	71.65	71.64	71.54	71.52
GU Pound 23-24 (*)	74.21	74.28	74.38	74.25	74.24	74.22
GU Pound 26-27	80.36	80.51	80.66	80.45	80.41	80.4
GU Pound 27-28 (*)	82.44	82.59	82.74	82.39	82.38	82.32
GU Pound 29-30	86.39	86.54	86.69	86.53	86.53	86.53

(*) known differences between The Trust's control point information and surveyed crest levels

(**) data not available

Table 4-7: Comparison of existing maximum operation water levels and predicted maximum water levels for the baseline and with-scheme scenarios (mAOD)

Canal pound	Maximum water levels (mAOD)				Water level range (m)			
	NOZ+	Base_ line	T57.5Ml/d	T115 Ml/d	NWL	Base_ line	T57.5Ml/d	T115 Ml/d
CC Pound 1-1	92.32	92.28	92.24	92.24	0.11	0.04	0.21	0.22
OX Pound 2-1	92.61	92.52	92.68	92.85	0.12	0.05	0.22	0.43
OX Pound 7-8	98.22	98.11	98.14	98.14	0.15	0.64	0.06	0.08
GU Pound 6-7	109.05	109.07	109.1	109.08	0.15	0.1	0.14	0.16
GU Pound 7-8	- (*)	106.64	106.64	106.6	-	0.09	0.11	0.08
GU Pound 13-14	89.89	89.96	90.01	90.06	0.1	0.05	0.14	0.22
GU Pound 20-21	72.99	72.89	72.88	72.88	0.3	0.02	0.03	0.08
GU Pound 21-22	71.48	71.7	71.58	71.61	0.12	0.17	0.07	0.16
GU Pound 22-23	71.65	71.7	71.56	71.57	0.3	0.17	0.05	0.11
GU Pound 23-24	74.38	74.23	74.18	74.18	0.17	0.79	0.75	0.75
GU Pound 26-27	80.66	80.56	80.42	80.42	0.3	0.15	0.01	0.03
GU Pound 27-28	82.74	82.68	82.69	82.69	0.3	0.41	0.44	0.48

(*) data not available

Table 4-6 and Table 4-7 show in some pounds that predicted water levels for the transfer scenario are lower than in the baseline. This is due to the operational rules used to set up the transfer pumps, which aim to maintain water levels around the NWL while generating a drop in head on the section closer to the pumps.

4.3.5 Baseline and 'with-scheme' maximum velocity

Baseline Maximum velocity

As we would expect, in the baseline scenario the majority of the modelled network stays below 0.05 m/s maximum velocity (Figure 4-3), with a small number of areas which reach 0.1m/s. However, there are unusually high velocities in the Grand Union Canal (GUC) Pounds 23-24 (0.3->1 m/s) and 27-28 (0.05-0.3 m/s), which we would not expect in the baseline. Further discussion on these higher than expected velocities is provided after the with-scheme velocity results are introduced.

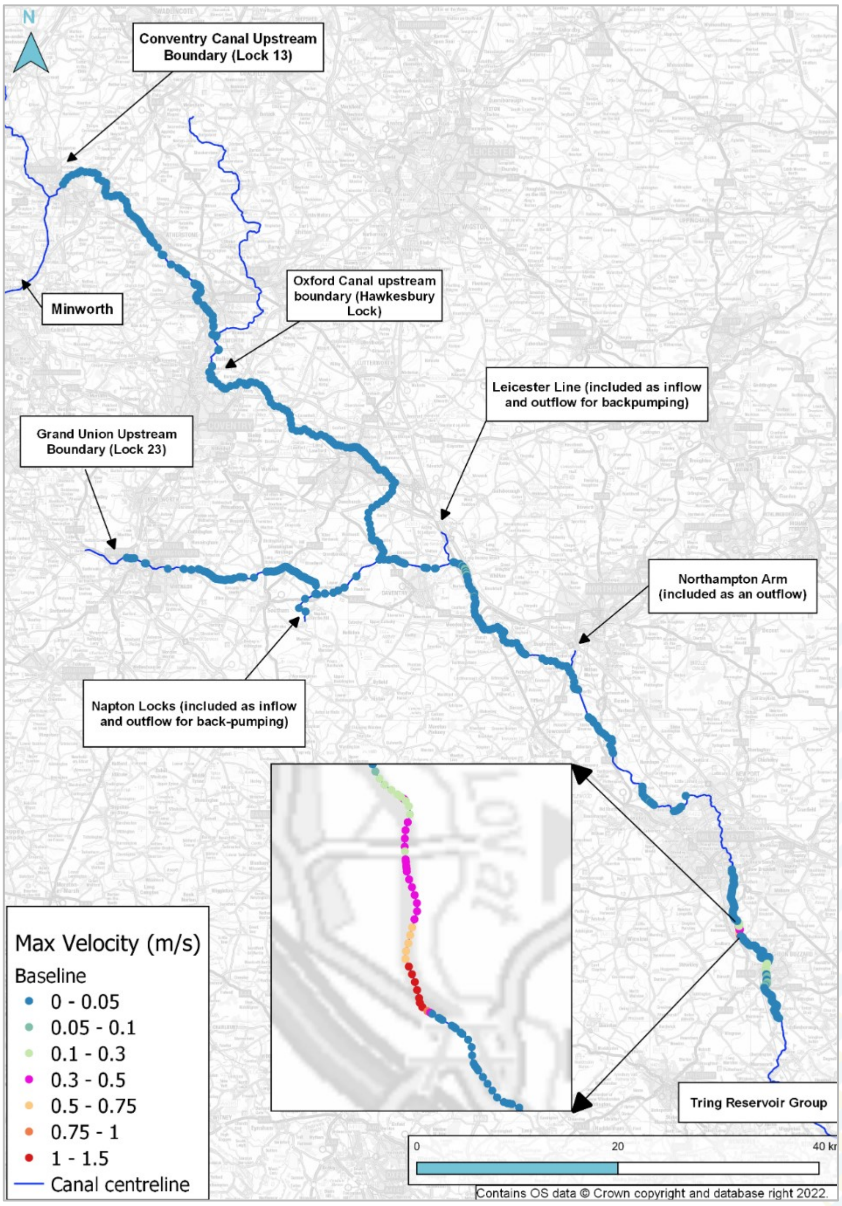


Figure 4-3: Baseline maximum water velocity

57.5 Ml/d Maximum velocity

When compared to the baseline the 57 Ml/d scenario (Figure 4-4), exhibits higher velocities along a significant proportion the transfer route, starting at Atherstone, where the transfer enters the canal. These velocities are generally between 0.05 and 0.3 m/s. GUC Pound 27-28 remains below 0.3 m/s generally, with only one model unit above 0.3 m/s. Velocities in the Oxford and GU canals west of Braunston, which are not on the transfer route, are unchanged from the baseline scenario.

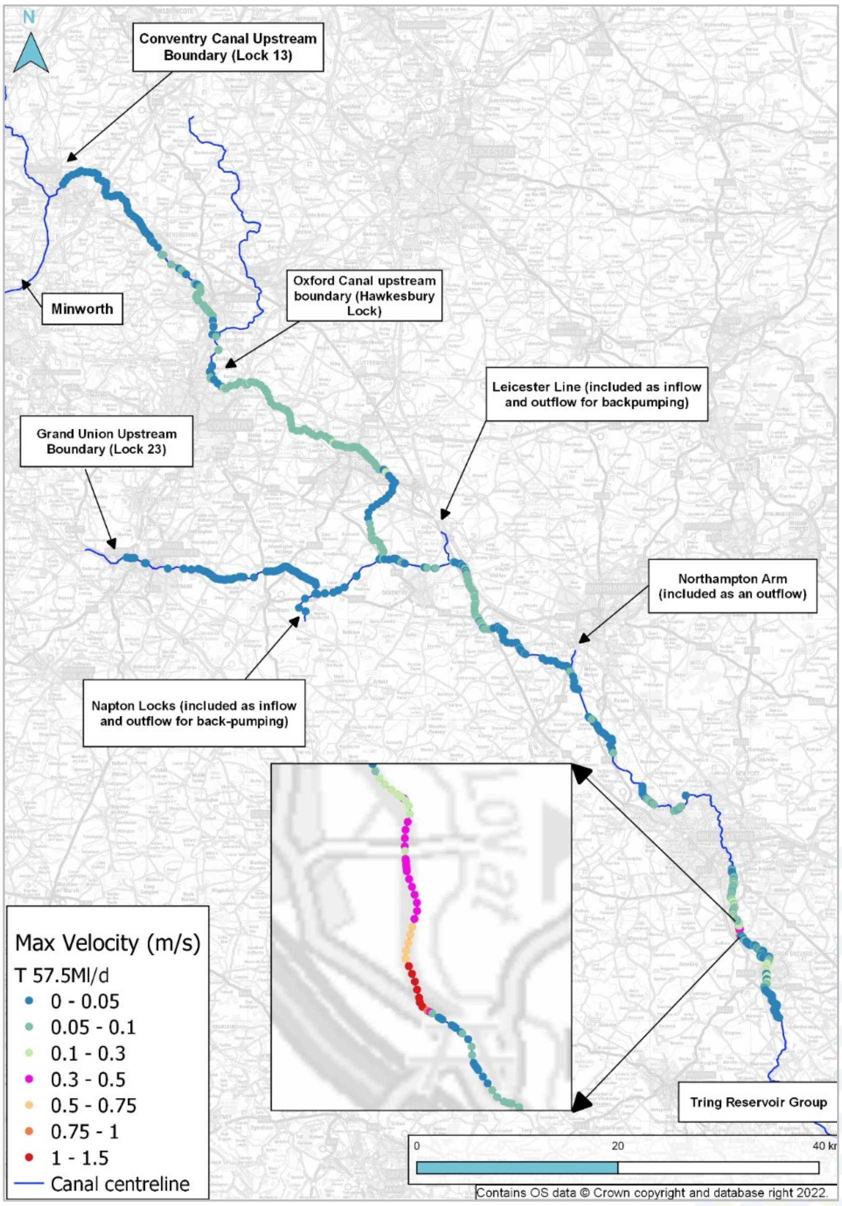


Figure 4-4: Transfer - 57.5 Ml/d maximum water velocity

115 Ml/d Maximum velocity

The maximum water velocities for almost all model units for the 115 Ml/d (Figure 4-5), are greater than the baseline scenario. They do not generally reach over 0.3 m/s, however there are localised points with between 0.3 and 0.5 m/s velocities, for example at Hawksbury lock which could be due to a large volume of back-pumping. This scenario exhibits the same velocity patterns for GU Pounds 23-24 and 27-28, as the baseline and 57.5 Ml/d transfer.

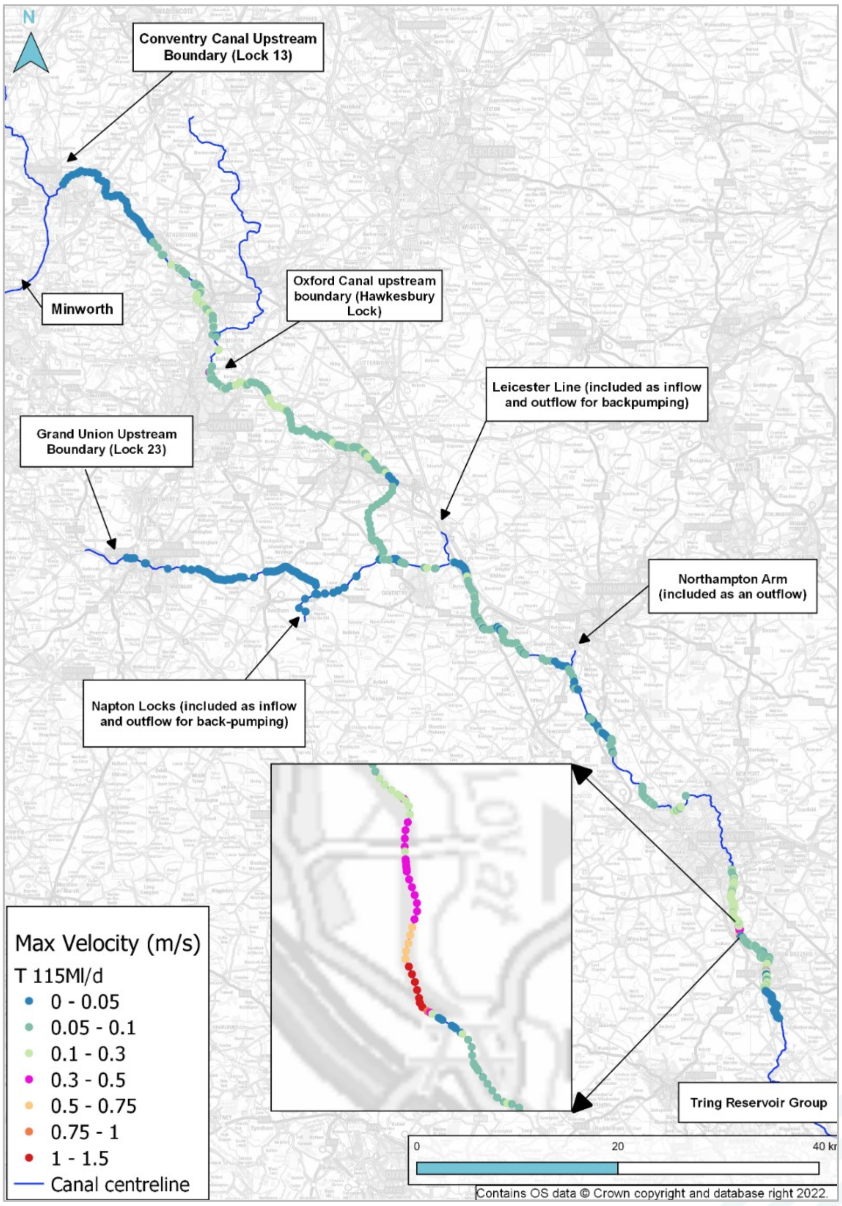


Figure 4-5: Transfer – 115 Ml/d Maximum water velocity

Discussion on higher than expected velocities in GU 23-24 and 27-28

As reported in the above sections, model outputs show a greater than expected range of maximum velocities within pounds GU 23-24 and GU 27-28. Further analysis of the results confirms that this is due to brief moments of numerical non-convergence (instability) during the model simulation and the way that maximum values are recorded by the software. These maximum values are tracked along the simulation at each timestep (10s) and recorded at the end of the simulations, picking up any spike due to the non-convergence instances. However, when timeseries outputs are queried (instead of maximum values only), the velocities are within reasonable bounds, as illustrated in Figure 4-6. This figure shows the variation of the velocities throughout the simulation at cross section 138300, where the maximum velocities are lower than 0.07, 0.045 and 0.005m/s for the T115Ml/d, T57.5Ml/d and Baseline scenario respectively. These timeseries are recorded at 300s timestep, which is the normal model output. In conclusion, we are confident that the velocities in pounds GU 23-24 and GU27-28 will remain well below the 0.3m/s threshold for both the 57Ml/d and 115 Ml/d transfer scenarios, and that the short sections with much higher reported maximum velocities are modelling anomalies that can be safely ignored.

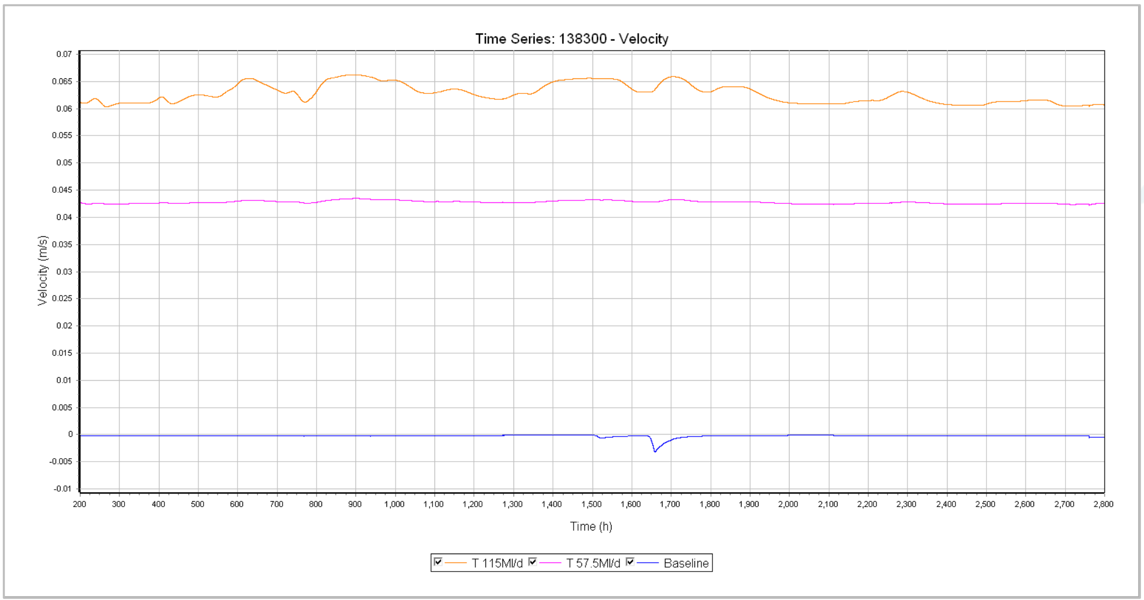


Figure 4-6: Velocity timeseries at cross section 138300 within the GU Pound 23-24

4.3.6 Spill over waste weirs and by-weirs

The Gate 2 results indicate that overall across the 110 day simulation, the GUC SRO transfer will, without adjustments to weir levels, lead to a decrease in the total spill volume through all waste weirs, from ~18,500m³ in the baseline to 16,700m³ at 57.5Ml/d and 14,800m³ at 115Ml/d. This result is somewhat counter-intuitive, however, as has been illustrated, the transfer leads to a steeper hydraulic gradient, resulting in a modelled lowering of water levels at the "downstream" end of many pounds. Many of the waste weirs are located at these downstream ends of pounds. This result will need to be closely monitored as further details of the transfer controls are added to the model at Gate 3.

Table 4-8 summarises waste weirs and by-weirs spills at different locations through the transfer route, and records the spill volume (in megalitres) over the entire simulation (110 days).

- Values reported in the table are at locations where the total spill volume is greater than 100Ml, with smaller spills filtered out.
- By-weirs were raised to avoid recirculation of water around locks where the direction of the transfer flow is against gravity.
- A number of waste weirs were raised along 'CC-Pound 1-1' and 'OX-Pound 7-8' (Figure 4-1) in the transfer scenario to aid with model stability. On these waste weirs, lesser spill volumes are predicted for the transfer scenarios than the baseline.
- Model outputs shows that the operation of the transfer pumps have an impact on the total predicted spill volume from waste weirs. The larger the target transfer flow, the steeper the hydraulic gradient and larger the drop in head at the "downstream" end of the pound, resulting in a reduction in spill volume from waste weirs situated close to the pump. This can be identified as negative changes in columns 'T 57.5 vs BL' and 'T 115 vs BL.'
- This effect may be exaggerated by the way that the transfer pumps are represented in the model as pumping directly from the pound, rather than spilling via a new weir into a pump sump. Thus the Gate 3 modelling will need to detail-in this configuration and optimize the levels of the new weir and existing waste weirs such that each pound remains within the NOZ but significant increases in waste weir spills are avoided.

- The largest total spill volume is predicted on the GU-Pound 27-28 (Leighton Buzzard pound), at Bozenham weir (SAP ID: GU-106-003), for the baseline and with scheme scenarios.
- Total predicted spill volumes through waste weirs and by-weirs for the baseline scenario are displayed in Figure 4-7, while Figure 4-8 illustrates the changes in total predicted spill volumes between both target transfer flows and the baseline. Both figure focus on features along the main transfer route.
- The locations predicting increased waste-weir spills should not be seen as an indication of actual increases in spill volumes once the scheme is in operation, but rather to highlight those locations where particular focus will be required to ensure that the scheme achieves all of its water level objectives without increasing spills. Future model runs will be required to optimise each pound to obtain optimal water level control which minimises increases in waste weir spills without the need for excessive bank raising. This should take into account present-day operations by The Trust to adjust waste weir levels (for example using stop logs), and how these might need to change when the transfer is operating with significantly higher flows and the potential for flow and water level changes in response to demand for the transfer.

Table 4-8: Total spill volume over the entire simulation time (Ml)

Pound name	Upstream lock	Downstream lock	Model label	Type	Base-line (BL)	T 57.5 Ml/d	T 115 Ml/d	T 57.5 vs BL	T 115 vs BL	T 115 vs T 57.5
CC Pound 1-1 (*)	CC_L1	Ox_L1	CC_10622_SU	WW	0	588	746	588	746	158
			CC_00711_SU	WW	0	473	0	473	0	-473
OX Pound 2-1 (**)	OX_L2	Ox_L1	sweir1us	WW	0	462	2857	462	2857	2395
			weir3nus	WW	269	0	0	-269	-269	0
GU Pound 6-7 (**)	GU_L7	GU_L6	Lock7b_BWU	BW	1090	0	2091	-1090	1001	2091
			GU_112602_SU	WW	1191	1050	181	-141	-1010	-869
GU Pound 7-8 (**)	GU Summit Pound 7-8		GU_110594U	BW	859	767	394	-92	-465	-373
GU Pound 13-14	GU_L 13	GU_L 14	GU_108021_OU	WW	0	977	2396	977	2396	1419
			weir3us	WW	1125	1217	1424	92	299	207
GU Pound 20-21 (**)	GU Trough Pound		GU_74253gU	BW	785	578	180	-207	-605	-398
			GU_74253fU	BW	640	441	0	-199	-640	-441
			GU_74253eU	BW	630	434	0	-196	-630	-434
			GU_74253dU	BW	560	369	0	-191	-560	-369
			GU_74253cU	BW	754	539	136	-215	-618	-403
			GU_74253bU	BW	549	362	0	-187	-549	-362
			GU_74253aU	BW	586	386	0	-200	-586	-386
			weir10bus (***)	WW	528	133	0	-395	-528	-133

Pound name	Upstream lock	Downstream lock	Model label	Type	Base-line (BL)	T 57.5 Ml/d	T 115 Ml/d	T 57.5 vs BL	T 115 vs BL	T 115 vs T 57.5
			GU_80532_SUS	WW	1403	846	0	-557	-1403	-846
GU Pound 27-28 (**)	GU_L 28	GU_L 27	GU01_44046a	WW	1352	1353	866	1	-486	-487
			GUT_weir10us	WW	5857	5470	3393	-387	-2464	-2077
			GUT_weir11us	WW	274	239	120	-35	-154	-119
Waste weirs located outside of the transfer route										
CC Pound 11-12	GU_L_11	GU_L_112	weir18nus	WW	162	0	962	-162	800	962
GU Pound 23-24 (OxGU - west)	GU_L_23	GU_L_24	weir21us	WW	461	460	460	-1	-1	0

(*) Pounds where waste weir and by-weir were raised for the transfer scenarios

(**) Pounds where by-weirs were raised for the transfer scenarios to avoid recirculation of water on uphill locations

(***) Bozenham weir (SAP ID: GU-106-003)

4.3.7 Headroom at Bridges

Checks on the available headroom at bridge structures were carried out to determine whether the proposed transfer scheme might have an impact on navigation. Table 4-8 illustrates the predicted available headroom at different locations. The Canal and River Trust recommended maximum craft headroom is shown in the second column (Canal & River Trust, 2022), and the Trust confirmed that this is the best available measure of headroom. All headroom values have been estimated using the maximum predicted water levels and, the soffit levels collected in the topographic survey commissioned for this phase of the study. It shows that the predicted minimum headroom is 2.35m along the Oxford Pound 1-2 in the 115Ml/d scenario – notably this is within the 2.07m maximum craft headroom for this pound.

One bridge on GU Pound 7-8 and two bridges on GU Pound 13-14 (bridges 29 and 36) are showing headroom values less than the maximum craft headroom for this pound, in both the baseline and scheme simulations. As shown in Table 4-6, the modelled water levels in this pound are above the NOZ in baseline and with-scheme results. We therefore conclude this result is highlighting a model control issue rather than an actual issue of concern as a result of the scheme, which would only raise the water levels by 0.01 to 0.03m at these bridges

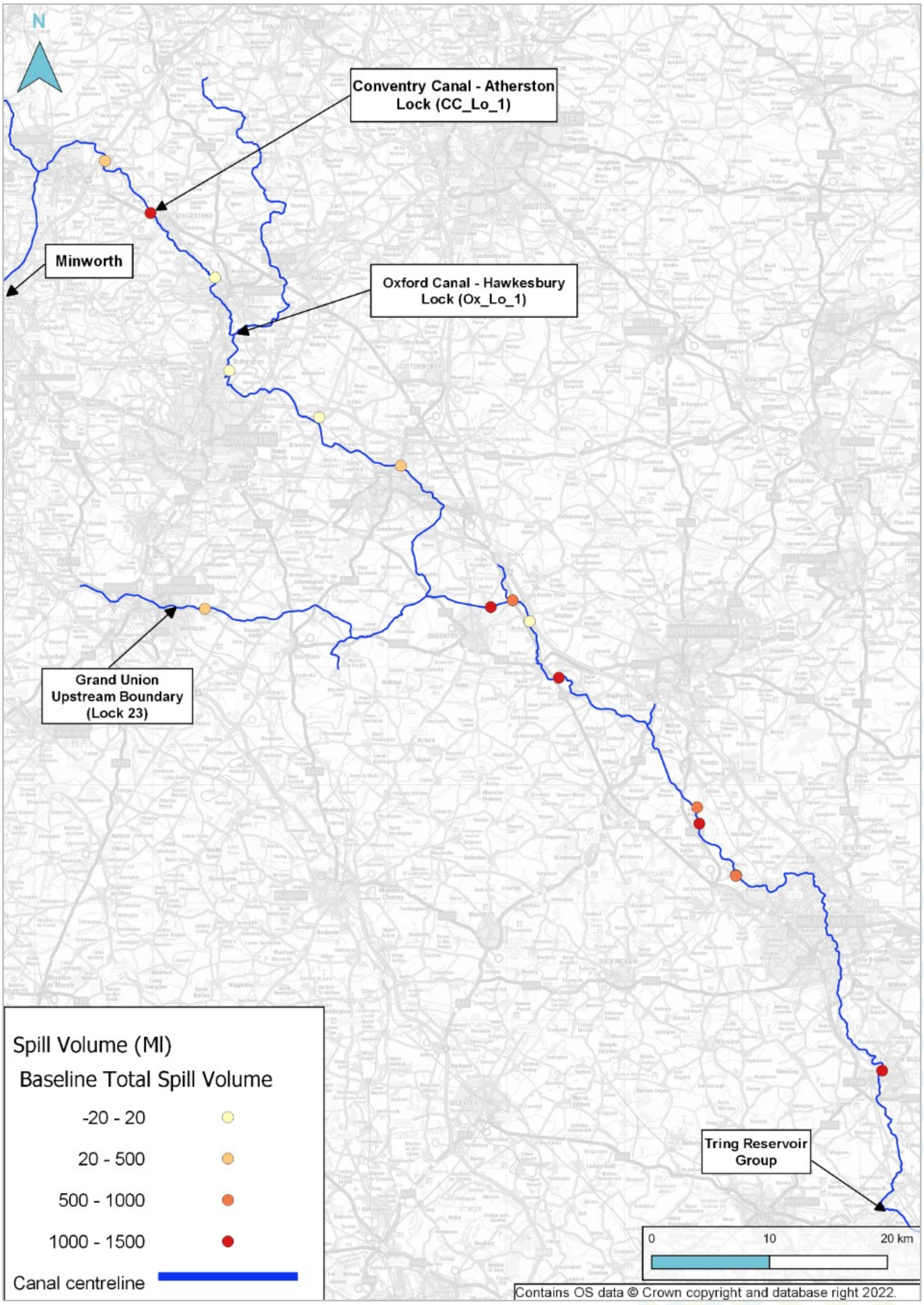


Figure 4-7: Total spill volume Baseline (Ml)

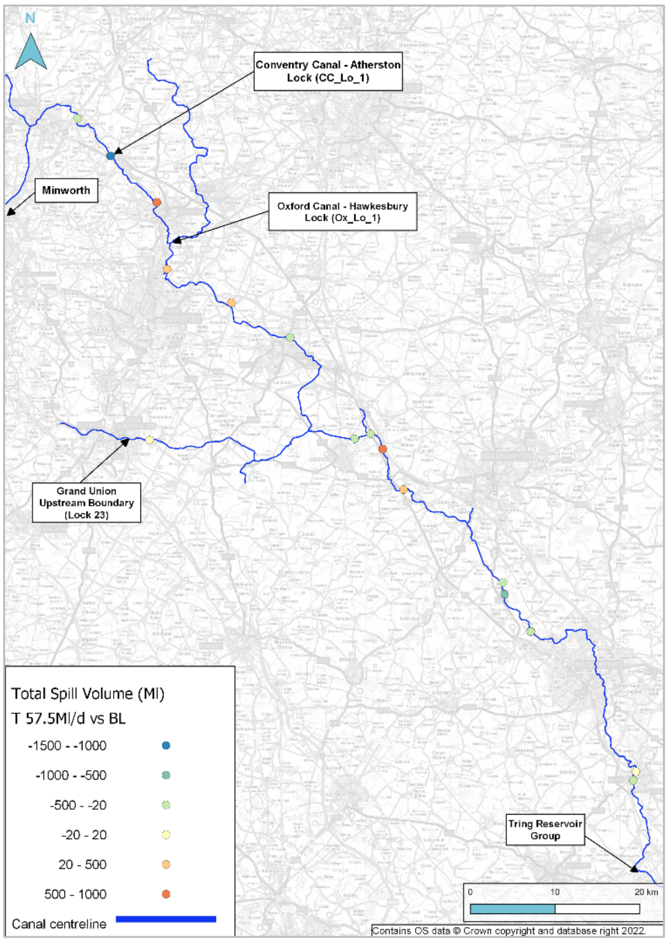
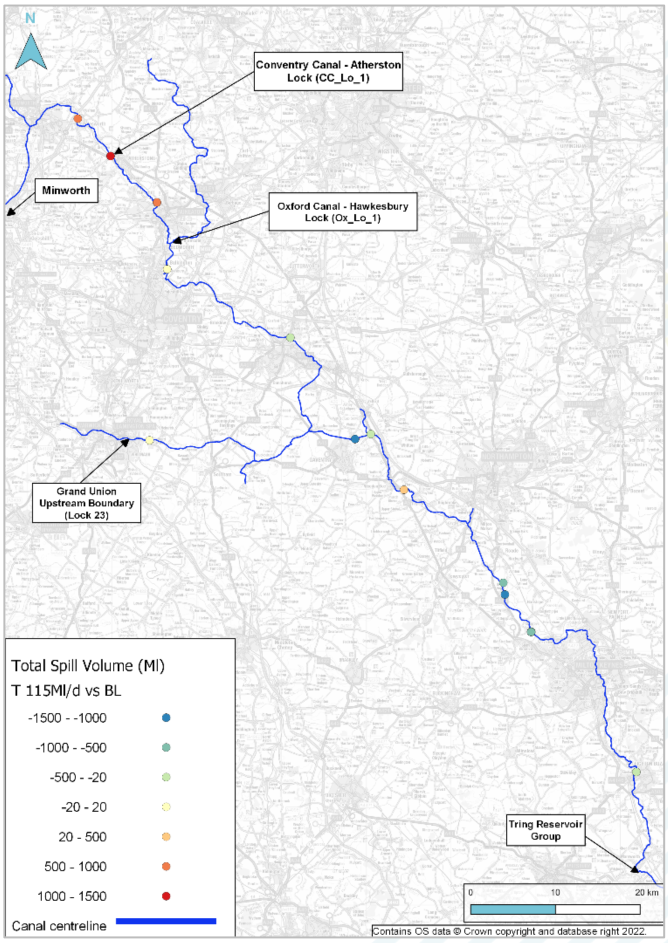
T 57.5Ml/d vs Baseline	T 115Ml/d vs Baseline
	

Figure 4-8: Total spill volume comparison – with scheme scenarios vs Baseline (Ml)

Table 4-9: Headroom at bridges

Canal Pound	Trust maximum craft headroom (m)	Chainage (m) from Storm survey 2022	CRT bridge no.	Soffit level (mAOD)	Headroom (m) Baseline	Headroom (m) T 57.5 Ml/d	Headroom (m) T 115 Ml/d
CC Pound 1-1	2.08	17859	41	95.11	2.83	2.60	2.53
		16150	36	95.05	2.77	2.55	2.49
		13721	29a	95.16	2.88	2.68	2.64
		13326	29	94.97	2.69	2.49	2.45
		10194	23a	96.02	3.74	3.55	3.55
		10084	23	95.18	2.90	2.71	2.71
		9406	22	95.03	2.75	2.57	2.57
		8959	21	94.94	2.65	2.48	2.48
		7754	20	95.10	2.82	2.65	2.68
		7602	19a	95.60	3.32	3.15	3.18
		7251	19	95.06	2.77	2.61	2.64
		5519	17	95.13	2.85	2.69	2.75
		21 – Ashby Canal	15a	95.13	2.85	2.70	2.77
		2705	14	95.28	2.99	2.86	2.95
	2.07	34462	4	95.19	2.67	2.51	2.35

Canal Pound	Trust maximum craft headroom (m)	Chainage (m) from Storm survey 2022	CRT bridge no.	Soffit level (mAOD)	Headroom (m) Baseline	Headroom (m) T 57.5 Ml/d	Headroom (m) T 115 Ml/d
OX Pound 1-2		32640	9	95.33	2.81	2.66	2.50
		30216	14	95.15	2.63	2.50	2.38
		29594	17	95.58	3.06	2.94	2.83
		15379	58	95.60	3.08	3.09	3.12
OX Pound 7-8	2.07	117941	91	100.77	2.66	2.66	2.66
GU Pound 7-8	2.67	110552	11	108.99	2.35	2.35	2.40
GU Pound 13-14	2.67	105324	22	92.84	2.89	2.86	2.83
		103349	24	92.90	2.96	2.95	2.94
		101721	26	92.95	3.01	3.01	3.01
		100514	29	92.36	2.42	2.43	2.42
		96718	36	92.57	2.63	2.65	2.66

References

British Waterways. (2012). BW APPROVED STANDARD: HYDRAULIC DESIGN OF CANAL.

Chow, V. T. (1973). Open Channel Hydraulics. McGraw-Hill.

JBA Consulting. (2020). Grand Union Canal SRO - Hydraulic Model Method Statement.

Appendices

A Appendix: Pound Characterisation

The Pound Characterisation is provided as a separated spreadsheet (Appendix A – Pound Characterisation Tables.xlsx).

B Appendix: Surge Test Case

Author names redacted

TECHNICAL NOTE

JBA Project Code	2021s0715
Contract	Grand Union Canal SRO IDS - Modelling
Client	Affinity Water
Date / Version	02/12/2021 S0-P01.01
Author(s)	[redacted]
Reviewer(s)	
Subject	TEST CASE: Surge in short pounds

1 Introduction

1.1 The issue

WSP, the engineering designers for the GUC SRO, identified a possible risk relating to surge in short pounds. At "uphill" sections of canal, there are potential situations in which water is being pumped in to the lower end of a pound, at the same time as the lock at the other end of the pound is operating, and the pump is not operating, meaning that there are concurrent inflows at both ends of the canal. This could lead to a "surge" occurring in the canal, where waves propagating from both ends meet. Potentially this could lead to a number of undesirable outcomes, including:

- Spills over waste-weirs into adjoining watercourses
- Rapid changes in water level impacting navigation
- Localised overtopping of banks.

The potential impact of such events is considered to be likely to be greatest on short pounds.

1.2 Requirements

A modelling test was required to assess the risks of "worst-case" coincidences of flow conditions at real-life areas of concern. This technical note presents the test case, how it was implemented, the results and conclusions.

2 Test case specification

2.1 Locations

WSP and JBA identified two locations for testing surge risk:

- Stoke Hammond (Lock 23) to Three Locks (Lock 24). A short pound, typically 16m wide with a waste weir spilling to the River Ouzel. There is also a constricting bridge approximately half way along the pound.
- Slapton (Lock 30) to Horton (Lock 31). A short pound typically 14m wide.

2.2 Model set-up

Models were required to represent these two pounds, using the best available data, to include:

- Channel sections
- Bank heights
- Lock sluices
- Pumps
- Waste weirs

2.3 Transfer scenario

The scenario should initially be tested using the maximum proposed transfer of 115Ml/d which results in a 100Ml/d annual average deployable output (ADO). This equates to a flow rate of 1.331m^3/s.

If significant issues are found to be related to this issue, retest with the lower transfer of 57.5Ml/d which results in a 100Ml/d annual average deployable output (ADO). This equates to a flow rate of 0.666m^3/s

2.4 State of locks and pumps

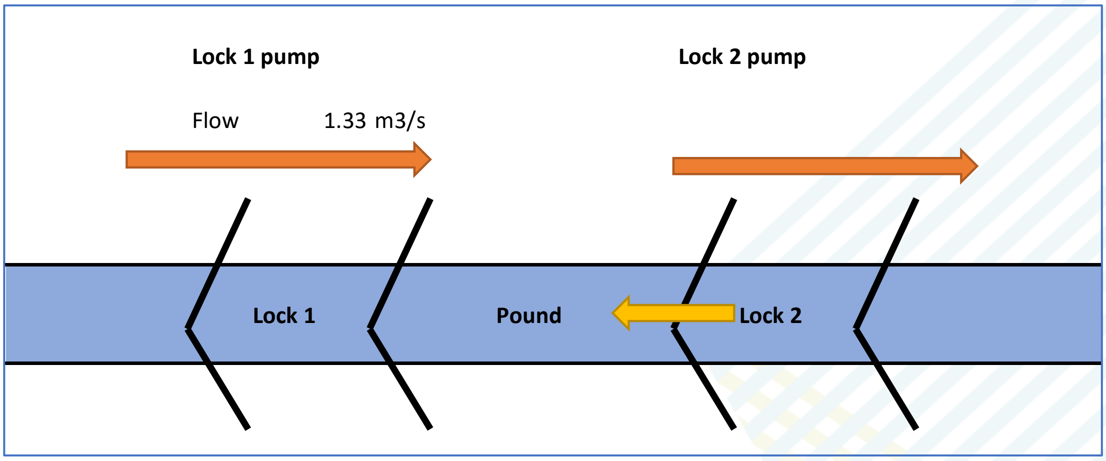
Two scenarios were identified for testing at both locations:

Scenario	Description	Lock 1	Lock 1 pump	Lock 2	Lock 2 pump
1	Worst case for waste-weir close the Three Locks	Closed	On	Open	Off
2	Worst case for bridge between	Closed	On	Open	Starts on, switches off during lock operation

Lock emptying flow could be modelled either:

- By modelling the hydraulic capacity of the sluice, where dimensions are known, or
- As a fixed inflow based on the known lock volume and an estimate of time to empty.

The set-up is shown in schematic form below:



Models should be run and results saved at a short timestep to enable analysis of changes in water level over short durations. Following initial testing, consider changing the relative timings of inflows to ensure that the worst-case is captured for each location.

2.5 Limitations

The models used are 1D only and may not, therefore, represent the full complexity of the surge scenario. The locations of potential overtopping of banks can be identified, but the extents of any water flooding out of bank are not modelled.

3 Test case implementation

Two Flood Modeller 1D models have been developed to refine the Grand Union Tring (GUT) model of the areas between locks 23 and 24 and 30 and 31 to gain a better understanding of how surge levels were propagating at these locations. The models included data from three sources and sections were imported from:

- GUT Gate 2 1D model
- Canals and Rivers Trust cross sections of the area supplemented by LiDAR data to add bank levels as only canal bed levels were included in the sections data
- Additional survey cross sections and structure surveys of key areas carried out for this study

Cross sections were modelled at a 50m maximum spacing, or less in areas where extra survey sections were used. To reduce spacing between cross sections even further, interpolate cross sections were also used.

A Manning's n roughness value of 0.021 for the canal has been used, in line with values in the GUT Gate 2 model.

The locks were represented with a spill to the gate height at each end and a head-time boundary for flows leaving the pound as well as a flow-time boundary to represent incoming flows such as the transfer or inflow from opening the lock. Inflows due to opening of a lock gate were calculated by using the volume of the lock and assuming emptying of the lock into the pound in 5 minutes (300s). For Lock 24 this equates to 268m^3 being discharged over 5 minutes (0.89m^3/s), and for Lock 31 253m^3 over 5 minutes (0.84m^3/s). A negative inflow was also applied where needed to represent pumps.

In order to gain a better understanding of what could happen during a surge, three scenarios (Table 3-1) were run in the model, including the first two discussed in section 2.4:

Table 3-1 Scenario modelled

Scenario	Simulation file (.ief)	Description
S1	Locks_23_24_Surge_015_S1.ief Locks_30_31_Surge_010_S1.ief	Lock 1 closed, transfer flow on; Lock 2 opens and empties in 5 minutes; Lock 2 pump is off.
S2	Locks_23_24_Surge_015_S2.ief Locks_30_31_Surge_010_S2.ief	Lock 1 closed, transfer flow on; Lock 2 opens and empties in 5min; Lock 2 pump is on but turned off during the 5 minutes Lock 2 gate is open.
S3	Locks_23_24_Surge_015_S3.ief Locks_30_31_Surge_010_S3.ief	Baseline conditions Lock 1 closed, transfer flow off. Lock 2 open and empties in 5min.

3.1 Model validation

In order to verify that the hydraulic model is able to replicate the wave surge generated by the operation of the lock gates and other features e.g. pump operation, the prediction from the hydraulic model were compared against the estimations obtained using the methodology recommended in the British Waterways Standard for hydraulic design of canal works[1], which presents empirical equations (replicated below) to estimate the surge heights and wavelengths generated from a single lock release.

The lock surge wave height distant from a lock may be estimated from A.11.1 and at a lock face by A.11.2. Lock surge wave length may be estimated from A.11.3:

$$H = \frac{2w_L d_L l_L}{w_p L} \quad \text{(A.11.1)} \qquad H = \frac{4w_L d_L l_L}{w_p L} \quad \text{(A.11.2)} \qquad L = \Delta t\sqrt{gD} \quad \text{Equation (A.11.3)}$$

H = apparent surge wave height (m); w_L = width of lock from which wave was generated (m); d_L = lock drop from which wave was generated (m); l_L = length of lock from which wave was generated (m); w_p = mean width of pound into which wave was released (m); L = surge wave length (m); g = 9.81m/s^2; D = mean depth of pound into which wave was released (m); Δt = time for lock to drain from which wave was generated (s).

Note: replicated from the British Waterways Standard[1].

The verification was focused on the pound between Lock 23 and Lock 24, releasing a volume of 268m^3 over a period of 300s from Lock 24, corresponding to scenario S3 recorded in Table 3-1. The mean pound width was estimated from the topographic survey as 11.3m. It should be noted that across the narrow sections, the canal width ranges 4.6 to ~7.2m (at the faces of the lock gates and across bridges/canal constrictions) while along the larger length of the pound, its width ranges from ~11 to ~15m. Figure 3-1 illustrates the width and depth of the canal along this pound.

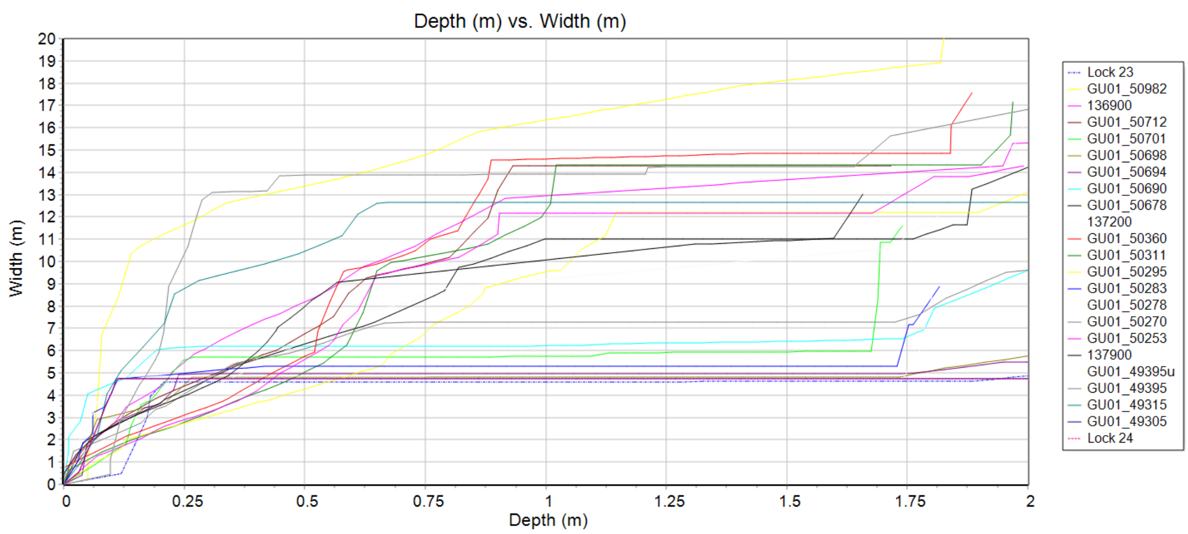


Figure 3-1 Pound depth-width

The initial water level was set at 73.85mAOD, giving a mean pound depth of 1.5m. It should be noted that this water level is 0.35m lower than the crest of waste weir located in the proximity of Lock 24 (XS: GU01_49395). Using these mean pound physical

[1] British Waterway, Feb 2012, BW Approved Standard: Hydraulic Design of Canal Works, Sheet A.11 Lock Surges, pg. 72.

characteristics and applying equations (A.11.1) and (A.11.2)[1] an estimated wave surge height of **0.04 and 0.08m** is obtained, at a point distant from the lock and at the lock face respectively. In addition, equation A.11.2 was plotted (Figure 3-2) assuming different mean pound widths and depths, reflecting the dimensions and conditions of sections along the pound. As expected, the lower depth and narrower the canal section, the higher the wave surge height.

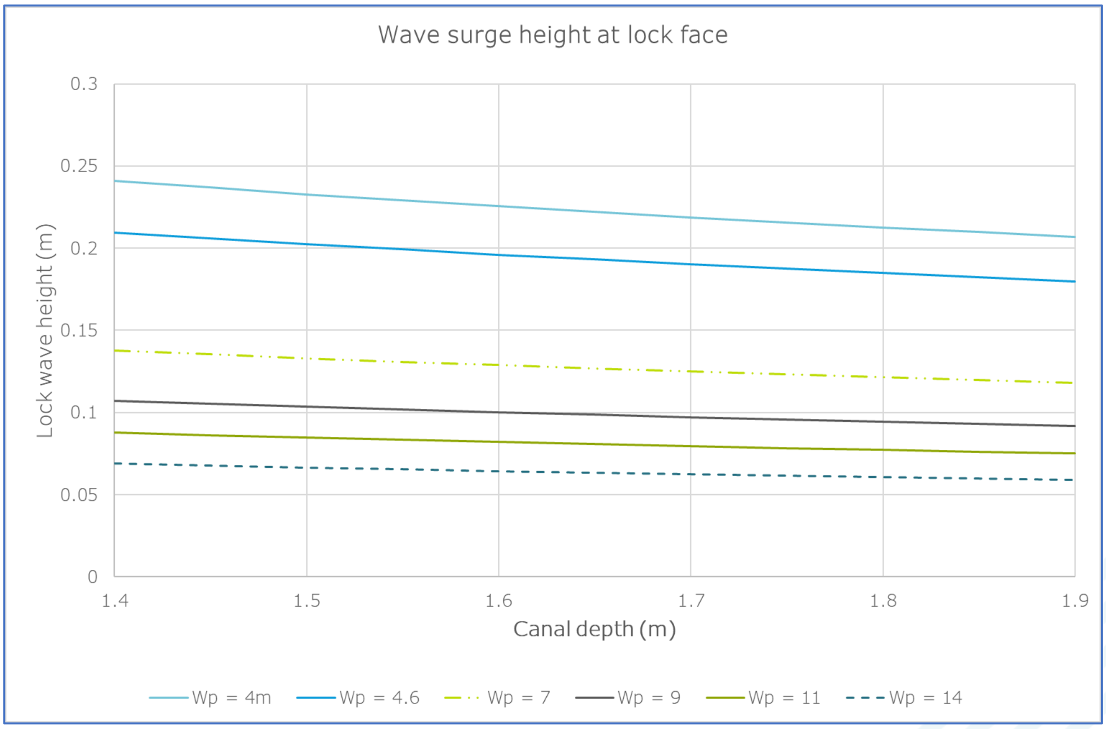


Figure 3-2 Wave surge height a lock face for different mean pound water depth and canal width (Wp)

The single lock release (scenario S3) was also tested using the hydraulic model built from the topographic survey collected for this assessment and complemented with the existing bed level surveyed by The Trust. The celerity of the wave surge estimated as 3.8m/s (for a mean pound depth of 1.5m) was used to access the spacing between cross-section and the timestep, which resulted in a maximum spacing of 3.5m (obtained by interpolating cross-sections) and a timestep of 1s. Table 3-2 present the maximum water levels predicted by the model the wave surge height estimated as a difference against the maximum predicted water level and the initial. It can be seen that Lock 23, shows the maximum wave surge height of **0.06m**. This is of the same order of magnitude as the one obtained using the empirical equation (0.08m). Therefore, it is considered that the level of detail represented in the hydraulic model is reasonable for the purpose of this assessment.

Table 3-2 – Hydraulic model outputs – predicted maximum water level and wave surge height

Pound section	Description	Maximum water level (mAOD)	Surge height (m)
Lock 23	Lock face	73.91	0.06
GU01_50698	Constriction	73.90	0.04
GU01_50283	Bridge	73.89	0.03
GU01_49395	Waste weir (*)	73.90	0.05
Lock 24	Lock face	73.90	0.05

Note: values round to 0.01m; (*) canal section in the vicinity of the waste weir

4 Results

This section focuses on the model results generated for scenarios S1 and S2 as recorded in Table 3-1. A general overview of maximum velocities and levels of the models are provided along with further discussion at key points such as lock gates, a waste weir and main constrictions.

4.1 Locks 23 - 24

Figure 4-1 below illustrates the maximum velocities predicted across the pound, showing that the maximum peak velocities are predicted at the constriction in the canal towards section GU01_50698 and at a bridge constriction GU01_50283. Maximum predicted water levels are shown in Figure 4-2 below. The initial water level along the pound was set up at varying from 74.21 to 74.19mAOD at the faces of Lock 23 and Lock 24 respectively, as recorded in the topographic survey.

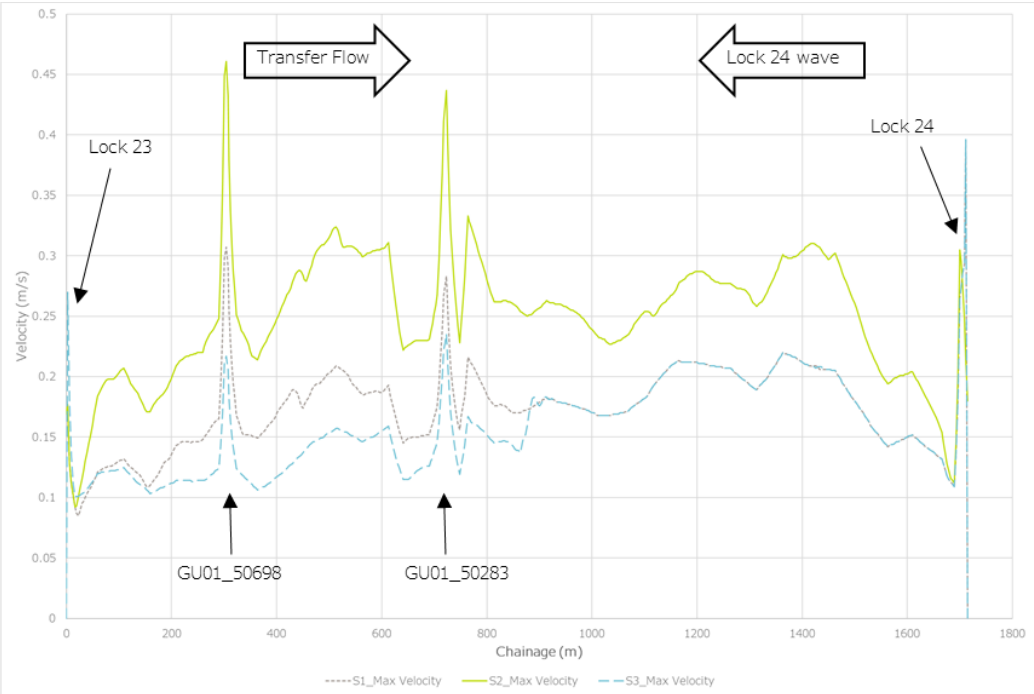


Figure 4-1:Locks 23-24 – Maximum velocities

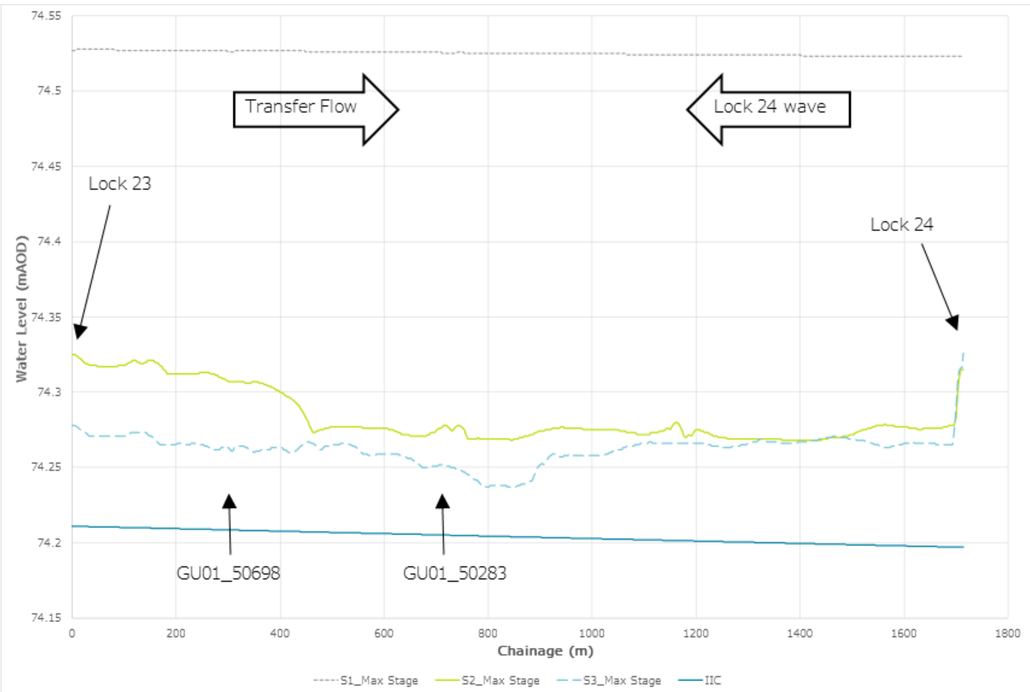


Figure 4-2: Locks 23-24 – Maximum water levels

4.1.1 River Ouzel waste weir

Flow over the waste weir into the River Ouzel was increased for both scenarios S1 and S2 compared to the baseline in S3 as can be seen from Figure 4-3 below. Flows are shown as negative here due to the direction of flow and model representation.

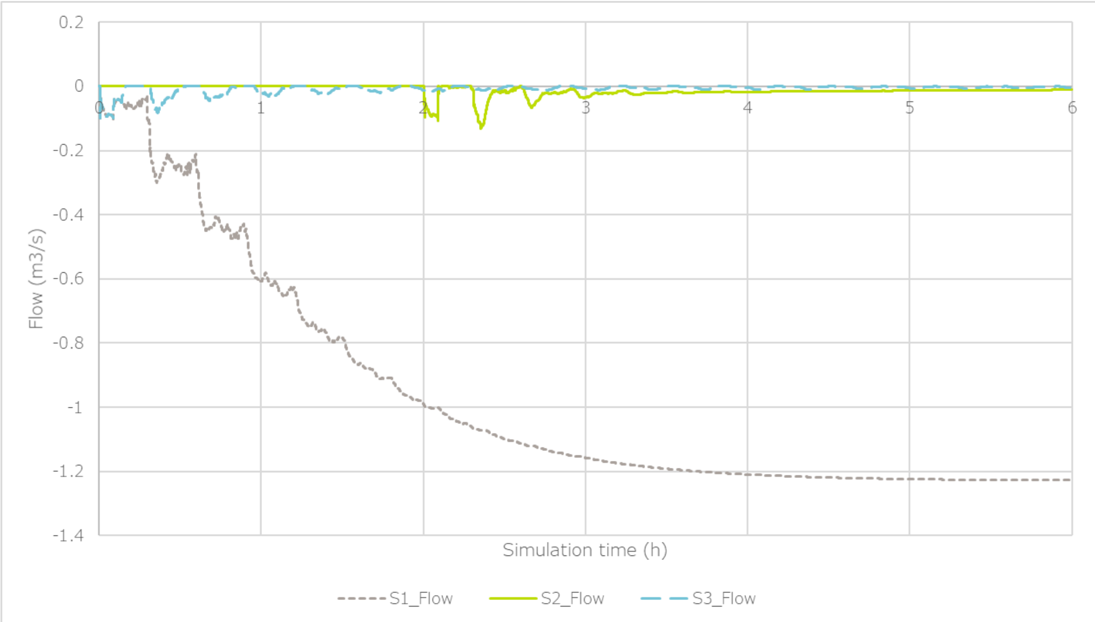


Figure 4-3: Lock 23-24 – Flow over the waster weir to the River Ouzel

The larger increase for S1 in expected as this scenario assumes a complete failure of the pump at Lock 24 so the transfer is reaching this section of the canal without being able to convey uphill discharging through the waste weir or spilling over the lock gates. In scenario S1, the flow over the waste weir increases until reaching a uniform flow conditions. It is important to stress that this scenario represents a complete failure of control within the transfer pumps and telemetry. In reality it is anticipated that these systems will be set up in a fail-safe manner to prevent this scenario from occurring.

In scenario S2, the single lock operation (Lock 24) occurs at simulation time 2hr and wave surge is observed between simulation time 2 to 3hr. This occurs as Lock 24 is opened at simulation time 2hr and its volume is being emptied into the pound. During the time the lock is emptying, the pump is turned off before being turned back on 5 minutes later. This creates a few waves in the pound and results in greater spills over the weir when they reach it. Predicted peak flow discharges for scenario S2 are slightly higher and shorter than those generated in scenario S3. It should be noted the single lock operation in scenarios S3 and S1, while for scenario S2 it occurs at 2hr into the simulation.

4.1.2 Flow over Lock gates

No flow over Lock 23 gate was observed for scenarios S2 and S3 but only in scenario 1 as can be seen in Figure 4-4 below.

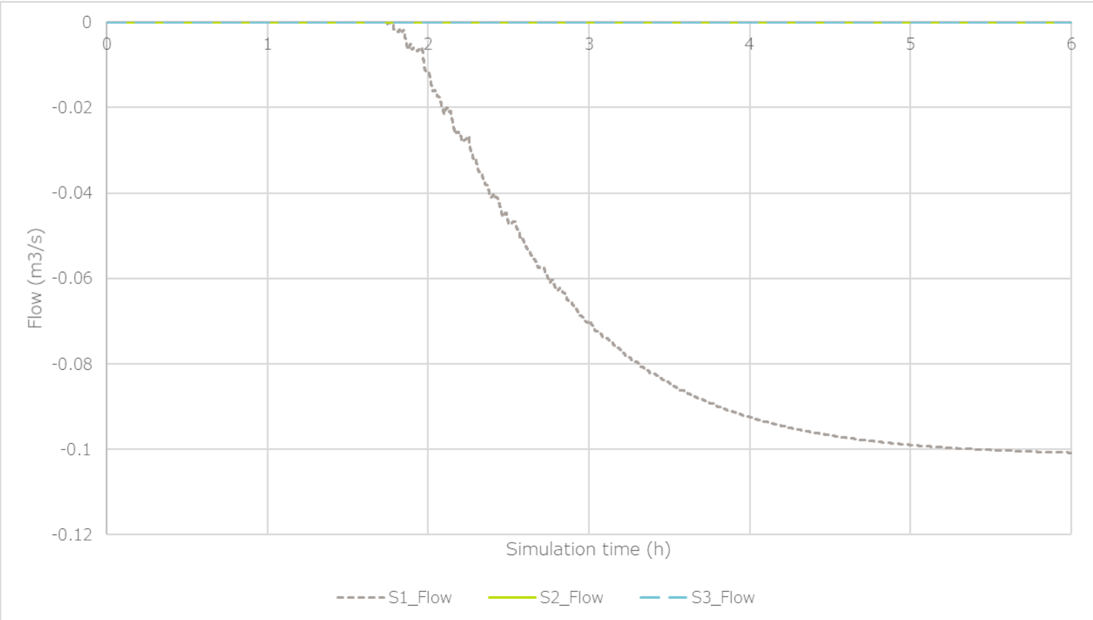


Figure 4-4: Lock 23-24 – Flow over Lock 23 gate

In scenario S1, the pump at Lock 24 is off, water levels raise reaching the gate crest level of Lock 23 and start spilling over it at simulation time of ~1.8h. After this, the flow over the gate stabilises at approximately 0.1m^3/s. This is expected as the sum of the flow over the gate and flow over the waste weir at the end of the simulation corresponds to the transfer flow into the pound.

No flow is observed over the gate at Lock 24 in all scenarios.

4.1.3 Bank overtopping

With maximum levels reaching over 74.5mAOD in scenario S1, bank overtopping would be expected. This is a worst-case scenario assuming the complete failure of the pump at Lock 24 while the transfer into the pump is still on. This scenario could potentially cause localised issues where banks are below this level.

Maximum levels for S2 and S3 scenarios were generally slightly above or below 74.3mAOD, suggesting limited bank overtopping would be expected. Under the conditions modelled, no bank overtopping is expected at cross sections recently surveyed but there is some uncertainty at sections where bank levels were extracted from LiDAR.

4.1.4 Wave amplitude

The maximum wave surge amplitude was around 0.1m at the face of Lock 23 as shown in Table 3-2. At other locations such as channel constrictions and bridges, the wave surge is higher than normal canal ones. An example of this is illustrated at a key location such as GU01_50698 which is a constriction in the canal to the north of the pound. The maximum predicted water levels at this section are 74.53mAOD for scenario S1, 74.31mAOD for scenario S2 and 74.26mAOD for scenario S3.

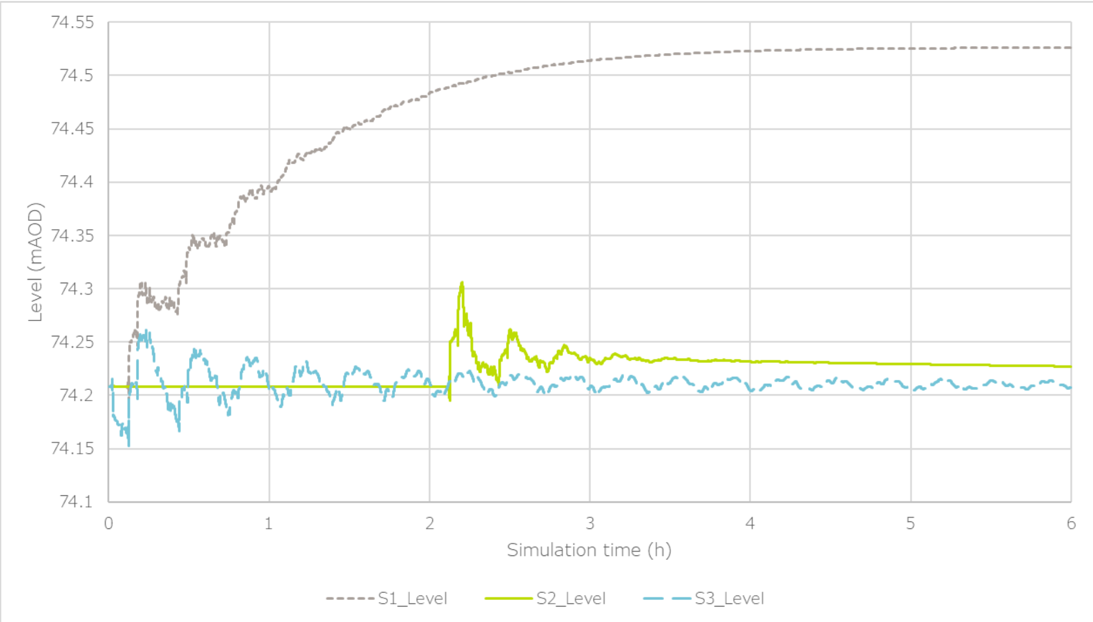


Figure 4-5: Level comparison at section GU01_50698

4.2 Locks 30 - 31

One location with peak velocities stood out as highest towards section GU01_37372 (Bridge 120) as can be shown in Figure 4-6 below. Maximum water levels are shown in Figure 4-7 below.

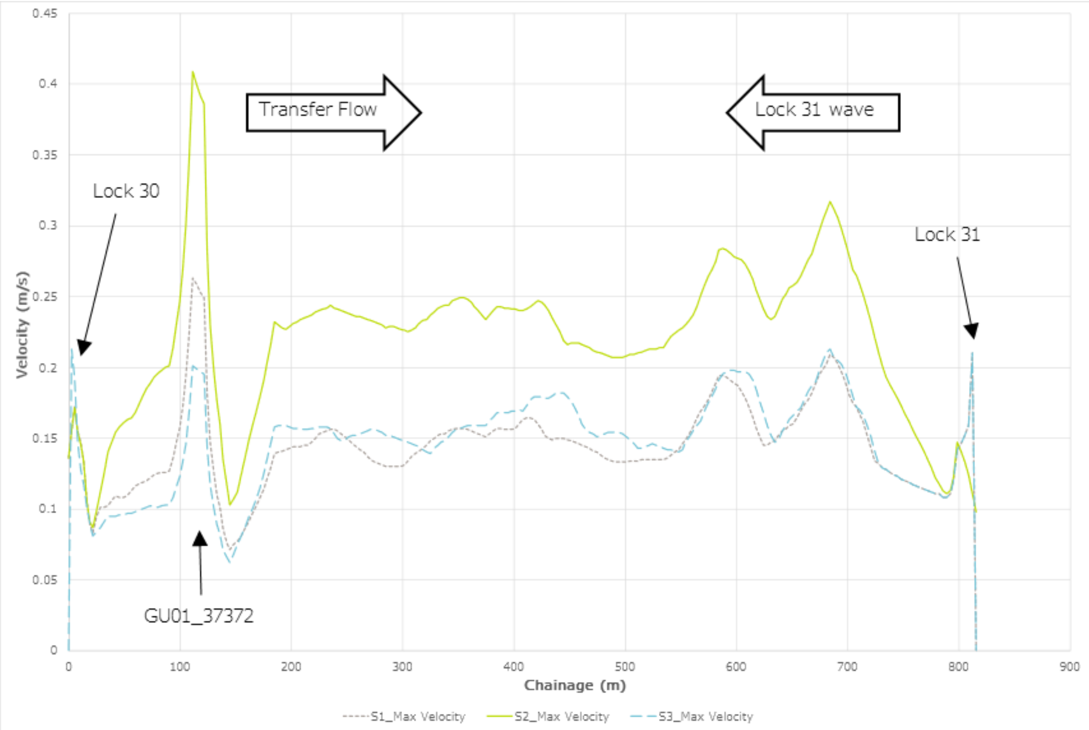


Figure 4-6: Locks 30-31 – Maximum velocities

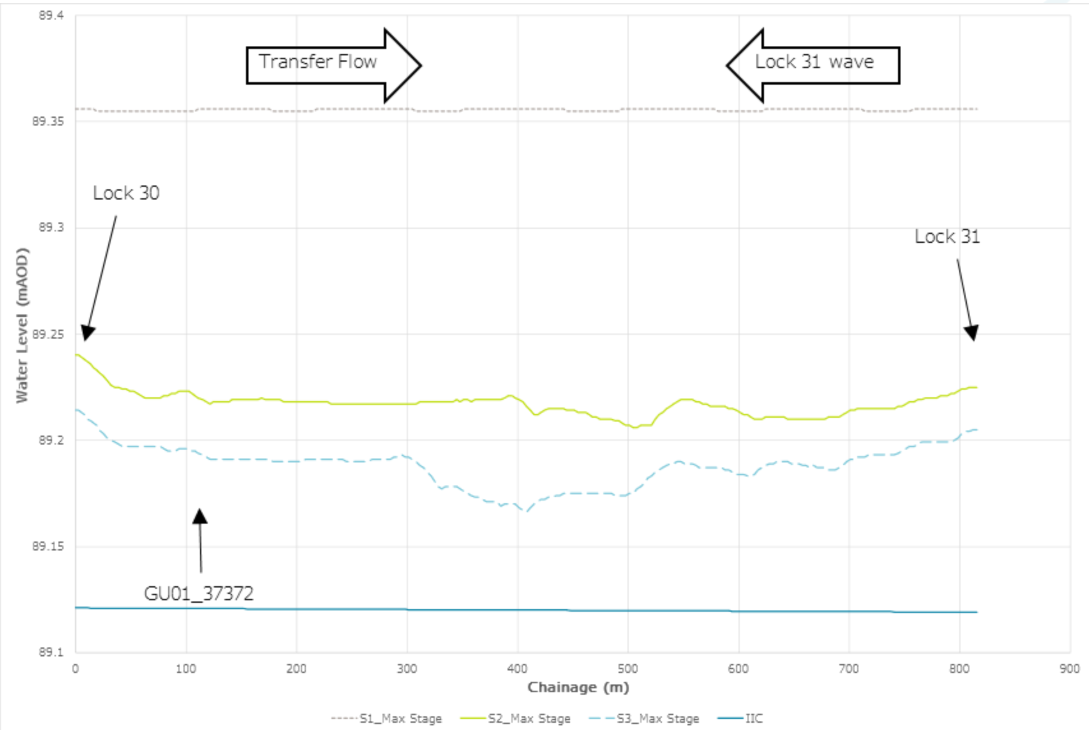


Figure 4-7: Locks 30-31 – Maximum levels

4.2.1 Flow over lock gates

Spilling over the Lock 30 is predicted in scenario S1 as flow is only able to escape the pound over the lock gates. In scenario S2, there are short instances when water spills over Lock 30, mainly from time 2h into the simulation, after the opening of Lock 31.

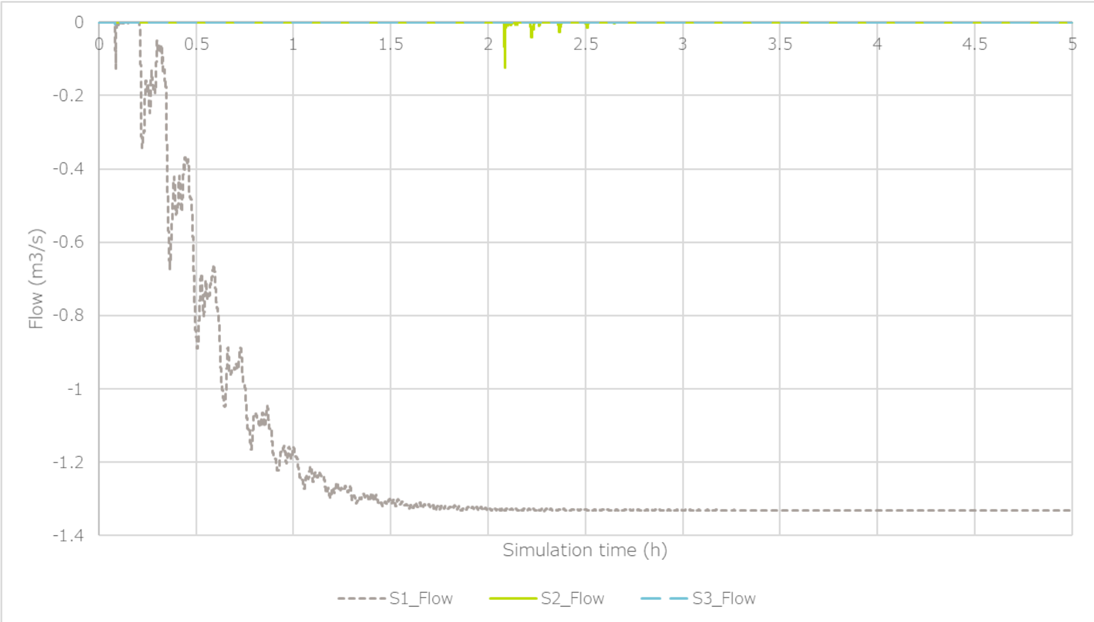


Figure 4-8: Lock 30-31 – Flow over lock 30 gate

No flow is predicted over lock 31 gate in any scenario.

4.2.2 Bank overtopping

Between locks 30 and 31, left bank levels at surveyed cross sections range from 89.16 to 89.42mAOD while right bank levels range from 89.22 to 89.38mAOD.

With predicted maximum levels reaching 89.36mAOD in scenario S1, bank overtopping would be expected. This is a worst-case scenario assuming the complete failure of the pump at Lock 31 while the transfer into the pound is still on. This scenario could potentially cause localised issues where banks are below this level.

The predicted maximum water level for scenario S2 was 89.24mAOD. However, this does not occur at the locations where the bank levels informed from the topographic survey are lowest (~89.16mAOD). In general, limited bank overtopping is expected at cross sections recently surveyed (GU01_37347 and GU01_36700). However, the overtopping is contained as ground levels raises from the banks. There is some uncertainty at sections where bank levels were extracted from LiDAR.

4.2.3 Wave amplitude

The maximum wave surge amplitude was around 0.1m at the face of Lock 30. At other locations such as channel constrictions, the wave surge is higher than normal canal ones. An example of this is illustrated at section GU01_37372 which is at a channel constriction. The maximum predicted water levels at this section are 89.36mAOD for scenario S1, 89.22mAOD for scenario S2 and 89.20mAOD for scenario S3.

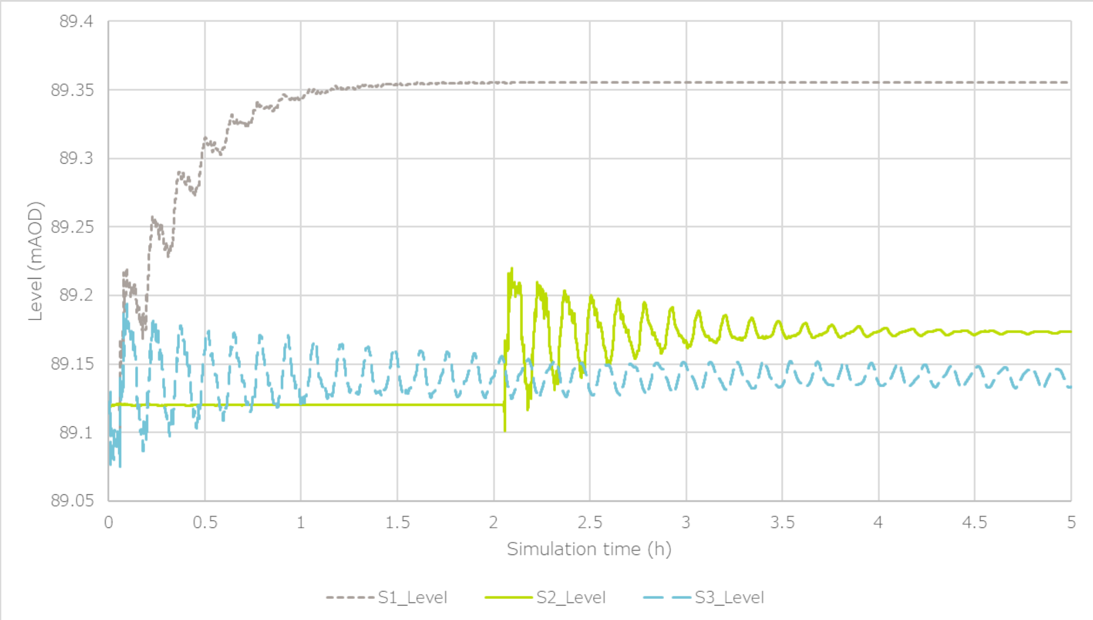


Figure 4-9: Level comparison at section GU01_37372

The wave amplitude between Locks 30 and 31 is generally understood to be comparable to the waves generated by passing boats and no bank overtopping is expected because of them.

5 Conclusions

Two Flood Modeller 1D models of the pounds between Locks 23 and 24 and, Locks 30 and 31 have been created to refine the understanding of the risk posed due to surge in these areas.

The setting of the model was verified using empirical equations (recorded in the British Waterways Design Standards) which use average pound dimensions and water depth. The maximum wave surge height at lock face and at a distant from the lock were estimated, for a single lock gate operation (scenario S3). Predictions from the model outputs are of the same magnitude as those estimated using the empirical equations.

Calculations and modelling showed predicted wave surge amplitude was approximately 0.1m at the maximum.

Overtopping of canal banks is mainly expected in scenario S1 while maximum levels in scenario S2 are generally within ±0.05m from maximum levels in scenario S3 which represents the baseline operation conditions. Some uncertainty over bank overtopping remains for scenario S2 where bank levels were extracted from LiDAR data while no overtopping is expected at recently surveyed sections.

Overtopping was predicted for scenario S1 which is a worst-case scenario assuming the Minworth transfer to the pounds is on while the pump out of the pound is off due to a system failure. This forces water to leave the pound either by spilling over the waste weir, over lock gates or over riverbanks.

JBA Project Code	2021s0715
Contract	Grand Union Canal SRO IDS - Modelling
Client	Affinity Water
Date / Version	02/12/2021 S0-P01.01
Author(s)	[redacted]
Reviewer(s)	
Subject	TEST CASE: Surge in short pounds

Peak velocities were predicted over a short time only and no impact is expected at structures along the canal from the surges tested.

Scenario 1 predicts a significant spill over the waste weir to the River Ouzel between locks 23 and 24, as the waste weir becomes the main outlet for transfer flows being continuously pumped in. Only very minor spills over the waste weir were predicted in Scenario 2, being similar to the spills predicted during normal lock operation in the baseline (without the transfer scheme).

The results emphasise that it is important to design the control philosophy and equipment such that it will fail safe, switching off pumping into a pound when water cannot be pumped out of that same pound. Assuming that this can be achieved, preventing scenario 1 from occurring, the results do not indicate significant negative impacts from surge, suggesting that this is not an issue requiring additional mitigation measures.

C Appendix: Velocity Test Case

TECHNICAL NOTE

Author names redacted

JBA Project Code	2021s0715
Contract	Grand Union Canal SRO IDS - Modelling
Client	Affinity Water
Date / Version	25/08/2022 S3-P04
Author(s)	[redacted]
Reviewer(s)	
Subject	TEST CASE: Velocity

1 Introduction

1.1 The Issue

The GUC SRO Gate 1 modelling and previous studies indicate the increased flows as a result of the transfer will result in a small increase in velocities within the regular canal channels, but could result in significantly higher velocities at locations where the channel width is constricted. Such constrictions are typically found at bridges, tunnels and aqueducts, as well as a number of constrictions identified as being "legacy" structures, possibly former bridges or locations where stop-logs were used to separate sections of channel during construction or maintenance.

Increased velocities are a concern on four fronts:

- Navigation of boats against the direction of flow, due both to velocities being close to or above the maximum speed of the craft, but also making steering through constrictions more difficult, with craft prone to be turned into the structure as a result of high velocities acting on the bow whilst the stern is still in an area of lower velocities.
- High velocities may impede the movement of fish within the canal, or even make whole stretches of the canal a more difficult habitat for species which prefer slow-moving or still water.
- Increased mobilisation of sediment. This aspect is covered under a separate test case technical note.
- Increased scour risk both within channels and at historic structures.

Note that, if the transfer were to increase the frequency and quantity of spills over side (waste) weirs poses an additional potential risk to navigation, as flows perpendicular to the direction of travel of craft are generated when a side weir is spilling, which can draw craft towards the weir. Increasing spills over waste weirs is also a concern for other reasons, including increasing flood risk in connected watercourses and impacting water river water quality. It was therefore agreed that a primary design objective of the scheme will be to prevent significant increases in the frequency and quantity of such spills. This will be assessed at all waste weirs using the model of the full transfer route, in order to identify locations where the risk of increasing spills needs to be mitigated. For this reason, increased velocities around existing waste weirs are excluded from the scope of this assessment.

1.2 Requirements

The finalised hydraulic model of the full transfer route will be able to provide velocities along channel sections, both instantaneously and long time-series, enabling velocity-duration curves to be produced to identify the duration for which velocities may exceed critical thresholds for navigation and fish. However, an interim assessment is required ahead of the final model being available, to enable the engineering consultants (WSP) and environment consultants (Mott MacDonald) to progress their investigations.

This intermediate assessment should enable the range of velocities resulting from the transfer flow scenarios (i.e. 23Ml/d, 57.5Ml/d and 115Ml/d) to be assessed for all constrictions.

1.3 Deliverables

- A technical note documenting the testing undertaken and the results.
- GIS layer representing the velocities in each bridge or other constriction.
- GIS layer representing roughness values for each channel should also be included to assist the MM fisheries team to assess local vegetation conditions.

2 Test case specification

2.1 Bridges and constrictions

Velocity through bridges will depend principally on:

- The flow
- The dimensions of the channel and bridge
- Contraction headlosses as the channel narrows ahead of a bridge
- Expansion loses as the channel widens after the bridge.

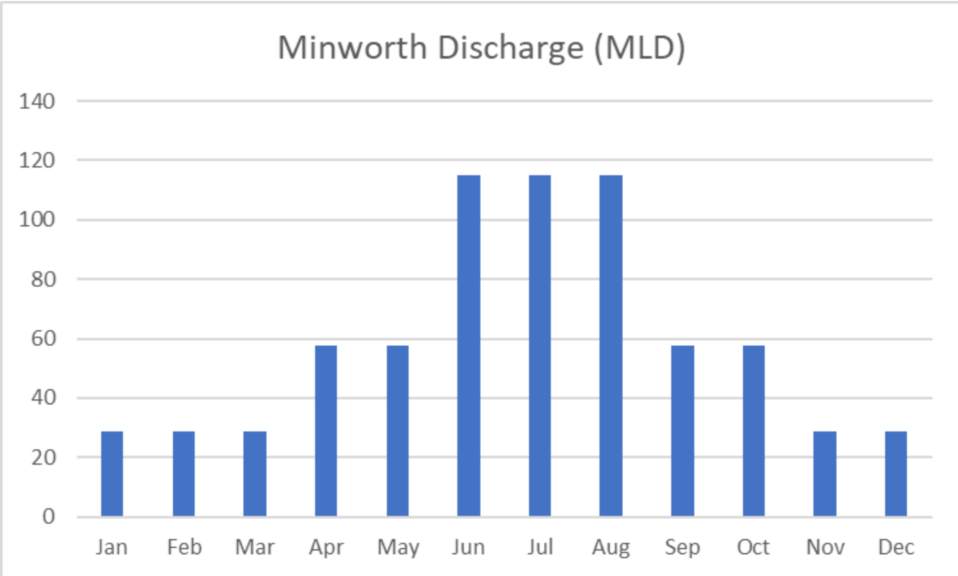
Building on from the single bridge model set up in gate 1, prepare example models, drawing on surveyed bridges, to represent the following variables.

2.1.1 Flow

The transfer is proposed to operate at three flow regimes:

- “Base” flow of 23Ml/d which results in a 20Ml/d annual average deployable output (ADO). This equates to a flow rate of 0.266 m^3/s. According to a Deployable Output assessment prepared by Affinity Water, this flow rate is expected to be utilised from late autumn to early spring (see Figure 3-1).
- 57.5Ml/d which results in a 50Ml/d annual average deployable output (ADO). This equates to a flow rate of 0.666m^3/s. This flow rate is expected to be used during spring and autumn.
- 115Ml/d which results in a 100Ml/d annual average deployable output (ADO). This equates to a flow rate of 1.331m^3/s. This flow rate is expected to be used during summer months.

Figure 2-1: Monthly utilisation



2.1.2 Bridge width

Four bridge or constriction widths, typical of the range of bridges and constrictions on the canal have been identified for testing in this study. Details of the bridge or constriction widths and location are further detailed in Table 3-1.

2.1.3 Inlet and outlet losses

Two extremes of inlets and outlets, i.e. a worst case with perpendicular headwall with no wingwalls, and a best case with gradually tapering wingwalls were defined. Details of the inlet and outlet arrangements are available in Table 3-1.

2.1.4 Model runs

A total of eight model runs were required:

1 variable flow scenario * 4 bridge widths * 2 inlet/outlet arrangements

Model scenarios used in the model are further described in Table 3-1.

Results were reviewed and graphs of flow vs velocity produced at each arrangement.

The three flows used in the model were 0.30m^3/s (23MLD plus a baseflow allowance), 0.666m^3/s (57.5MLD) and 1.331m^3/s (115MLD).

2.2 Navigation requirements

Canal & River Trust advised that velocities above 0.3m/s become an issue of navigation travelling against the direction of flow. Whilst a velocity of 0.3m/s through a short bridge hole would not be expected to cause issues, such velocities through longer tunnel or aqueduct structures would be problematic to navigation. The transfer should, therefore, be designed to avoid increasing the frequency of velocities above 0.3m/s through structures (recognising that high velocities may already occur during high flow events).

2.3 Fish requirements

2.3.1 Introduction

The information on the tolerance of fish to different water velocities was kindly provided by the Mott MacDonald GUC SRO Environmental Assessment team.

2.3.2 Fish Community

- The GUC canal support a mixed coarse fish with potential for fish swimming in from local watercourses (feeders).
- Bream, being laterally flattened, are the most sensitive to changes in velocity.

2.3.3 Fisheries legislation

- All fish are protected under the Salmon & Freshwater Fisheries Act, 1975 (as amended).
- Eel regulations.
- WFD, but canals are heavily modified water bodies, so the target is Good Ecological Potential, however there should be no deterioration from the current ecological status.

2.3.4 Fish, flow and velocity

The proposed transfer flows have the potential to impact fish in the following ways:

- Fish habitat requirements and changes to available habitat, such as sediment deposition areas
- Temperature changes – if transporting large volumes of water there may be a delay in waterbody as a whole may take longer to "warm up" to trigger fish spawning. Fish spawning is controlled by photoperiod (length of daylight) and appropriate temperature for each species. Different species spawn at different times throughout the year. For example: pike spawn in March to May, whilst Bream spawn between March to June, and Tench spawn late June to August.
- Different species of fish have different maximum velocity requirement at different points in their life stages (spawning, larvae, juvenile), taken from Cowx et al (2004).

Table 2-1 Velocity requirement for fish

Species	Spawning	Larvae	Juvenile	Comment
Bream (*Abramis brama*)	<20cm/s	<5cm/s	<5cm/s	
Bleak (*Alburnus alburnus*)	<20cm/s	<5cm/s	<5cm/s	Not sure if present in canal. Principally a river fish and usually found where a river enters a canal.
European Eel (*Anguilla anguilla*)	N/A	N/A	10cm/s	

Species	Spawning	Larvae	Juvenile	Comment
Barbel (*Barbus barbus*)	25-49cm/s	<30cm/s	40-100 cm/s	Usually found in rivers, but will live in lentic conditions.
Silver Breram (*Blicca bjoerkna*)	<20cm/s	<5cm/s	<5cm/s	
Common Carp (*Cyprinus carpio*)	<5cm/s			A non-native, but a valued sport fish with carp anglers.
Northern Pike (*Esox lucius*)	<5cm/s			Spawns on reeds and branches.
3 Spine Stickleback (*Gasterosteus aculeatus*)	Low water velocity	Elevated velocities		
Gudgeon (*Gobio gobio*)	2-80cm/s	20cm/s	0-40cm/s	
Ruffe (*Gymnocephalus cernuus*)				Unknown
River lamprey (*Lampetra fluviatilis*)	100-200cm/s	1-50cm/s		Can be found where rivers flow into canals. Spawn in rivers on cobbles and pebbles. Then drift to find sediment to live in as a juvenile (Ammocete).
Brook Lamprey (*Lampetra planeri*)	30-50cm/s	8-10cm/s		Non-migratory.
Chub (*Leuciscus cephalus*)	20-75cm/s	<5cm/s	<5cm/s	Spawns on gravels
Dace (*Leuciscus leuciscus*)	20-50cm/s	0-2.5cm/s	0-2.5cm/s	Spawn in rivers, but may live in the canal where near to a confluence.
European Perch (*Perca fluviatilis*)				No data provided, but rthey live in a wide range of lowland rivers and canals.
Minnow (*Phoxinus phoxinus*)	20-30cm/s	1.9-3.5cm/s	<13cm/s	
Roach (*Rutilus rutilus*)	0-20cm/s	<5cm/s	0-40cm/s	
Brown Trout (*Salmo trutta*)				Spawn on gravels in rivers, but are occasionally found in canals.
Zander (*Sander lucioperca*)	10-20cm/s			Invasive non-native species (listed on W&CA, 1981). Spawn and thrives in UK canals and lowland rivers.
Rudd (*Scardinius erythrophthalmus*)	<5cm/s			Found in stillwaters, canals and slow flowing lowland rivers.
Green Tench (*Tinca tinca*)	<20cm/s			Found in stillwaters, canals and slow flowing lowland rivers.

In summary, larval and juvenile fish life-stages are the most vulnerable to increased velocities in the canal with <5cm/s being a common limit for the majority of fish at some point in their lifecycle. Furthermore, the larval and juvenile states of some species occur during the summer months, when demand for the GUC SRO will be highest.

2.3.5 Testing for velocity impacts

Preliminary calculations indicated that average velocities (i.e. the average velocity across a canal channel) are likely to exceed 5cm/s (0.05m/s) in the majority of the transfer route, during the transfer of 115MLD (1.331 m^3/s). For example, if we assume a relatively wide canal section to be 14m wide and average 1.5m deep, the cross-sectional area is $18m^2$.

Velocity = 1.331 / 18 = 0.074m/s (7.4cm/s).

However, we know that velocities are not constant across a channel section. Velocities close to bed and banks and at the inside of bends are lower than average. Higher than average velocities are found in the centre of the channel or at the outside of bends. So we need to consider whether, at 115MLD, there are sufficient areas of water flowing at 5cm/s or less to avoid causing a detrimental impact to the larvae and juveniles of velocity-sensitive species.

The 1D Flood Modeller is only able to represent average velocities across the channel, so is not a suitable tool to answer this question. In response, it was agreed that a short section of canal should be modelled using a 3-dimensional Computational Fluid Dynamics (CFD) approach, capable of modelling the profile of velocities across the channel. This model is introduced in section 3.2.

3 Test case implementation

3.1 1D model

Two Flood Modeller 1D models have been developed to refine the Grand Union Tring (GUT) model of the pounds between locks 23 and 24 and locks 30 and 31 to gain a better understanding of how surge and velocity would propagate at these locations (see separate test case note on surge). One of these models, representing the pound between locks 23 and 24 has been used for this assessment to show the change in velocity in a typical short canal but using different bridge constriction widths taken from the narrowest constrictions from the transfer route. The model included data from three sources and sections were imported from:

- GUT Gate 2 1D model
- Canals and Rivers Trust cross sections of the area supplemented by LiDAR data to add bank levels as only canal bed levels were included in the sections data
- Additional survey cross sections and structure surveys of key areas carried out for this study

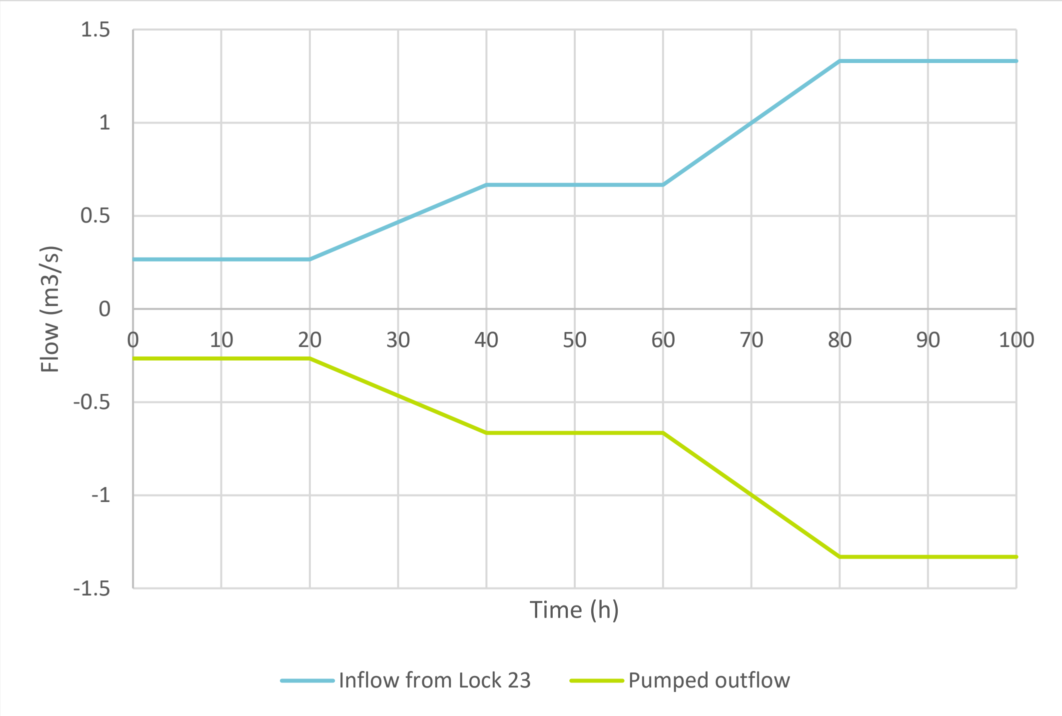
Cross sections were modelled at a 50m maximum spacing, or less in areas where extra survey sections were used.

A Manning's n roughness value of 0.021 for the canal has been used, in line with values used in the full GUC Gate 2 model. This is the value recommended for "masonry, concrete or brick protected banks with excavated channel bed" and "sheet pile bank protection along both banks with excavated channel bed" in the Canal & River Trust standard "Hydraulic Design of Canal Works". Further details of roughness values used and their selection in the model are available in the Hydraulic Model Upgrade (Build and Calibration) Report (A2.2).

The locks were represented with a spill to the gate height at each end and a head-time boundary for flows leaving the pound as well as a flow-time boundary to represent incoming flows such as the transfer. A negative inflow was also applied at lock 24 to represent a new pump transferring flow up the Three Locks flight.

A single variable flow model inflow has been used for all scenarios, starting at 0.266m^3/s for twenty hours, then raising to 0.666m^3/s over twenty hours and remaining stable between hours forty to sixty, then raising to 1.331m^3/s over twenty hours and remaining stable at this flow for another twenty hours. The same outflows were used for the pump at lock 24 as can be seen in Figure 3-1 below.

Figure 3-1: Model inflows



In order to gain a better understanding of how velocities in the canal would change depending on flow and canal narrowing, eight scenarios (Table 3-1) were run in the model:

Table 3-1: Scenarios run

Scenario	Reference bridge unit	Constriction width (m)	Inlet/outlet arrangement
B1_A1	Constriction between Fosse Way and Smeaton Lane (ref OX02_24549) between Hawkesbury	2.69	Constriction plus inlet and outlet modelled

Scenario	Reference bridge unit	Constriction width (m)	Inlet/outlet arrangement
	lock and lock 3 (Hillmorton bottom lock) Coordinates: 440266.26, 283547.43		
B1_A2	Constriction between Fosse Way and Smeaton Lane (ref OX02_24549) between Hawkesbury lock and lock 3 (Hillmorton bottom lock) Coordinates: 440266.26, 283547.43	2.69	Upstream and downstream sections widened to the next canal section
B2_A1	A5 Bridge (ref GU01_110552) between locks 7 and 8 Coordinates: 460573.38, 265640.62	4.21	Constriction plus inlet and outlet modelled
B2_A2	A5 Bridge (ref GU01_110552) between locks 7 and 8 Coordinates: 460573.38, 265640.62	4.21	Upstream and downstream sections widened to the next canal section
B3_A1	Bridge B4029 (ref OX02_29594) between Hawkesbury lock and lock 3 (Hillmorton bottom lock) Coordinates: 440266.26, 283547.43	4.46	Constriction plus inlet and outlet modelled
B3_A2	Bridge B4029 (ref OX02_29594) between Hawkesbury lock and lock 3 (Hillmorton bottom lock) Coordinates: 440266.26, 283547.43	4.46	Upstream and downstream sections widened to the next canal section
B4_A1	Quarry Lane Bridge (ref CC01_16150) between Atherstone top lock and Hawkesbury lock Coordinates: 431477.39, 296252.81	4.21	Constriction plus inlet and outlet modelled

Scenario	Reference bridge unit	Constriction width (m)	Inlet/outlet arrangement
B4_A2	Quarry Lane Bridge (ref CC01_16150) between Atherstone top lock and Hawkesbury lock Coordinates: 431477.39, 296252.81	4.21	Upstream and downstream sections widened to the next canal section

3.2 Computational Fluid Dynamics (CFD) model

CFD models are able to simulate the movement of water in three-dimensions, over and around a 3-dimensional model of a channel or structures. Due to their high computational demands, they are most suitable to answering specific questions at single locations, where these cannot be adequately addressed by 1D modelling or other hydraulic calculations.

A CFD model was constructed to cover a section of canal to the south east of Lock 23 (Stoke Hammond), which includes a constriction (see Figure 3-2).

Figure 3-2: Canal constriction to the south east of Lock 23, Stoke Hammond

By representing a section of canal "upstream (considering the direction of travel of the transfer), the constriction itself and a short section downstream, the model could be used to understand velocity profiles in a regular section of canal, through a constriction and exiting the constriction. The model was prepared on openFOAM as follows:

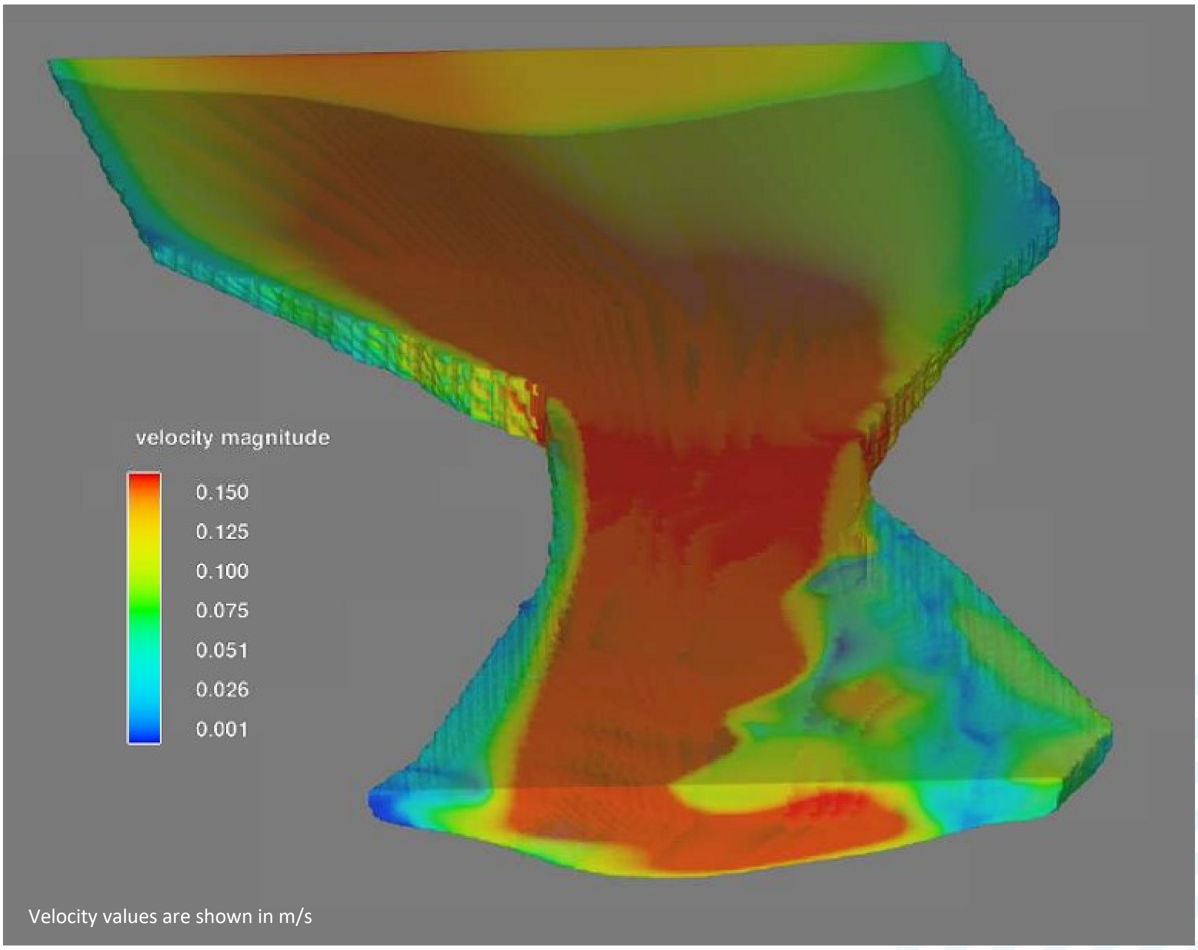
- A 3-D model of the selected section of canal and constriction was created using the 1D model cross-sections and other survey data. The channel geometry was interpolated between sections of known geometry.

- The model's water level boundary conditions were set by the 1D model. It was noted that the water level remained the same for all three flow rates tested in the 1D model.
- Initially the bed roughness was set at a low 0.001m (1,000 microns). Evidence from the Mott MacDonald sediment survey indicated that the D_{50} diameter (the 50th percentile) of canal sediments sampled is around 50 microns. This bed roughness was used to test the high (115MLD) transfer flow state.
- Following a review of the initial results, the model was also run using a higher bed roughness of 0.03m, which is equivalent to 3cm, or to a 1.5cm peak and 1.5cm trough, to represent corrugations often seen on fine sediment surfaces (see example in Figure 3-3). Whilst corrugations such as this may not be expected on canal beds, this roughness does allow for some of the impact of vegetation on localized velocities.

Figure 3-3: Example of corrugations in fine sediment on a sea shore

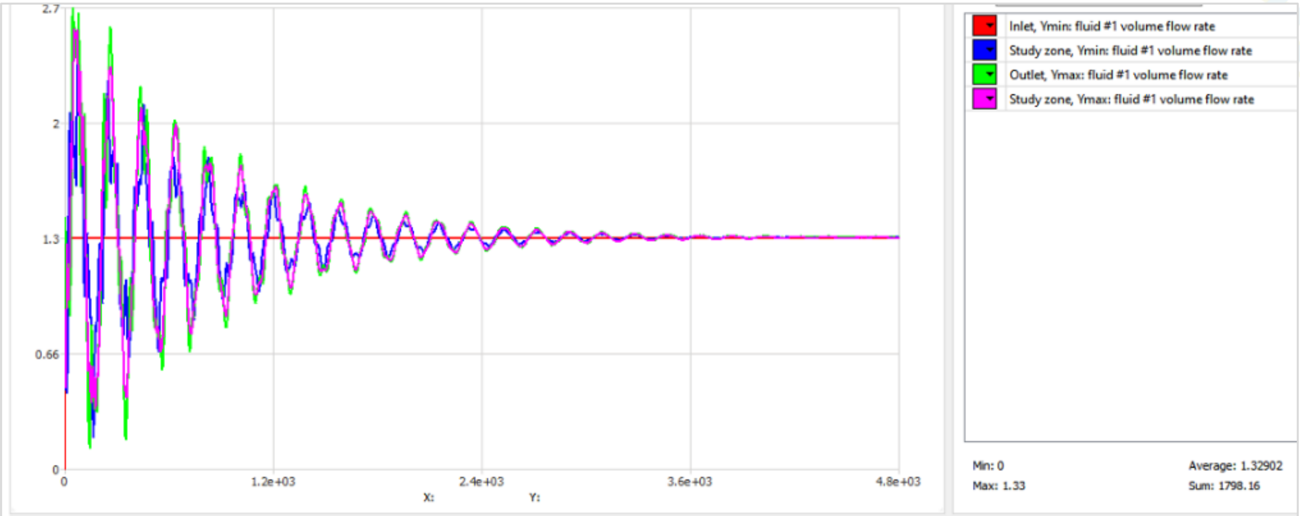
- The model results can be presented as an overview of the modelled reach (Figure 3-4) with the flow direction from top to bottom of the image, or at individual cross-sections within the model. The velocities are illustrated using a colour ramp.

Figure 3-4: Illustration of the CFD model showing velocity patterns (m/s)



- For each flow rate modelled, it took a long time for the model to stabilise. On reflection, we believe this could be linked to the flat riverbed/water surface, combined with the narrowing in the channel. The model does stabilise, but it typically takes c.3,600-seconds, or 60-minutes, as can be seen in Figure 3-5, which shows flow rate (m^3/s) on the y-axis vs time (seconds) on the x-axis. This is similar to the water-level oscillations modelled in the surge test case.

Figure 3-5: Graph showing flow-stabilisation in the canal



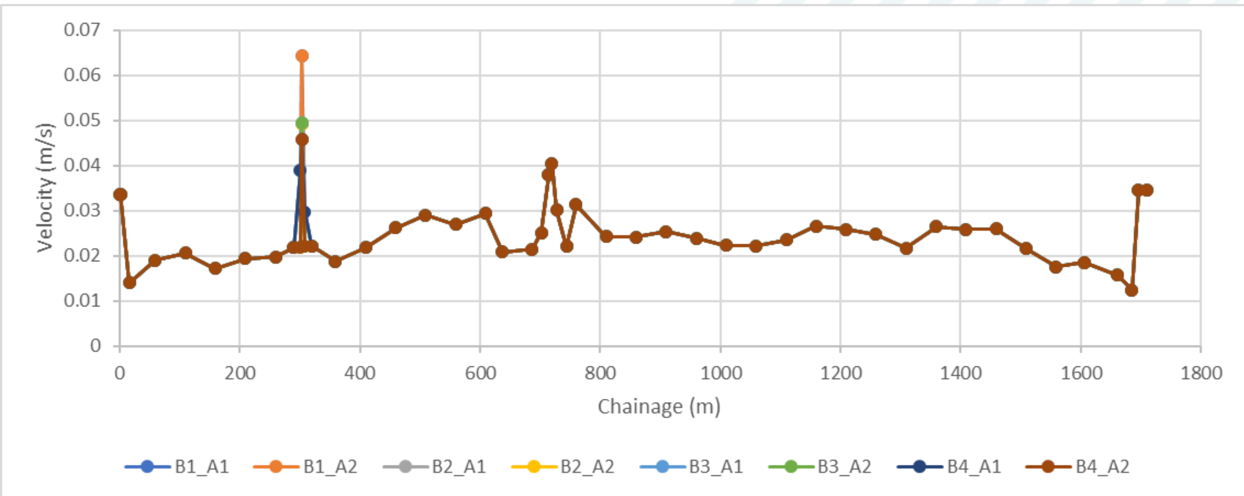
4 1D Results

This section focuses on the model results generated for scenarios B1_A1 to B4-A2 as recorded in Table 3-1. A general overview of velocities along the pound is provided first and velocity and flow time series at key cross sections is further discussed below.

4.1 Velocities along the pound

As the flow varied during the simulation, velocities along the pound have been reported at three times: 18h, 58h and 98h in order to let the model reach an equilibrium for each of the three flows tested. Velocities along the pound at each of the modelled times and flows tested are shown in Figures 4-1 to 4.3 below.

Figure 4-1: Maximum velocities across the pound at a flow rate of 0.266m^3/s (23MLD)



Author names redacted

TECHNICAL NOTE

JBA Project Code 2021s0715
Contract Grand Union Canal SRO IDS - Modelling
Client Affinity Water
Date / Version 25/08/2022 S3-P04
Author(s) [redacted]
Reviewer(s)
Subject TEST CASE: Velocity

Figure 4-2: Maximum velocities across the pound at a flow rate of 0.666m^3/s

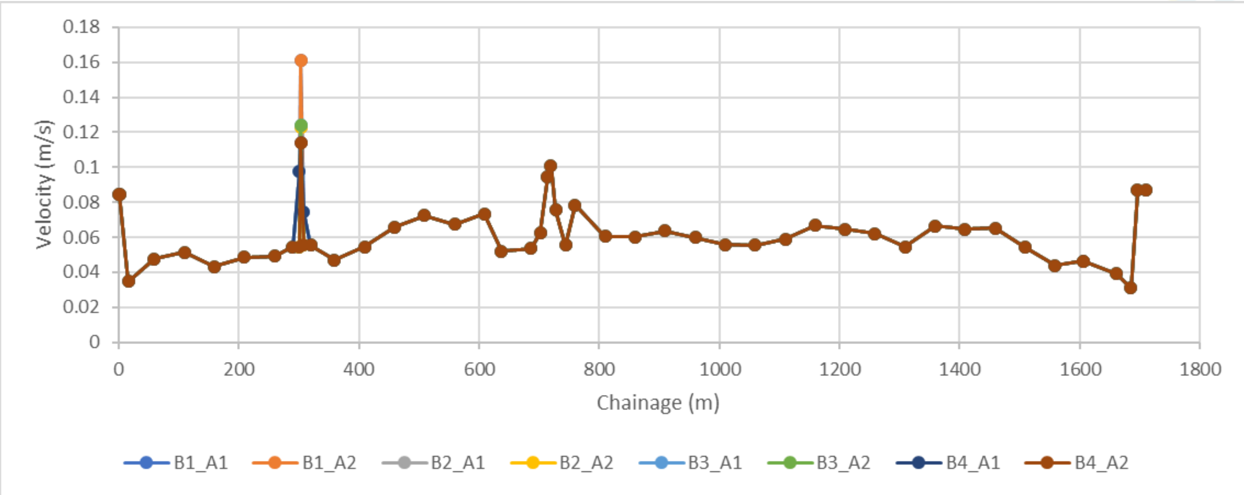
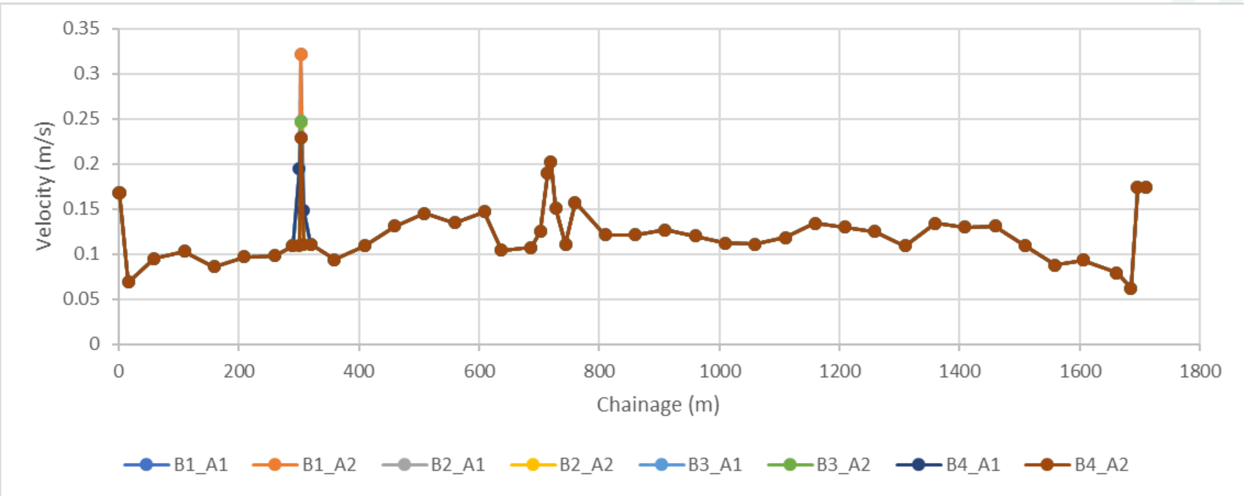


Figure 4-3: Maximum velocities across the pound at a flow rate of 1.331m^3/s



As can be seen from Figures 4-1 to 4-3 above, maximum velocities along the pound remain below 0.3m/s, the threshold for navigation, except in scenarios B1_A1 and B2_A2, which has the narrowest constriction at 2.69m width. This is expected to be acceptable for boat operation as the velocity is only increased over a short distance at the constriction.

However, velocities throughout the pound raise to above 0.05m/s, the threshold for fish, for the two highest flows of 0.666m^3/s and 1.331m^3/s while they remain below 0.05m/s at the base flow of 0.266m^3/s apart from the constriction in the B1 scenarios. This indicates that velocity could be an issue for larval, juvenile and spawning fish species which need velocities below this to thrive. 1D modelling limitations mean that velocities are reported as average velocities across the channel rather than showing variations in velocity across each section. A separate 3D modelling assessment considers variations in velocity across the sections in the vicinity of the constriction in section 5.

4.2 Velocity and flow at the constriction

Velocities and flow time series are shown at the sections at and directly adjacent to the constriction for each scenario below. Sections GU01_50698 and GU01_50694 are at the constriction while GU01_50701 is directly upstream of the constriction and GU01_50690 is directly downstream of it with the transfer flow from lock 23 to 24.

Figure 4-4: Velocity and flow profiles for Scenario B1_A1

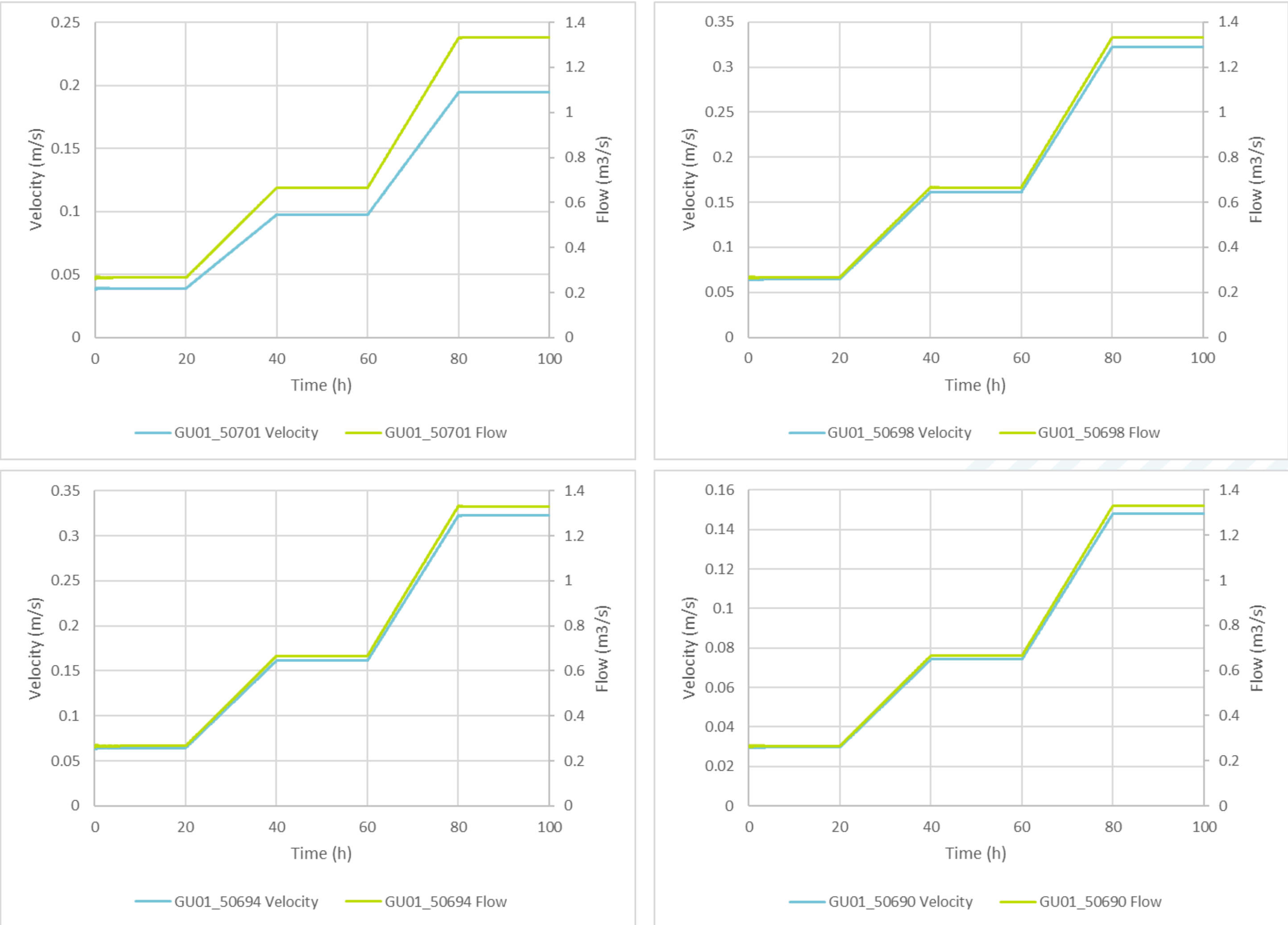


Figure 4-5: Velocity and flow profiles for Scenario B1_A2

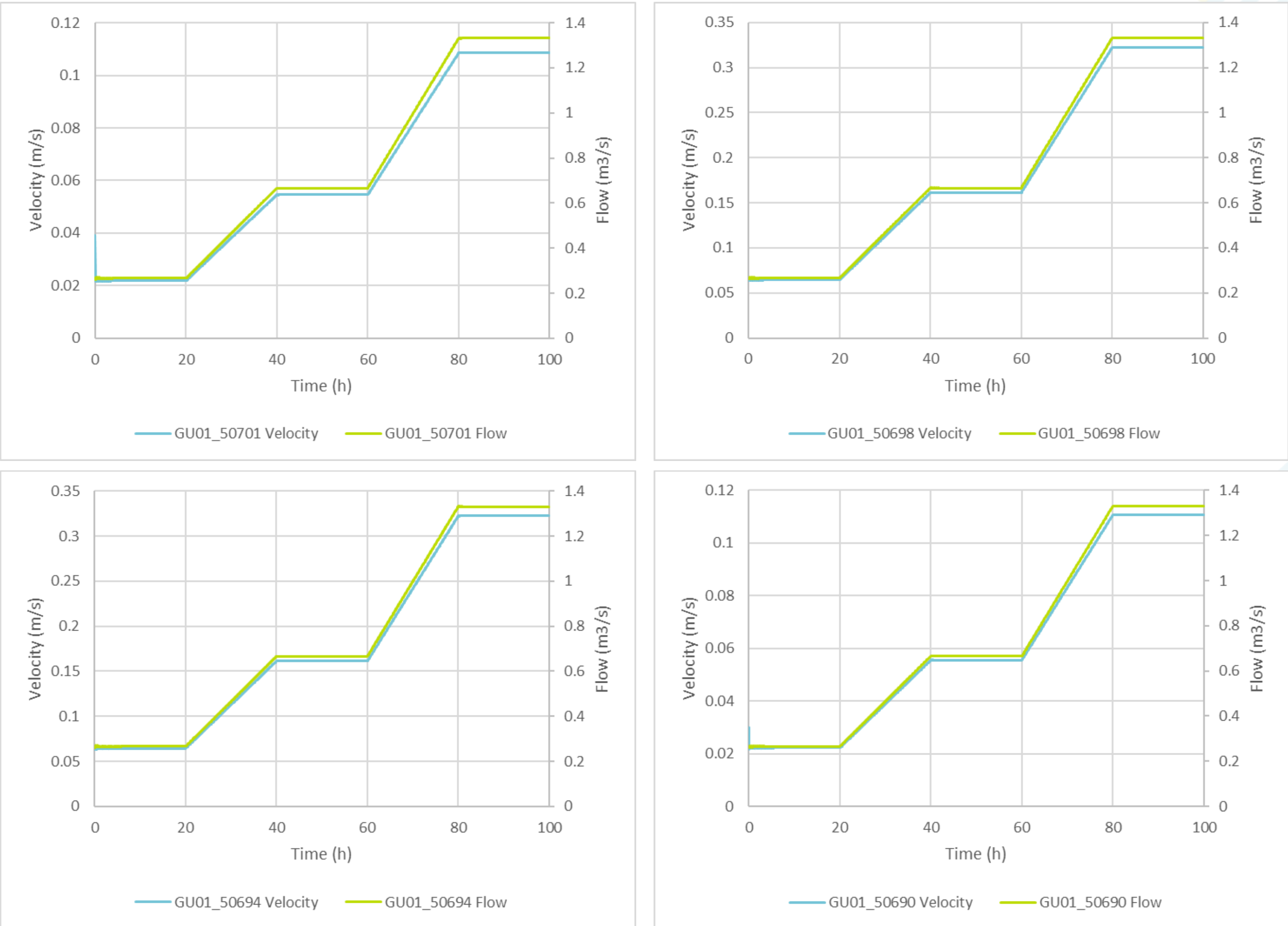


Figure 4-6: Velocity and flow profiles for Scenario B2_A1

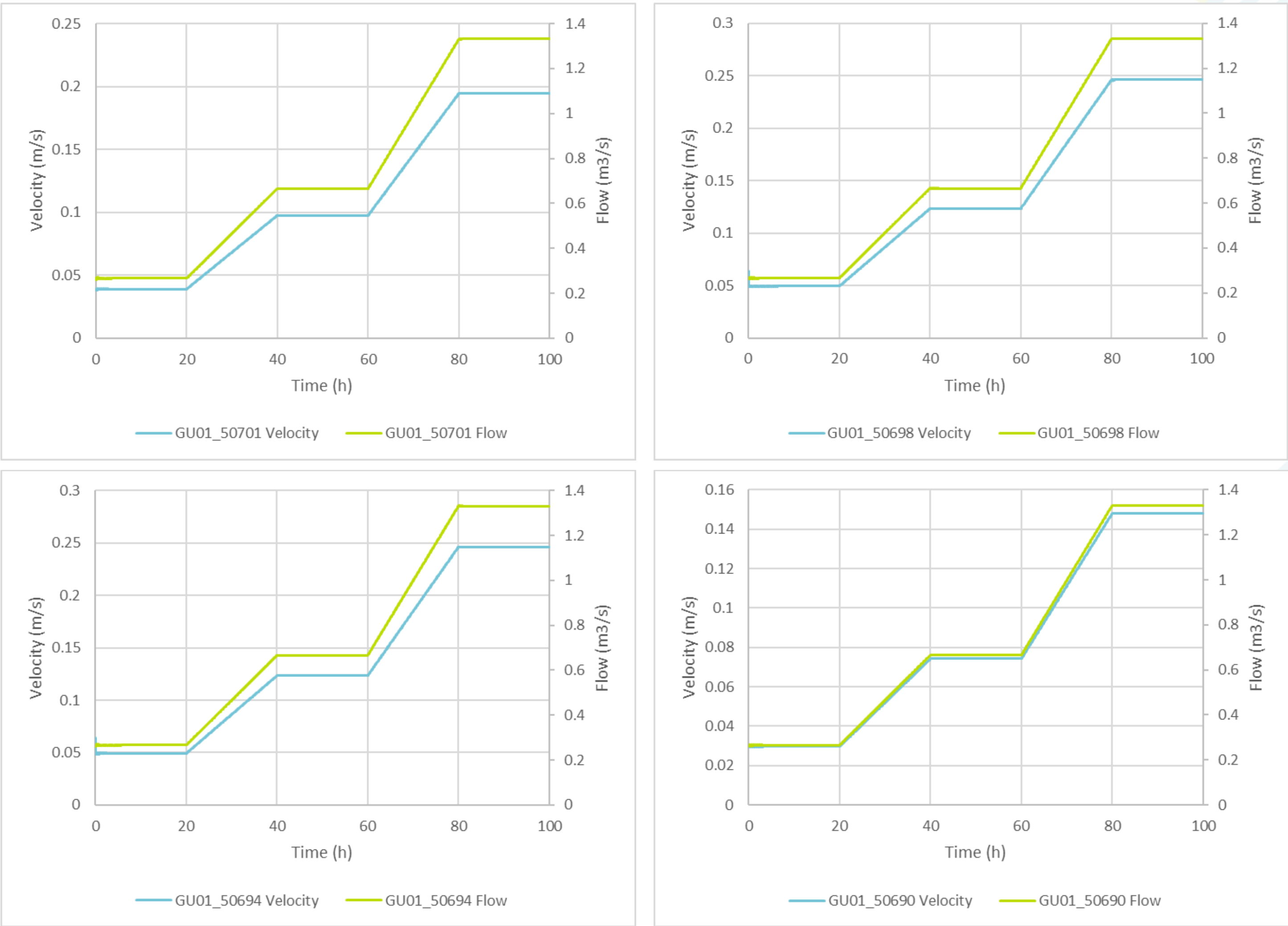


Figure 4-7: Velocity and flow profiles for Scenario B2_A2

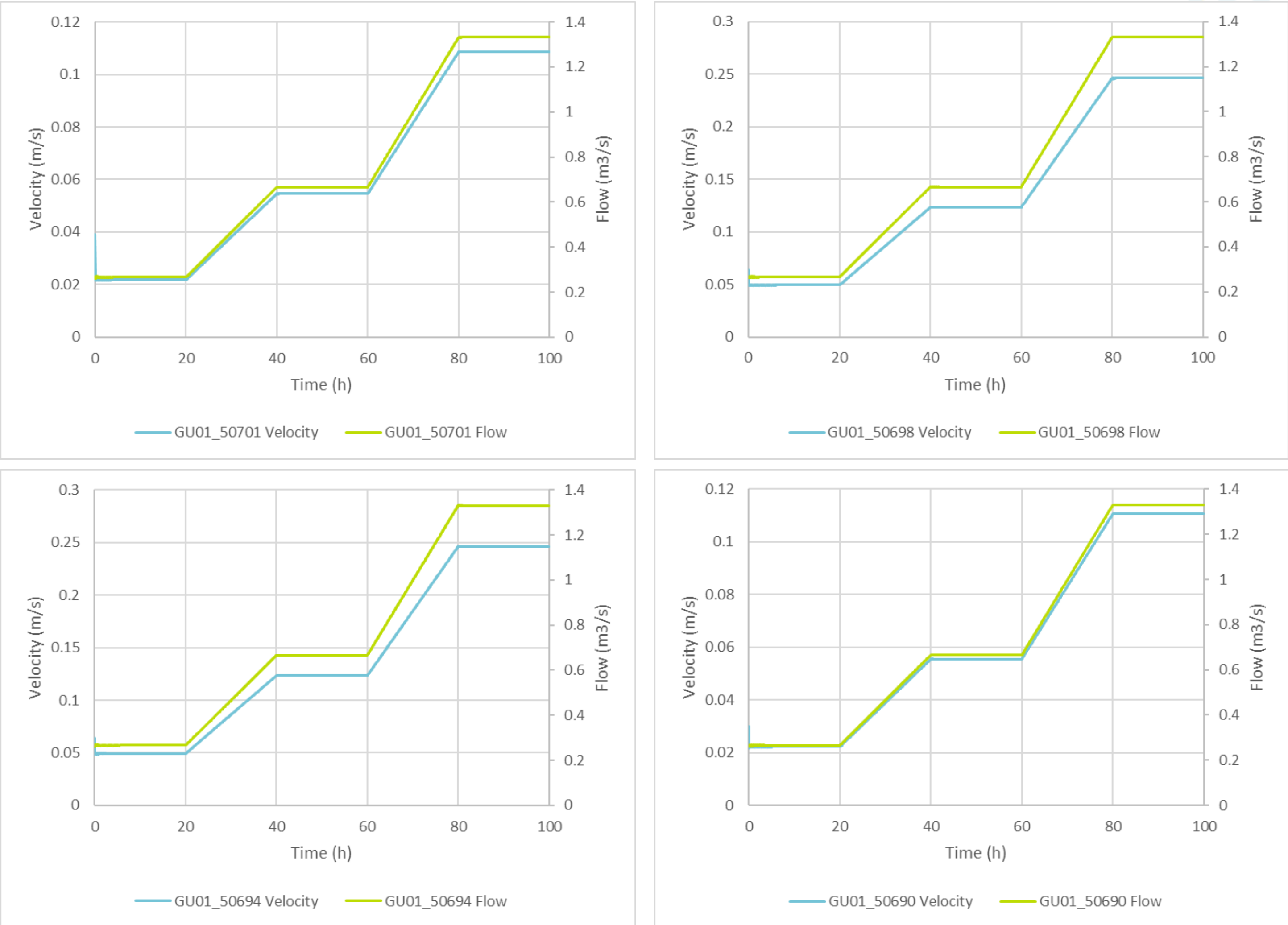


Figure 4-8: Velocity and flow profiles for Scenario B3_A1

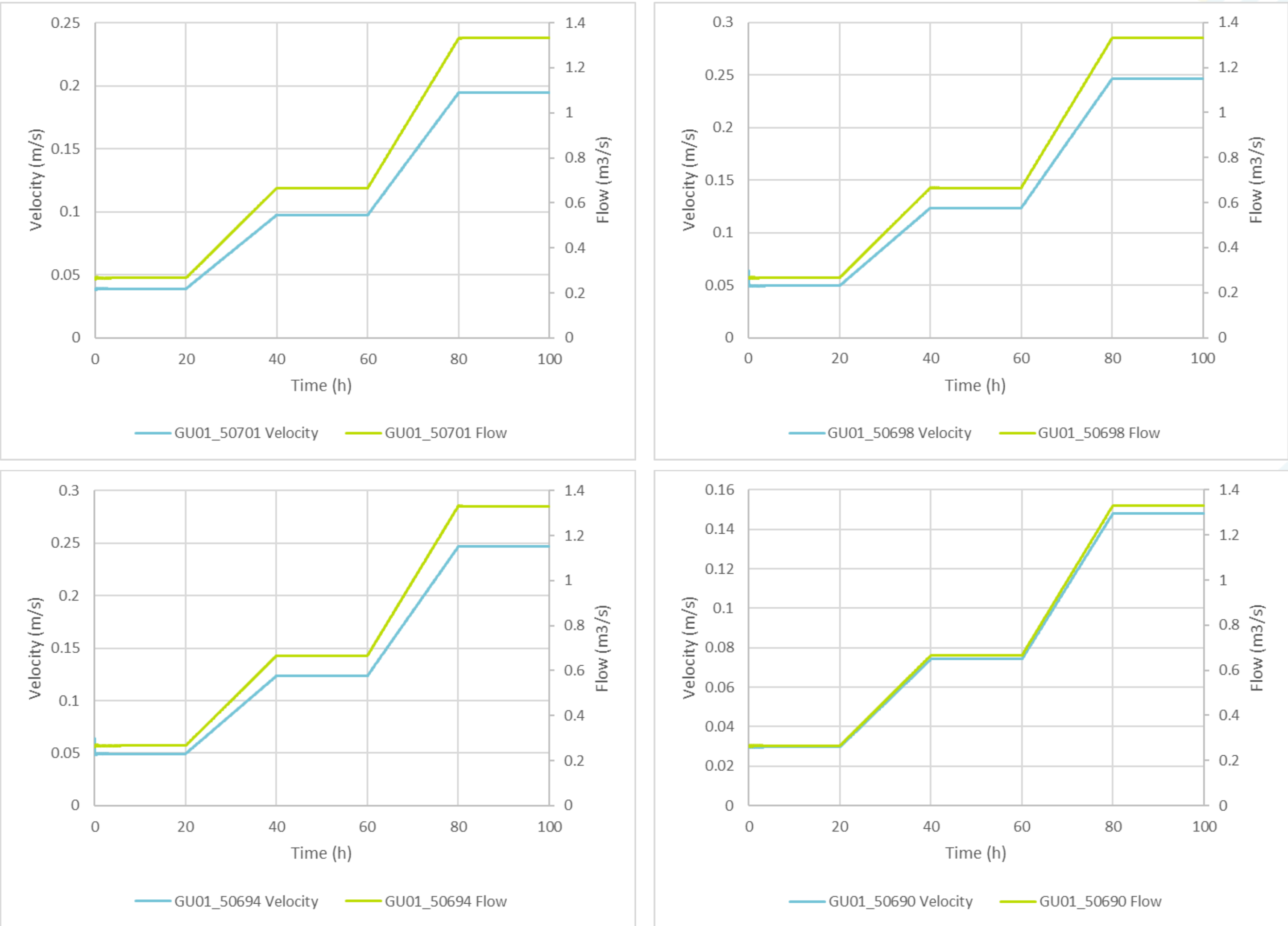


Figure 4-9: Velocity and flow profiles for Scenario B3_A2

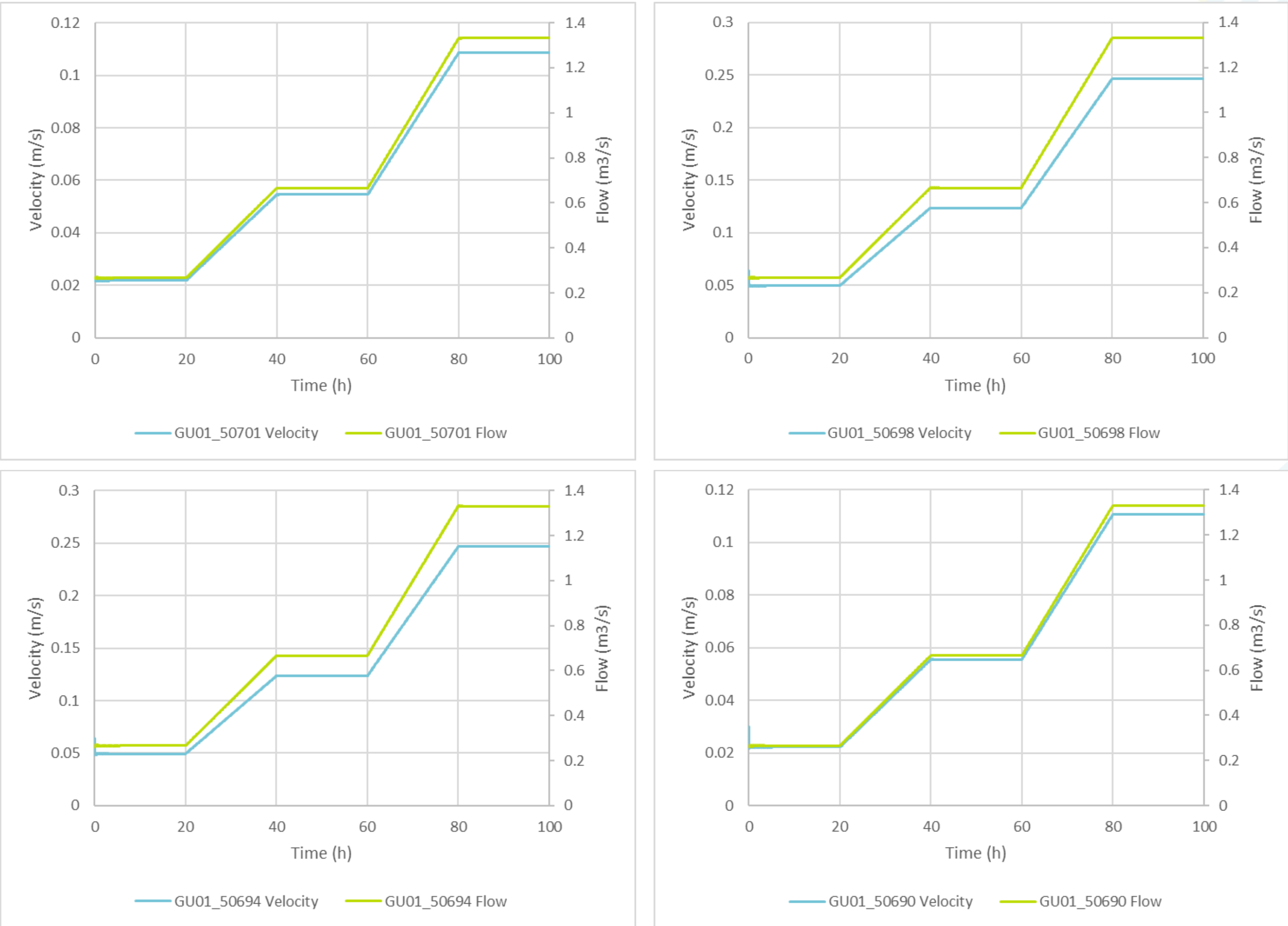


Figure 4-10: Velocity and flow profiles for Scenario B4_A1

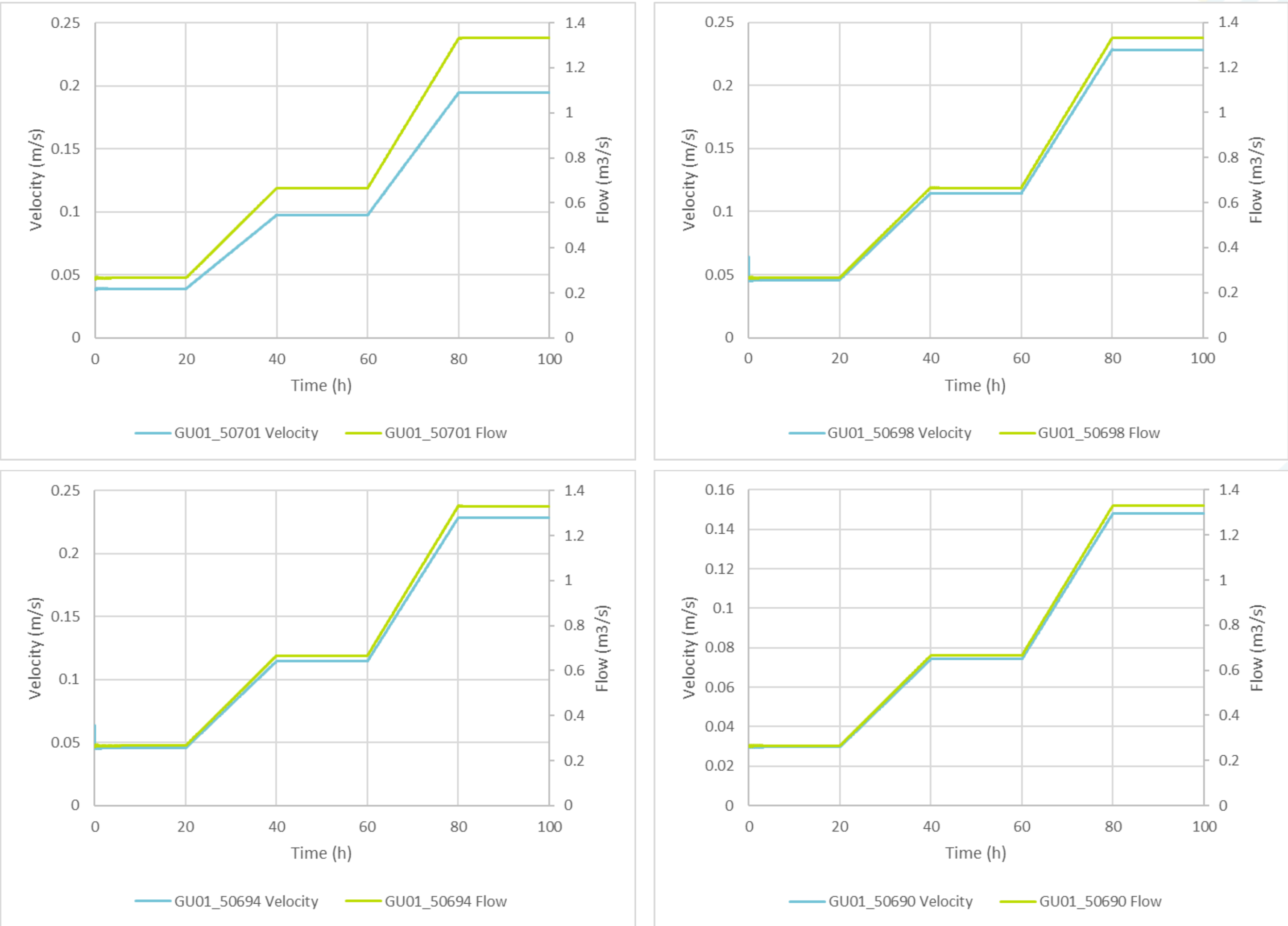
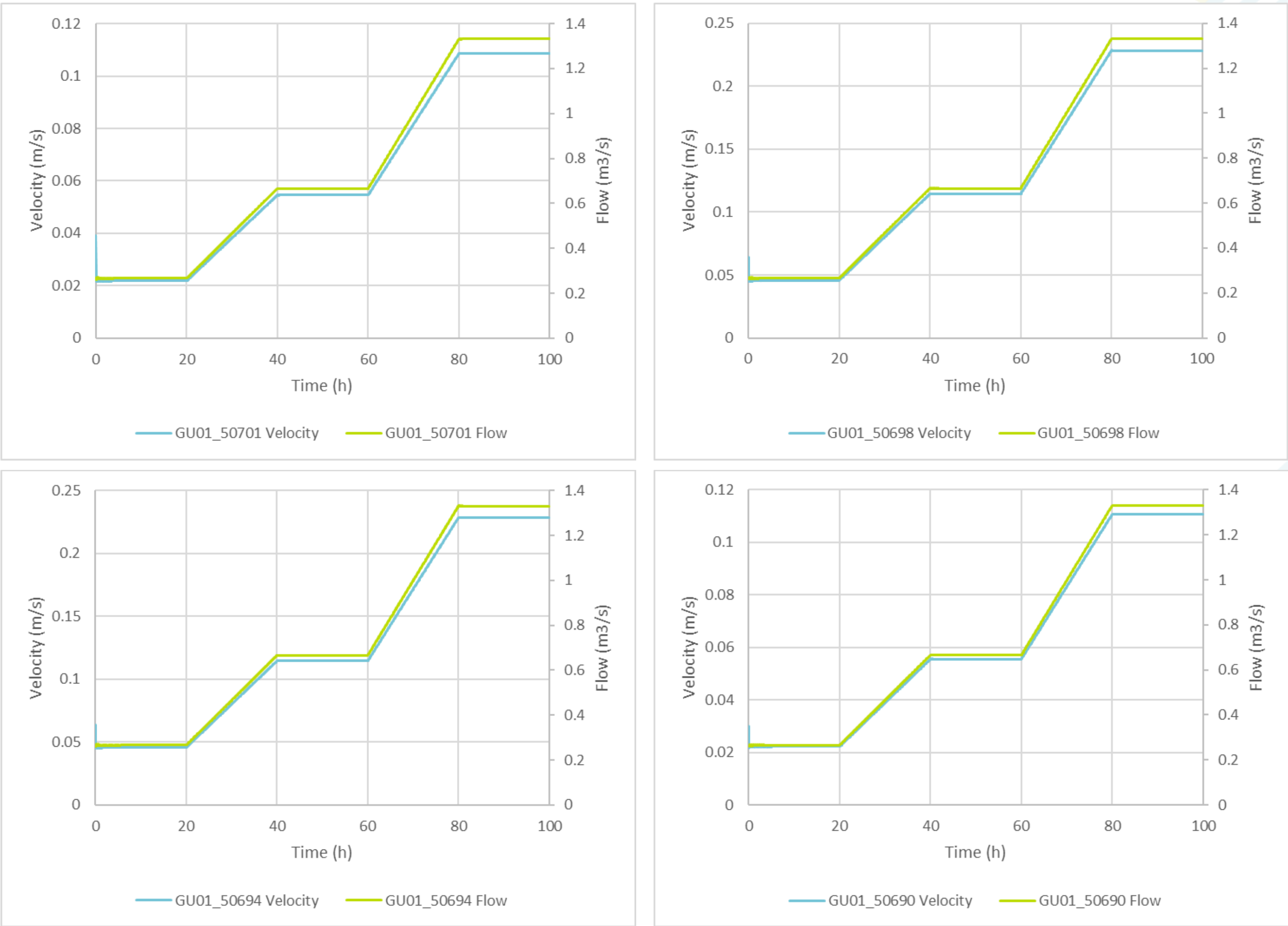


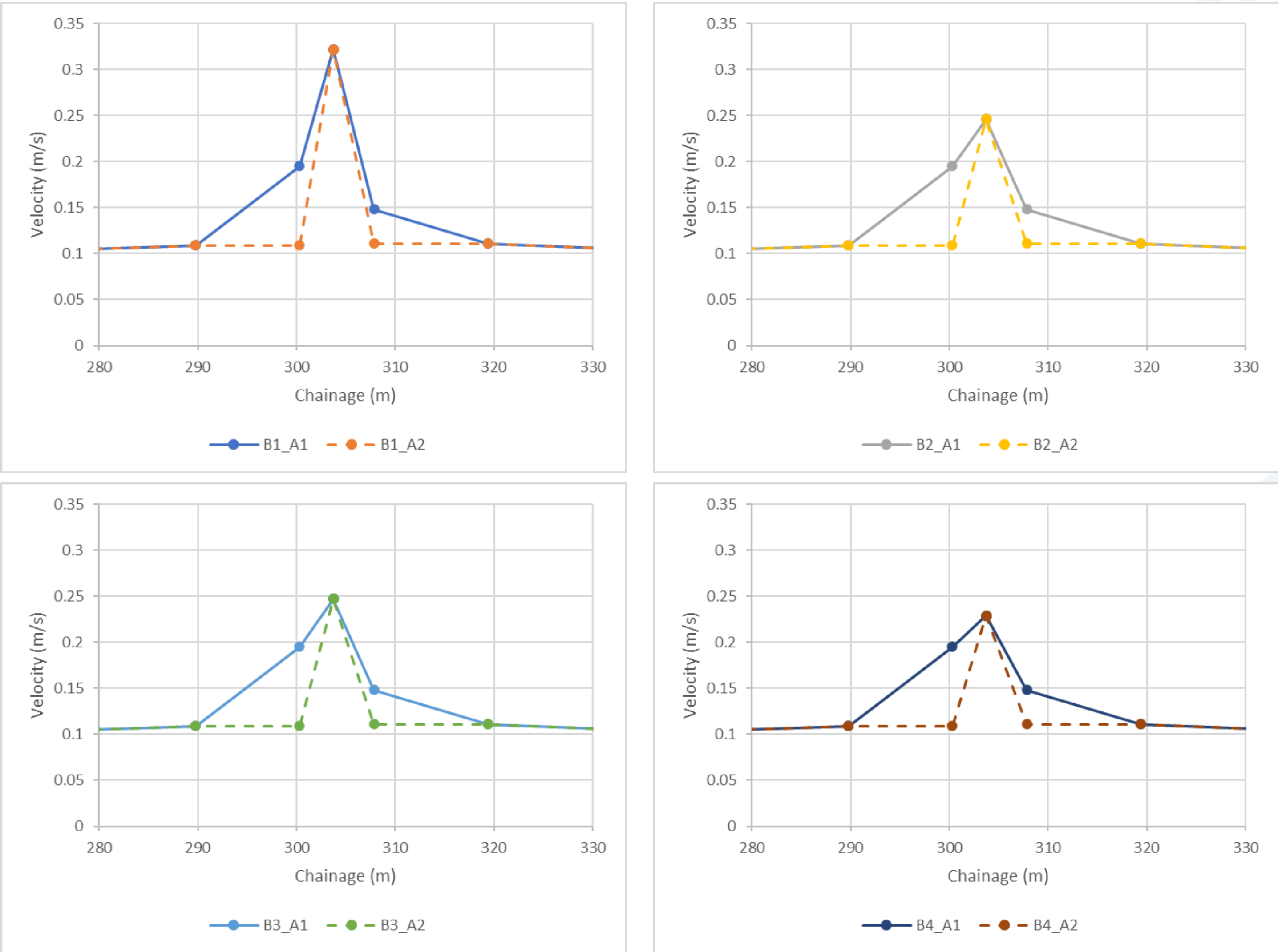
Figure 4-11: Velocity and flow profiles for Scenario B4_A2



4.3 Impact of the inlet/outlet arrangements

In terms of velocity, the impact of the change in arrangement at the constriction is only seen at the sections modified. Maximum velocities for each flow tested were identical throughout the pound for each scenario apart from the two sections representing the constriction and directly adjacent sections shown above. Figure 4-12 below shows the change in velocity around the constriction for the four scenarios.

Figure 4-12: Impact of the inlet/outlet arrangement on velocities for a flow of 1.331m3/s



As can be seen from the graphs above, velocities at the constriction itself are unchanged however velocities are lower at adjacent sections when the cross sections are larger. This makes sense as a larger cross-sectional area is available for the flow at these cross sections. No impact from the different arrangement on velocity at the constriction itself is therefore expected. This is significant for the full model, as it confirms that simply modelling the constriction (in most cases a bridge) is sufficient to predict maximum velocities through the constriction. This simple approach is therefore recommended for the full model,

4.4 Flow over the waste weir

No flow over the waste weir was predicted during any of the simulations.

5 CFD model results

5.1 Overview

Results from the CFD modelling are presented for:

- Three cross-sections, upstream of the constriction, within the constriction and downstream of the constriction.
- Three flow rates, 1.33m^3/s (115MLD), 0.67m^3/s (57.5 MLD) and 0.30m^3/s (23 MLD plus a small allowance for base flow).
- For the 115 MLD case, for two bed roughness conditions.
- In each scenario, the results are presented with all velocities above 0.05m/s (the lower velocity threshold for fish) set in red, and with an alternative colour ramp to illustrate the range of velocities.

5.2 1.33m^3/s (115MLD) results

For the high transfer flow state, there are small areas at the banks where velocity remains below the 0.05m/s threshold, with no low-velocity cross-sectional area at the bed in the low roughness scenario (Figure 5-1), increasing slightly in the higher roughness scenario (Figure 5-4). As would be expected there are essentially no areas of low velocity through the constriction (Figure 5-2 and Figure 5-5). Turbulence on the exit (probably exaggerated by the bend in the canal channel) results in small areas of low velocities downstream of the constriction (Figure 5-3 and Figure 5-6), although it is anticipated that flow will settle to the more uniform pattern seen upstream within a short distance downstream of the constriction. Figures 5-1 to 5-12 below show the velocities across the channel with two different scales, with values up to 0.05m/s in the upper image and a maximum value of 0.1m/s in the lower image with the exception of Figure 5-8 which has a scale with a maximum value of 0.1m/s in the upper image and up to 0.2m/s in the lower image. The two different scales are used to highlight whether there are areas with velocities below 0.05m/s suitable for juvenile fish at these locations and then provide an idea of how velocities change at these locations up to the maximum results.

5.2.1 0.001m bed roughness

Figure 5-1: Modelled velocities (m/s) with 1.33m^3/s flow, 0.001m bed roughness, upstream of constriction

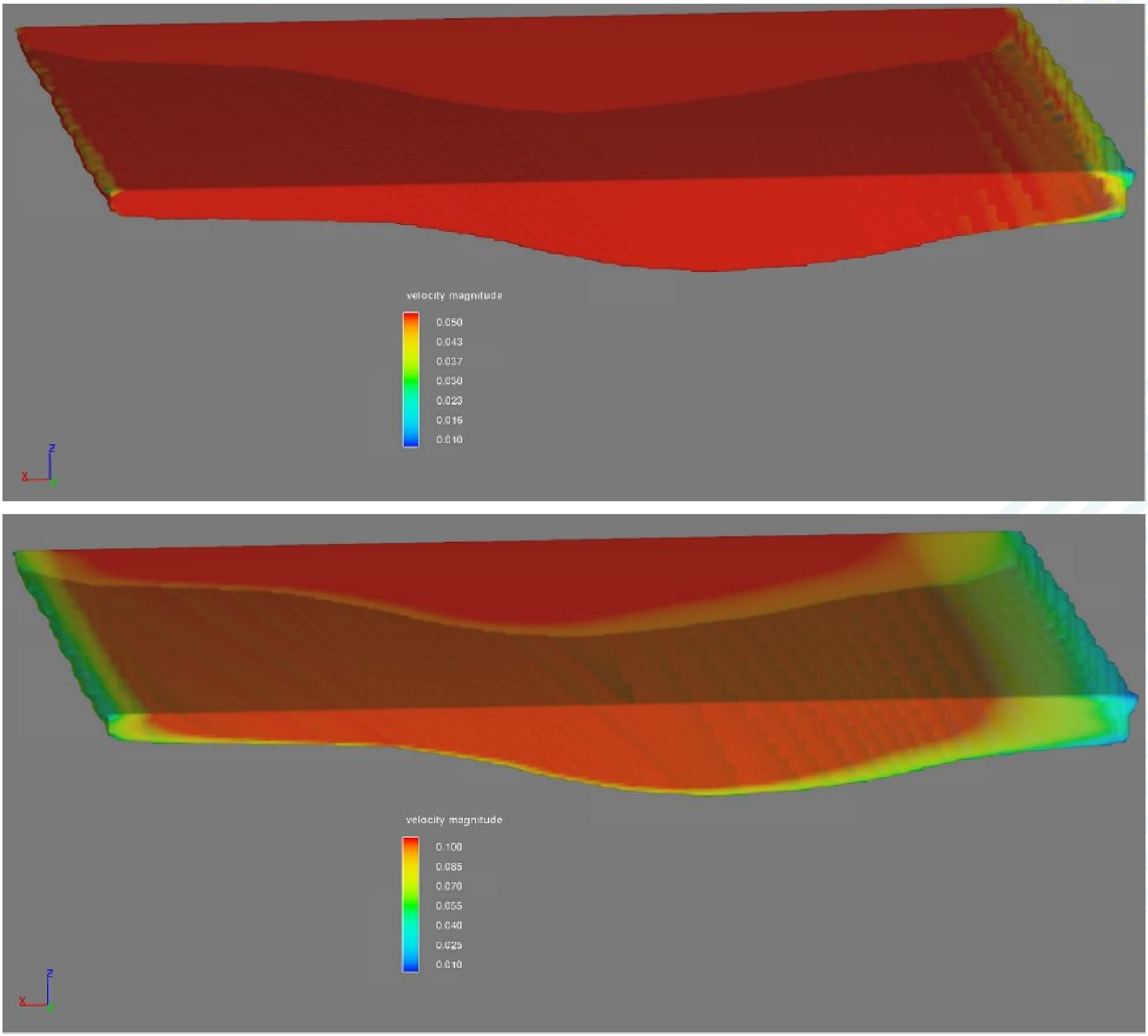


Figure 5-2: Modelled velocities (m/s) with 1.33 m^3/s flow, 0.001m bed roughness, constriction

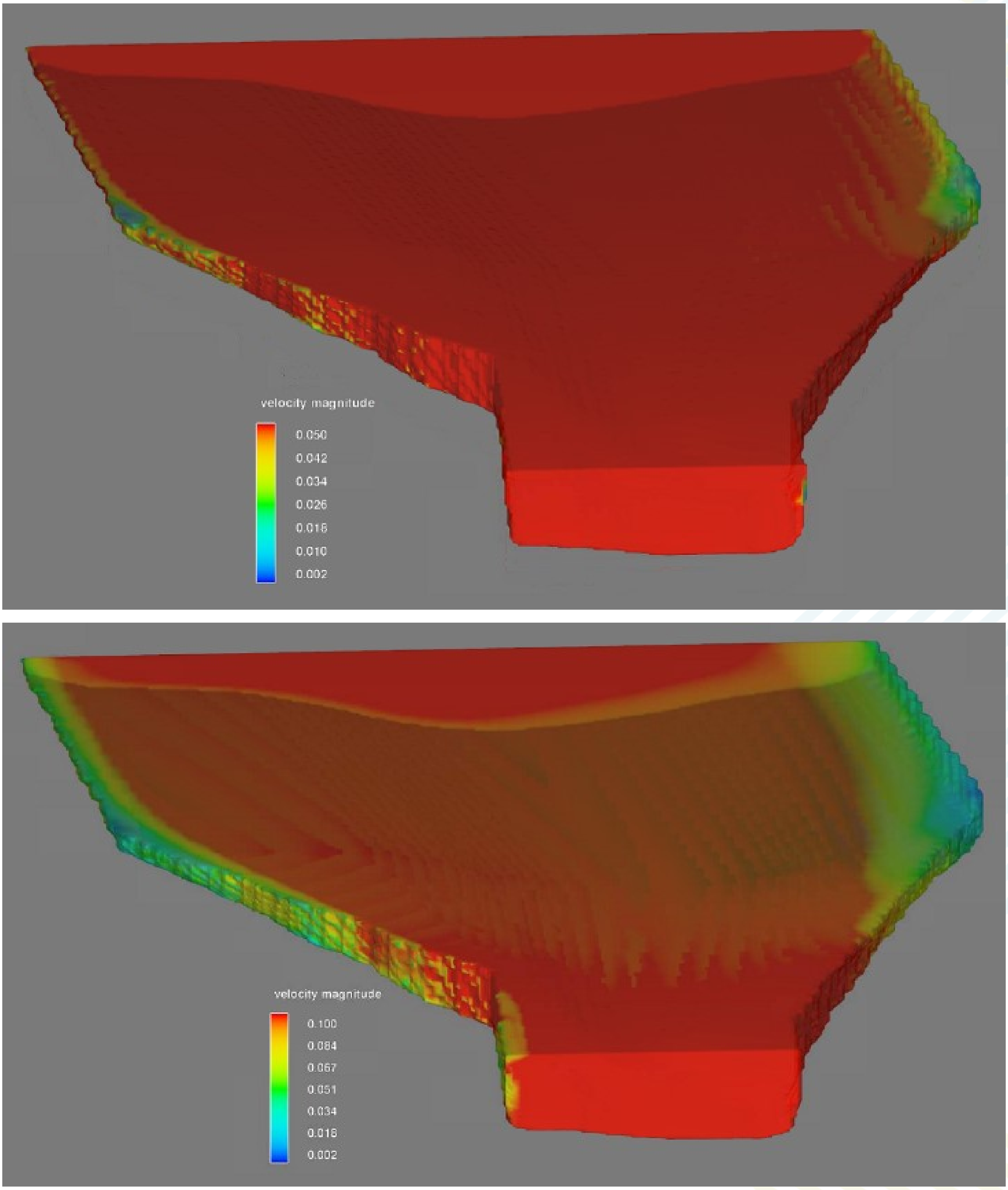
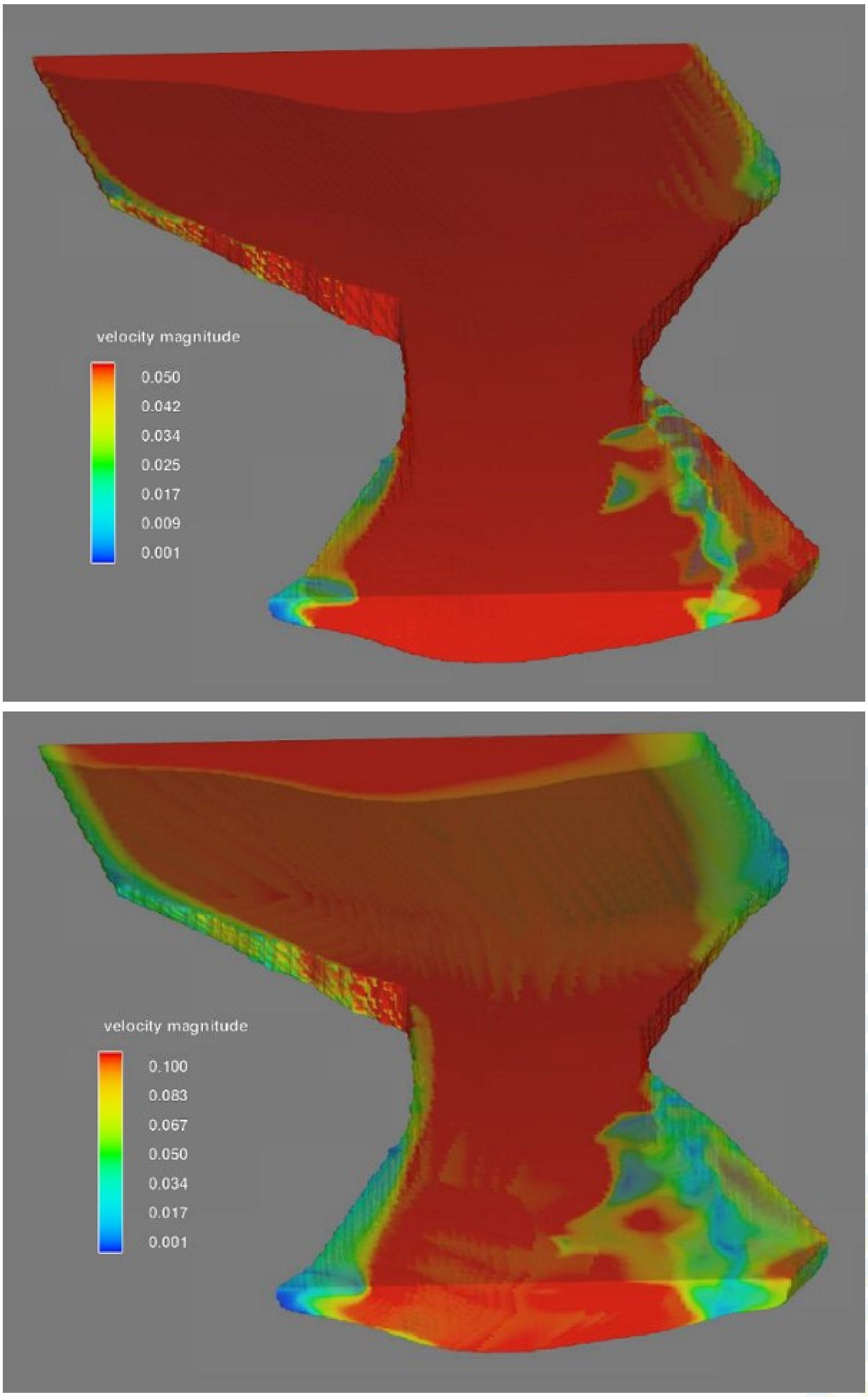


Figure 5-3: Modelled velocities (m/s) with 1.33 m^3/s flow, 0.001m bed roughness, downstream of constriction



5.2.2 0.03m bed roughness

Figure 5-4: Modelled velocities (m/s) with 1.33 m³/s flow, 0.03m bed roughness, upstream of constriction

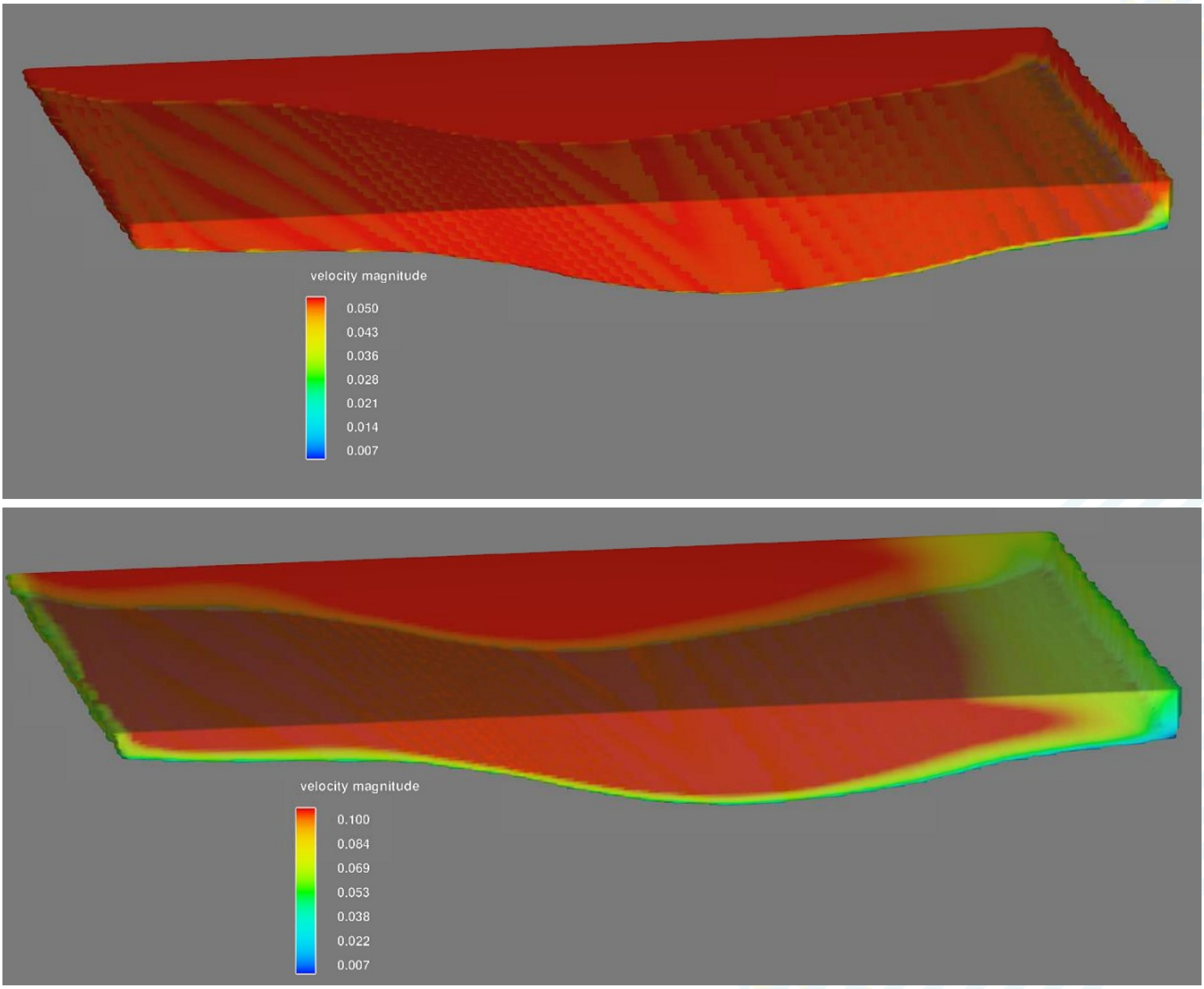


Figure 5-5: Modelled velocities (m/s) with 1.33 m^3/s flow, 0.03m bed roughness, constriction

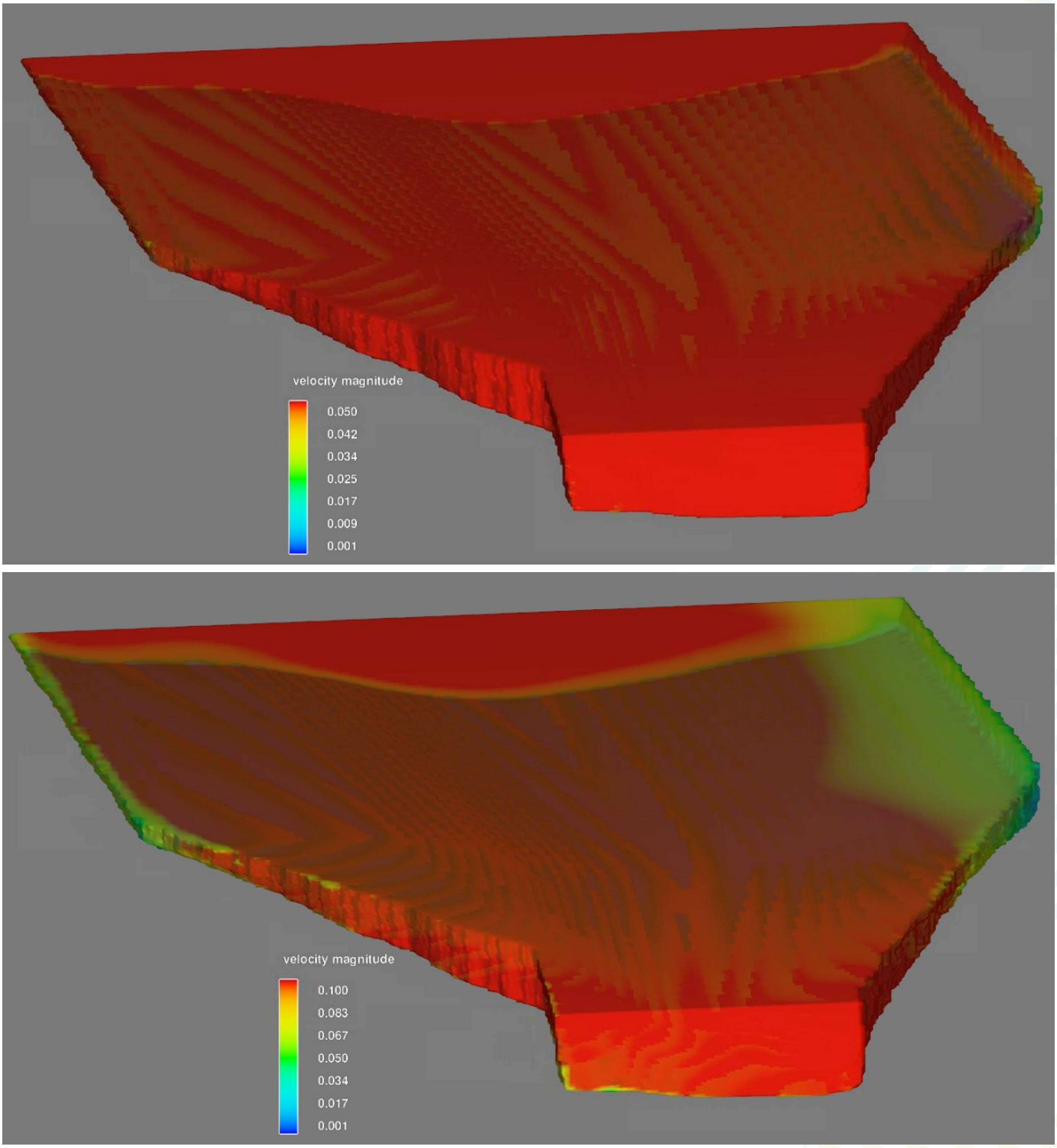
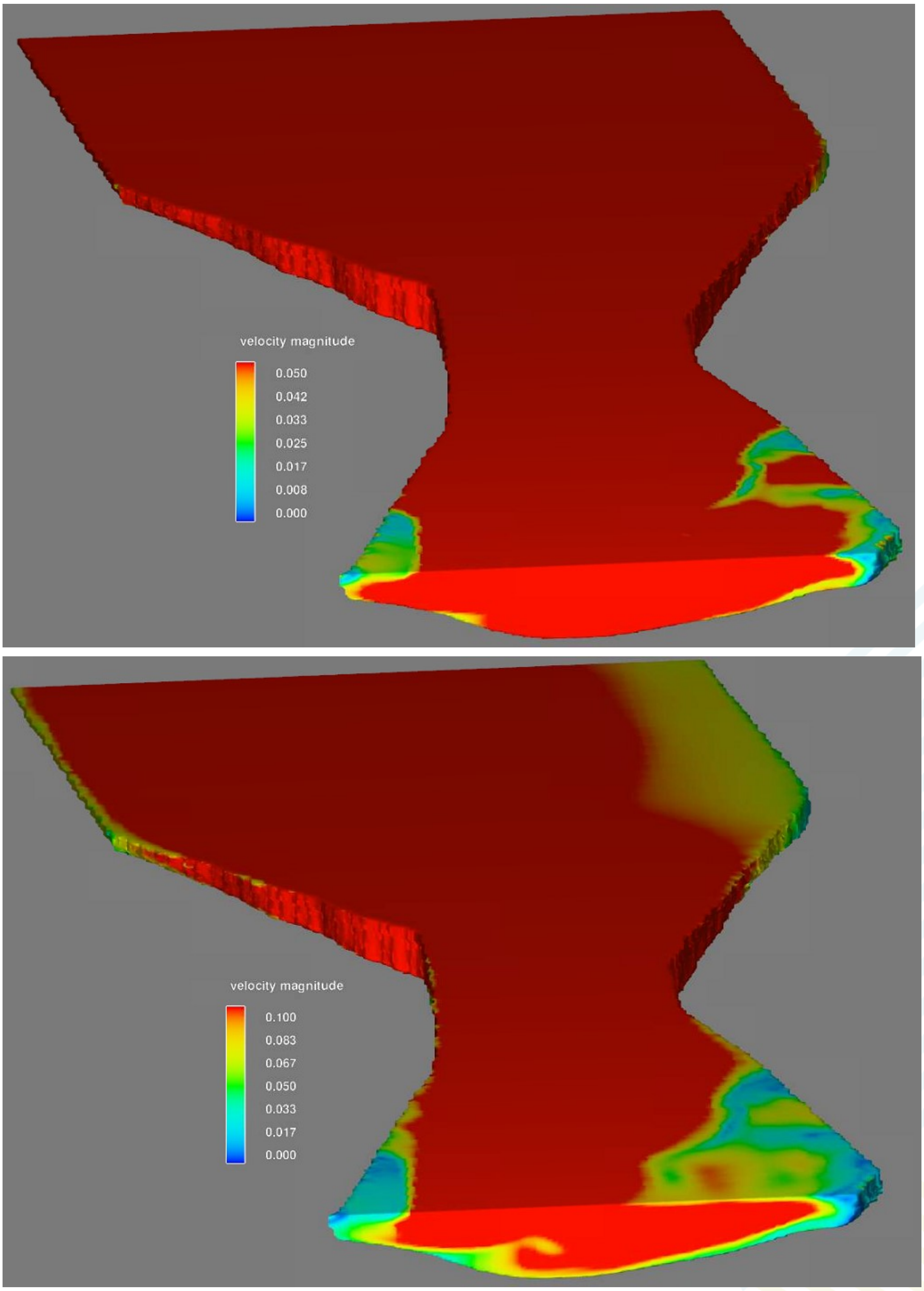


Figure 5-6: Modelled velocities (m/s) with 1.33 m^3/s flow, 0.03m bed roughness, downstream of constriction



5.3 0.67m^3/s (67.5MLD) results

For the medium transfer flow state, there are significant areas at the banks where velocity remains below the 0.05m/s threshold, with around 0.1m of low velocity water across the canal bed (Figure 5-7). Through the constriction there are essentially no areas of low velocity (Figure 5-8). Lower velocity areas form immediately downstream of the constriction (Figure 5-9), and it is anticipated that flow will settle to the more uniform pattern seen upstream over a short distance.

Figure 5-7: Modelled velocities (m/s) with 0.67m^3/s flow, 0.03m bed roughness, upstream of constriction

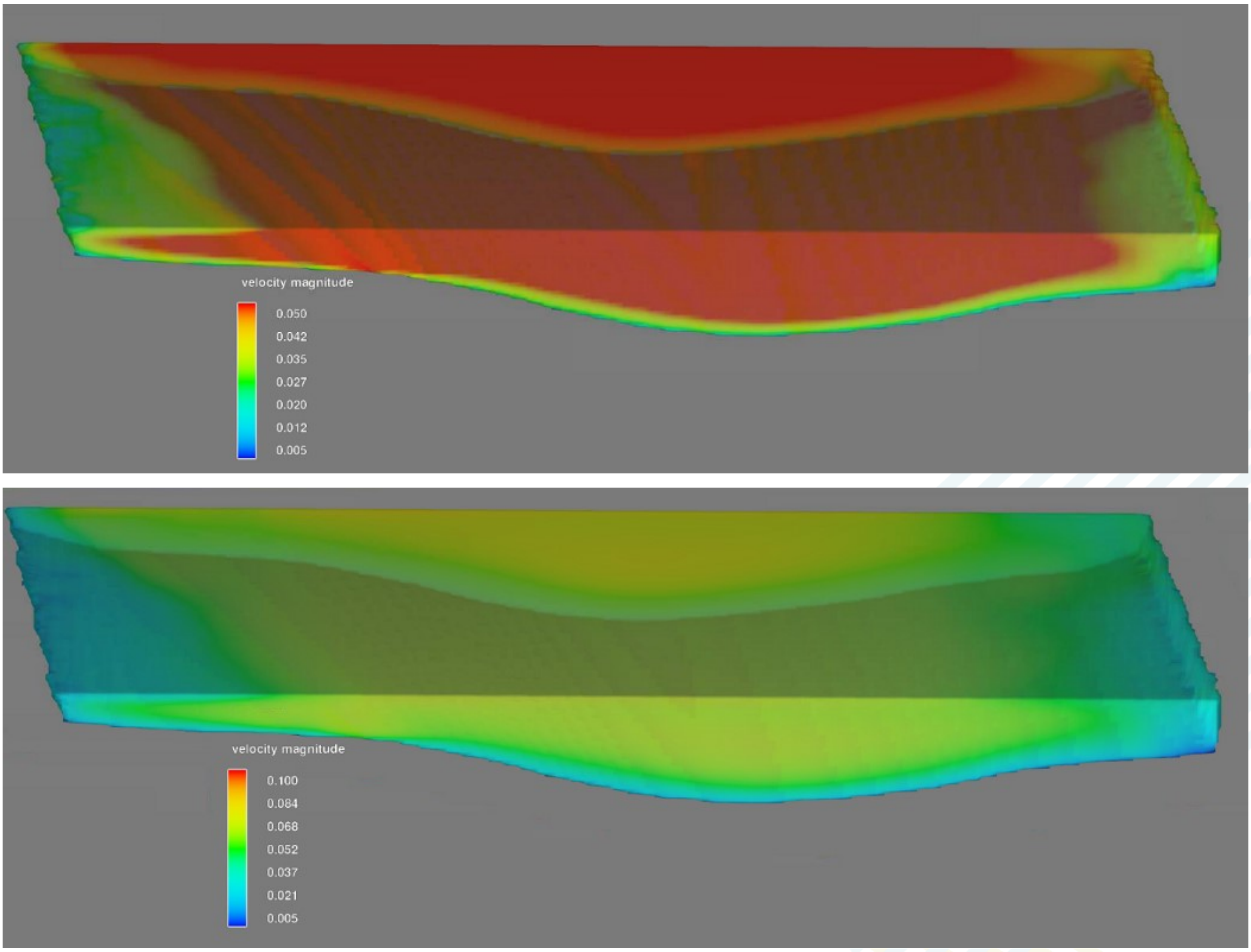
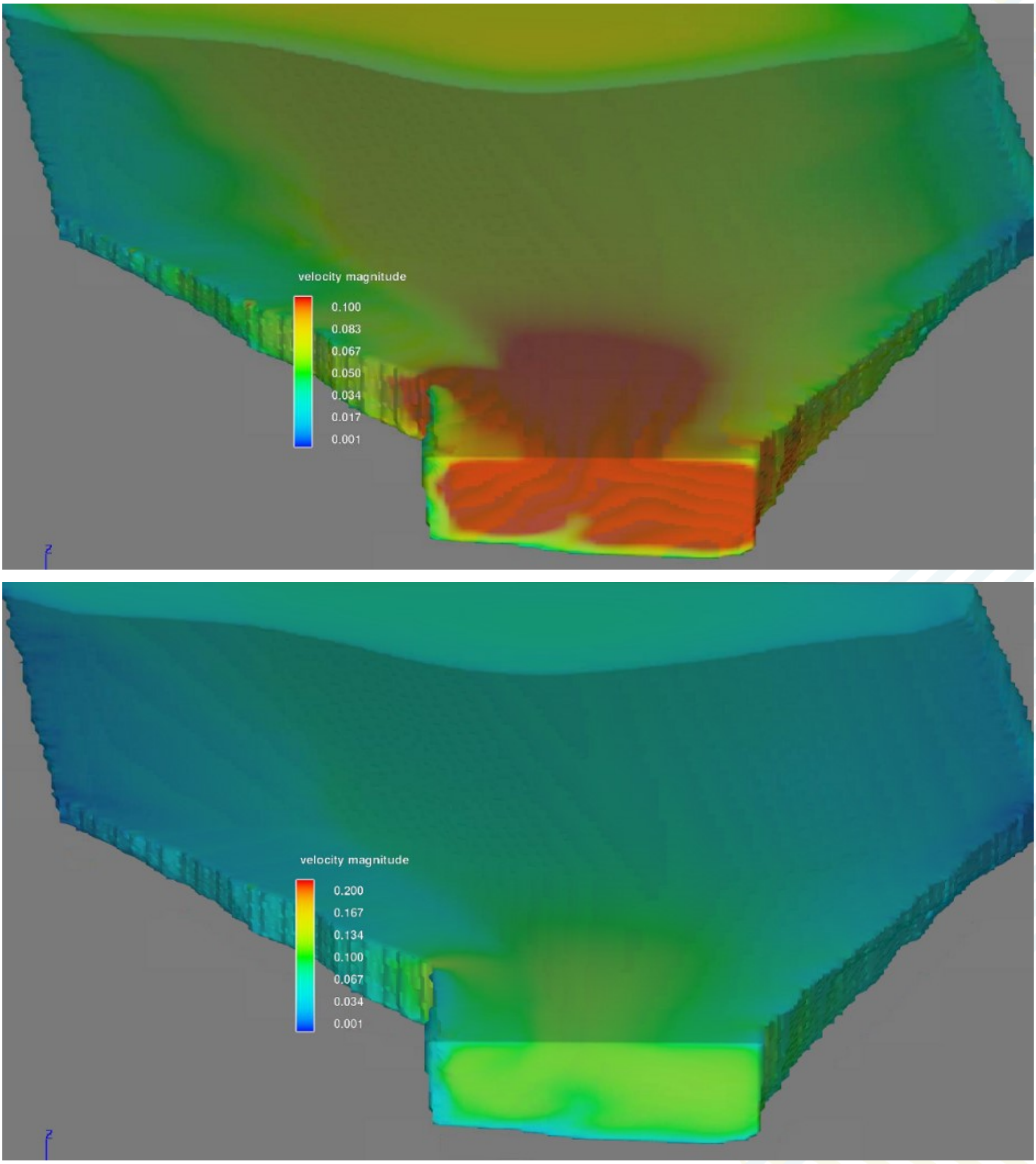


Figure 5-8: Modelled velocities (m/s) with 0.67 m^3/s flow, 0.03m bed roughness, constriction

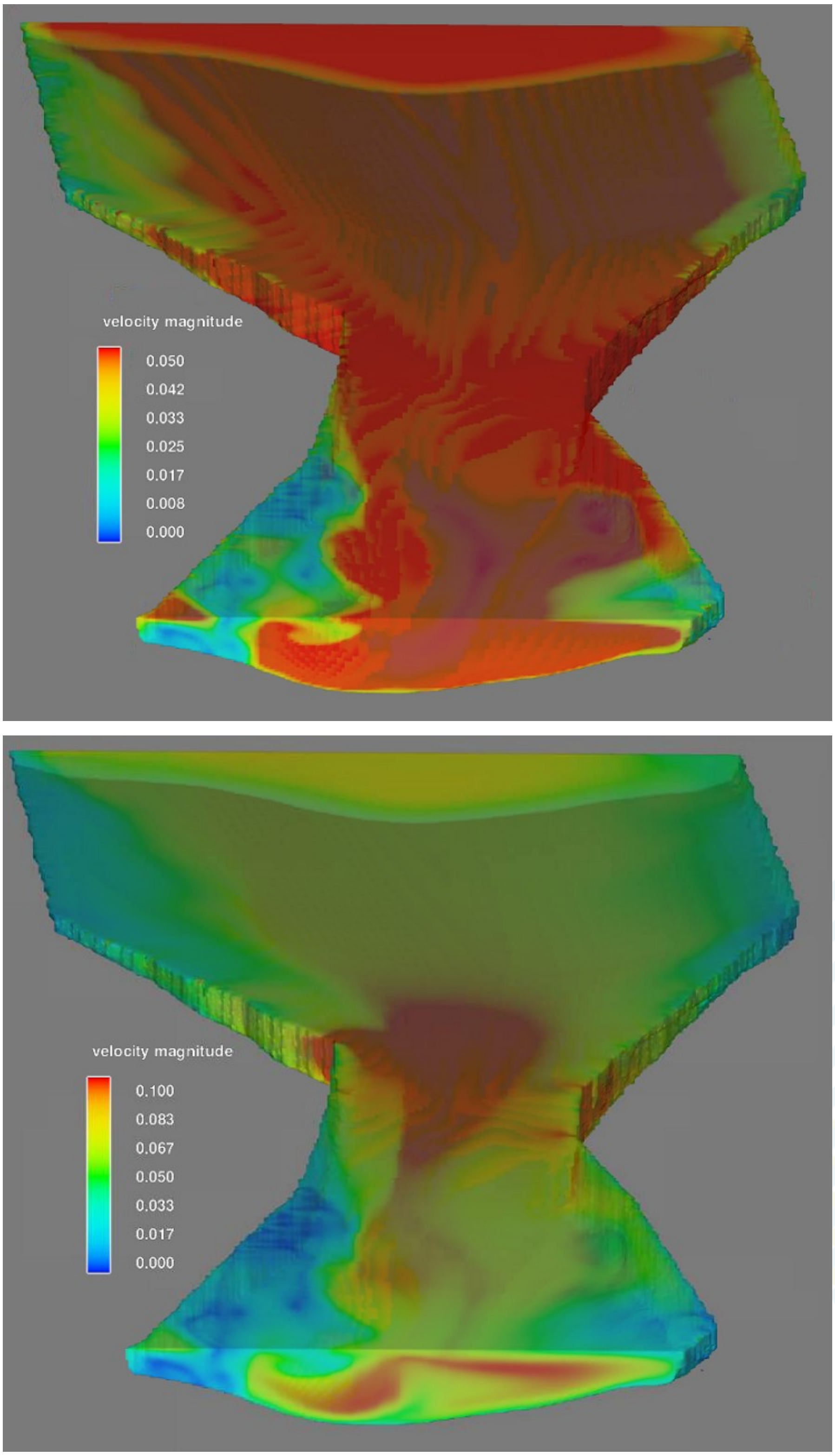


Author names redacted

TECHNICAL NOTE

JBA Project Code	2021s0715
Contract	Grand Union Canal SRO IDS - Modelling
Client	Affinity Water
Date / Version	25/08/2022 S3-P04
Author(s)	[redacted]
Reviewer(s)	
Subject	TEST CASE: Velocity

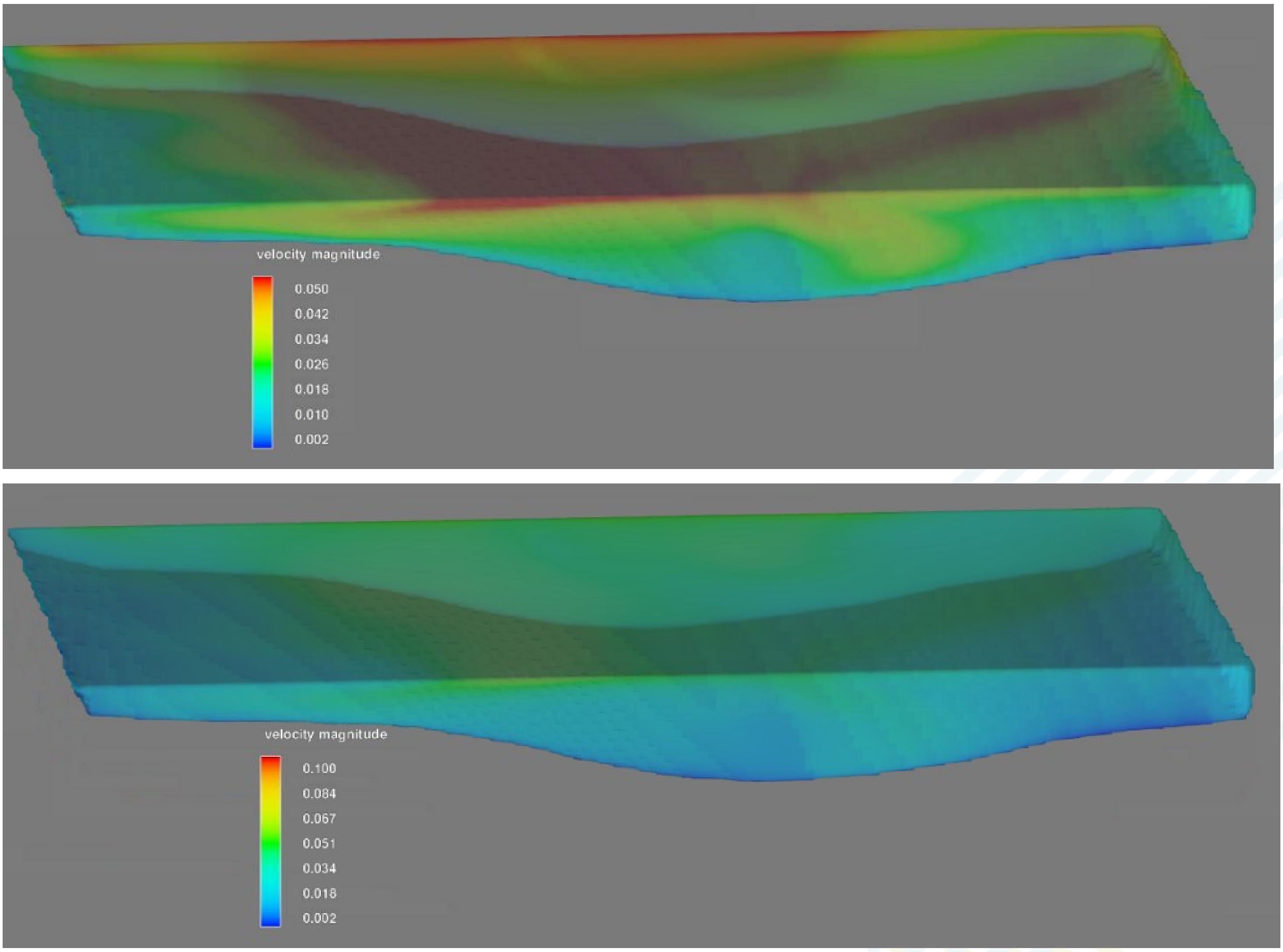
Figure 5-9: Modelled velocities (m/s) with 0.67 m^3/s flow, 0.03m bed roughness, downstream of constriction



5.4 0.30m³/s (23 MLD plus baseflow allowance) results

In this lower flow scenario, the majority of the cross-section upstream of the constriction has velocities well below the 0.05m/s threshold. Within the constriction, higher velocities dominate but velocities below 0.05m/s are found at the beds and banks. Downstream of the constriction, as with the higher flow scenarios, there is some turbulence, but the majority of the channel returns to low velocities. Turbulence would be anticipated to dissipate over a short distance downstream.

Figure 5-10: Modelled velocities (m/s) with 0.30m³/s, 0.03m bed roughness, upstream of constriction



TECHNICAL NOTE

JBA Project Code	2021s0715
Contract	Grand Union Canal SRO IDS - Modelling
Client	Affinity Water
Date / Version	25/08/2022 S3-P04
Author(s)	[redacted]
Reviewer(s)	
Subject	TEST CASE: Velocity

Figure 5-11: Modelled velocities (m/s) with 0.30 m^3/s flow, 0.03m bed roughness, constriction

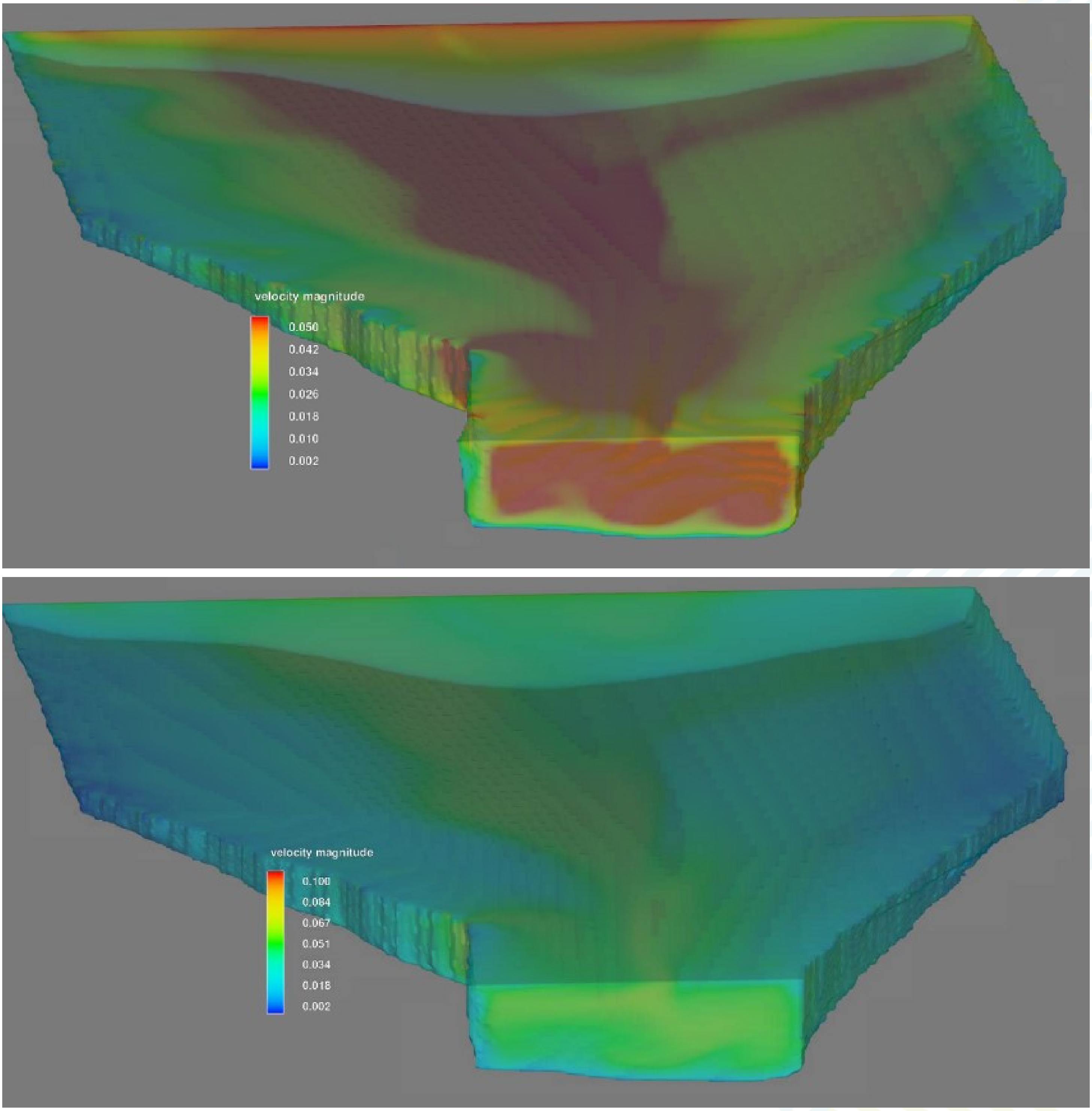
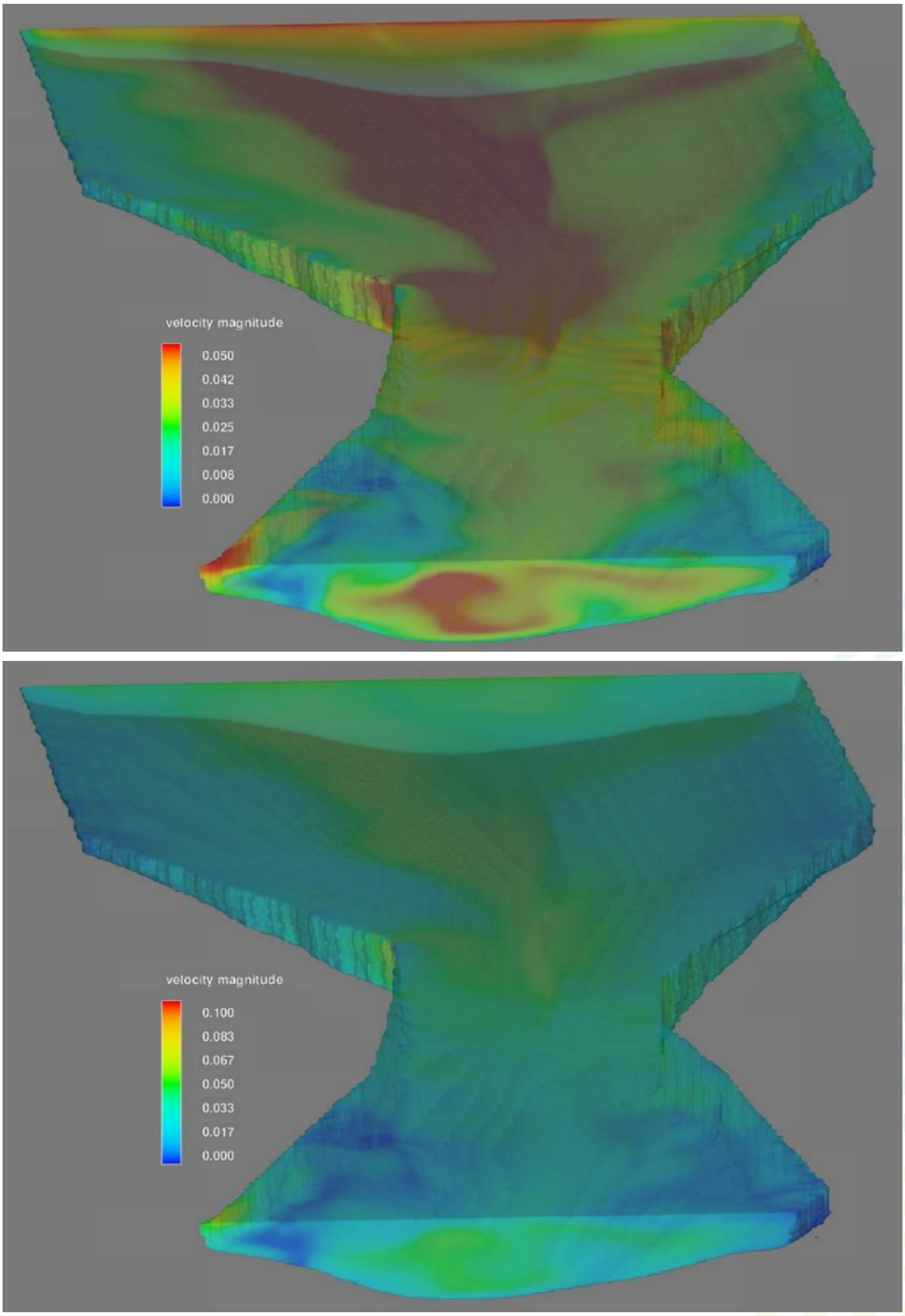


Figure 5-12: Modelled velocities (m/s) with 0.30 m³/s flow, 0.03m bed roughness, downstream of constriction



6 Conclusions

Detailed hydraulic modelling has been undertaken on the pound between Lock 23 and 24 to refine the understanding of the risk of increased velocities in the canal as a result of the proposed GUC SRO transfer. Higher velocities have the potential to impact navigation if velocities exceed 0.3m/s or fish at velocities above 0.05m/s.

1D modelling showed that maximum velocities remained below 0.3m/s for most of the flows and scenarios except for scenarios B1, which include the narrowest constriction of 2.69m where velocities reach 0.32m/s at the constriction but remain below 0.3m/s for the rest of the pound. As velocity remains below 0.3m/s for most of the pound apart from a short distance at the constriction, it is understood the increase in flow would not be an issue to navigation, except at the very narrowest of constrictions on the network.

In terms of fish requirements, average channel velocities would exceed 0.05m/s for most of the pound at the medium flow state (0.67m^3/s or 57.5MLD), and everywhere at the high flow state (1.33m^3/s or 115MLD). The velocities predicted by the 1D model represent average velocities across each cross section. It is known that velocities in channels are generally lower along the bed and banks, as a result of energy losses due to bed friction. Consequently, this issue was investigated further using a Computational Fluid Dynamics (CFD) model. This indicates that at the high transfer flow of 1.33m^3/s (115MLD) there is likely to be a narrow area of the channel section (of just a few centimetres) along channel beds and banks where velocities below 0.05m/s will be found. This low-velocity area would be greater (around 1cm at the bed) at the medium transfer flow of 0.67m^3/s (57.5 MLD), and at the low flow state, velocities below 0.05m/s predominate across the canal channel. This low-flow state can be considered to be analogous to a high-flow condition in the existing canal without the transfer.

No judgement has been made as to the impact of these velocity changes on fish, which will be undertaken by the consultants preparing the environmental impact assessment, in dialogue with the Canal & Rivers Trust National Fisheries & Angling Manager to determine what is acceptable. It is recommended that this assessment considers evidence on the impacts of the Llangollen canal transfer. This scheme, which transfers up to 80MLD, is the closest working canal transfer scheme to the GUC and therefore is likely to provide a useful guide to the actual impacts on fish populations.

7 References:

- Cowx I., Noble, R., Nunn A., Harvey J., Welcomme R. & Halls, A. (2004) Flow and Level Criteria for Coarse Fish and Conservation Species: Science Report SC020112/SR. Environment Agency, Bristol.

D Appendix: Tabular results

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
OxGUN_001	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	-0.001	68.036	0	-0.002	68.014	0	-0.007	67.934	0	-0.001	67.954	0	-0.002	67.866	0	-0.007	67.782	0	-0.001	68.055	0	-0.002	68.036	0	-0.007	67.914	0
CC01_20579	[redacted]	[redacted]	RIVER SECTION	INT Pound 10-11 (OxGU)	70.393	70.443	70.318	-0.001	70.288	0	-0.002	70.286	-0.001	-0.045	70.284	-0.011	-0.001	70.286	0	-0.002	70.286	-0.001	-0.007	70.286	-0.002	-0.001	70.286	0	-0.002	70.286	-0.001	-0.007	70.286	-0.002
CC01_19891a	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-9 (OxGU)	75.215	75.265	75.14	-0.001	75.402	0	-0.002	75.4	-0.001	-0.045	75.398	-0.01	-0.001	75.4	0	-0.002	75.4	-0.001	-0.007	75.4	-0.002	-0.001	75.405	0	-0.002	75.403	-0.001	-0.007	75.4	-0.002
28850	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-9 (OxGU)	75.215	75.265	75.14	0.001	75.402	0	-0.002	75.4	0	-0.049	75.398	-0.006	-0.001	75.4	0	-0.002	75.4	0	-0.007	75.4	-0.001	-0.001	75.405	0	-0.002	75.403	0	-0.007	75.4	-0.001
28800	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-9 (OxGU)	75.215	75.265	75.14	-0.001	75.401	0	-0.002	75.4	0	-0.045	75.399	-0.004	-0.001	75.4	0	-0.002	75.4	0	-0.007	75.4	-0.001	-0.001	75.405	0	-0.002	75.403	0	-0.007	75.4	-0.001
Lock7b_ObU	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	0.069	78.559	0	0.06	78.551	0	0	78.479	0	0	78.48	0	0	78.475	0	0	78.449	0	0.143	78.608	0	0.112	78.587	0	0	78.478	0
Lock7b_OaU	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	0.056	78.559	0	0.047	78.551	0	-0.002	78.479	0	0	78.48	0	0	78.475	0	0	78.449	0	0.126	78.608	0	0.097	78.587	0	0	78.478	0
Lock7b_BWU	[redacted]	[redacted]	SPILL	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	0.125	79.991	0	0.107	79.969	0	0	79.769	0	0	79.77	0	0	79.77	0	0	79.77	0	0.269	80.139	0	0.209	80.078	0	0	79.77	0
CC01_19019	[redacted]	[redacted]	RIVER SECTION	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	-0.003	79.991	-0.001	-0.109	79.969	-0.03	-0.132	79.769	-0.036	-0.001	79.77	0	-0.002	79.77	-0.001	-0.007	79.77	-0.002	-0.002	80.136	-0.001	-0.211	80.078	-0.054	-0.61	79.77	-0.155
CC01_18535	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-5 (OxGU)	84.006	84.056	83.931	-0.001	83.503	0	-0.002	83.5	-0.001	-0.045	83.497	-0.019	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.003	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.003
27400a	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-5 (OxGU)	84.006	84.056	83.931	0.002	83.503	0	-0.002	83.5	-0.001	-0.049	83.497	-0.012	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.002	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.002
27250a	[redacted]	[redacted]	RIVER SECTION	INT Pound 3-4 (OxGU)	85.931	85.981	85.856	-0.003	86.176	0	-0.109	86.157	-0.01	-0.132	85.607	-0.011	-0.001	85.61	0	-0.002	85.61	0	-0.007	85.61	-0.001	-0.002	86.272	0	-0.211	86.238	-0.017	-0.61	85.609	-0.049
27250	[redacted]	[redacted]	RIVER SECTION	INT Pound 3-4 (OxGU)	85.931	85.981	85.856	-0.097	86.176	-0.009	-0.109	86.157	-0.01	-0.156	85.613	-0.026	-0.001	85.61	0	-0.002	85.61	0	-0.007	85.61	-0.001	0.007	86.273	0	-0.211	86.238	-0.01	-0.34	85.61	-0.037
CC01_18222	[redacted]	[redacted]	RIVER SECTION	INT Pound 3-4 (OxGU)	85.931	85.981	85.856	-0.1	86.176	-0.025	-0.109	86.157	-0.027	-0.147	85.613	-0.054	-0.001	85.61	0	-0.002	85.61	-0.001	-0.007	85.61	-0.003	-0.002	86.273	-0.001	-0.211	86.238	-0.026	-0.299	85.609	-0.077
18222a	[redacted]	[redacted]	RIVER SECTION	INT Pound 2-3 (OxGU)	87.688	87.738	87.613	-0.001	88.521	0	-0.002	88.52	0	-0.045	88.519	-0.006	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	-0.001	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	-0.001
CC01_18058a	[redacted]	[redacted]	RIVER SECTION	INT Pound 2-3 (OxGU)	87.688	87.738	87.613	-0.001	88.521	0	-0.002	88.52	-0.001	-0.045	88.519	-0.01	-0.001	88.52	0	-0.002	88.52	-0.001	-0.007	88.52	-0.002	-0.001	88.52	0	-0.002	88.52	-0.001	-0.007	88.52	-0.002
CC01_18058	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-2 (OxGU)	90.001	90.051	89.926	-0.001	90.451	0	-0.002	90.45	-0.001	-0.046	90.449	-0.01	-0.001	90.45	0	-0.002	90.45	-0.001	-0.007	90.45	-0.002	-0.001	90.45	0	-0.002	90.45	-0.001	-0.007	90.45	-0.002
26950	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-2 (OxGU)	90.001	90.051	89.926	-0.001	90.451	0	-0.002	90.45	0	-0.045	90.449	-0.002	-0.001	90.45	0	-0.002	90.45	0	-0.007	90.45	0	-0.001	90.45	0	-0.002	90.45	0	-0.007	90.45	0
CC01_17874	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.1	92.28	-0.012	-0.109	92.251	-0.012	-0.147	92.238	-0.017	0.659	92.508	0.06	0.644	92.494	0.058	0.09	92.247	0.01	1.263	92.581	0.107	1.091	92.569	0.101	-0.002	92.245	0
13300f	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.048	92.285	-0.006	-0.107	92.255	-0.013	-0.152	92.242	-0.018	0.613	92.429	0.057	0.587	92.417	0.055	-0.118	92.243	-0.014	1.044	92.356	0.109	1.019	92.35	0.106	-0.118	92.245	-0.014
AS01_00021	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.037	92.285	0.008	0.007	92.255	0.002	0	92.242	0	0.036	92.429	0.007	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.008	0.007	92.35	0.001	0	92.245	0
AS01_00021	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	0.037	92.285	0.008	0.007	92.255	0.002	0	92.242	0	0.036	92.429	0.007	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.008	0.007	92.35	0.001	0	92.245	0
AS01_00021D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.037	92.285	0.008	0.007	92.255	0.002	0	92.242	0	0.036	92.429	0.007	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.008	0.007	92.35	0.001	0	92.245	0
AS01_00018	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.037	92.285	0.008	0.007	92.255	0.002	0	92.242	0	0.036	92.429	0.007	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.008	0.007	92.35	0.001	0	92.245	0
OX02_35525	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.286	0	0	92.256	0	0	92.243	0	0.66	92.398	0.156	0.646	92.389	0.152	0.087	92.238	0.022	1.307	92.318	0.343	1.125	92.236	0.291	0	92.215	0
OX_Lck1H_BWU	[redacted]	[redacted]	SPILL	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.476	0	0	92.683	0	0	92.672	0	0	92.478	0	0	92.851	0	0	92.83	0	0	92.476	0
OX02_35525a	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.476	0	0.66	92.683	0.188	0.646	92.672	0.182	0.087	92.478	0.028	1.304	92.851	0.309	1.125	92.83	0.261	0	92.476	0
150d	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.476	0	0.66	92.684	0.038	0.646	92.674	0.036	0.073	92.478	0.005	1.304	92.854	0.065	1.125	92.833	0.056	0	92.476	0
OxGUN_053b	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001	-0.003	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001	-0.003	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001
GUCS_001	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	107.2	0	-0.005	107.2	0	-0.012	107.2	-0.001	-0.003	107.201	0	-0.005	107.2	0	-0.012	107.198	-0.001	-0.003	107.2	0	-0.005	107.2	0	-0.012	107.2	-0.001
GU_110594U	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 6-7	108.945	109.045	108.895	0.145	109.071	0	0.084	109.006	0	0.059	108.976	0	0.145	109.071	0	0.077	108.997	0	0.045	108.957	0	0.099	109.024	0	0.039	108.947	0	0.02	108.916	0
GU01_110551	[redacted]	[redacted]	RIVER SECTION	GU Pound 7-8				0.488	106.642	0.069	0.202	106.578	0.03	0.098	106.55	0.015	0.487	106.641	0.069	0.173	106.57	0.026	0.056	106.534	0.009	0.264	106.595	0.04	0.057	106.532	0.009	0.026	106.518	0.004
GU01_110552	[redacted]	[redacted]	RIVER SECTION	GU Pound 7-8				0.488	106.642	0.069	0.202	106.578	0.03	0.098	106.55	0.015	0.487	106.641	0.069	0.173	106.57	0.026	0.056	106.534	0.009	0.264	106.595	0.04	0.057	106.532	0.009	0.026	106.518	0.004
GU01_110552	[redacted]	[redacted]	BRIDGE ARCH	GU Pound 7-8				0.488	106.642	0.069	0.202	106.578	0.03	0.098	106.55	0.015	0.487	106.641	0.069	0.173	106.57	0.026	0.056	106.534	0.009	0.264	106.595	0.04	0.057	106.532	0.009	0.026	106.518	0.004
GU01_110552D	[redacted]	[redacted]	RIVER SECTION	GU Pound 7-8				0.488	106.642	0.037	0.202	106.578	0.016	0.098	106.55	0.008	0.487	106.641	0.037	0.173	106.57	0.014	0.056	106.534	0.005	0.264	106.595	0.021	0.057	106.532	0.005	0.026	106.518	0.002
GUCSB_007	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	92.982	0.024	0.186	92.919	0.011	0.096	92.891	0.006	0.428	92.982	0.024	0.161	92.91	0.009	0.056	92.874	0.003	0.24	92.936	0.014	0.056	92.873	0.003	0.026	92.858	0.002
GUCSB_018	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	87.854	0.001	0.006	87.75	0	0	87.75	0	0.014	87.854	0.001	0.006	87.75	0	0.004	87.75	0	0.014	87.854	0.001	0.006	87.75	0	0.004	87.75	0
Lock20_BWu	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 14-20 (OxGU)				0	75.341	0	0	75.34	0	0	75.339	0	0	75.34	0	0	75.34	0	0	75.34	0	0	75.34	0	0	75.34	0	0	75.339	0
GUCSB_029	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.418	72.884	0.031	0.003	72.878	0	-0.045	72.867	-0.003	0.624	72.879	0.046	0.601	72.857	0.045	0.085	72.855	0.006	0.934	72.878	0.072	0.867	72.804	0.067	0.003	72.797	0
GU_74253gU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.083	72.884	0	0.077	72.878	0	0.066	72.867	0	0.078	72.879	0	0.058	72.857	0	0.055	72.855	0	0.077	72.878	0	0.018	72.804	0	0.014	72.797	0
GU_74253fU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.069	72.884	0	0.063	72.878	0	0.052	72.867	0	0.064	72.879	0	0.044	72.857	0	0.042	72.855	0	0.063	72.878	0	0.008	72.804	0	0.005	72.797	0
GU_74253eU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.068	72.884	0	0.062	72.878	0	0.051	72.867	0	0.063	72.879	0	0.043	72.857	0	0.041	72.855	0	0.062	72.878	0	0.008	72.804	0	0.005	72.797	0
GU_74253dU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.061	72.884	0	0.055	72.878	0	0.045	72.867	0	0.056	72.879	0	0.037	72.857	0	0.035	72.855	0	0.055	72.878	0	0.004	72.804	0	0.001	72.797	0
GU_74253cU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.08	72.884	0	0.074	72.878	0	0.063	72.867	0	0.075	72.879	0	0.054	72.857	0	0.051	72.855	0	0.074	72.878	0	0.014	72.804	0	0.009	72.797	0
GU_74253bU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.06	72.884	0	0.054	72.878	0	0.044	72.867	0	0.055	72.879	0	0.036	72.857	0	0.034	72.855	0	0.054	72.878	0	0.004	72.804	0	0.001	72.797	0
GU_74253aU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.064	72.884	0	0.057	72.878	0	0.047	72.867	0	0.059	72.879	0	0.039	72.857	0	0.036	72.855	0	0.058	72.878	0	0.004	72.804	0	0.001	72.797	0
GU_140352U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 22-23 (OxGU)	55.77	55.97	55.62	0.009	54.714	0	0.002	54.704	0	0	54.7	0	0.008	54.714	0	0.002	54.704	0	0	54.7	0	0.008	54.714	0	0.002	54.704	0	0	54.7	0
GU_139465U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 21-22 (OxGU)	57.92	58.12	57.77	0.008	56.834	0	0.002	56.825	0	0	56.82	0	0.008	56.834	0	0.002	56.825	0	0	56.82	0	0.008	56.834	0	0.002	56.825	0	0	56.82	0
GU139081U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 20-21 (OxGU)	60.08	60.28	59.93	0.008	59.004	0	0.002	58.995	0	0	58.99	0	0.008	59.004	0	0.002	58.994	0	0	58.99	0	0.008	59.004	0	0.002	58.995	0	0	58.99	0
46950	[redacted]	[redacted]	RIVER SECTION	INT Pound 20-21 (OxGU)	60.08	60.28	59.93	-0.003	59.004	-0.001	-0.005	58.995	-0.002	-0.012	58.99	-0.004	-0.002	59.004	-0.001	-0.005	58.995	-0.002	-0.012	58.99	-0.004	-0.002	59.004	-0.001	-0.005	58.995	-0.002	-0.012	58.99	-0.004
GU_138590U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.008	61.076	0	0.002	61.065	0	0	61.06	0	0.008	61.076	0	0.002	61.065	0	0	61.06	0	0.008	61.076	0	0.002	61.065	0	0	61.06	0
GU_137597U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.003	63.908	0	0.002	63.898	0	0	63.786	0	0.003	63.908	0	0.002	63.897	0	0	63.786	0	0.003	63.908	0	0.002	63.897	0	0	63.786	0
GU_136648U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 17-18 (OxGU)	66.15	66.35	66	0.006	65.043	0	0.002	65.036	0	0	65.03	0	0.006	65.043	0	0.002	65.035	0	0	65.03	0	0.006	65.043	0	0.002	65.035	0	0	65.03	0
GU_132966U	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	0.006	75.383	0	0.002	75.375	0	0	75.37	0	0.006	75.383	0	0.002	75.375	0	0	75.37	0	0.006	75.383	0	0.002	75.375	0	0	75.37	0
GU_132566_SU	[redacted]	[redacted]	SPILL	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	0	75.383	0	0	75.375	0	0	75.37	0	0	75.383	0	0	75.375	0	0	75.37	0	0	75.383	0	0	75.375	0	0	75.37	0
GU01_132546	[redacted]	[redacted]	RIVER SECTION	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	0.001	75.383	0	-0.005	75.375	-0.001	-0.013	75.37	-0.003	-0.003	75.383	-0.001	-0.005	75.375	-0.001	-0.012	75.37	-0.003	-0.003	75.383	-0.001	-0.005	75.375	-0.001	-0.013	75.37	-0.003
GUC_039	[redacted]	[redacted]	RIVER SECTION	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	0	75.383	0	-0.005	75.375	-0.001	-0.013	75.37	-0.002	-0.003	75.383	0	-0.005	75.375	-0.001	-0.012	75.37	-0.002	-0.003	75.383	0	-0.005	75.375	-0.001	-0.013	75.37	-0.002
GU_132544U	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 11-12	78.84	79.04	78.69	0.004	78.849	0	0.002	78.826	0	0	78.253	0	0.003	78.849	0	0.002	78.822	0	0	78.253	0	0.004	78.849	0	0.002	78.822	0	0	78.253	0
GU_132173U	[redacted]	[redacted]	SPILL	INT Pound 4-11 (OxGU)				0.006	80.478	0	0.002	80.47	0	0.001	80.466	0	0.006	80.478	0	0.002	80.47	0	0.001	80.466	0	0.006	80.478	0	0.002	80.47	0	0.001	80.466	0
GUC_042c	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-11 (OxGU)				-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0
GUC_042oIn1	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001
GUC_043	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-11 (OxGU)				-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001
GU_131459U	[redacted]	[redacted]	SPILL	GU Pound 3-4	93.09	93.29	92.94	0.006	93.111	0	0.002	93.102	0	0.001	93.097	0	0.006	93.111	0	0.002	93.102	0	0.001	93.097	0	0.006	93.111	0	0.002	93.102	0	0.001	93.097	0
GU-060-P0050	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	-0.001
GU_127540U	[redacted]	[redacted]	SPILL	INT Pound 1-3 (OxGU)				0	98.109	0	0	97.842	0	0	97.479	0	0	98.109	0	0	98.104	0	0	98.082	0	0	98.107	0	0	98.072	0	0	98.055	0
GU-060-P0350	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	-0.003	98.109	0	-0.012	97.842	-0.001	-0.203	97.479	-0.012	-0.003	98.109	0	-0.011	98.104	-0.001	-0.203	98.082	-0.009	-0.003	98.107	0	-0.011	98.072	-0.001	-0.203	98.055	-0.009
GU01_118272	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.071	98.109	0.007	-0.017	97.842	-0.002	-0.142	97.482	-0.014	0.093	98.109	0.008	-0.028	98.105	-0.002	-0.183	98.084	-0.015	0.051	98.109	0.004	-0.027	98.073	-0.002	-0.199	98.058	-0.017
69050	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.025	98.109	0.001	-0.012	97.842	-0.001	-0.079	97.482	-0.005	0.624	98.109	0.03	0.588	98.105	0.028	-0.004	98.084	0	0.889	98.109	0.044	0.835	98.073	0.041	-0.034	98.058	-0.002
GUT_001	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.418	71.696	0.033	0.003	71.639	0	-0.045	71.53	-0.004	0.624	71.576	0.049	0.601	71.571	0.047	0.085	71.53	0.007	0.934	71.611	0.071	0.867	71.594	0.067	0.003	71.53	0
GUT_012	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.181	71.696	0.012	-0.003	71.639	0	-0.043	71.53	-0.003	0.624	71.531	0.041	0.601	71.51	0.039	0.092	71.507	0.006	0.933	71.531	0.063	0.867	71.462	0.059	0	71.456	0
BW_L22u1	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 22-23	71.505	71.655	71.355	0	71.697	0	0	71.639	0	-0.045	71.53	0	0	71.56	0	0	71.554	0	-0.006	71.528	0	0	71.571	0	0	71.558	0	-0.001	71.53	0
BW_L22u2	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 22-23	71.505	71.655	71.355	0.042	71.697	0	0.002	71.639	0	-0.137	71.53	0	0	71.56	0	0	71.554	0	-0.017	71.528	0	0	71.571	0	0	71.558	0	-0.002	71.53	0
GUT_013	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.181	71.697	0.01	-0.003	71.639	0	-0.043	71.53	-0.002	0.624	71.56	0.036	0.601	71.554	0.034	0.092	71.528	0.005	0.933	71.571	0.053	0.867	71.558	0.049	0	71.53	0
131950	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.18	71.697	0.013	-0.003	71.639	0	-0.043	71.53	-0.003	0.624	71.56	0.043	0.601	71.554	0.042	0.031	71.528	0.002	0.933	71.571	0.064	0.867	71.558	0.06	0	71.53	0
GUT_017	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	-0.002	71.697	0	-0.004	71.639	0	-0.038	71.53	-0.003	0.624	71.535	0.05	0.601	71.515	0.049	0.089	71.512	0.007	0.933	71.533	0.08	0.867	71.464	0.075	-0.003	71.457	0
Lock23_BW_u	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.036	74.229	0	0.001	74.155	0	0	74.009	0	0	74.153	0	0	74.144	0	0	74.014	0	0	74.15	0	0	74.127	0	0	74.009	0
GUT_018	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	-0.002	74.229	0	-0.004	74.155	0	-0.038	74.009	-0.005	0.624	74.153	0.082	0.601	74.144	0.079	0.089	74.014	0.012	0.933	74.15	0.123	0.867	74.127	0.115	-0.003	74.009	0
GUT_018ds	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.005	74.229	0.001	-0.004	74.155	0	-0.038	74.009	-0.005	0.624	74.153	0.082	0.601	74.144	0.079	0.081	74.014	0.011	0.933	74.15	0.123	0.867	74.127	0.115	-0.011	74.009	-0.001
GU01_50982	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.147	74.229	0.009	-0.004	74.155	0	-0.14	74.009	-0.009	0.624	74.153	0.035	0.601	74.144	0.033	-0.043	74.014	-0.003	0.933	74.15	0.052	0.867	74.128	0.049	-0.138	74.009	-0.008
GUT_weir7us	[redacted]	[redacted]	SPILL	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.026	74.229	0	0	74.155	0	0	73.732	0	0	74.151	0	0	74.141	0	0	73.732	0	0	74.15	0	0	74.12	0	0	73.732	0
GU01_49315	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	5.136	74.229	0.322	-0.004	74.155	0	-0.366	73.493	-0.029	5.129	74.152	0.322	0.601	74.141	0.029	-0.368	73.493	-0.029	5.129	74.151	0.322	0.867	74.12	0.042	-0.368	73.493	-0.029
GU01_49305	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.118	74.229	0.392	-0.004	74.155	-0.001	-0.14	73.495	-0.032	2.113	74.152	0.391	0.601	74.141	0.081	-0.142	73.495	-0.033	2.113	74.151	0.391	0.867	74.119	0.119	-0.142	73.495	-0.033
GUT_022	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0	74.229	0	-0.004	74.155	-0.001	-0.065	73.49	-0.008	0.624	74.152	0.084	0.601	74.141	0.081	-0.003	73.49	-0.001	0.933	74.151	0.128	0.867	74.119	0.119	-0.003	73.49	-0.001
GUT_023	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0	75.814	0	-0.003	75.814	0	-0.007	75.814	-0.001	-0.002	75.814	0	-0.003	75.814	0	-0.007	75.814	-0.001	-0.002	75.814	0	-0.003	75.814	0	-0.007	75.814	-0.001
GUT_023In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.002	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001	-0.001	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001	-0.001	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001
GUT_023In2	[redacted]	[redacted]	INTERPOLATE	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.002	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001	-0.001	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001	-0.001	75.814	0	-0.003	75.814	0	-0.009	75.814	-0.001
138578	[redacted]	[redacted]	RIVER SECTION	GU Pound 24-26				0.001	78.29	0	-0.003	78.29	0	-0.008	78.29	0	-0.002	78.29	0	-0.003	78.29	0	-0.007	78.29	0	-0.001	78.29	0	-0.003	78.29	0	-0.008	78.29	0
138588	[redacted]	[redacted]	RIVER SECTION	GU Pound 24-26				0.001	78.29	0	-0.003	78.29	0	-0.008	78.29	0	-0.002	78.29	0	-0.003	78.29	0	-0.007	78.29	0	-0.002	78.29	0	-0.003	78.29	0	-0.008	78.29	0
GU-139-P0600	[redacted]	[redacted]	RIVER SECTION	GU Pound 24-26				0	78.29	0	-0.003	78.29	0	-0.007	78.29	-0.001	-0.002	78.29	0	-0.003	78.29	0	-0.007	78.29	-0.001	-0.002	78.29	0	-0.003	78.29	0	-0.007	78.29	-0.001
GUT_023e	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.065	80.411	-0.003	0.624	80.422	0.033	0.601	80.417	0.032	-0.003	80.412	0	0.933	80.42	0.05	0.867	80.407	0.047	-0.003	80.404	0
138650	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.065	80.411	-0.007	0.624	80.422	0.072	0.601	80.417	0.069	-0.006	80.412	-0.001	0.933	80.42	0.108	0.867	80.406	0.101	-0.003	80.404	0
143100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	-0.002	80.562	0	-0.005	80.454	0	-0.22	80.411	-0.019	0.624	80.421	0.058	0.601	80.412	0.055	0.058	80.411	0.005	0.933	80.42	0.087	0.868	80.395	0.081	-0.003	80.393	0
GU-144-P0100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	-0.002	80.562	0	-0.005	80.454	0	-0.22	80.411	-0.019	0.624	80.421	0.058	0.601	80.411	0.055	0.089	80.411	0.008	0.933	80.42	0.087	0.868	80.395	0.081	-0.003	80.393	0
Lock27_BW_u	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 27-28	82.59	82.74	82.44	0.218	82.681	0	0.002	82.39	0	0	82.271	0	0	82.692	0	0	82.387	0	0	82.257	0	0	82.686	0	0	82.33	0	0	82.22	0
GU-144-P0150	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	-0.002	82.681	0	-0.005	82.39	0	-0.22	82.271	-0.015	0.624	82.692	0.06	0.601	82.387	0.053	0.089	82.257	0.009	0.933	82.686	0.094	0.868	82.33	0.081	-0.003	82.22	0
GUT_035	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.002	82.66	0	-0.007	82.389	0	-0.055	82.271	-0.003	0.661	82.659	0.038	0.639	82.379	0.034	0.084	82.249	0.005	1.409	82.642	0.081	1.174	82.309	0.065	-0.012	82.202	-0.001
Lock28_BW_Lu	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 28-29 (GUT)				0.018	84.911	0	0.008	84.898	0	0.002	84.888	0	0.016	84.909	0	0.008	84.897	0	0.002	84.888	0	0.016	84.909	0	0.008	84.897	0	0.002	84.888	0
Lock28_WB_Ru	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 28-29 (GUT)				0	84.911	0	0	84.898	0	0	84.888	0	0	84.909	0	0	84.897	0	0	84.888	0	0	84.909	0	0	84.897	0	0	84.888	0
L28_BW_R1u	[redacted]	[redacted]	ORIFICE OPEN	INT Pound 28-29 (GUT)				0.002	84.911	0	0	84.898	0	0	84.888	0	0.001	84.909	0	0	84.897	0	0	84.888	0	0.001	84.909	0	0	84.897	0	0	84.888	0
GUT_039	[redacted]	[redacted]	RIVER SECTION	INT Pound 28-29 (GUT)				-0.006	84.911	0	-0.011	84.898	-0.001	-0.061	84.888	-0.003	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001
147420	[redacted]	[redacted]	RIVER SECTION	INT Pound 28-29 (GUT)				-0.005	84.911	0	-0.011	84.898	-0.001	-0.023	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001
GUT_039b	[redacted]	[redacted]	RIVER SECTION	INT Pound 28-29 (GUT)				-0.005	84.911	0	-0.011	84.898	-0.001	-0.023	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001
Lock29_BW_Lu	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 29-30	86.54	86.69	86.39	0.02	86.586	0	0.008	86.529	0	0.002	86.485	0	0.018	86.579	0	0.008	86.527	0	0.002	86.486	0	0.018	86.579	0	0.008	86.527	0	0.002	86.485	0
Lock29_BW_Ru	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 29-30	86.54	86.69	86.39	0	86.586	0	0	86.529	0	0	86.485	0	0	86.579	0	0	86.527	0	0	86.486	0	0	86.579	0	0	86.527	0	0	86.485	0
GUT_039c	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0	86.586	0	-0.007	86.529	0	-0.017	86.485	-0.001	0	86.579	0	-0.007	86.527	0	-0.015	86.486	-0.001	0	86.579	0	-0.007	86.527	0	-0.015	86.485	-0.001
147500	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	0	-0.017	86.485	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.016	86.486	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.016	86.485	-0.001
150200	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	-0.001	86.586	0	-0.007	86.529	-0.001	-0.021	86.485	-0.002	-0.001	86.579	0	-0.007	86.527	-0.001	-0.021	86.486	-0.002	-0.001	86.579	0	-0.007	86.527	-0.001	-0.021	86.485	-0.002
GUT_042	[redacted]	[redacted]	RIVER SECTION	INT Pound 30-31 (GUT)				-0.002	86.586	0	-0.007	86.529	-0.001	-0.021	86.485	-0.004	-0.002	86.579	0	-0.007	86.527	-0.001	-0.02	86.486	-0.004	-0.002	86.579	0	-0.007	86.527	-0.001	-0.02	86.485	-0.004
OxGUN_001In1	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.025	68.036	0.002	-0.002	68.014	0	-0.02	67.934	-0.001	0.024	67.954	0.001	-0.002	67.866	0	-0.008	67.782	-0.001	0.19	68.053	0.011	-0.002	68.036	0	-0.24	67.914	-0.015
OxGUN_001In2	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.032	68.036	0.002	-0.002	68.014	0	-0.031	67.934	-0.002	0.018	67.954	0.001	-0.002	67.866	0	-0.009	67.782	-0.001	0.176	68.051	0.012	-0.002	68.036	0	-0.321	67.914	-0.023
CC01_30970	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.042	68.036	0.004	-0.002	68.014	0	-0.037	67.934	-0.003	0.02	67.954	0.002	-0.002	67.866	0	-0.01	67.782	-0.001	0.207	68.052	0.017	-0.002	68.036	0	-0.267	67.914	-0.022
OxGUN_001In4	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.048	68.036	0.003	-0.002	68.014	0	-0.039	67.934	-0.003	0.018	67.954	0.001	-0.002	67.866	0	-0.01	67.782	-0.001	0.225	68.051	0.015	-0.003	68.036	0	-0.277	67.914	-0.019
CC01_30212	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.045	68.036	0.003	-0.003	68.014	0	-0.038	67.934	-0.002	0.018	67.954	0.001	-0.002	67.866	0	-0.01	67.782	-0.001	0.23	68.051	0.013	-0.003	68.036	0	-0.275	67.914	-0.017
CC01_30212D	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.045	68.036	0.003	-0.003	68.014	0	-0.038	67.934	-0.002	0.017	67.954	0.001	-0.002	67.866	0	-0.01	67.782	-0.001	0.23	68.051	0.013	-0.003	68.036	0	-0.274	67.914	-0.017
OxGUN_001In5	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.046	68.036	0.004	-0.003	68.014	0	-0.039	67.934	-0.003	0.017	67.954	0.001	-0.002	67.866	0	-0.01	67.782	-0.001	0.239	68.051	0.02	-0.003	68.036	0	-0.282	67.914	-0.023
CC01_30009	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.047	68.036	0.005	-0.003	68.014	0	-0.039	67.934	-0.004	0.017	67.954	0.002	-0.002	67.866	0	-0.01	67.782	-0.001	0.237	68.051	0.022	-0.003	68.036	0	-0.285	67.914	-0.026
OxGUN_001In6	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.051	68.036	0.004	-0.003	68.014	0	-0.04	67.934	-0.003	0.017	67.954	0.001	-0.002	67.866	0	-0.011	67.782	-0.001	0.253	68.051	0.018	-0.003	68.036	0	-0.289	67.914	-0.021

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
OxGUN_001In7	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.051	68.036	0.003	-0.003	68.014	0	-0.042	67.934	-0.003	0.017	67.954	0.001	-0.002	67.866	0	-0.013	67.782	-0.001	0.252	68.051	0.014	-0.003	68.036	0	-0.31	67.914	-0.017
OxGUN_001b	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.049	68.036	0.003	-0.003	68.014	0	-0.043	67.934	-0.002	0.017	67.954	0.001	-0.002	67.866	0	-0.014	67.782	-0.001	0.251	68.05	0.013	-0.003	68.036	0	-0.327	67.914	-0.018
OxGUN_001In8	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.051	68.036	0.003	-0.003	68.014	0	-0.044	67.934	-0.002	0.018	67.954	0.001	-0.002	67.866	0	-0.014	67.782	-0.001	0.267	68.05	0.013	-0.003	68.036	0	-0.335	67.914	-0.018
OxGUN_001In9	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.052	68.036	0.003	-0.003	68.014	0	-0.045	67.934	-0.002	0.018	67.954	0.001	-0.002	67.866	0	-0.016	67.782	-0.001	0.27	68.052	0.013	-0.003	68.036	0	-0.335	67.914	-0.018
CH0001	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.054	68.036	0.003	-0.003	68.014	0	-0.05	67.934	-0.003	0.021	67.954	0.001	-0.002	67.866	0	-0.018	67.782	-0.001	0.287	68.052	0.014	-0.003	68.036	0	-0.353	67.914	-0.018
CH0002	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.054	68.036	0.003	-0.003	68.014	0	-0.055	67.934	-0.003	0.023	67.954	0.001	-0.002	67.866	0	-0.019	67.782	-0.001	0.316	68.052	0.015	-0.003	68.036	0	-0.38	67.914	-0.019
CC01_26732	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.054	68.036	0.003	-0.003	68.014	0	-0.059	67.934	-0.003	0.025	67.954	0.001	-0.002	67.866	0	-0.021	67.782	-0.001	0.346	68.052	0.017	-0.003	68.036	0	-0.402	67.914	-0.02
OxGUN_002	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.057	68.036	0.003	-0.003	68.014	0	-0.062	67.934	-0.003	0.028	67.954	0.002	-0.002	67.866	0	-0.023	67.782	-0.001	0.339	68.053	0.018	-0.003	68.036	0	-0.411	67.914	-0.023
weir18nus	[redacted]	[redacted]	SPILL	CC Pound 11-12	67.936	67.986	67.811	0.07	68.036	0	0.017	68.014	0	0	67.934	0	0	67.954	0	0	67.866	0	0	67.782	0	0.2	68.053	0	0.096	68.036	0	0	67.914	0
OxGUN_003	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	-0.01	68.036	-0.001	-0.141	68.014	-0.008	-0.212	67.934	-0.011	-0.004	67.954	0	-0.035	67.866	-0.002	-0.097	67.782	-0.005	0.077	68.053	0.004	-0.236	68.036	-0.012	-0.685	67.914	-0.036
CC01_25854	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	-0.01	68.036	-0.001	-0.141	68.014	-0.015	-0.213	67.934	-0.022	-0.004	67.954	0	-0.035	67.866	-0.004	-0.099	67.782	-0.011	0.009	68.055	0.001	-0.237	68.036	-0.024	-0.643	67.914	-0.065
OxGUN_003In1	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	-0.011	68.037	-0.001	-0.141	68.015	-0.013	-0.213	67.934	-0.02	-0.004	67.954	0	-0.035	67.866	-0.004	-0.099	67.782	-0.01	-0.011	68.057	-0.001	-0.237	68.036	-0.022	-0.617	67.914	-0.056
OxGUN_003In2	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	-0.015	68.037	-0.001	-0.141	68.015	-0.011	-0.213	67.934	-0.016	-0.004	67.954	0	-0.035	67.866	-0.003	-0.101	67.782	-0.008	-0.004	68.056	0	-0.237	68.036	-0.018	-0.666	67.914	-0.05
OxGUN_003In3	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	-0.01	68.037	-0.001	-0.142	68.015	-0.009	-0.213	67.934	-0.013	-0.004	67.954	0	-0.035	67.866	-0.002	-0.102	67.782	-0.007	0.021	68.055	0.001	-0.237	68.036	-0.015	-0.713	67.914	-0.045
OxGUN_004	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	-0.007	68.037	0	-0.142	68.015	-0.008	-0.214	67.934	-0.012	-0.003	67.954	0	-0.035	67.866	-0.002	-0.103	67.782	-0.006	0.032	68.055	0.002	-0.237	68.036	-0.013	-0.747	67.914	-0.04
weir17nus	[redacted]	[redacted]	SPILL	CC Pound 11-12	67.936	67.986	67.811	0	68.037	0	0	68.015	0	0	67.934	0	0	67.954	0	0	67.866	0	0	67.782	0	0.096	68.055	0	0.007	68.036	0	0	67.914	0
OxGUN_005	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.032	68.037	0.002	-0.111	68.015	-0.006	-0.137	67.934	-0.007	0.009	67.954	0	-0.005	67.866	0	-0.029	67.782	-0.002	0.07	68.055	0.004	-0.213	68.036	-0.011	-0.772	67.914	-0.041
OxGUN_005In1	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.031	68.037	0.002	-0.111	68.015	-0.006	-0.137	67.934	-0.007	0.007	67.954	0	-0.005	67.866	0	-0.028	67.782	-0.002	0.043	68.056	0.002	-0.213	68.036	-0.012	-0.775	67.914	-0.042
OxGUN_005In2	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.029	68.037	0.002	-0.111	68.015	-0.006	-0.137	67.934	-0.008	0.005	67.954	0	-0.005	67.866	0	-0.027	67.782	-0.002	0.075	68.057	0.004	-0.213	68.036	-0.012	-0.788	67.914	-0.043
OxGUN_005In3	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.028	68.037	0.002	-0.111	68.015	-0.006	-0.137	67.934	-0.008	0.004	67.954	0	-0.005	67.866	0	-0.027	67.782	-0.002	0.034	68.058	0.002	-0.213	68.036	-0.012	-0.819	67.914	-0.045
OxGUN_005In4	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.026	68.037	0.002	-0.111	68.015	-0.006	-0.137	67.934	-0.008	0.002	67.954	0	-0.005	67.866	0	-0.027	67.782	-0.002	0.036	68.058	0.002	-0.213	68.036	-0.012	-0.845	67.914	-0.047
OxGUN_005In5	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.022	68.037	0.001	-0.111	68.015	-0.006	-0.137	67.934	-0.008	0.001	67.954	0	-0.005	67.866	0	-0.025	67.782	-0.002	0.05	68.059	0.003	-0.213	68.036	-0.012	-0.863	67.914	-0.048
OxGUN_005In6	[redacted]	[redacted]	INTERPOLATE	CC Pound 11-12	67.936	67.986	67.811	0.013	68.037	0.001	-0.111	68.015	-0.006	-0.137	67.934	-0.008	0	67.954	0	-0.005	67.866	0	-0.021	67.782	-0.001	0.03	68.06	0.002	-0.213	68.036	-0.012	-0.864	67.914	-0.048
OxGUN_006	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.001	68.037	0	-0.111	68.015	-0.006	-0.137	67.934	-0.008	-0.001	67.954	0	-0.005	67.866	0	-0.016	67.782	-0.001	-0.006	68.058	0	-0.213	68.036	-0.012	-0.72	67.914	-0.041
weir16naus	[redacted]	[redacted]	SPILL	CC Pound 11-12	67.936	67.986	67.811	0	68.037	0	0	68.015	0	0	67.934	0	0	67.954	0	0	67.866	0	0	67.782	0	0.013	68.058	0	0	68.036	0	0	67.914	0
OxGUN_007	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	0.001	68.037	0	-0.111	68.015	-0.006	-0.137	67.934	-0.008	-0.001	67.954	0	-0.005	67.866	0	-0.016	67.782	-0.001	-0.006	68.058	0	-0.213	68.036	-0.012	-0.723	67.914	-0.041
29850	[redacted]	[redacted]	RIVER SECTION	CC Pound 11-12	67.936	67.986	67.811	-0.011	68.037	-0.001	-0.111	68.015	-0.01	-0.137	67.934	-0.012	-0.001	67.954	0	-0.005	67.866	0	-0.013	67.782	-0.001	-0.01	68.062	-0.001	-0.213	68.037	-0.021	-0.661	67.914	-0.059
29600a	[redacted]	[redacted]	RIVER SECTION	INT Pound 10-11 (OxGU)	70.393	70.443	70.318	-0.001	70.288	0	-0.002	70.286	0	-0.045	70.284	-0.006	-0.001	70.286	0	-0.002	70.286	0	-0.007	70.286	-0.001	-0.001	70.286	0	-0.002	70.286	0	-0.007	70.286	-0.001
29600	[redacted]	[redacted]	RIVER SECTION	INT Pound 10-11 (OxGU)	70.393	70.443	70.318	0.001	70.288	0	-0.002	70.286	0	-0.049	70.284	-0.006	-0.001	70.286	0	-0.002	70.286	-0.001	-0.007	70.286	-0.001	-0.001	70.286	0	-0.002	70.286	0	-0.007	70.286	-0.001
CC01_20579a	[redacted]	[redacted]	RIVER SECTION	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	-0.001	72.692	0	-0.002	72.69	-0.001	-0.045	72.688	-0.012	-0.001	72.69	0	-0.002	72.69	-0.001	-0.007	72.69	-0.002	-0.001	72.69	0	-0.002	72.69	-0.001	-0.007	72.69	-0.002
29500	[redacted]	[redacted]	RIVER SECTION	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0	72.692	0	-0.002	72.69	0	-0.048	72.688	-0.006	-0.001	72.69	0	-0.002	72.69	0	-0.007	72.69	-0.001	-0.001	72.69	0	-0.002	72.69	0	-0.007	72.69	-0.001
29500In1	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.018	72.692	0.002	-0.002	72.69	0	-0.064	72.688	-0.008	-0.001	72.69	0	-0.002	72.69	0	-0.008	72.69	-0.001	-0.001	72.69	0	-0.002	72.69	0	-0.008	72.69	-0.001
29500In2	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.033	72.692	0.004	-0.002	72.69	0	-0.077	72.688	-0.01	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001
29500In3	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.04	72.692	0.005	-0.002	72.69	0	-0.084	72.688	-0.011	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001	0	72.69	0	-0.002	72.69	0	-0.01	72.69	-0.001
29500In4	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.043	72.692	0.006	-0.002	72.69	0	-0.086	72.688	-0.011	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001	0	72.69	0	-0.002	72.69	0	-0.01	72.69	-0.001
29500In5	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.044	72.691	0.006	-0.002	72.69	0	-0.086	72.689	-0.011	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001	0	72.69	0	-0.002	72.69	0	-0.01	72.69	-0.001
29500In6	[redacted]	[redacted]	INTERPOLATE	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0.045	72.69	0.006	-0.002	72.69	0	-0.086	72.69	-0.011	0	72.69	0	-0.002	72.69	0	-0.009	72.69	-0.001	0	72.69	0	-0.002	72.69	0	-0.01	72.69	-0.001
28950	[redacted]	[redacted]	RIVER SECTION	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	0	72.692	0	-0.002	72.69	0	-0.048	72.688	-0.006	-0.001	72.69	0	-0.002	72.69	0	-0.007	72.69	-0.001	-0.001	72.69	0	-0.002	72.69	0	-0.007	72.69	-0.001
CC01_19891	[redacted]	[redacted]	RIVER SECTION	INT Pound 9-10 (OxGU)	72.85	72.9	72.775	-0.001	72.692	0	-0.002	72.69	-0.001	-0.045	72.688	-0.013	-0.001	72.69	0	-0.002	72.69	-0.001	-0.007	72.69	-0.002	-0.001	72.69	0	-0.002	72.69	-0.001	-0.007	72.69	-0.002
28850In1	[redacted]	[redacted]	INTERPOLATE	INT Pound 8-9 (OxGU)	75.215	75.265	75.14	0.024	75.401	0.002	-0.002	75.4	0	-0.072	75.399	-0.008	-0.001	75.4	0	-0.002	75.4	0	-0.008	75.4	-0.001	0	75.405	0	-0.002	75.403	0	-0.009	75.4	-0.001
28700	[redacted]	[redacted]	RIVER SECTION	CC Pound 7-8	77.82	77.87	77.745	-0.011	78.04	-0.001	-0.111	78.015	-0.01	-0.137	77.869	-0.012	-0.001	77.873	0	-0.005	77.85	0	-0.013	77.841	-0.001	-0.01	78.115	-0.001	-0.213	78.1	-0.02	-0.651	77.87	-0.053
OxGUN_010	[redacted]	[redacted]	RIVER SECTION	CC Pound 7-8	77.82	77.87	77.745	0.031	78.04	0.002	-0.111	78.015	-0.006	-0.137	77.87	-0.008	0	77.873	0	-0.005	77.85	0	-0.015	77.841	-0.001	0.143	78.115	0.008	-0.213	78.1	-0.012	-0.659	77.87	-0.037
OxGUN_010a	[redacted]	[redacted]	RIVER SECTION	CC Pound 7-8	77.82	77.87	77.745	0.04	78.04	0.003	-0.109	78.015	-0.006	-0.134	77.87	-0.008	0.003	77.873	0	-0.002	77.85	0	-0.01	77.841	-0.001	0.15	78.115	0.008	-0.211	78.1	-0.012	-0.657	77.87	-0.037
28200	[redacted]	[redacted]	RIVER SECTION	CC Pound 7-8	77.82	77.87	77.745	-0.003	78.04	0	-0.109	78.015	-0.012	-0.132	77.869	-0.014	-0.001	77.873	0	-0.002	77.85	0	-0.007	77.841	-0.001	-0.002	78.115	0	-0.211	78.1	-0.021	-0.284	77.87	-0.028
28050a	[redacted]	[redacted]	RIVER SECTION	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	-0.003	79.991	0	-0.109	79.969	-0.008	-0.132	79.769	-0.01	-0.001	79.77	0	-0.002	79.77	0	-0.007	79.77	-0.001	-0.002	80.139	0	-0.211	80.078	-0.015	-0.3	79.77	-0.02
28050	[redacted]	[redacted]	RIVER SECTION	INT Pound 6-7 (OxGU)	79.728	79.778	79.653	0.001	79.991	0	-0.109	79.969	-0.008	-0.132	79.769	-0.01	-0.001	79.77	0	-0.002	79.77	0	-0.007	79.77	-0.001	-0.002	80.136	0	-0.211	80.078	-0.015	-0.63	79.77	-0.043
CC01_19019a	[redacted]	[redacted]	RIVER SECTION	INT Pound 5-6 (OxGU)	81.874	81.924	81.799	-0.001	81.212	-0.001	-0.002	81.21	-0.001	-0.045	81.207	-0.026	-0.001	81.21	-0.001	-0.002	81.21	-0.001	-0.007	81.21	-0.004	-0.001	81.21	-0.001	-0.002	81.21	-0.001	-0.007	81.21	-0.004
27950	[redacted]	[redacted]	RIVER SECTION	INT Pound 5-6 (OxGU)	81.874	81.924	81.799	0.001	81.212	0	-0.002	81.21	-0.001	-0.048	81.208	-0.012	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.002	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.002
27600	[redacted]	[redacted]	RIVER SECTION	INT Pound 5-6 (OxGU)	81.874	81.924	81.799	0	81.212	0	-0.002	81.21	-0.001	-0.049	81.208	-0.011	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.002	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.002
CC01_18535a	[redacted]	[redacted]	RIVER SECTION	INT Pound 5-6 (OxGU)	81.874	81.924	81.799	-0.001	81.212	0	-0.002	81.21	-0.001	-0.045	81.208	-0.021	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.003	-0.001	81.21	0	-0.002	81.21	-0.001	-0.007	81.21	-0.003
27400	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-5 (OxGU)	84.006	84.056	83.931	-0.001	83.503	0	-0.002	83.5	-0.001	-0.045	83.497	-0.01	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.002	-0.001	83.5	0	-0.002	83.5	-0.001	-0.007	83.5	-0.002
27150	[redacted]	[redacted]	RIVER SECTION	INT Pound 2-3 (OxGU)	87.688	87.738	87.613	0.001	88.521	0	-0.002	88.52	0	-0.049	88.519	-0.002	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	0	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	0
27100	[redacted]	[redacted]	RIVER SECTION	INT Pound 2-3 (OxGU)	87.688	87.738	87.613	0.001	88.521	0	-0.002	88.52	0	-0.049	88.519	-0.002	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	0	-0.001	88.52	0	-0.002	88.52	0	-0.007	88.52	0
26950a	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-2 (OxGU)	90.001	90.051	89.926	0.002	90.451	0	-0.002	90.45	0	-0.05	90.449	-0.003	-0.001	90.45	0	-0.002	90.45	0	-0.007	90.45	0	-0.001	90.45	0	-0.002	90.45	0	-0.007	90.45	0
CC01_17859	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.013	92.28	-0.002	-0.109	92.251	-0.014	-0.177	92.238	-0.023	0.659	92.507	0.071	0.644	92.493	0.07	-0.001	92.245	0	1.289	92.579	0.132	1.091	92.568	0.113	-0.007	92.245	-0.001
CC01_17859	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.013	92.28	-0.002	-0.109	92.251	-0.014	-0.177	92.238	-0.023	0.659	92.507	0.071	0.644	92.493	0.07	-0.001	92.245	0	1.289	92.579	0.132	1.091	92.568	0.113	-0.007	92.245	-0.001
CC01_17859D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.013	92.28	-0.002	-0.109	92.251	-0.014	-0.177	92.238	-0.023	0.659	92.507	0.071	0.644	92.493	0.07	-0.001	92.245	0	1.289	92.579	0.132	1.091	92.568	0.113	-0.007	92.245	-0.001
CC01_17825	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.007	92.28	0	-0.109	92.251	-0.008	-0.177	92.238	-0.013	0.659	92.507	0.035	0.644	92.493	0.034	-0.006	92.245	0	1.288	92.579	0.063	1.091	92.568	0.053	-0.012	92.245	-0.001
CC01_17793	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.006	92.28	0	-0.109	92.251	-0.007	-0.173	92.238	-0.01	0.659	92.507	0.034	0.644	92.493	0.033	-0.006	92.245	0	1.254	92.579	0.062	1.091	92.568	0.054	-0.022	92.245	-0.001
CC01_17143	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.006	92.28	-0.001	-0.109	92.251	-0.011	-0.194	92.238	-0.018	0.659	92.506	0.05	0.643	92.492	0.049	-0.006	92.245	-0.001	1.213	92.576	0.087	1.091	92.565	0.078	-0.062	92.245	-0.006
CC01_16171	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	0	-0.109	92.251	-0.012	-0.192	92.238	-0.02	0.659	92.501	0.056	0.643	92.487	0.055	-0.006	92.245	-0.001	1.175	92.564	0.094	1.09	92.554	0.087	-0.058	92.245	-0.006
CC01_16150	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	-0.001	-0.109	92.251	-0.023	-0.192	92.238	-0.039	0.659	92.501	0.113	0.643	92.486	0.11	-0.006	92.245	-0.001	1.174	92.562	0.187	1.09	92.552	0.173	-0.058	92.245	-0.012
CC01_16150	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	-0.001	-0.109	92.251	-0.023	-0.192	92.238	-0.039	0.659	92.501	0.113	0.643	92.486	0.11	-0.006	92.245	-0.001	1.174	92.562	0.187	1.09	92.552	0.173	-0.058	92.245	-0.012
CC01_16150D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	-0.001	-0.109	92.251	-0.023	-0.192	92.238	-0.039	0.659	92.501	0.113	0.643	92.486	0.11	-0.006	92.245	-0.001	1.174	92.562	0.187	1.09	92.552	0.173	-0.058	92.245	-0.012
CC01_16121	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	0	-0.109	92.251	-0.01	-0.191	92.238	-0.017	0.659	92.501	0.046	0.643	92.486	0.045	-0.006	92.245	-0.001	1.174	92.562	0.077	1.09	92.552	0.071	-0.057	92.245	-0.005
CC_16077	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	0.003	-0.109	92.251	-0.011	-0.191	92.238	-0.018	0.66	92.5	0.051	0.643	92.486	0.05	-0.004	92.245	0	1.173	92.561	0.085	1.09	92.551	0.079	-0.057	92.245	-0.006
CC_16057_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.28	0	0	92.251	0	0	92.238	0	0	92.5	0	0	92.486	0	0	92.245	0	0	92.561	0	0	92.551	0	0	92.245	0
CC_16037	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.004	92.28	0.004	-0.108	92.251	-0.011	-0.18	92.238	-0.018	0.671	92.5	0.052	0.645	92.486	0.05	-0.004	92.245	0	1.182	92.561	0.085	1.092	92.551	0.079	-0.057	92.245	-0.006
CC_15943	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.038	92.281	0.004	-0.108	92.251	-0.012	-0.18	92.238	-0.02	0.671	92.5	0.06	0.645	92.486	0.058	-0.004	92.245	0	1.181	92.561	0.1	1.092	92.551	0.093	-0.057	92.245	-0.007
CC_15923_SD	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0.287	92.281	0	0.003	92.251	0	-0.026	92.238	0	0	92.5	0	0	92.486	0	0	92.245	0	0	92.561	0	0	92.551	0	0	92.245	0
CC_15903	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.001	92.281	0	-0.109	92.251	-0.011	-0.269	92.238	-0.027	0.673	92.5	0.056	0.647	92.486	0.054	-0.002	92.245	0	1.183	92.561	0.092	1.094	92.551	0.085	-0.055	92.245	-0.006
CC_14686	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.012	-0.181	92.239	-0.019	0.672	92.493	0.059	0.646	92.479	0.056	-0.002	92.245	0	1.162	92.542	0.097	1.093	92.534	0.091	-0.056	92.245	-0.006
CC_14668_OU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	0	92.252	0	0	92.239	0	0	92.493	0	0	92.479	0	0	92.245	0	0	92.542	0	0	92.534	0	0	92.245	0
CC_14648	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.013	-0.181	92.239	-0.022	0.672	92.493	0.067	0.646	92.479	0.065	-0.002	92.245	0	1.162	92.542	0.111	1.093	92.534	0.104	-0.056	92.245	-0.007
CC01_13775	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.011	-0.18	92.239	-0.018	0.672	92.486	0.052	0.646	92.472	0.05	-0.016	92.245	-0.002	1.15	92.525	0.085	1.093	92.518	0.08	-0.057	92.245	-0.006
CC01_13721	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.022	-0.18	92.239	-0.036	0.672	92.485	0.113	0.646	92.471	0.109	-0.024	92.245	-0.005	1.149	92.522	0.186	1.093	92.514	0.176	-0.058	92.245	-0.012
CC01_13721	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.022	-0.18	92.239	-0.036	0.672	92.485	0.113	0.646	92.471	0.109	-0.024	92.245	-0.005	1.149	92.522	0.186	1.093	92.514	0.176	-0.058	92.245	-0.012
CC01_13721D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.022	-0.18	92.239	-0.036	0.672	92.485	0.113	0.646	92.471	0.109	-0.024	92.245	-0.005	1.149	92.522	0.186	1.093	92.514	0.176	-0.058	92.245	-0.012
CC01_13687	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.009	-0.18	92.239	-0.015	0.672	92.485	0.046	0.646	92.471	0.044	-0.03	92.245	-0.003	1.149	92.522	0.075	1.093	92.514	0.071	-0.058	92.245	-0.005
CC01_13382	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.01	-0.177	92.239	-0.016	0.672	92.484	0.048	0.646	92.47	0.046	-0.064	92.245	-0.006	1.144	92.518	0.078	1.093	92.511	0.074	-0.064	92.245	-0.006
CC01_13326	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.016	-0.177	92.239	-0.025	0.672	92.483	0.083	0.646	92.469	0.08	-0.065	92.245	-0.01	1.144	92.517	0.138	1.093	92.509	0.131	-0.066	92.245	-0.01
CC01_13326	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.016	-0.177	92.239	-0.025	0.672	92.483	0.083	0.646	92.469	0.08	-0.065	92.245	-0.01	1.144	92.517	0.138	1.093	92.509	0.131	-0.066	92.245	-0.01
CC01_13326D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.016	-0.177	92.239	-0.025	0.672	92.483	0.083	0.646	92.469	0.08	-0.065	92.245	-0.01	1.144	92.517	0.138	1.093	92.509	0.131	-0.066	92.245	-0.01
CC01_13282	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.01	-0.177	92.239	-0.016	0.672	92.483	0.052	0.646	92.469	0.05	-0.066	92.245	-0.006	1.143	92.516	0.085	1.093	92.509	0.081	-0.066	92.245	-0.006
CC_12798	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	-0.109	92.252	-0.011	-0.178	92.239	-0.017	0.671	92.48	0.053	0.646	92.466	0.051	-0.066	92.245	-0.006	1.138	92.51	0.087	1.093	92.502	0.083	-0.066	92.245	-0.006
CC_12778_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	0	92.252	0	0	92.239	0	0	92.48	0	0	92.466	0	0	92.245	0	0	92.51	0	0	92.502	0	0	92.245	0
CC_12778_SD	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0	0	91.8	0
CC_12773	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.281	0	-0.107	92.252	-0.01	-0.17	92.239	-0.016	0.679	92.48	0.053	0.648	92.466	0.051	-0.062	92.245	-0.006	1.144	92.51	0.087	1.095	92.502	0.083	-0.062	92.245	-0.006
CC_12772	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.281	0	-0.107	92.252	-0.01	-0.17	92.239	-0.016	0.679	92.48	0.053	0.648	92.466	0.051	-0.062	92.245	-0.006	1.144	92.51	0.087	1.095	92.502	0.083	-0.062	92.245	-0.006
CC_12773_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.281	0	0	92.252	0	0	92.239	0	0	92.48	0	0	92.466	0	0	92.245	0	0	92.51	0	0	92.502	0	0	92.245	0
CC_12773_SD	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0	0	91.83	0
CC_12753	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.281	0	-0.107	92.252	-0.01	-0.17	92.239	-0.015	0.679	92.48	0.046	0.648	92.466	0.044	-0.062	92.245	-0.006	1.144	92.51	0.075	1.095	92.502	0.071	-0.062	92.245	-0.006
CC01_11384	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.008	-0.166	92.239	-0.012	0.678	92.475	0.043	0.647	92.462	0.042	-0.067	92.245	-0.005	1.13	92.497	0.071	1.094	92.49	0.069	-0.067	92.245	-0.005
CC01_11367	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0.001	-0.107	92.252	-0.019	-0.166	92.239	-0.028	0.678	92.475	0.1	0.647	92.461	0.096	-0.067	92.245	-0.012	1.13	92.496	0.165	1.094	92.489	0.159	-0.067	92.245	-0.012
CC01_11350	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.011	-0.166	92.239	-0.017	0.678	92.475	0.052	0.647	92.461	0.05	-0.067	92.245	-0.007	1.129	92.496	0.084	1.094	92.489	0.081	-0.067	92.245	-0.007
CC_11223	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.011	-0.164	92.239	-0.016	0.678	92.474	0.054	0.647	92.461	0.052	-0.067	92.245	-0.007	1.128	92.494	0.087	1.094	92.487	0.084	-0.067	92.245	-0.007
CC_11203_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.282	0	0	92.252	0	0	92.239	0	0	92.474	0	0	92.461	0	0	92.245	0	0	92.494	0	0	92.487	0	0	92.245	0
CC_11183	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.01	-0.164	92.239	-0.016	0.678	92.474	0.054	0.647	92.461	0.052	-0.067	92.245	-0.007	1.128	92.494	0.088	1.094	92.487	0.085	-0.067	92.245	-0.007
CC01_11079	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.008	-0.163	92.239	-0.012	0.678	92.474	0.04	0.647	92.46	0.038	-0.066	92.245	-0.005	1.127	92.493	0.065	1.094	92.486	0.063	-0.066	92.245	-0.005
CC01_11035	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.009	-0.162	92.239	-0.014	0.678	92.474	0.046	0.647	92.46	0.044	-0.065	92.245	-0.006	1.127	92.493	0.075	1.094	92.486	0.073	-0.065	92.245	-0.006
CC01_10981	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.252	-0.01	-0.161	92.239	-0.014	0.678	92.473	0.05	0.647	92.46	0.048	-0.065	92.245	-0.006	1.126	92.492	0.082	1.094	92.485	0.08	-0.065	92.245	-0.006
CC_10656	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.253	-0.016	-0.16	92.24	-0.023	0.678	92.471	0.077	0.647	92.457	0.074	-0.068	92.245	-0.01	1.125	92.485	0.126	1.094	92.478	0.122	-0.068	92.245	-0.01
CC_10636_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.282	0	0	92.253	0	0	92.24	0	0	92.471	0	0	92.457	0	0	92.245	0	0	92.485	0	0	92.478	0	0	92.245	0
CC_10637	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.16	92.282	0.023	0.107	92.253	0.016	-0.003	92.24	0	0.068	92.471	0.01	-0.647	92.457	-0.074	-0.678	92.245	-0.077	0.068	92.485	0.01	-1.094	92.478	-0.122	-1.125	92.245	-0.126
CC_10636	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.16	92.282	0.023	0.107	92.253	0.016	-0.003	92.24	0	0.068	92.471	0.01	-0.647	92.457	-0.074	-0.678	92.245	-0.077	0.068	92.485	0.01	-1.094	92.478	-0.122	-1.125	92.245	-0.126
CC_10622_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.282	0	0	92.253	0	0	92.24	0	0.067	92.471	0	0.059	92.457	0	0	92.245	0	0.079	92.485	0	0.074	92.478	0	0	92.245	0
CC_10622_CU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.245	0	0	92.245	0	0	92.245	0	0.067	92.47	0	0.059	92.456	0	0	92.245	0	0.079	92.484	0	0.074	92.477	0	0	91.908	0
CC_10616	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.003	92.282	0	-0.107	92.253	-0.012	-0.16	92.24	-0.018	0.614	92.471	0.057	0.588	92.457	0.055	-0.068	92.245	-0.008	1.047	92.485	0.096	1.02	92.478	0.093	-0.068	92.245	-0.008
CC01_10201	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0	-0.107	92.253	-0.012	-0.158	92.24	-0.017	0.614	92.468	0.056	0.588	92.455	0.054	-0.062	92.245	-0.007	1.047	92.478	0.094	1.02	92.472	0.092	-0.063	92.245	-0.007
CC01_10194	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0	-0.107	92.253	-0.012	-0.158	92.24	-0.017	0.614	92.468	0.054	0.588	92.455	0.052	-0.062	92.245	-0.007	1.047	92.478	0.092	1.02	92.471	0.089	-0.063	92.245	-0.007
CC01_10194	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0	-0.107	92.253	-0.012	-0.158	92.24	-0.017	0.614	92.468	0.054	0.588	92.455	0.052	-0.062	92.245	-0.007	1.047	92.478	0.092	1.02	92.471	0.089	-0.063	92.245	-0.007
CC01_10194D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0	-0.107	92.253	-0.012	-0.158	92.24	-0.017	0.614	92.468	0.054	0.588	92.455	0.052	-0.062	92.245	-0.007	1.047	92.478	0.092	1.02	92.471	0.089	-0.063	92.245	-0.007
CC01_10177	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.015	-0.158	92.24	-0.022	0.614	92.468	0.07	0.588	92.455	0.067	-0.062	92.245	-0.009	1.047	92.478	0.118	1.02	92.471	0.115	-0.063	92.245	-0.009
CC01_10113	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.016	-0.157	92.24	-0.022	0.614	92.467	0.071	0.588	92.454	0.069	-0.062	92.245	-0.009	1.047	92.476	0.12	1.02	92.469	0.117	-0.063	92.245	-0.009
CC01_10084	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.014	-0.157	92.24	-0.02	0.614	92.467	0.068	0.588	92.454	0.066	-0.062	92.245	-0.008	1.046	92.475	0.116	1.02	92.469	0.113	-0.063	92.245	-0.008
CC01_10084	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.014	-0.157	92.24	-0.02	0.614	92.467	0.068	0.588	92.454	0.066	-0.062	92.245	-0.008	1.046	92.475	0.116	1.02	92.469	0.113	-0.063	92.245	-0.008
CC01_10084D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.014	-0.157	92.24	-0.02	0.614	92.467	0.068	0.588	92.454	0.066	-0.062	92.245	-0.008	1.046	92.475	0.116	1.02	92.469	0.113	-0.063	92.245	-0.008

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
CC01_10034	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.004	92.282	0.001	-0.107	92.253	-0.013	-0.157	92.24	-0.018	0.614	92.467	0.059	0.588	92.454	0.057	-0.062	92.245	-0.007	1.046	92.475	0.1	1.02	92.468	0.098	-0.063	92.245	-0.008
CC_07922	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.283	-0.005	-0.107	92.253	-0.012	-0.155	92.24	-0.017	0.614	92.465	0.058	0.588	92.452	0.056	-0.061	92.246	-0.007	1.046	92.468	0.098	1.019	92.461	0.096	-0.066	92.246	-0.008
CC_9702_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.283	0	0	92.253	0	0	92.24	0	0	92.465	0	0	92.452	0	0	92.246	0	0	92.468	0	0	92.461	0	0	92.246	0
CC_07882	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.283	-0.005	-0.107	92.253	-0.013	-0.155	92.24	-0.019	0.614	92.465	0.061	0.588	92.452	0.058	-0.061	92.246	-0.008	1.046	92.468	0.103	1.019	92.461	0.1	-0.066	92.246	-0.008
CC01_09431	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.005	-0.107	92.253	-0.014	-0.155	92.24	-0.019	0.614	92.463	0.064	0.588	92.45	0.062	-0.118	92.245	-0.015	1.046	92.463	0.109	1.019	92.456	0.106	-0.118	92.245	-0.015
CC01_09406	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.007	-0.107	92.253	-0.019	-0.155	92.24	-0.027	0.614	92.462	0.093	0.588	92.449	0.089	-0.118	92.245	-0.021	1.046	92.461	0.158	1.019	92.455	0.154	-0.118	92.245	-0.021
CC01_09406	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.007	-0.107	92.253	-0.019	-0.155	92.24	-0.027	0.614	92.462	0.093	0.588	92.449	0.089	-0.118	92.245	-0.021	1.046	92.461	0.158	1.019	92.455	0.154	-0.118	92.245	-0.021
CC01_09406D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.007	-0.107	92.253	-0.019	-0.155	92.24	-0.027	0.614	92.462	0.093	0.588	92.449	0.089	-0.118	92.245	-0.021	1.046	92.461	0.158	1.019	92.455	0.154	-0.118	92.245	-0.021
CC01_09381	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.005	-0.107	92.253	-0.015	-0.155	92.24	-0.021	0.614	92.462	0.07	0.588	92.449	0.067	-0.118	92.245	-0.016	1.046	92.461	0.119	1.019	92.454	0.116	-0.118	92.245	-0.016
CC01_08983	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.283	-0.004	-0.107	92.253	-0.012	-0.154	92.24	-0.017	0.614	92.459	0.057	0.588	92.446	0.055	-0.118	92.245	-0.013	1.045	92.452	0.098	1.019	92.446	0.096	-0.118	92.245	-0.013
CC01_08959	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.283	-0.006	-0.107	92.253	-0.018	-0.154	92.24	-0.025	0.614	92.459	0.089	0.588	92.446	0.085	-0.118	92.245	-0.02	1.045	92.451	0.151	1.019	92.445	0.148	-0.118	92.245	-0.02
CC01_08959	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.283	-0.006	-0.107	92.253	-0.018	-0.154	92.24	-0.025	0.614	92.459	0.089	0.588	92.446	0.085	-0.118	92.245	-0.02	1.045	92.451	0.151	1.019	92.445	0.148	-0.118	92.245	-0.02
CC01_08959D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.283	-0.006	-0.107	92.253	-0.018	-0.154	92.24	-0.025	0.614	92.459	0.089	0.588	92.446	0.085	-0.118	92.245	-0.02	1.045	92.451	0.151	1.019	92.445	0.148	-0.118	92.245	-0.02
CC01_08933	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.283	-0.005	-0.107	92.253	-0.014	-0.154	92.24	-0.02	0.614	92.459	0.067	0.588	92.446	0.064	-0.118	92.245	-0.016	1.045	92.451	0.114	1.019	92.444	0.111	-0.118	92.245	-0.016
CC01_08189	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.004	-0.107	92.254	-0.012	-0.152	92.24	-0.017	0.614	92.453	0.057	0.588	92.441	0.055	-0.118	92.244	-0.014	1.045	92.435	0.099	1.019	92.428	0.097	-0.118	92.245	-0.014
CC01_08181	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.005	-0.107	92.254	-0.013	-0.152	92.24	-0.019	0.614	92.453	0.067	0.588	92.44	0.065	-0.118	92.244	-0.015	1.045	92.435	0.116	1.019	92.428	0.113	-0.118	92.245	-0.015
CC01_08168	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.283	-0.005	-0.107	92.254	-0.013	-0.152	92.24	-0.018	0.614	92.453	0.06	0.588	92.44	0.058	-0.118	92.244	-0.014	1.045	92.434	0.104	1.019	92.428	0.102	-0.118	92.245	-0.014
CC01_07767	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.284	-0.004	-0.107	92.254	-0.012	-0.153	92.241	-0.017	0.613	92.45	0.057	0.588	92.438	0.055	-0.118	92.244	-0.013	1.044	92.425	0.099	1.019	92.419	0.097	-0.118	92.245	-0.013
CC01_07754	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.284	-0.006	-0.107	92.254	-0.016	-0.153	92.241	-0.023	0.613	92.45	0.078	0.588	92.437	0.075	-0.118	92.244	-0.017	1.044	92.425	0.135	1.019	92.418	0.132	-0.118	92.245	-0.017
CC01_07754	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.284	-0.006	-0.107	92.254	-0.016	-0.153	92.241	-0.023	0.613	92.45	0.078	0.588	92.437	0.075	-0.118	92.244	-0.017	1.044	92.425	0.135	1.019	92.418	0.132	-0.118	92.245	-0.017
CC01_07754D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.284	-0.006	-0.107	92.254	-0.016	-0.153	92.241	-0.023	0.613	92.45	0.078	0.588	92.437	0.075	-0.118	92.244	-0.017	1.044	92.425	0.135	1.019	92.418	0.132	-0.118	92.245	-0.017
CC01_07733	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.039	92.284	-0.004	-0.107	92.254	-0.011	-0.153	92.241	-0.016	0.613	92.45	0.051	0.588	92.437	0.049	-0.118	92.244	-0.012	1.044	92.425	0.089	1.019	92.418	0.087	-0.118	92.245	-0.012
CC01_07619	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.284	-0.004	-0.107	92.254	-0.012	-0.153	92.241	-0.017	0.613	92.449	0.054	0.588	92.437	0.052	-0.118	92.244	-0.013	1.044	92.422	0.095	1.019	92.416	0.092	-0.118	92.245	-0.013
CC01_07602	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.284	-0.005	-0.107	92.254	-0.014	-0.153	92.241	-0.02	0.613	92.449	0.069	0.588	92.436	0.066	-0.118	92.244	-0.015	1.044	92.422	0.119	1.019	92.415	0.116	-0.118	92.245	-0.015
CC01_07602	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.284	-0.005	-0.107	92.254	-0.014	-0.153	92.241	-0.02	0.613	92.449	0.069	0.588	92.436	0.066	-0.118	92.244	-0.015	1.044	92.422	0.119	1.019	92.415	0.116	-0.118	92.245	-0.015
CC01_07602D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.284	-0.005	-0.107	92.254	-0.014	-0.153	92.241	-0.02	0.613	92.449	0.069	0.588	92.436	0.066	-0.118	92.244	-0.015	1.044	92.422	0.119	1.019	92.415	0.116	-0.118	92.245	-0.015
CC01_07589	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.038	92.284	-0.004	-0.107	92.254	-0.011	-0.153	92.241	-0.016	0.613	92.449	0.054	0.588	92.436	0.052	-0.118	92.244	-0.013	1.044	92.422	0.094	1.019	92.415	0.091	-0.118	92.245	-0.013
CC01_07267	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.284	-0.005	-0.107	92.254	-0.014	-0.153	92.241	-0.021	0.613	92.446	0.069	0.588	92.434	0.066	-0.118	92.244	-0.016	1.044	92.414	0.121	1.019	92.407	0.118	-0.118	92.245	-0.016
CC01_07251	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.284	-0.007	-0.107	92.254	-0.019	-0.153	92.241	-0.028	0.613	92.446	0.096	0.588	92.433	0.092	-0.117	92.244	-0.021	1.044	92.412	0.167	1.019	92.406	0.163	-0.117	92.245	-0.021
CC01_07251	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.284	-0.007	-0.107	92.254	-0.019	-0.153	92.241	-0.028	0.613	92.446	0.096	0.588	92.433	0.092	-0.117	92.244	-0.021	1.044	92.412	0.167	1.019	92.406	0.163	-0.117	92.245	-0.021
CC01_07251D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.037	92.284	-0.007	-0.107	92.254	-0.019	-0.153	92.241	-0.028	0.613	92.446	0.096	0.588	92.433	0.092	-0.117	92.244	-0.021	1.044	92.412	0.167	1.019	92.406	0.163	-0.117	92.245	-0.021
CC01_07237	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.036	92.284	-0.004	-0.107	92.254	-0.013	-0.153	92.241	-0.019	0.613	92.446	0.062	0.588	92.434	0.06	-0.117	92.244	-0.014	1.044	92.413	0.109	1.019	92.406	0.106	-0.117	92.245	-0.014
CC01_06787	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.035	92.284	-0.004	-0.107	92.254	-0.012	-0.151	92.241	-0.016	0.613	92.443	0.055	0.588	92.431	0.053	-0.118	92.244	-0.013	1.044	92.403	0.097	1.019	92.397	0.094	-0.118	92.245	-0.013
CC01_06782	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.035	92.284	-0.003	-0.107	92.254	-0.01	-0.151	92.241	-0.014	0.613	92.443	0.047	0.588	92.431	0.045	-0.118	92.244	-0.011	1.044	92.403	0.083	1.019	92.397	0.081	-0.118	92.245	-0.011
CC01_06777	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.035	92.284	-0.004	-0.107	92.254	-0.012	-0.151	92.241	-0.016	0.613	92.443	0.055	0.588	92.431	0.053	-0.118	92.244	-0.013	1.044	92.403	0.097	1.019	92.397	0.094	-0.118	92.245	-0.013
CC01_06265	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.284	-0.004	-0.107	92.254	-0.011	-0.151	92.241	-0.016	0.613	92.44	0.053	0.588	92.428	0.051	-0.118	92.244	-0.012	1.044	92.393	0.095	1.019	92.386	0.093	-0.118	92.245	-0.012
CC_06245_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.284	0	0	92.254	0	0	92.241	0	0	92.44	0	0	92.428	0	0	92.244	0	0	92.393	0	0	92.386	0	0	92.245	0
CC_06245_bU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.284	0	0	92.254	0	0	92.241	0	0	92.44	0	0	92.428	0	0	92.244	0	0	92.393	0	0	92.386	0	0	92.245	0
CC_06245_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.284	0	0	92.254	0	0	92.241	0	0	92.245	0	0	92.059	0	0	92.047	0	0	92.245	0	0	92.103	0	0	92.097	0
CC_06245_SD	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	90.9	0	0	90.9	0	0	90.9	0	0	90.9	0	0	90.899	0	0	90.899	0	0	90.9	0	0	90.9	0	0	90.9	0
CC01_06225	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.284	-0.003	-0.107	92.254	-0.009	-0.151	92.241	-0.013	0.613	92.44	0.044	0.588	92.428	0.043	-0.118	92.244	-0.01	1.044	92.393	0.079	1.019	92.386	0.077	-0.118	92.245	-0.01
CC01_05576	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.032	92.285	-0.004	-0.107	92.254	-0.012	-0.153	92.241	-0.017	0.613	92.437	0.057	0.587	92.425	0.055	-0.118	92.244	-0.013	1.044	92.383	0.103	1.019	92.376	0.101	-0.118	92.245	-0.013
CC01_05519	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.285	-0.005	-0.107	92.254	-0.017	-0.153	92.241	-0.024	0.613	92.436	0.084	0.587	92.424	0.081	-0.117	92.244	-0.019	1.044	92.38	0.149	1.019	92.374	0.146	-0.117	92.245	-0.019
CC01_05519	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.285	-0.005	-0.107	92.254	-0.017	-0.153	92.241	-0.024	0.613	92.436	0.084	0.587	92.424	0.081	-0.117	92.244	-0.019	1.044	92.38	0.149	1.019	92.374	0.146	-0.117	92.245	-0.019
CC01_05519D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.285	-0.005	-0.107	92.254	-0.017	-0.153	92.241	-0.024	0.613	92.436	0.084	0.587	92.424	0.081	-0.117	92.244	-0.019	1.044	92.38	0.149	1.019	92.374	0.146	-0.117	92.245	-0.019
CC01_05475	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.033	92.285	-0.003	-0.107	92.255	-0.009	-0.153	92.241	-0.013	0.613	92.436	0.039	0.587	92.424	0.038	-0.117	92.244	-0.01	1.044	92.379	0.074	1.019	92.373	0.072	-0.117	92.245	-0.01
CC01_04722	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.041	92.285	-0.005	-0.107	92.255	-0.013	-0.153	92.241	-0.018	0.613	92.432	0.06	0.587	92.419	0.058	-0.118	92.243	-0.014	1.044	92.364	0.11	1.019	92.358	0.108	-0.118	92.245	-0.014
CC_04702_bU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.285	0	0	92.255	0	0	92.241	0	0	92.432	0	0	92.419	0	0	92.243	0	0	92.364	0	0	92.358	0	0	92.245	0
CC_04702_aU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	92.285	0	0	92.255	0	0	92.241	0	0	92.432	0	0	92.419	0	0	92.243	0	0	92.364	0	0	92.358	0	0	92.245	0
CC01_04682	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.041	92.285	-0.004	-0.107	92.255	-0.01	-0.153	92.241	-0.014	0.613	92.432	0.045	0.587	92.419	0.044	-0.118	92.243	-0.011	1.044	92.364	0.084	1.019	92.358	0.082	-0.118	92.245	-0.011
AS01_00130	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.036	92.285	0.004	0.007	92.255	0.001	0	92.242	0	0.036	92.43	0.003	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.003	0.007	92.35	0.001	0	92.245	0
AS01_00128	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.036	92.285	0.004	0.007	92.255	0.001	0	92.242	0	0.036	92.43	0.003	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.003	0.007	92.35	0.001	0	92.245	0
AS_00110_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.285	0	0	92.255	0	0	92.242	0	0	92.43	0	0	92.417	0	0	92.243	0	0	92.356	0	0	92.35	0	0	92.245	0
AS_00110_CU	[redacted]	[redacted]	ORIFICE OPEN	CC Pound 1-1	92.195	92.23	92.12	0	68.839	0	0	68.839	0	0	68.839	0	0	68.839	0	0	68.837	0	0	68.837	0	0	68.839	0	0	68.838	0	0	68.838	0
AS01_00090	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.036	92.285	0.004	0.007	92.255	0.001	0	92.242	0	0.036	92.43	0.003	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.003	0.007	92.35	0.001	0	92.245	0
AS01_00076	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.036	92.285	0.004	0.007	92.255	0.001	0	92.242	0	0.036	92.43	0.003	0.007	92.417	0.001	0	92.243	0	0.036	92.356	0.003	0.007	92.35	0.001	0	92.245	0
13150	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.031	92.285	-0.003	-0.1	92.255	-0.01	-0.134	92.242	-0.013	0.646	92.429	0.055	0.594	92.417	0.051	-0.102	92.243	-0.01	1.072	92.356	0.098	1.025	92.35	0.094	-0.102	92.245	-0.01
CC01_02752	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.045	92.286	-0.006	-0.1	92.255	-0.014	-0.133	92.242	-0.019	0.646	92.417	0.074	0.594	92.406	0.069	-0.1	92.242	-0.014	1.074	92.331	0.139	1.025	92.308	0.133	-0.1	92.245	-0.014
CC01_02705	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.045	92.286	-0.009	-0.1	92.255	-0.02	-0.133	92.242	-0.027	0.646	92.416	0.113	0.594	92.405	0.105	-0.1	92.242	-0.02	1.074	92.33	0.206	1.025	92.303	0.197	-0.1	92.245	-0.02
CC01_02705	[redacted]	[redacted]	BRIDGE ARCH	CC Pound 1-1	92.195	92.23	92.12	-0.045	92.286	-0.009	-0.1	92.255	-0.02	-0.133	92.242	-0.027	0.646	92.416	0.113	0.594	92.405	0.105	-0.1	92.242	-0.02	1.074	92.33	0.206	1.025	92.303	0.197	-0.1	92.245	-0.02
CC01_02705D	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.045	92.286	-0.009	-0.1	92.255	-0.02	-0.133	92.242	-0.027	0.646	92.416	0.113	0.594	92.405	0.105	-0.1	92.242	-0.02	1.074	92.33	0.206	1.025	92.303	0.197	-0.1	92.245	-0.02
CC01_02653	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.045	92.286	-0.005	-0.1	92.255	-0.011	-0.133	92.242	-0.015	0.646	92.415	0.061	0.594	92.405	0.057	-0.1	92.242	-0.012	1.075	92.33	0.116	1.025	92.301	0.111	-0.1	92.245	-0.012
CC01_00731	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	-0.077	92.286	-0.007	-0.1	92.256	-0.009	-0.113	92.243	-0.01	0.646	92.404	0.049	0.593	92.395	0.045	-0.1	92.242	-0.009	1.224	92.322	0.107	1.025	92.258	0.089	-0.101	92.245	-0.009
CC_00711_SU	[redacted]	[redacted]	SPILL	CC Pound 1-1	92.195	92.23	92.12	0	92.286	0	0	92.256	0	0	92.243	0	0.086	92.404	0	0.047	92.395	0	0	92.242	0	0	92.322	0	0	92.258	0	0	92.245	0
CC01_00691	[redacted]	[redacted]	RIVER SECTION	CC Pound 1-1	92.195	92.23	92.12	0.023	92.286	0.002	0	92.256	0	-0.013	92.243	-0.001	0.66	92.404	0.042	0.646	92.395	0.041	0	92.242	0	1.324	92.322	0.096	1.125	92.258	0.081	-0.001	92.245	0
BP_OX_L1	[redacted]	[redacted]	ABSTRACTION	CC Pound 1-1	92.195	92.23	92.12	0	92.286	0	0	92.256	0	0	92.243	0	0	92.398	0	0	92.389	0	0	92.238	0	0	92.318	0	0	92.236	0	0	92.215	0
Lock_1H_ds	[redacted]	[redacted]	SLUICE VERTICAL	CC Pound 1-1	92.195	92.23	92.12	0	92.245	0	0	92.245	0	0	92.245	0	0	92.245	0	0	92.245	0	0	92.245	0	0.051	92.843	0	0.037	92.814	0	0	92.245	0
OX02_34887	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.015	92.521	0.001	0	92.511	0	-0.021	92.476	-0.002	0.66	92.683	0.047	0.646	92.672	0.045	-0.064	92.474	-0.006	1.372	92.852	0.084	1.124	92.83	0.069	-0.004	92.476	0
OxGUN_038In2	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.021	92.521	0.002	0	92.511	0	-0.03	92.476	-0.003	0.66	92.682	0.055	0.646	92.671	0.053	-0.039	92.475	-0.004	1.34	92.849	0.095	1.125	92.827	0.079	-0.006	92.476	-0.001
OX02_34506	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.022	92.521	0.002	0	92.511	0	-0.032	92.476	-0.003	0.66	92.681	0.057	0.646	92.67	0.056	-0.029	92.475	-0.003	1.334	92.847	0.099	1.124	92.826	0.083	-0.006	92.476	-0.001
OX02_34462	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.023	92.521	0.003	0	92.511	0	-0.033	92.476	-0.005	0.66	92.68	0.083	0.646	92.67	0.08	-0.036	92.475	-0.005	1.303	92.845	0.132	1.124	92.825	0.112	-0.007	92.476	-0.001
OX02_34462	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 2-1	92.563	92.613	92.488	0.023	92.521	0.003	0	92.511	0	-0.033	92.476	-0.005	0.66	92.68	0.083	0.646	92.67	0.08	-0.036	92.475	-0.005	1.303	92.845	0.132	1.124	92.825	0.112	-0.007	92.476	-0.001
OX02_34462D	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.023	92.521	0.003	0	92.511	0	-0.033	92.476	-0.005	0.66	92.68	0.083	0.646	92.67	0.08	-0.036	92.475	-0.005	1.303	92.844	0.132	1.124	92.824	0.112	-0.007	92.476	-0.001
OX02_34408	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.024	92.521	0.002	0	92.511	0	-0.034	92.476	-0.003	0.66	92.68	0.054	0.646	92.669	0.052	-0.035	92.475	-0.003	1.273	92.844	0.088	1.124	92.823	0.077	-0.007	92.476	-0.001
OX02_34007	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.029	92.521	0.002	0	92.511	0	-0.042	92.476	-0.003	0.661	92.678	0.034	0.646	92.668	0.034	-0.03	92.475	-0.002	1.264	92.84	0.059	1.124	92.821	0.052	-0.008	92.476	-0.001
OxGUN_038In4	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.031	92.521	0.002	0	92.511	0	-0.045	92.476	-0.003	0.661	92.678	0.038	0.646	92.667	0.038	-0.029	92.475	-0.002	1.268	92.838	0.064	1.124	92.819	0.057	-0.009	92.476	-0.001
OxGUN_038In5	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.003	0	92.511	0	-0.046	92.476	-0.004	0.661	92.676	0.046	0.645	92.665	0.045	-0.034	92.475	-0.003	1.265	92.835	0.073	1.124	92.816	0.065	-0.01	92.476	-0.001
OX02_32687	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.003	0	92.511	0	-0.048	92.476	-0.005	0.661	92.674	0.051	0.645	92.664	0.05	-0.028	92.475	-0.003	1.233	92.832	0.078	1.124	92.813	0.071	-0.011	92.476	-0.001
OX02_32640	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.007	0	92.511	0	-0.048	92.476	-0.01	0.661	92.673	0.115	0.645	92.662	0.113	-0.027	92.475	-0.006	1.226	92.828	0.186	1.124	92.81	0.172	-0.011	92.476	-0.002
OX02_32640	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.007	0	92.511	0	-0.048	92.476	-0.01	0.661	92.673	0.115	0.645	92.662	0.113	-0.027	92.475	-0.006	1.226	92.828	0.186	1.124	92.81	0.172	-0.011	92.476	-0.002
OX02_32640D	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.007	0	92.511	0	-0.048	92.476	-0.01	0.661	92.673	0.115	0.645	92.662	0.113	-0.027	92.475	-0.006	1.226	92.828	0.186	1.124	92.81	0.172	-0.011	92.476	-0.002
OX02_32593	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.032	92.521	0.003	0	92.511	0	-0.048	92.476	-0.005	0.661	92.673	0.058	0.645	92.663	0.057	-0.026	92.475	-0.003	1.225	92.829	0.092	1.124	92.811	0.085	-0.011	92.476	-0.001
OxGUN_038In6	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.033	92.521	0.004	0	92.511	0	-0.049	92.476	-0.005	0.661	92.672	0.06	0.645	92.661	0.058	-0.028	92.475	-0.003	1.217	92.826	0.094	1.124	92.808	0.087	-0.012	92.476	-0.001
OxGUN_038In7	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.051	92.476	-0.006	0.662	92.667	0.064	0.645	92.657	0.062	-0.026	92.475	-0.003	1.214	92.818	0.1	1.123	92.799	0.094	-0.012	92.476	-0.001
OxGUN_038In8	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.052	92.476	-0.006	0.662	92.662	0.068	0.645	92.652	0.067	-0.023	92.475	-0.003	1.201	92.807	0.107	1.123	92.789	0.101	-0.013	92.476	-0.002
OxGUN_038In9	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.053	92.476	-0.007	0.662	92.657	0.073	0.645	92.646	0.071	-0.021	92.475	-0.003	1.197	92.795	0.114	1.123	92.777	0.108	-0.013	92.476	-0.002
CH0004	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.005	0	92.511	0	-0.053	92.476	-0.007	0.662	92.65	0.078	0.645	92.64	0.076	-0.02	92.475	-0.003	1.208	92.78	0.123	1.123	92.764	0.116	-0.014	92.476	-0.002
OX02_30229	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.005	0	92.511	0	-0.052	92.476	-0.007	0.662	92.648	0.079	0.645	92.637	0.077	-0.021	92.476	-0.003	1.186	92.776	0.124	1.123	92.759	0.118	-0.014	92.476	-0.002
OX02_30216	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.006	0	92.511	0	-0.052	92.476	-0.01	0.662	92.647	0.109	0.645	92.637	0.107	-0.021	92.476	-0.004	1.188	92.774	0.175	1.123	92.758	0.167	-0.014	92.476	-0.003
OX02_30216	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.006	0	92.511	0	-0.052	92.476	-0.01	0.662	92.647	0.109	0.645	92.637	0.107	-0.021	92.476	-0.004	1.188	92.774	0.175	1.123	92.758	0.167	-0.014	92.476	-0.003
OX02_30216D	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.006	0	92.511	0	-0.052	92.476	-0.01	0.662	92.647	0.109	0.645	92.637	0.107	-0.021	92.476	-0.004	1.188	92.774	0.175	1.123	92.758	0.167	-0.014	92.476	-0.003
OX02_30203	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.005	0	92.511	0	-0.052	92.476	-0.007	0.662	92.647	0.079	0.645	92.637	0.077	-0.021	92.476	-0.003	1.189	92.774	0.124	1.123	92.758	0.118	-0.014	92.476	-0.002
CH0005	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.033	92.521	0.004	0	92.511	0	-0.051	92.476	-0.006	0.662	92.643	0.063	0.645	92.633	0.061	-0.021	92.476	-0.002	1.19	92.767	0.096	1.122	92.75	0.092	-0.014	92.476	-0.002
OX02_30114	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.033	92.521	0.004	0	92.511	0	-0.051	92.476	-0.006	0.662	92.643	0.062	0.645	92.633	0.061	-0.021	92.476	-0.002	1.182	92.766	0.094	1.122	92.75	0.09	-0.014	92.476	-0.002
OX02_29974	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.033	92.521	0.007	0	92.511	0	-0.051	92.476	-0.01	0.662	92.642	0.119	0.645	92.632	0.116	-0.021	92.476	-0.004	1.186	92.763	0.194	1.122	92.747	0.184	-0.014	92.476	-0.003
OX02_29934	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.033	92.521	0.004	0	92.511	0	-0.051	92.476	-0.006	0.662	92.642	0.063	0.645	92.631	0.062	-0.021	92.476	-0.002	1.189	92.762	0.098	1.122	92.746	0.093	-0.014	92.476	-0.002
OX02_29639	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.053	92.476	-0.006	0.663	92.639	0.058	0.645	92.629	0.056	-0.023	92.476	-0.003	1.181	92.758	0.086	1.122	92.742	0.082	-0.014	92.476	-0.002
OX02_29594	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.007	0	92.511	0	-0.053	92.476	-0.012	0.663	92.638	0.13	0.645	92.627	0.127	-0.023	92.476	-0.005	1.181	92.753	0.212	1.122	92.737	0.202	-0.015	92.476	-0.003
OX02_29594	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.007	0	92.511	0	-0.053	92.476	-0.012	0.663	92.638	0.13	0.645	92.627	0.127	-0.023	92.476	-0.005	1.181	92.753	0.212	1.122	92.737	0.202	-0.015	92.476	-0.003
OX02_29594D	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.007	0	92.511	0	-0.053	92.476	-0.012	0.663	92.638	0.13	0.645	92.627	0.127	-0.023	92.476	-0.005	1.181	92.753	0.212	1.122	92.737	0.202	-0.015	92.476	-0.003
OX02_29549	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.054	92.476	-0.006	0.663	92.637	0.06	0.645	92.627	0.059	-0.023	92.476	-0.003	1.182	92.752	0.09	1.122	92.736	0.086	-0.015	92.476	-0.002
CH0006	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.054	92.476	-0.006	0.663	92.636	0.06	0.645	92.626	0.059	-0.023	92.476	-0.003	1.181	92.75	0.09	1.122	92.735	0.087	-0.015	92.476	-0.002
CH0007	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	0	92.511	0	-0.058	92.476	-0.006	0.663	92.631	0.06	0.645	92.621	0.058	-0.023	92.476	-0.003	1.179	92.74	0.092	1.122	92.725	0.088	-0.016	92.476	-0.002
CH0008	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	0	92.511	0	-0.058	92.476	-0.006	0.663	92.627	0.06	0.644	92.617	0.058	-0.023	92.476	-0.003	1.177	92.729	0.094	1.122	92.715	0.09	-0.016	92.476	-0.002
CH0009	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.057	92.476	-0.006	0.664	92.622	0.061	0.644	92.612	0.059	-0.023	92.476	-0.002	1.177	92.719	0.097	1.122	92.705	0.093	-0.017	92.476	-0.002
OX02_27640	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.057	92.476	-0.006	0.664	92.62	0.061	0.644	92.61	0.06	-0.023	92.476	-0.003	1.176	92.713	0.099	1.122	92.699	0.095	-0.017	92.476	-0.002
OX02_27627	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.057	92.476	-0.007	0.664	92.62	0.073	0.644	92.61	0.071	-0.023	92.476	-0.003	1.176	92.713	0.12	1.122	92.699	0.115	-0.017	92.476	-0.002
OX02_27619	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.057	92.476	-0.006	0.664	92.62	0.061	0.644	92.61	0.059	-0.024	92.476	-0.003	1.175	92.713	0.099	1.122	92.699	0.095	-0.017	92.476	-0.002
CH0010	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	0	92.511	0	-0.057	92.476	-0.006	0.664	92.619	0.061	0.644	92.609	0.06	-0.023	92.476	-0.003	1.175	92.712	0.099	1.122	92.698	0.095	-0.017	92.476	-0.002
CH0011	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	0	92.511	0	-0.058	92.476	-0.006	0.664	92.615	0.062	0.644	92.605	0.061	-0.023	92.476	-0.003	1.173	92.701	0.101	1.121	92.688	0.097	-0.018	92.476	-0.002
CH0012	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	0	92.511	0	-0.059	92.476	-0.006	0.664	92.61	0.064	0.644	92.601	0.062	-0.026	92.476	-0.003	1.174	92.691	0.103	1.121	92.677	0.099	-0.018	92.476	-0.002
CH0013	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	0	92.511	0	-0.059	92.476	-0.006	0.665	92.606	0.065	0.644	92.596	0.063	-0.025	92.476	-0.003	1.175	92.679	0.106	1.121	92.666	0.102	-0.018	92.476	-0.002
CH0014	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.035	92.521	0.004	-0.001	92.511	0	-0.06	92.476	-0.006	0.665	92.601	0.066	0.644	92.591	0.064	-0.025	92.476	-0.003	1.175	92.667	0.108	1.121	92.655	0.104	-0.019	92.476	-0.002
CH0015	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	-0.001	92.511	0	-0.059	92.476	-0.007	0.665	92.596	0.067	0.644	92.586	0.065	-0.028	92.476	-0.003	1.173	92.653	0.111	1.121	92.642	0.107	-0.019	92.476	-0.002
OX02_24605	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.004	-0.001	92.511	0	-0.06	92.476	-0.007	0.665	92.592	0.068	0.644	92.582	0.066	-0.026	92.476	-0.003	1.171	92.643	0.114	1.121	92.632	0.109	-0.02	92.476	-0.002
OX02_24549	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.008	-0.001	92.511	0	-0.06	92.476	-0.014	0.665	92.59	0.153	0.644	92.58	0.148	-0.025	92.476	-0.006	1.171	92.636	0.26	1.121	92.625	0.25	-0.02	92.476	-0.005
OX02_24493	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.034	92.521	0.003	-0.001	92.511	0	-0.06	92.476	-0.006	0.665	92.59	0.061	0.644	92.58	0.059	-0.024	92.476	-0.002	1.172	92.636	0.103	1.121	92.625	0.099	-0.02	92.476	-0.002

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
sweir1us	[redacted]	[redacted]	SPILL	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.476	0	0.073	92.59	0	0.046	92.58	0	0	92.476	0	0.344	92.636	0	0.285	92.625	0	0	92.476	0
CH0030	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.032	92.476	-0.003	0.672	92.59	0.062	0.623	92.58	0.057	-0.001	92.476	0	0.904	92.636	0.079	0.861	92.625	0.076	0.003	92.476	0
OxGUN_040In1	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.033	92.476	-0.003	0.672	92.586	0.062	0.623	92.576	0.058	-0.013	92.476	-0.001	0.904	92.629	0.08	0.861	92.618	0.077	0.002	92.476	0
OxGUN_040In2	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.033	92.476	-0.003	0.672	92.582	0.063	0.623	92.572	0.058	-0.014	92.476	-0.001	0.904	92.622	0.081	0.861	92.612	0.077	0.002	92.476	0
OxGUN_040In3	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.033	92.476	-0.003	0.672	92.578	0.063	0.623	92.568	0.059	0.004	92.475	0	0.903	92.616	0.081	0.861	92.606	0.078	0.001	92.476	0
OxGUN_040In4	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.034	92.476	-0.004	0.672	92.574	0.063	0.622	92.565	0.059	-0.007	92.474	-0.001	0.903	92.609	0.082	0.861	92.599	0.079	0.001	92.476	0
OxGUN_040In5	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.034	92.476	-0.004	0.671	92.57	0.064	0.622	92.561	0.06	-0.007	92.474	-0.001	0.903	92.602	0.083	0.861	92.592	0.08	0.001	92.476	0
OxGUN_040In6	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.035	92.476	-0.004	0.671	92.567	0.065	0.622	92.557	0.06	-0.005	92.474	-0.001	0.903	92.595	0.084	0.861	92.586	0.081	0	92.476	0
OxGUN_040In7	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.036	92.476	-0.004	0.671	92.563	0.065	0.622	92.553	0.061	-0.008	92.474	-0.001	0.903	92.588	0.085	0.861	92.579	0.082	-0.001	92.476	0
OxGUN_040In8	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.036	92.476	-0.004	0.672	92.559	0.066	0.622	92.549	0.061	-0.007	92.474	-0.001	0.903	92.58	0.086	0.861	92.572	0.083	-0.001	92.476	0
OxGUN_040In9	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.037	92.476	-0.004	0.672	92.554	0.066	0.622	92.545	0.062	-0.005	92.474	-0.001	0.902	92.573	0.087	0.861	92.564	0.084	-0.001	92.476	0
CH0016	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.038	92.476	-0.004	0.672	92.55	0.067	0.622	92.541	0.062	-0.009	92.474	-0.001	0.902	92.565	0.088	0.861	92.557	0.085	-0.002	92.476	0
CH0017	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.003	-0.039	92.476	-0.004	0.672	92.546	0.068	0.622	92.536	0.063	-0.006	92.474	-0.001	0.902	92.557	0.09	0.86	92.549	0.086	-0.003	92.475	0
CH0018	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.003	-0.041	92.476	-0.004	0.672	92.542	0.069	0.622	92.532	0.064	-0.005	92.474	-0.001	0.902	92.548	0.091	0.86	92.541	0.087	-0.003	92.473	0
OxGUN_041	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.041	92.476	-0.005	0.672	92.537	0.069	0.622	92.528	0.064	-0.007	92.473	-0.001	0.902	92.54	0.092	0.86	92.532	0.089	-0.003	92.471	0
weir2nus	[redacted]	[redacted]	SPILL	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.476	0	0	92.537	0	0	92.528	0	0	92.473	0	0	92.54	0	0	92.532	0	0	92.471	0
OxGUN_042	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.041	92.476	-0.005	0.672	92.537	0.069	0.622	92.528	0.064	-0.007	92.473	-0.001	0.902	92.54	0.092	0.86	92.532	0.089	-0.003	92.471	0
OX02_17131	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.007	0.024	92.511	0.002	-0.044	92.476	-0.004	0.673	92.52	0.057	0.622	92.51	0.053	-0.011	92.473	-0.001	0.902	92.504	0.077	0.86	92.499	0.074	-0.005	92.462	0
OxGUN_042In3	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.007	0.024	92.511	0.002	-0.044	92.476	-0.004	0.673	92.519	0.058	0.622	92.509	0.053	-0.011	92.473	-0.001	0.902	92.502	0.078	0.86	92.496	0.074	-0.005	92.461	0
OxGUN_042In4	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.007	0.024	92.511	0.002	-0.044	92.476	-0.004	0.673	92.516	0.058	0.622	92.507	0.053	-0.01	92.473	-0.001	0.902	92.497	0.078	0.86	92.492	0.075	-0.006	92.46	0
OX02_15949	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.007	0.024	92.511	0.002	-0.045	92.476	-0.004	0.673	92.515	0.058	0.622	92.505	0.054	-0.011	92.473	-0.001	0.902	92.493	0.079	0.86	92.488	0.075	-0.006	92.459	-0.001
OX02_15944	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.014	0.024	92.511	0.004	-0.045	92.476	-0.008	0.673	92.514	0.117	0.622	92.504	0.108	-0.011	92.473	-0.002	0.902	92.492	0.158	0.86	92.487	0.151	-0.006	92.459	-0.001
OX02_15920	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.007	0.024	92.511	0.002	-0.045	92.476	-0.004	0.673	92.514	0.058	0.622	92.504	0.054	-0.011	92.473	-0.001	0.902	92.492	0.079	0.86	92.487	0.075	-0.006	92.459	-0.001
OX02_15454	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.007	0.024	92.511	0.002	-0.046	92.476	-0.004	0.674	92.51	0.057	0.622	92.5	0.052	-0.012	92.473	-0.001	0.902	92.484	0.077	0.86	92.479	0.073	-0.006	92.456	-0.001
OX02_15432	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.046	92.476	-0.005	0.674	92.51	0.065	0.622	92.5	0.06	-0.012	92.473	-0.001	0.902	92.483	0.089	0.86	92.479	0.085	-0.006	92.456	-0.001
OX02_15427	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.015	0.024	92.511	0.004	-0.046	92.476	-0.008	0.674	92.509	0.121	0.622	92.5	0.112	-0.013	92.473	-0.002	0.902	92.482	0.165	0.86	92.477	0.157	-0.006	92.456	-0.001
CH0029	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.009	0.024	92.511	0.003	-0.046	92.476	-0.005	0.674	92.509	0.077	0.622	92.5	0.071	-0.013	92.473	-0.001	0.902	92.482	0.105	0.86	92.477	0.1	-0.006	92.456	-0.001
OX02_15408	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.009	0.024	92.511	0.003	-0.046	92.476	-0.005	0.674	92.509	0.077	0.622	92.5	0.071	-0.013	92.473	-0.001	0.902	92.482	0.105	0.86	92.477	0.1	-0.006	92.456	-0.001
OX02_15379	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.013	0.024	92.511	0.004	-0.046	92.476	-0.008	0.674	92.508	0.112	0.622	92.499	0.103	-0.013	92.473	-0.002	0.902	92.481	0.152	0.86	92.476	0.145	-0.006	92.455	-0.001
OX02_15379	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.013	0.024	92.511	0.004	-0.046	92.476	-0.008	0.674	92.508	0.112	0.622	92.499	0.103	-0.013	92.473	-0.002	0.902	92.481	0.152	0.86	92.476	0.145	-0.006	92.455	-0.001
OX02_15379D	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.013	0.024	92.511	0.004	-0.046	92.476	-0.008	0.674	92.508	0.112	0.622	92.499	0.103	-0.013	92.473	-0.002	0.902	92.481	0.152	0.86	92.476	0.145	-0.006	92.455	-0.001
OX02_15333	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.009	0.024	92.511	0.003	-0.046	92.476	-0.005	0.674	92.508	0.076	0.622	92.498	0.069	-0.013	92.473	-0.001	0.902	92.481	0.104	0.86	92.474	0.099	-0.006	92.455	-0.001
OxGUN_045	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.006	0.024	92.511	0.002	-0.046	92.476	-0.004	0.674	92.507	0.052	0.622	92.497	0.048	-0.011	92.472	-0.001	0.903	92.481	0.071	0.86	92.473	0.068	-0.006	92.454	-0.001
weir3nus	[redacted]	[redacted]	SPILL	OX Pound 2-1	92.563	92.613	92.488	0.044	92.521	0	0.026	92.511	0	0	92.476	0	0.019	92.507	0	0.007	92.497	0	0	92.472	0	0	92.481	0	0	92.473	0	0	92.454	0
OxGUN_046	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.005	-0.002	92.511	0	-0.046	92.476	-0.004	0.672	92.507	0.052	0.615	92.497	0.047	-0.011	92.472	-0.001	0.903	92.481	0.071	0.86	92.473	0.068	-0.006	92.454	-0.001
OX02_14947	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.063	92.521	0.006	-0.002	92.511	0	-0.048	92.476	-0.004	0.673	92.506	0.062	0.615	92.497	0.056	-0.015	92.472	-0.001	0.903	92.481	0.085	0.86	92.472	0.081	-0.007	92.454	-0.001
OX02_14904	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.063	92.521	0.009	-0.002	92.511	0	-0.048	92.476	-0.007	0.673	92.506	0.1	0.615	92.496	0.091	-0.015	92.472	-0.002	0.903	92.481	0.136	0.86	92.47	0.13	-0.007	92.453	-0.001
OX02_14861	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.063	92.521	0.006	-0.002	92.511	0	-0.048	92.476	-0.004	0.673	92.505	0.062	0.615	92.496	0.057	-0.015	92.472	-0.001	0.903	92.481	0.085	0.86	92.469	0.081	-0.007	92.453	-0.001
OX02_13532	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.065	92.521	0.005	-0.002	92.511	0	-0.051	92.476	-0.004	0.68	92.491	0.055	0.615	92.481	0.05	-0.019	92.465	-0.002	0.91	92.481	0.077	0.86	92.438	0.072	-0.008	92.434	-0.001
OxGUN_046In4	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.068	92.521	0.005	-0.002	92.511	0	-0.053	92.476	-0.004	0.683	92.491	0.055	0.615	92.48	0.049	-0.023	92.464	-0.002	0.913	92.481	0.076	0.86	92.436	0.072	-0.009	92.433	-0.001
OxGUN_046In5	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.072	92.521	0.005	-0.002	92.511	0	-0.053	92.476	-0.004	0.686	92.49	0.054	0.615	92.479	0.048	-0.026	92.463	-0.002	0.916	92.481	0.074	0.86	92.434	0.07	-0.009	92.43	-0.001
OxGUN_046In6	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.07	92.521	0.005	-0.002	92.511	0	-0.054	92.476	-0.004	0.686	92.489	0.052	0.615	92.479	0.047	-0.025	92.463	-0.002	0.916	92.481	0.072	0.86	92.432	0.068	-0.01	92.429	-0.001
OxGUN_046In7	[redacted]	[redacted]	INTERPOLATE	OX Pound 2-1	92.563	92.613	92.488	0.076	92.521	0.005	-0.002	92.511	0	-0.057	92.476	-0.004	0.691	92.489	0.051	0.615	92.478	0.045	-0.032	92.463	-0.002	0.92	92.481	0.071	0.86	92.431	0.066	-0.011	92.428	-0.001
OxGUN_047	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.006	-0.002	92.511	0	-0.064	92.475	-0.005	0.696	92.488	0.05	0.615	92.478	0.044	-0.04	92.462	-0.003	0.924	92.481	0.069	0.86	92.43	0.064	-0.011	92.427	-0.001
weir4nus	[redacted]	[redacted]	SPILL	OX Pound 2-1	92.563	92.613	92.488	0	92.521	0	0	92.511	0	0	92.475	0	0	92.488	0	0	92.478	0	0	92.462	0	0	92.481	0	0	92.43	0	0	92.427	0
OxGUN_048	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.006	-0.002	92.511	0	-0.064	92.475	-0.005	0.696	92.488	0.05	0.615	92.478	0.044	-0.04	92.462	-0.003	0.924	92.481	0.069	0.86	92.43	0.064	-0.011	92.427	-0.001
24450	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.05	92.521	0.002	-0.003	92.511	0	-0.056	92.477	-0.002	0.675	92.488	0.03	0.615	92.478	0.027	0.066	92.462	0.003	0.917	92.481	0.042	0.86	92.43	0.039	-0.011	92.426	0
OX02_11155a	[redacted]	[redacted]	RIVER SECTION	OX Pound 2-1	92.563	92.613	92.488	0.049	92.521	0.011	-0.003	92.511	-0.001	-0.052	92.477	-0.012	0.675	92.487	0.156	0.615	92.477	0.142	0.08	92.462	0.018	0.915	92.481	0.217	0.86	92.428	0.204	-0.011	92.424	-0.003
Lock_3b_ds	[redacted]	[redacted]	SLUICE VERTICAL	OX Pound 2-1	92.563	92.613	92.488	0.015	94.463	0	0.001	94.429	0	0	94.425	0	0.015	94.463	0	0.001	94.442	0	0	94.44	0	0.015	94.463	0	0.001	94.442	0	0	94.44	0
Lock_3b	[redacted]	[redacted]	RESERVOIR	OX Pound 2-1	92.563	92.613	92.488	0.015	94.463	0	0.001	94.429	0	-0.006	94.425	0	0.015	94.463	0	0.001	94.442	0	0	94.44	0	0.015	94.463	0	0.001	94.442	0	-0.001	94.44	0
Lock_3b_us	[redacted]	[redacted]	SLUICE VERTICAL	OX Pound 2-1	92.563	92.613	92.488	0.015	94.465	0	0.001	94.429	0	-0.006	94.424	0	0.015	94.465	0	0.001	94.442	0	0	94.44	0	0.015	94.465	0	0.001	94.442	0	-0.001	94.44	0
Lock_6b_ds	[redacted]	[redacted]	SLUICE VERTICAL	OX Pound 7-8	98.13	98.23	98.08	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0
Lock_6b	[redacted]	[redacted]	RESERVOIR	OX Pound 7-8	98.13	98.23	98.08	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0	0	98.06	0
Lock_6b_us	[redacted]	[redacted]	SLUICE VERTICAL	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.481	0	0	98.136	0	0	98.131	0	0	98.091	0	0	98.134	0	0	98.127	0	0	98.088	0
OX02_10671	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.064	98.109	0.029	-0.001	97.842	0	-0.009	97.481	-0.004	0.689	98.136	0.18	0.616	98.131	0.161	0.082	98.091	0.022	0.926	98.134	0.243	0.862	98.127	0.226	-0.008	98.088	-0.002
25050	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.065	98.109	0.006	-0.001	97.842	0	-0.015	97.481	-0.001	0.69	98.137	0.035	0.616	98.132	0.031	0.073	98.091	0.004	0.928	98.136	0.047	0.862	98.13	0.044	-0.008	98.088	0
OxGUN_050In1	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.119	98.109	0.012	-0.001	97.842	0	-0.041	97.481	-0.003	0.727	98.136	0.038	0.616	98.132	0.032	-0.058	98.091	-0.003	0.953	98.134	0.05	0.862	98.128	0.045	-0.02	98.088	-0.001
OxGUN_050In2	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.096	98.109	0.01	-0.001	97.842	0	-0.065	97.481	-0.004	0.709	98.135	0.038	0.616	98.131	0.033	-0.035	98.091	-0.002	0.937	98.133	0.05	0.862	98.127	0.046	-0.034	98.088	-0.002
OxGUN_050In3	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.101	98.109	0.01	0	97.842	0	-0.073	97.481	-0.005	0.711	98.134	0.039	0.616	98.13	0.034	-0.037	98.091	-0.002	0.94	98.131	0.052	0.862	98.125	0.048	-0.041	98.088	-0.002
OxGUN_050In4	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.09	98.109	0.01	0	97.842	0	-0.069	97.481	-0.005	0.702	98.133	0.04	0.616	98.129	0.035	-0.027	98.091	-0.002	0.932	98.129	0.053	0.862	98.123	0.049	-0.037	98.088	-0.002
OxGUN_050In5	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.092	98.109	0.01	0.001	97.842	0	-0.066	97.481	-0.005	0.701	98.132	0.041	0.616	98.128	0.036	-0.024	98.091	-0.001	0.931	98.127	0.054	0.861	98.121	0.05	-0.033	98.088	-0.002
OxGUN_050In6	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.089	98.109	0.01	0.001	97.842	0	-0.062	97.481	-0.005	0.702	98.131	0.042	0.616	98.127	0.037	-0.024	98.091	-0.001	0.931	98.125	0.056	0.861	98.119	0.052	-0.029	98.089	-0.002
OxGUN_050In7	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.089	98.109	0.01	0.001	97.842	0	-0.063	97.481	-0.005	0.695	98.13	0.043	0.616	98.126	0.038	-0.024	98.091	-0.002	0.925	98.123	0.058	0.861	98.117	0.054	-0.024	98.089	-0.002
OxGUN_050In8	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.088	98.109	0.011	0.002	97.842	0	-0.067	97.481	-0.006	0.696	98.129	0.044	0.616	98.125	0.039	-0.025	98.091	-0.002	0.926	98.12	0.06	0.861	98.115	0.055	-0.021	98.089	-0.001
OxGUN_050In9	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.092	98.109	0.011	0.002	97.842	0	-0.069	97.481	-0.006	0.693	98.128	0.046	0.616	98.124	0.041	-0.023	98.091	-0.002	0.923	98.117	0.062	0.861	98.112	0.057	-0.032	98.089	-0.002
CH0019	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.101	98.109	0.012	0.002	97.842	0	-0.076	97.481	-0.007	0.693	98.126	0.047	0.616	98.122	0.042	-0.016	98.091	-0.001	0.924	98.114	0.064	0.861	98.109	0.06	-0.042	98.089	-0.003
CH0020	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.108	98.109	0.012	0.003	97.842	0	-0.083	97.481	-0.008	0.692	98.125	0.049	0.616	98.121	0.044	-0.03	98.091	-0.002	0.923	98.111	0.066	0.861	98.106	0.062	-0.05	98.089	-0.004
CH0021	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.114	98.109	0.012	0.003	97.842	0	-0.094	97.481	-0.009	0.691	98.123	0.051	0.616	98.119	0.045	-0.012	98.091	-0.001	0.923	98.109	0.069	0.861	98.102	0.065	-0.057	98.089	-0.004
CH0022	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.12	98.109	0.013	0.003	97.842	0	-0.1	97.481	-0.01	0.69	98.121	0.053	0.616	98.117	0.047	-0.02	98.091	-0.002	0.922	98.109	0.072	0.861	98.098	0.067	-0.058	98.085	-0.005
CH0023	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.123	98.109	0.014	0.004	97.842	0.001	-0.1	97.481	-0.01	0.69	98.119	0.055	0.616	98.115	0.049	-0.007	98.091	-0.001	0.921	98.109	0.076	0.861	98.094	0.071	-0.056	98.08	-0.005
CH0024	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.127	98.109	0.014	0.004	97.842	0.001	-0.101	97.481	-0.011	0.689	98.116	0.058	0.616	98.112	0.052	-0.019	98.091	-0.002	0.921	98.109	0.079	0.861	98.089	0.074	-0.056	98.075	-0.005
OX02_02594	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.128	98.109	0.015	0.004	97.842	0.001	-0.101	97.481	-0.011	0.687	98.116	0.059	0.616	98.111	0.053	-0.01	98.09	-0.001	0.918	98.109	0.08	0.861	98.087	0.075	-0.056	98.073	-0.005
OX02_02549	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.128	98.109	0.024	0.004	97.842	0.001	-0.102	97.481	-0.019	0.687	98.115	0.109	0.616	98.111	0.098	-0.01	98.09	-0.002	0.918	98.109	0.149	0.861	98.085	0.14	-0.056	98.071	-0.009
GU01_02576	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.128	98.109	0.017	0.004	97.842	0.001	-0.102	97.481	-0.012	0.687	98.115	0.06	0.616	98.111	0.054	-0.011	98.09	-0.001	0.918	98.109	0.083	0.861	98.085	0.078	-0.056	98.071	-0.005
CH0025	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.129	98.109	0.015	0.004	97.842	0.001	-0.102	97.481	-0.011	0.685	98.113	0.059	0.616	98.109	0.053	-0.016	98.089	-0.001	0.918	98.109	0.081	0.861	98.082	0.076	-0.053	98.068	-0.005
CH0026	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.132	98.109	0.014	0.005	97.842	0.001	-0.099	97.482	-0.011	0.687	98.112	0.057	0.616	98.108	0.051	-0.016	98.087	-0.001	0.925	98.109	0.078	0.861	98.079	0.073	-0.044	98.064	-0.004
CH0027	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.132	98.109	0.013	0.005	97.842	0.001	-0.092	97.482	-0.009	0.692	98.111	0.055	0.616	98.107	0.049	-0.018	98.086	-0.001	0.932	98.109	0.076	0.862	98.077	0.07	-0.042	98.063	-0.003
CH0028	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.128	98.109	0.012	0.005	97.842	0.001	-0.089	97.482	-0.008	0.696	98.11	0.053	0.616	98.106	0.047	-0.017	98.085	-0.001	0.936	98.109	0.073	0.862	98.076	0.067	-0.04	98.061	-0.003
OxGUN_051	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.132	98.109	0.012	0.005	97.842	0.001	-0.087	97.482	-0.008	0.701	98.11	0.051	0.616	98.106	0.045	-0.014	98.085	-0.001	0.941	98.109	0.07	0.862	98.075	0.064	-0.034	98.06	-0.003
weir8naus	[redacted]	[redacted]	SPILL	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.482	0	0	98.11	0	0	98.106	0	0	98.085	0	0	98.109	0	0	98.075	0	0	98.06	0
OxGUN_052	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.132	98.109	0.012	0.005	97.842	0.001	-0.087	97.482	-0.008	0.701	98.11	0.051	0.616	98.106	0.045	-0.014	98.085	-0.001	0.941	98.109	0.07	0.862	98.075	0.064	-0.034	98.06	-0.003
OxGUN_052In1	[redacted]	[redacted]	INTERPOLATE	OX Pound 7-8	98.13	98.23	98.08	0.135	98.109	0.013	0.006	97.842	0.001	-0.085	97.482	-0.008	0.702	98.11	0.054	0.616	98.105	0.048	-0.011	98.085	-0.001	0.943	98.109	0.075	0.862	98.075	0.068	-0.035	98.06	-0.003
OX02_00071	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.136	98.109	0.014	0.006	97.842	0.001	-0.083	97.482	-0.008	0.704	98.109	0.059	0.616	98.105	0.051	0.003	98.084	0	0.944	98.109	0.08	0.862	98.073	0.073	-0.034	98.058	-0.003
OxGUN_053c	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001	-0.003	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001	-0.003	100.192	0	-0.005	100.192	0	-0.012	100.192	-0.001
GU01_116808	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	100.192	0	-0.005	100.192	-0.001	-0.012	100.192	-0.002	-0.003	100.192	0	-0.005	100.192	-0.001	-0.012	100.192	-0.002	-0.003	100.192	0	-0.005	100.192	-0.001	-0.012	100.192	-0.002
GU01_116808U	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.001
OxGUN_053d	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001
OxGUN_053e	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001	-0.003	102.19	0	-0.005	102.19	0	-0.012	102.19	-0.001
GU01_116551	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.002	-0.003	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.002	-0.003	102.19	0	-0.005	102.19	-0.001	-0.012	102.19	-0.002
GU01_116551U	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.001
OxGUN_053f	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001
OxGUN_053g	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001	-0.003	103.843	0	-0.005	103.843	0	-0.012	103.843	-0.001
GU01_116354	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.002	-0.003	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.002	-0.003	103.843	0	-0.005	103.843	-0.001	-0.012	103.843	-0.002
Lock_4_us	[redacted]	[redacted]	SLUICE VERTICAL	INT Pound 1-6 (OxGU)				0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0	0	105.76	0
GU01_116354U	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.001	-0.003	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.001	-0.003	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.001
OxGUN_053h	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0.001	105.76	0	-0.005	105.76	0	-0.013	105.76	-0.001	-0.003	105.76	0	-0.005	105.76	0	-0.012	105.76	-0.001	-0.003	105.76	0	-0.005	105.76	0	-0.013	105.76	-0.001
GU01_116237	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.002	-0.003	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.002	-0.003	105.76	0	-0.005	105.76	-0.001	-0.012	105.76	-0.002
Lock_5_ds	[redacted]	[redacted]	SLUICE VERTICAL	INT Pound 1-6 (OxGU)				0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0
Lock_5	[redacted]	[redacted]	RESERVOIR	INT Pound 1-6 (OxGU)				0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0	0	107.2	0
Lock_5_us	[redacted]	[redacted]	SLUICE VERTICAL	INT Pound 1-6 (OxGU)				0	107.2	0	0	107.2	0	0	107.2	0	0	107.201	0	0	107.2	0	0	107.198	0	0	107.2	0	0	107.2	0	0	107.2	0
GU01_116237U	[redacted]	[redacted]	RIVER SECTION	INT Pound 1-6 (OxGU)				0	107.2	0	-0.005	107.2	-0.001	-0.012	107.2	-0.002	-0.003	107.201	0	-0.005	107.2	-0.001	-0.012	107.198	-0.002	-0.003	107.2	0	-0.005	107.2	-0.001	-0.012	107.2	-0.002
GUCSB_001	[redacted]	[redacted]	RIVER SECTION	GU Pound 6-7	108.945	109.045	108.895	0.034	109.072	0.002	-0.007	109.006	0	-0.077	108.976	-0.004	0.663	109.096	0.035	0.592	109.02	0.031	0.085	108.97	0.005	0.921	109.077	0.049	0.839	108.999	0.044	-0.002	108.957	0
GU01_112622	[redacted]	[redacted]	RIVER SECTION	GU Pound 6-7	108.945	109.045	108.895	0.071	109.072	0.004	-0.007	109.006	0	-0.079	108.976	-0.004	0.665	109.078	0.041	0.592	109.001	0.036	-0.024	108.96	-0.001	0.926	109.04	0.058	0.839	108.958	0.052	-0.037	108.922	-0.002
GU_112602_SU	[redacted]	[redacted]	SPILL	GU Pound 6-7	108.945	109.045	108.895	0.47	109.072	0	0.116	109.006	0	0.006	108.976	0	0.511	109.078	0	0.105	109.001	0	0	108.96	0	0.268	109.04	0	0.018	108.958	0	0	108.922	0
GU01_112582	[redacted]	[redacted]	RIVER SECTION	GU Pound 6-7	108.945	109.045	108.895	0.342	109.072	0.019	0.117	109.006	0.007	-0.012	108.976	-0.001	1.001	109.078	0.056	0.731	109.001	0.043	0.064	108.96	0.004	1.496	109.04	0.088	1.064	108.958	0.066	0.036	108.922	0.002
GUCSB_003a	[redacted]	[redacted]	RIVER SECTION	GU Pound 6-7	108.945	109.045	108.895	0.34	109.071	0.018	0.117	109.006	0.006	0.036	108.976	0.002	0.999	109.071	0.052	0.731	108.997	0.039	0.135	108.957	0.007	1.493	109.024	0.079	1.064	108.947	0.059	0.047	108.916	0.003
GU01_110486	[redacted]	[redacted]	RIVER SECTION	GU Pound 7-8				0.488	106.641	0.017	0.202	106.578	0.007	0.098	106.55	0.004	0.487	106.641	0.017	0.173	106.57	0.006	0.056	106.534	0.002	0.264	106.595	0.01	0.057	106.532	0.002	0.026	106.518	0.001
GUCSB_003c	[redacted]	[redacted]	RIVER SECTION	GU Pound 7-8				0.488	106.641	0.024	0.202	106.578	0.01	0.098	106.55	0.005	0.487	106.641	0.024	0.173	106.57	0.009	0.056	106.534	0.003	0.264	106.595	0.014	0.057	106.532	0.003	0.026	106.518	0.001
GUCSB_003d	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	103.882	0.024	0.186	103.819	0.011	0.096	103.79	0.006	0.428	103.882	0.024	0.161	103.81	0.009	0.056	103.774	0.003	0.24	103.836	0.014	0.056	103.772	0.003	0.026	103.758	0.002
GU01_109533U	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	103.881	0.053	0.186	103.818	0.024	0.096	103.79	0.013	0.428	103.881	0.053	0.161	103.81	0.021	0.056	103.774	0.007	0.24	103.835	0.031	0.056	103.772	0.007	0.026	103.758	0.003
GU01_109533	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	101.452	0.05	0.186	101.389	0.022	0.096	101.36	0.012	0.428	101.452	0.05	0.161	101.38	0.019	0.056	101.344	0.007	0.24	101.406	0.029	0.056	101.342	0.007	0.026	101.328	0.003
78000	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	101.452	0.028	0.186	101.389	0.013	0.096	101.36	0.007	0.428	101.452	0.028	0.161	101.38	0.011	0.056	101.344	0.004	0.24	101.406	0.016	0.056	101.342	0.004	0.026	101.328	0.002
GU01_109158U	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	101.451	0.051	0.186	101.388	0.023	0.096	101.36	0.012	0.428	101.451	0.051	0.161	101.38	0.02	0.056	101.344	0.007	0.24	101.405	0.03	0.056	101.342	0.007	0.026	101.328	0.003
GU01_109158	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	98.581	0.058	0.186	98.518	0.026	0.096	98.49	0.014	0.428	98.581	0.058	0.161	98.509	0.023	0.056	98.474	0.008	0.24	98.535	0.034	0.056	98.472	0.008	0.026	98.458	0.004
GU01_108898U	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	98.58	0.047	0.186	98.518	0.021	0.096	98.49	0.011	0.428	98.58	0.047	0.161	98.509	0.019	0.056	98.474	0.007	0.24	98.534	0.027	0.056	98.472	0.007	0.026	98.458	0.003
GU01_108898	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	95.953	0.051	0.186	95.889	0.023	0.096	95.861	0.012	0.428	95.953	0.051	0.161	95.88	0.02	0.056	95.844	0.007	0.24	95.906	0.03	0.056	95.843	0.007	0.026	95.828	0.003
GU01_108666U	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	95.952	0.045	0.186	95.889	0.021	0.096	95.861	0.011	0.428	95.952	0.045	0.161	95.88	0.018	0.056	95.844	0.007	0.24	95.906	0.027	0.056	95.843	0.007	0.026	95.828	0.003

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
GU01_108666	[redacted]	[redacted]	RIVER SECTION	INT Pound 8-13 (OxGU)				0.429	92.982	0.054	0.186	92.919	0.024	0.096	92.891	0.013	0.428	92.982	0.054	0.161	92.91	0.021	0.056	92.874	0.007	0.24	92.936	0.031	0.056	92.873	0.007	0.026	92.858	0.003
GUCSB_008	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.342	89.956	0.029	0.118	89.924	0.01	0.039	89.906	0.003	1.002	90.012	0.08	0.732	89.978	0.06	0.141	89.914	0.012	1.496	90.064	0.115	1.066	90.014	0.085	0.049	89.912	0.004
GU01_108041	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.342	89.956	0.026	0.118	89.924	0.009	0	89.906	0	1.002	90.009	0.072	0.732	89.976	0.054	-0.029	89.91	-0.002	1.515	90.058	0.105	1.066	90.011	0.076	0.047	89.912	0.004
GU_108021_iU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.005	89.956	0	0	89.924	0	0	89.906	0	0.027	90.009	0	0.013	89.976	0	0	89.91	0	0.057	90.058	0	0.029	90.011	0	0	89.912	0
GU_108021_hU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.002	89.956	0	0	89.924	0	0	89.906	0	0.022	90.009	0	0.009	89.976	0	0	89.91	0	0.05	90.058	0	0.024	90.011	0	0	89.912	0
GU_108021_gU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.002	89.956	0	0	89.924	0	0	89.906	0	0.022	90.009	0	0.009	89.976	0	0	89.91	0	0.05	90.058	0	0.024	90.011	0	0	89.912	0
GU_108021_fU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.002	89.956	0	0	89.924	0	0	89.906	0	0.022	90.009	0	0.009	89.976	0	0	89.91	0	0.049	90.058	0	0.024	90.011	0	0	89.912	0
GU_108021_eU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.005	89.956	0	0	89.924	0	0	89.906	0	0.027	90.009	0	0.013	89.976	0	0	89.91	0	0.057	90.058	0	0.029	90.011	0	0	89.912	0
GU_108021_dU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.005	89.956	0	0	89.924	0	0	89.906	0	0.027	90.009	0	0.013	89.976	0	0	89.91	0	0.057	90.058	0	0.029	90.011	0	0	89.912	0
GU_108021_cU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.005	89.956	0	0	89.924	0	0	89.906	0	0.027	90.009	0	0.013	89.976	0	0	89.91	0	0.057	90.058	0	0.029	90.011	0	0	89.912	0
GU_108021_bU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.002	89.956	0	0	89.924	0	0	89.906	0	0.022	90.009	0	0.009	89.976	0	0	89.91	0	0.05	90.058	0	0.024	90.011	0	0	89.912	0
GU_108021_aU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.002	89.956	0	0	89.924	0	0	89.906	0	0.022	90.009	0	0.009	89.976	0	0	89.91	0	0.05	90.058	0	0.024	90.011	0	0	89.912	0
GU_108021_OU	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 13-14	89.79	89.89	89.79	0.033	88.702	0	0.003	88.7	0	0	88.7	0	0.222	88.715	0	0.097	88.707	0	0	88.7	0	0.476	88.744	0	0.239	88.718	0	0	88.7	0
GU01_108001	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.31	89.956	0.024	0.116	89.924	0.009	0	89.906	0	0.78	90.009	0.058	0.635	89.976	0.049	-0.029	89.91	-0.002	1.077	90.058	0.078	0.827	90.011	0.062	0.047	89.912	0.004
GUCSB_010In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.309	89.954	0.023	0.116	89.924	0.009	-0.008	89.907	-0.001	0.78	89.998	0.056	0.635	89.968	0.047	-0.007	89.91	-0.001	1.05	90.041	0.074	0.826	89.998	0.059	0.046	89.912	0.004
GUCSB_010In2	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.309	89.953	0.023	0.116	89.924	0.009	-0.018	89.907	-0.001	0.78	89.995	0.056	0.635	89.966	0.046	-0.011	89.91	-0.001	1.05	90.037	0.073	0.826	89.995	0.059	0.046	89.912	0.004
GUCSB_010In3	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.309	89.953	0.022	0.116	89.923	0.009	-0.027	89.907	-0.002	0.78	89.992	0.055	0.635	89.964	0.046	-0.005	89.911	0	1.033	90.032	0.07	0.826	89.992	0.058	0.046	89.912	0.003
GU01_106221	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.309	89.953	0.022	0.116	89.923	0.008	-0.032	89.907	-0.002	0.779	89.99	0.054	0.635	89.962	0.045	0.002	89.911	0	1.029	90.028	0.068	0.826	89.989	0.057	0.045	89.912	0.003
GU01_106185	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.309	89.952	0.057	0.116	89.923	0.022	-0.032	89.907	-0.006	0.779	89.988	0.14	0.635	89.961	0.117	0.001	89.911	0	1.021	90.025	0.179	0.826	89.986	0.148	0.045	89.912	0.009
GU01_106162	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.309	89.952	0.022	0.116	89.923	0.008	-0.032	89.907	-0.002	0.779	89.988	0.053	0.635	89.961	0.044	0.001	89.911	0	1.021	90.026	0.067	0.826	89.987	0.056	0.045	89.912	0.003
GUCSB_010In4	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.309	89.952	0.022	0.116	89.923	0.008	-0.032	89.907	-0.002	0.779	89.984	0.053	0.635	89.958	0.044	0.009	89.911	0.001	1.019	90.019	0.067	0.826	89.982	0.056	0.044	89.912	0.003
GUCSB_010In5	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.308	89.951	0.021	0.116	89.923	0.008	-0.031	89.908	-0.002	0.779	89.981	0.053	0.635	89.956	0.044	0.009	89.911	0.001	1.019	90.016	0.067	0.826	89.979	0.056	0.044	89.912	0.003
GU01_105383	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.951	0.021	0.116	89.923	0.008	-0.043	89.908	-0.003	0.779	89.979	0.053	0.635	89.954	0.044	0.009	89.911	0.001	1.019	90.012	0.067	0.826	89.976	0.056	0.043	89.912	0.003
GU01_105324	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.951	0.043	0.116	89.923	0.016	-0.044	89.908	-0.006	0.779	89.978	0.106	0.635	89.953	0.088	0.01	89.911	0.001	1.019	90.01	0.136	0.826	89.975	0.112	0.043	89.912	0.006
GU01_105324	[redacted]	[redacted]	BRIDGE ARCH	GU Pound 13-14	89.79	89.89	89.79	0.308	89.951	0.043	0.116	89.923	0.016	-0.044	89.908	-0.006	0.779	89.978	0.106	0.635	89.953	0.088	0.01	89.911	0.001	1.019	90.01	0.136	0.826	89.975	0.112	0.043	89.912	0.006
GU01_105324D	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.951	0.043	0.116	89.923	0.016	-0.044	89.908	-0.006	0.779	89.978	0.106	0.635	89.953	0.088	0.01	89.911	0.001	1.019	90.01	0.136	0.826	89.975	0.112	0.043	89.912	0.006
GU01_105283	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.95	0.021	0.116	89.923	0.008	-0.045	89.908	-0.003	0.779	89.977	0.052	0.635	89.953	0.044	0.011	89.911	0.001	1.019	90.009	0.066	0.826	89.975	0.055	0.043	89.912	0.003
GUCSB_010In6	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.308	89.949	0.025	0.116	89.923	0.01	-0.044	89.908	-0.004	0.779	89.966	0.062	0.635	89.945	0.051	0.014	89.911	0.001	1.019	89.991	0.079	0.826	89.961	0.066	0.042	89.912	0.004
GUCSB_010In7	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.308	89.948	0.026	0.116	89.922	0.01	-0.036	89.908	-0.003	0.779	89.963	0.065	0.635	89.943	0.054	0.007	89.911	0.001	1.019	89.986	0.083	0.826	89.958	0.069	0.043	89.912	0.004
GUCSB_010In8	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.308	89.947	0.027	0.116	89.922	0.01	-0.037	89.908	-0.003	0.779	89.959	0.068	0.635	89.94	0.057	0.021	89.911	0.002	1.019	89.98	0.088	0.826	89.953	0.073	0.042	89.912	0.004
GUCSB_010In9	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.308	89.947	0.029	0.116	89.922	0.011	-0.042	89.908	-0.004	0.779	89.955	0.072	0.634	89.937	0.06	0.015	89.911	0.001	1.019	89.974	0.093	0.826	89.949	0.077	0.042	89.912	0.004
GU01_103367	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.031	0.116	89.922	0.012	-0.043	89.908	-0.004	0.779	89.951	0.077	0.634	89.935	0.063	0.013	89.91	0.001	1.019	89.967	0.1	0.826	89.944	0.082	0.042	89.912	0.004
GU01_103349	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.045	0.116	89.922	0.017	-0.043	89.908	-0.007	0.779	89.95	0.115	0.634	89.934	0.094	0.013	89.91	0.002	1.019	89.966	0.148	0.826	89.944	0.122	0.042	89.912	0.006
GU01_103349	[redacted]	[redacted]	BRIDGE ARCH	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.045	0.116	89.922	0.017	-0.043	89.908	-0.007	0.779	89.95	0.115	0.634	89.934	0.094	0.013	89.91	0.002	1.019	89.966	0.148	0.826	89.944	0.122	0.042	89.912	0.006
GU01_103349D	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.045	0.116	89.922	0.017	-0.043	89.908	-0.007	0.779	89.95	0.115	0.634	89.934	0.094	0.013	89.91	0.002	1.019	89.966	0.148	0.826	89.944	0.122	0.042	89.912	0.006
GU01_103321	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.024	0.116	89.922	0.009	-0.043	89.908	-0.003	0.779	89.95	0.061	0.634	89.934	0.05	0.013	89.91	0.001	1.019	89.966	0.078	0.826	89.944	0.065	0.042	89.912	0.003
GU01_103104	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.015	0.116	89.922	0.006	-0.042	89.908	-0.002	0.779	89.95	0.039	0.634	89.934	0.032	0.017	89.91	0.001	1.019	89.965	0.051	0.826	89.943	0.042	0.042	89.912	0.002
GU01_102659	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.018	0.116	89.922	0.007	-0.05	89.907	-0.003	0.779	89.946	0.047	0.634	89.931	0.039	0.013	89.91	0.001	1.019	89.959	0.06	0.826	89.938	0.05	0.042	89.912	0.003
GU01_101737	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.021	0.116	89.922	0.008	-0.055	89.907	-0.004	0.779	89.938	0.053	0.634	89.926	0.044	0.014	89.909	0.001	1.019	89.945	0.069	0.826	89.929	0.057	0.042	89.91	0.003
GU01_101721	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.048	0.116	89.922	0.018	-0.055	89.907	-0.009	0.779	89.936	0.122	0.634	89.924	0.101	0.013	89.908	0.002	1.019	89.942	0.16	0.826	89.927	0.131	0.042	89.91	0.007
GU01_101721	[redacted]	[redacted]	BRIDGE ARCH	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.048	0.116	89.922	0.018	-0.055	89.907	-0.009	0.779	89.936	0.122	0.634	89.924	0.101	0.013	89.908	0.002	1.019	89.942	0.16	0.826	89.927	0.131	0.042	89.91	0.007
GU01_101721D	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.048	0.116	89.922	0.018	-0.055	89.907	-0.009	0.779	89.936	0.122	0.634	89.924	0.101	0.013	89.908	0.002	1.019	89.942	0.16	0.826	89.927	0.131	0.042	89.91	0.007
GU01_101771	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.024	0.116	89.922	0.009	-0.055	89.907	-0.004	0.779	89.936	0.061	0.634	89.924	0.05	0.013	89.908	0.001	1.019	89.942	0.079	0.826	89.927	0.065	0.042	89.91	0.003
GUCSB_011	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.307	89.944	0.024	0.116	89.922	0.009	-0.055	89.907	-0.004	0.778	89.936	0.061	0.634	89.924	0.05	0.013	89.908	0.001	1.019	89.941	0.079	0.826	89.926	0.065	0.042	89.91	0.003
weir3us	[redacted]	[redacted]	SPILL	GU Pound 13-14	89.79	89.89	89.79	0.298	89.944	0	0.11	89.922	0	0.019	89.907	0	0.219	89.936	0	0.122	89.924	0	0.024	89.908	0	0.271	89.941	0	0.142	89.926	0	0.032	89.91	0
GUCSB_012	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.205	89.944	0.016	0.006	89.922	0	-0.082	89.907	-0.007	0.56	89.936	0.044	0.513	89.924	0.04	-0.026	89.908	-0.002	0.748	89.941	0.058	0.684	89.926	0.054	0	89.91	0
GUCSB_012In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.208	89.944	0.014	0.006	89.922	0	-0.08	89.907	-0.005	0.56	89.935	0.036	0.513	89.924	0.033	-0.026	89.908	-0.002	0.748	89.941	0.048	0.684	89.926	0.044	0	89.91	0
GU01_100563	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.212	89.944	0.011	0.006	89.922	0	-0.077	89.907	-0.004	0.56	89.935	0.03	0.513	89.923	0.027	-0.026	89.908	-0.001	0.748	89.939	0.039	0.684	89.925	0.037	0	89.909	0
GU01_100514	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.212	89.944	0.031	0.006	89.922	0.001	-0.077	89.907	-0.011	0.56	89.934	0.081	0.513	89.922	0.075	-0.026	89.908	-0.004	0.748	89.938	0.108	0.684	89.924	0.1	0	89.909	0
GU01_100514	[redacted]	[redacted]	BRIDGE ARCH	GU Pound 13-14	89.79	89.89	89.79	0.212	89.944	0.031	0.006	89.922	0.001	-0.077	89.907	-0.011	0.56	89.934	0.081	0.513	89.922	0.075	-0.026	89.908	-0.004	0.748	89.938	0.108	0.684	89.924	0.1	0	89.909	0
GU01_100514D	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.212	89.944	0.031	0.006	89.922	0.001	-0.077	89.907	-0.011	0.56	89.934	0.081	0.513	89.922	0.075	-0.026	89.908	-0.004	0.748	89.938	0.108	0.684	89.924	0.1	0	89.909	0
GU01_100565	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.212	89.944	0.014	0.006	89.922	0	-0.077	89.907	-0.005	0.56	89.934	0.035	0.513	89.922	0.033	-0.026	89.908	-0.002	0.748	89.938	0.047	0.684	89.923	0.044	0	89.909	0
GUCSB_012In2	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.215	89.944	0.014	0.006	89.922	0	-0.079	89.907	-0.005	0.56	89.933	0.036	0.513	89.921	0.034	-0.028	89.907	-0.002	0.748	89.936	0.048	0.684	89.922	0.045	0	89.908	0
GU01_100077	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.213	89.944	0.015	0.006	89.922	0	-0.084	89.907	-0.006	0.56	89.932	0.038	0.513	89.92	0.035	-0.023	89.907	-0.002	0.748	89.934	0.05	0.684	89.92	0.046	0	89.908	0
GU01_100061	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.213	89.944	0.033	0.006	89.922	0.001	-0.084	89.907	-0.013	0.56	89.931	0.084	0.513	89.92	0.078	-0.023	89.907	-0.004	0.748	89.933	0.112	0.684	89.919	0.104	0	89.908	0
GU01_100045	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.213	89.944	0.015	0.006	89.922	0	-0.084	89.907	-0.006	0.56	89.931	0.038	0.513	89.92	0.035	-0.023	89.907	-0.002	0.748	89.933	0.051	0.684	89.919	0.047	0	89.908	0
GUCSB_012In3	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.214	89.944	0.015	0.006	89.922	0	-0.084	89.907	-0.006	0.56	89.931	0.038	0.513	89.92	0.035	-0.024	89.907	-0.002	0.748	89.933	0.051	0.684	89.919	0.047	0	89.908	0
GUCSB_012In4	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.224	89.944	0.016	0.006	89.922	0	-0.086	89.907	-0.006	0.56	89.93	0.04	0.513	89.919	0.037	-0.029	89.907	-0.002	0.748	89.931	0.053	0.684	89.917	0.049	0	89.907	0
GUCSB_012In5	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.227	89.944	0.017	0.006	89.922	0	-0.085	89.907	-0.006	0.56	89.928	0.041	0.513	89.917	0.038	-0.026	89.906	-0.002	0.748	89.928	0.055	0.684	89.914	0.051	0	89.904	0
GUCSB_012In6	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.234	89.944	0.018	0.006	89.922	0	-0.082	89.907	-0.006	0.56	89.926	0.043	0.513	89.916	0.039	-0.035	89.906	-0.003	0.748	89.925	0.057	0.684	89.912	0.053	0	89.902	0
GUCSB_012In7	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.237	89.944	0.019	0.006	89.922	0	-0.077	89.907	-0.006	0.56	89.925	0.044	0.513	89.914	0.041	-0.02	89.905	-0.002	0.748	89.921	0.059	0.684	89.909	0.055	0.001	89.899	0
GUCSB_012In8	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.234	89.944	0.019	0.006	89.922	0	-0.078	89.906	-0.006	0.56	89.923	0.046	0.513	89.912	0.042	-0.007	89.904	-0.001	0.748	89.918	0.061	0.684	89.906	0.057	0	89.896	0
GUCSB_012In9	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.236	89.944	0.02	0.006	89.922	0	-0.074	89.906	-0.006	0.56	89.921	0.047	0.513	89.911	0.044	-0.015	89.903	-0.001	0.748	89.914	0.064	0.684	89.902	0.059	0	89.893	0
GU01_96769	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.021	0.006	89.922	0	-0.066	89.906	-0.006	0.56	89.918	0.049	0.513	89.909	0.045	-0.013	89.902	-0.001	0.748	89.913	0.066	0.684	89.899	0.061	0	89.89	0
GU01_96718	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.034	0.006	89.922	0.001	-0.066	89.905	-0.009	0.56	89.918	0.079	0.513	89.908	0.073	-0.011	89.901	-0.002	0.748	89.913	0.106	0.684	89.898	0.098	0	89.889	0
GU01_96718	[redacted]	[redacted]	BRIDGE USBPR1978	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.034	0.006	89.922	0.001	-0.066	89.905	-0.009	0.56	89.918	0.079	0.513	89.908	0.073	-0.011	89.901	-0.002	0.748	89.913	0.106	0.684	89.898	0.098	0	89.889	0
GU01_96718D	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.034	0.006	89.922	0.001	-0.066	89.905	-0.009	0.56	89.918	0.079	0.513	89.908	0.073	-0.011	89.901	-0.002	0.748	89.913	0.106	0.684	89.898	0.098	0	89.889	0
GU01_96668	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.018	0.006	89.922	0	-0.065	89.905	-0.005	0.56	89.917	0.042	0.513	89.908	0.039	-0.01	89.901	-0.001	0.748	89.913	0.057	0.684	89.897	0.052	0	89.888	0
GUCSB_013	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.252	89.944	0.018	0.006	89.922	0	-0.07	89.904	-0.005	0.559	89.912	0.039	0.513	89.903	0.036	-0.009	89.897	-0.001	0.747	89.913	0.053	0.684	89.889	0.049	-0.001	89.881	0
weir4us	[redacted]	[redacted]	SPILL	GU Pound 13-14	89.79	89.89	89.79	0	89.944	0	0	89.922	0	0	89.904	0	0	89.912	0	0	89.903	0	0	89.897	0	0	89.913	0	0	89.889	0	0	89.881	0
GUCSB_014	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.252	89.944	0.018	0.006	89.922	0	-0.07	89.904	-0.005	0.559	89.912	0.039	0.513	89.903	0.036	-0.009	89.897	-0.001	0.747	89.913	0.053	0.684	89.889	0.049	-0.001	89.881	0
GUCSB_014In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.245	89.944	0.017	0.006	89.922	0	-0.066	89.904	-0.005	0.559	89.912	0.039	0.513	89.903	0.036	-0.008	89.896	-0.001	0.747	89.913	0.052	0.684	89.889	0.048	-0.001	89.88	0
GUCSB_014In2	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.242	89.944	0.016	0.006	89.922	0	-0.064	89.904	-0.004	0.559	89.912	0.038	0.513	89.903	0.035	-0.009	89.896	-0.001	0.747	89.913	0.051	0.684	89.888	0.047	-0.001	89.88	0
GUCSB_014In3	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.244	89.944	0.016	0.006	89.922	0	-0.067	89.904	-0.004	0.559	89.912	0.037	0.513	89.902	0.034	-0.009	89.896	-0.001	0.747	89.913	0.05	0.684	89.888	0.046	-0.001	89.879	0
GUCSB_014In4	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.242	89.944	0.016	0.006	89.922	0	-0.07	89.904	-0.005	0.559	89.912	0.037	0.513	89.902	0.034	-0.01	89.896	-0.001	0.747	89.913	0.049	0.684	89.887	0.045	0	89.879	0
GUCSB_014In5	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.245	89.944	0.016	0.006	89.922	0	-0.071	89.904	-0.005	0.559	89.912	0.036	0.513	89.902	0.033	-0.01	89.895	-0.001	0.747	89.913	0.048	0.684	89.886	0.045	0	89.878	0
GUCSB_014In6	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.258	89.944	0.016	0.006	89.922	0	-0.069	89.904	-0.004	0.559	89.912	0.035	0.513	89.901	0.033	-0.01	89.895	-0.001	0.747	89.913	0.048	0.684	89.885	0.044	0	89.877	0
GU01_91085	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.264	89.944	0.016	0.006	89.922	0	-0.066	89.904	-0.004	0.559	89.912	0.035	0.513	89.901	0.032	-0.01	89.894	-0.001	0.747	89.913	0.047	0.684	89.884	0.043	0	89.877	0
GUCSB_014In7	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.262	89.944	0.02	0.006	89.922	0	-0.065	89.904	-0.005	0.559	89.912	0.042	0.513	89.9	0.038	-0.009	89.894	-0.001	0.747	89.913	0.056	0.684	89.883	0.052	0	89.875	0
GU01_90701	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.263	89.944	0.026	0.006	89.922	0.001	-0.063	89.904	-0.006	0.559	89.912	0.054	0.513	89.898	0.05	-0.006	89.892	-0.001	0.747	89.913	0.074	0.684	89.88	0.068	0	89.873	0
GU01_90697	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.263	89.944	0.031	0.006	89.922	0.001	-0.063	89.904	-0.007	0.559	89.912	0.065	0.513	89.898	0.06	-0.006	89.892	-0.001	0.747	89.913	0.089	0.684	89.88	0.082	0	89.872	0
GU01_90693	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.264	89.944	0.026	0.006	89.922	0.001	-0.063	89.904	-0.006	0.559	89.912	0.054	0.513	89.898	0.05	-0.006	89.892	-0.001	0.747	89.913	0.074	0.684	89.88	0.068	0	89.872	0
GUCSB_014In8	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.264	89.944	0.026	0.006	89.922	0.001	-0.063	89.904	-0.006	0.559	89.912	0.054	0.513	89.898	0.05	-0.006	89.892	-0.001	0.747	89.913	0.074	0.684	89.88	0.068	0	89.872	0
GUCSB_014In9	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.268	89.944	0.021	0.006	89.922	0	-0.059	89.904	-0.005	0.559	89.912	0.044	0.513	89.897	0.041	-0.004	89.891	0	0.747	89.913	0.06	0.684	89.878	0.055	0	89.87	0
GUCSB_015	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.263	89.944	0.017	0.006	89.922	0	-0.052	89.904	-0.003	0.559	89.912	0.037	0.513	89.897	0.034	-0.002	89.89	0	0.747	89.913	0.05	0.684	89.877	0.046	0	89.87	0
weir5us	[redacted]	[redacted]	SPILL	GU Pound 13-14	89.79	89.89	89.79	0	89.944	0	0	89.922	0	0	89.904	0	0	89.912	0	0	89.897	0	0	89.89	0	0	89.913	0	0	89.877	0	0	89.87	0
GUCSB_016	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.229	89.944	0.015	-0.028	89.922	-0.002	-0.086	89.904	-0.006	0.527	89.912	0.035	0.479	89.897	0.032	-0.035	89.89	-0.002	0.715	89.913	0.048	0.65	89.877	0.044	-0.033	89.87	-0.002
GUCSB_016In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 13-14	89.79	89.89	89.79	0.223	89.944	0.014	-0.028	89.922	-0.002	-0.082	89.904	-0.005	0.527	89.912	0.034	0.479	89.897	0.031	-0.034	89.89	-0.002	0.715	89.913	0.047	0.65	89.877	0.043	-0.033	89.869	-0.002
GUCSB_017	[redacted]	[redacted]	RIVER SECTION	GU Pound 13-14	89.79	89.89	89.79	0.242	89.944	0.014	-0.029	89.922	-0.002	-0.039	89.902	-0.002	0.527	89.911	0.031	0.479	89.882	0.028	0.06	89.877	0.004	0.715	89.913	0.043	0.65	89.849	0.039	-0.029	89.844	-0.002
GU01_84751U	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.238	87.849	0.022	0.006	87.75	0.001	0.002	87.75	0	0.244	87.849	0.023	0.006	87.75	0.001	0.004	87.75	0	0.244	87.849	0.023	0.006	87.75	0.001	0.004	87.75	0
GU01_84751	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	85.294	0.002	0.006	85.29	0.001	0	85.288	0	0.014	85.292	0.002	0.006	85.29	0.001	0.004	85.289	0.001	0.014	85.293	0.002	0.006	85.29	0.001	0.004	85.289	0.001
GU01_84243U	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	85.292	0.002	0.006	85.29	0.001	0	85.286	0	0.014	85.291	0.002	0.006	85.29	0.001	0.004	85.288	0	0.014	85.291	0.002	0.006	85.29	0.001	0.004	85.287	0
GU01_84243	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	82.871	0.002	0.006	82.87	0.001	0	82.87	0	0.014	82.87	0.002	0.006	82.87	0.001	0.004	82.87	0.001	0.014	82.87	0.002	0.006	82.87	0.001	0.004	82.87	0.001
GU01_84133U	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	82.87	0.001	0.006	82.87	0.001	0	82.869	0	0.014	82.87	0.001	0.006	82.87	0.001	0.004	82.87	0	0.014	82.87	0.001	0.006	82.87	0.001	0.004	82.87	0
GU01_84133	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	80.608	0.001	0.006	80.607	0.001	0	80.607	0	0.014	80.607	0.001	0.006	80.607	0.001	0.004	80.607	0	0.014	80.607	0.001	0.006	80.607	0.001	0.004	80.607	0
GU01_84021U	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.016	80.607	0.002	0.006	80.607	0.001	-0.002	80.607	0	0.015	80.607	0.002	0.006	80.607	0.001	0.004	80.607	0	0.016	80.607	0.002	0.006	80.607	0.001	0.004	80.607	0
GU01_84021	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	78.071	0.002	0.006	78.07	0.001	0	78.069	0	0.014	78.071	0.002	0.006	78.07	0.001	0.004	78.07	0	0.014	78.071	0.002	0.006	78.07	0.001	0.004	78.07	0
GU_83842U	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	78.071	0.002	0.006	78.07	0.001	0	78.069	0	0.014	78.07	0.002	0.006	78.07	0.001	0.004	78.069	0	0.014	78.07	0.002	0.006	78.07	0.001	0.004	78.069	0
GU01_83842	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	75.341	0.002	0.006	75.34	0.001	0	75.339	0	0.014	75.34	0.002	0.006	75.34	0.001	0.004	75.34	0.001	0.014	75.341	0.002	0.006	75.34	0.001	0.004	75.34	0.001
GUCSB_018k	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-20 (OxGU)				0.014	75.341	0.001	0.006	75.34	0	0	75.339	0	0.014	75.34	0.001	0.006	75.34	0	0.004	75.34	0	0.014	75.34	0.001	0.006	75.34	0	0.004	75.339	0
GUCSB_018l	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.242	72.886	0.019	-0.029	72.878	-0.002	-0.039	72.865	-0.003	0.527	72.881	0.042	0.479	72.869	0.038	0.06	72.867	0.005	0.715	72.878	0.058	0.65	72.832	0.053	-0.029	72.823	-0.002
GUCSB_019	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.362	72.885	0.023	-0.029	72.878	-0.002	-0.225	72.866	-0.014	0.527	72.88	0.034	0.479	72.869	0.031	-0.028	72.866	-0.002	0.715	72.878	0.047	0.65	72.831	0.043	-0.029	72.823	-0.002
weir8us	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0	72.885	0	0	72.878	0	0	72.866	0	0	72.88	0	0	72.869	0	0	72.866	0	0	72.878	0	0	72.831	0	0	72.823	0
GUCSB_020	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.362	72.885	0.023	-0.029	72.878	-0.002	-0.225	72.866	-0.014	0.527	72.88	0.034	0.479	72.869	0.031	-0.028	72.866	-0.002	0.715	72.878	0.047	0.65	72.831	0.043	-0.029	72.823	-0.002
GUCSB_021	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.427	72.885	0.027	-0.029	72.878	-0.002	-0.306	72.866	-0.02	0.527	72.88	0.034	0.479	72.869	0.031	-0.027	72.866	-0.002	0.715	72.878	0.047	0.65	72.831	0.043	-0.029	72.823	-0.002
weir9bus	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0	72.885	0	0	72.878	0	0	72.866	0	0	72.88	0	0	72.869	0	0	72.866	0	0	72.878	0	0	72.831	0	0	72.823	0
GUCSB_022	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.427	72.885	0.027	-0.029	72.878	-0.002	-0.306	72.866	-0.02	0.527	72.88	0.034	0.479	72.869	0.031	-0.027	72.866	-0.002	0.715	72.878	0.047	0.65	72.831	0.043	-0.029	72.823	-0.002
GUCSB_022In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.433	72.885	0.028	-0.029	72.878	-0.002	-0.313	72.866	-0.02	0.527	72.88	0.034	0.479	72.869	0.031	-0.027	72.866	-0.002	0.715	72.878	0.047	0.65	72.831	0.043	-0.03	72.823	-0.002
GUCSB_023	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.458	72.884	0.032	-0.029	72.878	-0.002	-0.334	72.866	-0.024	0.527	72.88	0.038	0.479	72.869	0.034	-0.026	72.866	-0.002	0.715	72.878	0.052	0.65	72.831	0.048	-0.03	72.822	-0.002
weir10bus	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0.092	72.884	0	0.052	72.878	0	0.005	72.866	0	0.066	72.88	0	0.013	72.869	0	0.005	72.866	0	0.056	72.878	0	0.001	72.831	0	0	72.822	0
GUCSB_024	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.406	72.884	0.029	-0.08	72.878	-0.006	-0.37	72.866	-0.026	0.503	72.88	0.036	0.466	72.869	0.033	-0.08	72.866	-0.006	0.715	72.878	0.052	0.649	72.831	0.048	-0.083	72.822	-0.006
GUCSB_024In1	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.406	72.884	0.029	-0.08	72.878	-0.006	-0.369	72.866	-0.026	0.503	72.88	0.036	0.466	72.869	0.033	-0.08	72.866	-0.006	0.715	72.878	0.052	0.649	72.831	0.048	-0.083	72.822	-0.006
GUCSB_024In2	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.406	72.884	0.029	-0.08	72.878	-0.006	-0.369	72.866	-0.026	0.503	72.88	0.036	0.466	72.869	0.033	-0.08	72.866	-0.006	0.715	72.878	0.052	0.649	72.831	0.048	-0.083	72.822	-0.006
GUCSB_024In3	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.406	72.884	0.029	-0.08	72.878	-0.006	-0.369	72.866	-0.026	0.503	72.88	0.036	0.466	72.869	0.033	-0.08	72.866	-0.006	0.715	72.878	0.052	0.649	72.831	0.047	-0.083	72.822	-0.006
GU01_80588	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.406	72.884	0.027	-0.08	72.878	-0.005	-0.38	72.866	-0.025	0.503	72.88	0.034	0.466	72.867	0.032	-0.08	72.865	-0.005	0.715	72.878	0.05	0.649	72.828	0.046	-0.083	72.819	-0.006
GU_80532_SUS	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0.174	72.884	0	0.137	72.878	0	0.08	72.866	0	0.151	72.88	0	0.084	72.867	0	0.072	72.865	0	0.14	72.878	0	0.003	72.828	0	0	72.819	0
GU_80532_iUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.02	72.875	0	0.016	72.869	0	0.009	72.861	0	0.017	72.871	0	0.01	72.861	0	0.008	72.859	0	0.016	72.87	0	0	-157841.938	0	0	-261166.734	0

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
GU_80532_hUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.029	72.875	0	0.024	72.869	0	0.017	72.861	0	0.026	72.871	0	0.017	72.861	0	0.015	72.859	0	0.025	72.87	0	0.001	-157841.938	0	0	-261166.734	0
GU_80532_gUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.03	72.875	0	0.025	72.869	0	0.017	72.861	0	0.027	72.871	0	0.017	72.861	0	0.016	72.859	0	0.025	72.87	0	0.001	-157841.938	0	0	-261166.734	0
GU_80532_fUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.021	72.875	0	0.016	72.869	0	0.009	72.861	0	0.018	72.871	0	0.01	72.861	0	0.009	72.859	0	0.017	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_eUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.02	72.875	0	0.016	72.869	0	0.009	72.861	0	0.017	72.871	0	0.01	72.861	0	0.008	72.859	0	0.016	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_dUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.02	72.875	0	0.015	72.869	0	0.009	72.861	0	0.017	72.871	0	0.01	72.861	0	0.008	72.859	0	0.016	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_cUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.012	72.875	0	0.009	72.869	0	0.003	72.861	0	0.01	72.871	0	0.004	72.861	0	0.003	72.859	0	0.009	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_bUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.012	72.875	0	0.008	72.869	0	0.003	72.861	0	0.01	72.871	0	0.004	72.861	0	0.003	72.859	0	0.009	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_aUS	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 20-21	72.84	72.99	72.69	0.012	72.875	0	0.008	72.869	0	0.003	72.861	0	0.009	72.871	0	0.004	72.861	0	0.003	72.859	0	0.008	72.87	0	0	-157841.938	0	0	-261166.734	0
GU_80532_MSU	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0.174	71.172	0	0.137	71.167	0	0.08	71.159	0	0.151	71.169	0	0.084	71.16	0	0.072	71.158	0	0.14	71.167	0	0.003	71.14	0	0	68.684	0
GU01_80487	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.495	72.884	0.04	0.003	72.878	0	-0.282	72.866	-0.023	0.625	72.88	0.051	0.601	72.867	0.049	0	72.865	0	0.934	72.878	0.078	0.866	72.828	0.073	-0.002	72.819	0
GUCSB_027	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.523	72.884	0.036	0.003	72.878	0	-0.143	72.867	-0.01	0.624	72.879	0.043	0.601	72.858	0.042	0	72.855	0	0.934	72.878	0.067	0.867	72.806	0.063	0	72.799	0
weir12bus	[redacted]	[redacted]	SPILL	GU Pound 20-21	72.84	72.99	72.69	0	72.884	0	0	72.878	0	0	72.867	0	0	72.879	0	0	72.858	0	0	72.855	0	0	72.878	0	0	72.806	0	0	72.799	0
GUCSB_028	[redacted]	[redacted]	RIVER SECTION	GU Pound 20-21	72.84	72.99	72.69	0.523	72.884	0.036	0.003	72.878	0	-0.143	72.867	-0.01	0.624	72.879	0.043	0.601	72.858	0.042	0	72.855	0	0.934	72.878	0.067	0.867	72.806	0.063	0	72.799	0
GUCSB_028ln1	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.523	72.884	0.036	0.003	72.878	0	-0.144	72.867	-0.01	0.624	72.879	0.044	0.601	72.858	0.042	0	72.855	0	0.934	72.878	0.067	0.867	72.806	0.063	0	72.799	0
GUCSB_028ln2	[redacted]	[redacted]	INTERPOLATE	GU Pound 20-21	72.84	72.99	72.69	0.524	72.884	0.036	0.003	72.878	0	-0.145	72.867	-0.01	0.624	72.879	0.044	0.601	72.858	0.042	0	72.855	0	0.934	72.878	0.068	0.867	72.806	0.063	0	72.799	0
GUC_001	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.132	53.794	0.01	0.052	53.784	0.004	0	53.774	0	0.132	53.794	0.01	0.052	53.784	0.004	0	53.774	0	0.132	53.794	0.01	0.052	53.784	0.004	0	53.774	0
GU01_147746	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.134	53.794	0.004	0.052	53.784	0.002	-0.001	53.774	0	0.134	53.794	0.004	0.052	53.784	0.002	-0.001	53.774	0	0.134	53.794	0.004	0.052	53.784	0.002	-0.001	53.774	0
GUC_002	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0	0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0	0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0
weir19us	[redacted]	[redacted]	SPILL	GU Pound 23-24 (OxG)				0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0
GUC_003	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0	0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0	0.134	53.794	0.01	0.052	53.784	0.004	-0.001	53.774	0
GU01_147349	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.135	53.794	0.005	0.052	53.784	0.002	-0.001	53.774	0	0.134	53.794	0.005	0.052	53.784	0.002	-0.001	53.774	0	0.134	53.794	0.005	0.052	53.784	0.002	-0.001	53.774	0
GUC_004	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.133	53.794	0.012	0.052	53.784	0.005	-0.001	53.774	0	0.133	53.794	0.012	0.052	53.784	0.005	-0.001	53.774	0	0.133	53.794	0.012	0.052	53.784	0.005	-0.001	53.774	0
weir19aus	[redacted]	[redacted]	SPILL	GU Pound 23-24 (OxG)				0.038	53.794	0	0.008	53.784	0	0	53.774	0	0.038	53.794	0	0.009	53.784	0	0	53.774	0	0.038	53.794	0	0.009	53.784	0	0	53.774	0
GUC_005	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.098	53.794	0.009	0.043	53.784	0.004	-0.001	53.774	0	0.098	53.794	0.009	0.043	53.784	0.004	-0.001	53.774	0	0.098	53.794	0.009	0.043	53.784	0.004	-0.001	53.774	0
GU01_146060	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.099	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0	0.098	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0	0.099	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0
GUC_006	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0	0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0	0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0
GUC_007	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0	0.097	53.794	0.008	0.043	53.784	0.003	-0.001	53.774	0	0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0
weir20us	[redacted]	[redacted]	SPILL	GU Pound 23-24 (OxG)				0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0
GUC_008	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0	0.097	53.794	0.008	0.043	53.784	0.003	-0.001	53.774	0	0.098	53.794	0.008	0.043	53.784	0.003	-0.002	53.774	0
GUC_009	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.098	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0	0.098	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0	0.098	53.794	0.007	0.043	53.784	0.003	-0.001	53.774	0
weir21us	[redacted]	[redacted]	SPILL	GU Pound 23-24 (OxG)				0.104	53.794	0	0.048	53.784	0	0.005	53.774	0	0.104	53.794	0	0.048	53.784	0	0.005	53.774	0	0.104	53.794	0	0.048	53.784	0	0.005	53.774	0
GUC_010	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.002	53.794	0	-0.005	53.784	0	-0.017	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001
GUC_011	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.002	53.794	0	-0.005	53.784	0	-0.017	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001
weir22us	[redacted]	[redacted]	SPILL	GU Pound 23-24 (OxG)				0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0	0	53.794	0	0	53.784	0	0	53.774	0
GUC_012	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				0.002	53.794	0	-0.005	53.784	0	-0.017	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.016	53.774	-0.001
GUC_013	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (OxG)				-0.002	53.794	0	-0.005	53.784	0	-0.012	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.011	53.774	-0.001	-0.002	53.794	0	-0.005	53.784	0	-0.011	53.774	-0.001
GUC_014	[redacted]	[redacted]	RIVER SECTION	INT Pound 22-23 (OxGU)	55.77	55.97	55.62	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001
GUC_015	[redacted]	[redacted]	RIVER SECTION	INT Pound 22-23 (OxGU)	55.77	55.97	55.62	0	54.714	0	-0.005	54.704	0	-0.019	54.7	-0.001	0	54.714	0	-0.005	54.704	0	-0.016	54.7	-0.001	0	54.714	0	-0.005	54.704	0	-0.017	54.7	-0.001
GUC_016	[redacted]	[redacted]	RIVER SECTION	INT Pound 22-23 (OxGU)	55.77	55.97	55.62	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001	-0.002	54.714	0	-0.005	54.704	0	-0.012	54.7	-0.001
GUC_017	[redacted]	[redacted]	RIVER SECTION	INT Pound 21-22 (OxGU)	57.92	58.12	57.77	-0.002	56.834	0	-0.005	56.825	0	-0.012	56.82	-0.001	-0.002	56.834	0	-0.005	56.825	0	-0.012	56.82	-0.001	-0.002	56.834	0	-0.005	56.825	0	-0.012	56.82	-0.001
GUC_018	[redacted]	[redacted]	RIVER SECTION	INT Pound 21-22 (OxGU)	57.92	58.12	57.77	-0.001	56.834	0	-0.005	56.825	-0.001	-0.017	56.82	-0.002	0	56.834	0	-0.005	56.825	-0.001	-0.015	56.82	-0.002	0	56.834	0	-0.005	56.825	-0.001	-0.016	56.82	-0.002
GUC_019	[redacted]	[redacted]	RIVER SECTION	INT Pound 21-22 (OxGU)	57.92	58.12	57.77	-0.003	56.834	0	-0.005	56.825	-0.001	-0.012	56.82	-0.002	-0.002	56.834	0	-0.005	56.825	-0.001	-0.012	56.82	-0.002	-0.002	56.834	0	-0.005	56.825	-0.001	-0.012	56.82	-0.002
GUC_020	[redacted]	[redacted]	RIVER SECTION	INT Pound 20-21 (OxGU)	60.08	60.28	59.93	-0.003	59.004	0	-0.005	58.995	0	-0.012	58.99	-0.001	-0.002	59.004	0	-0.005	58.994	0	-0.012	58.99	-0.001	-0.002	59.004	0	-0.005	58.995	0	-0.012	58.99	-0.001
GUC_021	[redacted]	[redacted]	RIVER SECTION	INT Pound 20-21 (OxGU)	60.08	60.28	59.93	-0.001	59.004	0	-0.005	58.995	0	-0.017	58.99	-0.001	0	59.004	0	-0.005	58.994	0	-0.015	58.99	-0.001	0	59.004	0	-0.005	58.995	0	-0.016	58.99	-0.001
47150	[redacted]	[redacted]	RIVER SECTION	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	-0.003	61.076	-0.001	-0.005	61.065	-0.001	-0.012	61.06	-0.003	-0.002	61.076	-0.001	-0.005	61.065	-0.001	-0.012	61.06	-0.003	-0.002	61.076	-0.001	-0.005	61.065	-0.001	-0.012	61.06	-0.003
47150ln1	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	-0.002	61.076	-0.001	-0.005	61.065	-0.001	-0.017	61.06	-0.005	-0.001	61.076	0	-0.005	61.065	-0.001	-0.018	61.06	-0.005	-0.001	61.076	0	-0.005	61.065	-0.001	-0.018	61.06	-0.005
GU01_138366	[redacted]	[redacted]	RIVER SECTION	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.001	61.076	0	-0.005	61.065	-0.001	-0.017	61.06	-0.005	-0.001	61.075	0	-0.005	61.065	-0.001	-0.019	61.06	-0.006	-0.001	61.075	0	-0.005	61.065	-0.001	-0.019	61.06	-0.006
GU_138346_SU	[redacted]	[redacted]	SPILL	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0	61.076	0	0	61.065	0	0	61.06	0	0	61.075	0	0	61.065	0	0	61.06	0	0	61.075	0	0	61.065	0	0	61.06	0
GU01_138326	[redacted]	[redacted]	RIVER SECTION	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.001	61.076	0	-0.005	61.065	-0.002	-0.017	61.06	-0.006	-0.001	61.075	0	-0.005	61.065	-0.002	-0.019	61.06	-0.007	-0.001	61.075	0	-0.005	61.065	-0.002	-0.019	61.06	-0.007
CH0003	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.005	61.076	0.002	-0.005	61.065	-0.002	-0.017	61.06	-0.006	-0.001	61.076	0	-0.005	61.065	-0.002	-0.018	61.06	-0.007	-0.001	61.076	0	-0.005	61.065	-0.002	-0.018	61.06	-0.007
CH0032	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.007	61.076	0.003	-0.005	61.065	-0.002	-0.02	61.06	-0.008	0.001	61.076	0	-0.005	61.065	-0.002	-0.02	61.06	-0.008	0.001	61.076	0	-0.005	61.065	-0.002	-0.02	61.06	-0.008
CH0039	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.008	61.076	0.003	-0.005	61.065	-0.002	-0.021	61.06	-0.008	0.001	61.076	0	-0.005	61.065	-0.002	-0.02	61.06	-0.008	0.001	61.076	0	-0.005	61.065	-0.002	-0.02	61.06	-0.008
CH0040	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.006	61.076	0.002	-0.005	61.065	-0.002	-0.022	61.06	-0.009	0.002	61.076	0.001	-0.005	61.065	-0.002	-0.021	61.06	-0.008	0.002	61.076	0.001	-0.005	61.065	-0.002	-0.021	61.06	-0.008
CH0041	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.006	61.076	0.003	-0.005	61.065	-0.002	-0.016	61.06	-0.007	0.002	61.076	0.001	-0.005	61.065	-0.002	-0.015	61.06	-0.006	0.002	61.076	0.001	-0.005	61.065	-0.002	-0.015	61.06	-0.006
CH0042	[redacted]	[redacted]	INTERPOLATE	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0.005	61.076	0.002	-0.005	61.065	-0.002	-0.018	61.06	-0.008	0.001	61.076	0	-0.005	61.065	-0.002	-0.017	61.06	-0.007	0.001	61.076	0	-0.005	61.065	-0.002	-0.017	61.06	-0.007
48000	[redacted]	[redacted]	RIVER SECTION	INT Pound 19-20 (OxGU)	62.16	62.36	62.01	0	61.075	0	-0.005	61.065	-0.002	-0.012	61.06	-0.006	-0.002	61.076	-0.001	-0.005	61.065	-0.002	-0.016	61.06	-0.006	-0.002	61.076	-0.001	-0.005	61.065	-0.002	-0.012	61.06	-0.006
48100	[redacted]	[redacted]	RIVER SECTION	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
48100ln1	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.001	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
48100ln2	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.002	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
48100ln3	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.003	63.908	0	-0.005	63.898	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001
48100ln4	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.003	63.908	0	-0.005	63.898	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001
48100ln5	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.004	63.908	0	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
48100ln6	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.004	63.908	0	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
48100ln7	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU01_137178	[redacted]	[redacted]	RIVER SECTION	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	-0.001	-0.014	63.786	-0.002	-0.001	63.908	0	-0.005	63.897	-0.001	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	-0.001	-0.014	63.786	-0.002
Sweetener_10	[redacted]	[redacted]	ABSTRACTION	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0	63.908	2	0	63.898	0.006	0	63.786	0	0	63.908	2	0	63.897	0.006	0	63.786	0	0	63.908	2	0	63.897	0.006	0	63.786	0
GU_137148_SU	[redacted]	[redacted]	SPILL	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0	63.908	0	0	63.898	0	0	63.786	0	0	63.908	0	0	63.897	0	0	63.786	0	0	63.908	0	0	63.897	0	0	63.786	0
GU01_137138	[redacted]	[redacted]	RIVER SECTION	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	-0.001	-0.014	63.786	-0.002	-0.001	63.908	0	-0.005	63.897	-0.001	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	-0.001	-0.014	63.786	-0.002
GU137138_In1	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In2	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In3	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In4	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In5	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0.001	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In6	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.005	63.908	0	-0.005	63.898	0	-0.014	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001	-0.001	63.908	0	-0.005	63.897	0	-0.014	63.786	-0.001
GU137138_In7	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.004	63.908	0	-0.005	63.898	0	-0.013	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.013	63.786	-0.001
GU137138_In8	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	0.002	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.002	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
GU137138_In9	[redacted]	[redacted]	INTERPOLATE	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	-0.002	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.003	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.003	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
48900	[redacted]	[redacted]	RIVER SECTION	INT Pound 18-19 (OxGU)	63.9	64.1	63.75	-0.003	63.908	0	-0.005	63.898	0	-0.012	63.786	-0.001	-0.003	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001	-0.003	63.908	0	-0.005	63.897	0	-0.012	63.786	-0.001
49100	[redacted]	[redacted]	RIVER SECTION	INT Pound 17-18 (OxGU)	66.15	66.35	66	-0.003	65.043	-0.001	-0.005	65.036	-0.002	-0.012	65.03	-0.005	-0.003	65.043	-0.001	-0.005	65.035	-0.002	-0.012	65.03	-0.005	-0.003	65.043	-0.001	-0.005	65.035	-0.002	-0.012	65.03	-0.005
49650	[redacted]	[redacted]	RIVER SECTION	INT Pound 17-18 (OxGU)	66.15	66.35	66	-0.003	65.043	-0.001	-0.005	65.036	-0.002	-0.012	65.03	-0.004	-0.003	65.043	-0.001	-0.005	65.035	-0.002	-0.012	65.03	-0.004	-0.003	65.043	-0.001	-0.005	65.035	-0.002	-0.012	65.03	-0.004
49750	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-17 (OxGU)				0	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001	-0.002	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001	-0.002	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001
49850	[redacted]	[redacted]	RIVER SECTION	INT Pound 14-17 (OxGU)				0	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001	-0.002	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001	-0.002	68.107	0	-0.003	68.107	0	-0.009	68.107	-0.001
50100y	[redacted]	[redacted]	RIVER SECTION	INT Pound 13-14 (OxGU)	74.22	74.42	74.07	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	0	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	0	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	0
GUC_036	[redacted]	[redacted]	RIVER SECTION	INT Pound 13-14 (OxGU)	74.22	74.42	74.07	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001
GUC_037	[redacted]	[redacted]	RIVER SECTION	INT Pound 13-14 (OxGU)	74.22	74.42	74.07	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001	-0.003	74.239	0	-0.005	74.228	0	-0.012	74.22	-0.001
GUC_038	[redacted]	[redacted]	RIVER SECTION	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	-0.003	75.383	0	-0.005	75.375	0	-0.012	75.37	-0.001	-0.003	75.383	0	-0.005	75.375	0	-0.012	75.37	-0.001	-0.003	75.383	0	-0.005	75.375	0	-0.012	75.37	-0.001
GU01_132586	[redacted]	[redacted]	RIVER SECTION	INT Pound 12-13 (OxGU)	76.46	76.66	76.31	0.001	75.383	0	-0.005	75.375	-0.001	-0.013	75.37	-0.003	-0.003	75.383	-0.001	-0.005	75.375	-0.001	-0.012	75.37	-0.003	-0.003	75.383	-0.001	-0.005	75.375	-0.001	-0.013	75.37	-0.003
GUC_041	[redacted]	[redacted]	RIVER SECTION	GU Pound 11-12	78.84	79.04	78.69	0	78.849	0	-0.005	78.826	0	-0.011	78.253	0	-0.003	78.849	0	-0.005	78.822	0	-0.01	78.253	0	-0.003	78.849	0	-0.005	78.822	0	-0.011	78.253	0
GUC_042	[redacted]	[redacted]	RIVER SECTION	GU Pound 11-12	78.84	79.04	78.69	0.001	78.849	0	-0.005	78.826	0	-0.012	78.253	-0.001	-0.003	78.849	0	-0.005	78.822	0	-0.011	78.253	0	-0.003	78.849	0	-0.005	78.822	0	-0.012	78.253	0
GUC_042b	[redacted]	[redacted]	RIVER SECTION	GU Pound 11-12	78.84	79.04	78.69	-0.003	78.849	0	-0.005	78.826	0	-0.011	78.253	0	-0.003	78.849	0	-0.005	78.822	0	-0.011	78.253	0	-0.003	78.849	0	-0.005	78.822	0	-0.011	78.253	0
GUC_042cln1	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0
GUC_042d	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	0	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001
GUC_042dln1	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001
GUC_042dln2	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001
GUC_042dln3	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001
GUC_042dln4	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001
GUC_042dln5	[redacted]	[redacted]	INTERPOLATE	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.013	80.466	-0.001
GUC_042o	[redacted]	[redacted]	RIVER SECTION	INT Pound 4-11 (OxGU)				-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001	-0.003	80.478	0	-0.005	80.47	0	-0.011	80.466	-0.001	-0.002	80.478	0	-0.005	80.47	0	-0.012	80.466	-0.001
Lock_4a_ds	[redacted]	[redacted]	SLUICE VERTICAL	INT Pound 4-11 (OxGU)				0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0	0	93.38	0
GUC_044	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0
GUC_044ln1	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	0
GUC_044ln2	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	0	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	0
GUC_044ln3	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	0	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	-0.001
GUC_044ln4	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001
GUC_044ln5	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln6	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln7	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln8	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln9	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln10	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln11	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln12	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln13	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln14	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln15	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_044ln16	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_045	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
GUC_045in1	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in2	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in3	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in4	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in5	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in6	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in7	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in8	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in9	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.016	93.097	-0.001
GUC_045in10	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_045in11	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_045in12	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_045in13	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GU_128386	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GU_128366_SU	[redacted]	[redacted]	SPILL	GU Pound 3-4	93.09	93.29	92.94	0	93.111	0	0	93.102	0	0	93.097	0	0	93.111	0	0	93.102	0	0	93.097	0	0	93.111	0	0	93.102	0	0	93.097	0
GU_128346	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_047in1	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_047in2	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_047in3	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_047in4	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.015	93.097	-0.001
GUC_047in5	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001
GUC_047in6	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.014	93.097	-0.001
GUC_047in7	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	-0.001	-0.002	93.111	0	-0.005	93.102	0	-0.013	93.097	-0.001
GUC_047in8	[redacted]	[redacted]	INTERPOLATE	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	-0.001
GU-060-P0000	[redacted]	[redacted]	RIVER SECTION	GU Pound 3-4	93.09	93.29	92.94	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.011	93.097	-0.001	-0.003	93.111	0	-0.005	93.102	0	-0.012	93.097	-0.001
Lock_3a_ds	[redacted]	[redacted]	SLUICE VERTICAL	GU Pound 3-4	93.09	93.29	92.94	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0	0	93.86	0
Lock_3a_us	[redacted]	[redacted]	SLUICE VERTICAL	INT Pound 1-3 (OxGU)				0	98.109	0	0	97.842	0	0	97.479	0	0	98.109	0	0	98.104	0	0	98.082	0	0	98.107	0	0	98.072	0	0	98.055	0
GU01_126482	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.044	98.109	0.006	-0.011	97.842	-0.001	-0.243	97.479	-0.022	0.058	98.109	0.004	-0.011	98.104	-0.001	-0.249	98.081	-0.018	0.058	98.109	0.004	-0.011	98.072	-0.001	-0.248	98.055	-0.018
GU_3250wu	[redacted]	[redacted]	SPILL	OX Pound 7-8	98.13	98.23	98.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GU_3250	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.841	0	0	97.464	0	0	98.109	0	0	98.104	0	0	98.081	0	0	98.109	0	0	98.072	0	0	98.055	0
GU_3243	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.023	98.109	0.006	0	97.841	0	-0.03	97.464	-0.009	0.018	98.109	0.002	0	98.104	0	-0.022	98.081	-0.002	0.019	98.109	0.002	0	98.072	0	-0.023	98.055	-0.003
OX_L14_8_e1	[redacted]	[redacted]	ABSTRACTION	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	-0.02	97.841	0	-0.095	97.464	0	0	98.109	0	-0.02	98.104	0	-0.095	98.081	0	0	98.109	0	-0.02	98.072	0	-0.095	98.055	0
GU_3223_aU	[redacted]	[redacted]	ORIFICE OPEN	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.841	0	0	97.464	0	0	98.109	0	0	98.104	0	0	98.081	0	0	98.109	0	0	98.072	0	0	98.055	0
GU_3203	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.01	98.109	0.003	-0.017	97.841	-0.003	-0.087	97.464	-0.026	0.009	98.109	0.001	-0.016	98.104	-0.002	-0.087	98.081	-0.009	0.009	98.109	0.001	-0.016	98.072	-0.002	-0.087	98.055	-0.01
OX02_02350	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.089	98.109	0.011	-0.016	97.842	-0.003	-0.098	97.468	-0.029	0.1	98.109	0.009	-0.016	98.104	-0.002	-0.101	98.081	-0.01	0.099	98.109	0.01	-0.016	98.072	-0.002	-0.1	98.055	-0.01
OX02_01180	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.092	98.109	0.014	-0.015	97.842	-0.003	-0.089	97.475	-0.03	0.101	98.109	0.012	-0.016	98.104	-0.002	-0.101	98.081	-0.012	0.1	98.109	0.012	-0.016	98.072	-0.002	-0.101	98.055	-0.012
OX02_00020	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.104	98.109	0.012	-0.015	97.842	-0.002	-0.087	97.479	-0.018	0.109	98.109	0.01	-0.016	98.104	-0.001	-0.105	98.081	-0.01	0.108	98.109	0.01	-0.016	98.072	-0.002	-0.107	98.055	-0.01
GU01_126330	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.041	98.109	0.003	-0.026	97.842	-0.002	-0.2	97.479	-0.015	0.025	98.109	0.001	-0.028	98.104	-0.002	-0.216	98.081	-0.013	0.021	98.109	0.001	-0.028	98.072	-0.002	-0.215	98.055	-0.013
GU01_125503	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.047	98.109	0.004	-0.025	97.842	-0.003	-0.195	97.479	-0.019	0.029	98.109	0.002	-0.028	98.104	-0.002	-0.215	98.082	-0.017	0.027	98.109	0.002	-0.027	98.072	-0.002	-0.213	98.055	-0.017
GU01_125476	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.047	98.109	0.006	-0.025	97.842	-0.004	-0.195	97.479	-0.025	0.029	98.109	0.003	-0.028	98.104	-0.003	-0.215	98.082	-0.023	0.027	98.109	0.003	-0.027	98.072	-0.003	-0.213	98.055	-0.023
GU01_125476	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 7-8	98.13	98.23	98.08	0.047	98.109	0.006	-0.025	97.842	-0.004	-0.195	97.479	-0.025	0.029	98.109	0.003	-0.028	98.104	-0.003	-0.215	98.082	-0.023	0.027	98.109	0.003	-0.027	98.072	-0.003	-0.213	98.055	-0.023
GU01_125476D	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.047	98.109	0.006	-0.025	97.842	-0.004	-0.195	97.479	-0.025	0.029	98.109	0.003	-0.028	98.104	-0.003	-0.215	98.082	-0.023	0.027	98.109	0.003	-0.027	98.072	-0.003	-0.213	98.055	-0.023
GU01_125499	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.048	98.109	0.004	-0.025	97.842	-0.002	-0.195	97.479	-0.016	0.029	98.109	0.002	-0.028	98.104	-0.002	-0.215	98.082	-0.014	0.027	98.109	0.002	-0.027	98.072	-0.002	-0.213	98.055	-0.014
GU01_124557	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.054	98.109	0.005	-0.024	97.842	-0.002	-0.19	97.48	-0.017	0.03	98.109	0.002	-0.028	98.104	-0.002	-0.215	98.082	-0.015	0.036	98.109	0.003	-0.027	98.072	-0.002	-0.212	98.056	-0.016
GU01_124567	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.054	98.109	0.008	-0.024	97.842	-0.004	-0.19	97.48	-0.029	0.03	98.109	0.004	-0.028	98.104	-0.003	-0.215	98.082	-0.027	0.036	98.109	0.005	-0.027	98.072	-0.003	-0.212	98.056	-0.027
GU01_124567	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 7-8	98.13	98.23	98.08	0.054	98.109	0.008	-0.024	97.842	-0.004	-0.19	97.48	-0.029	0.03	98.109	0.004	-0.028	98.104	-0.003	-0.215	98.082	-0.027	0.036	98.109	0.005	-0.027	98.072	-0.003	-0.212	98.056	-0.027
GU01_124567D	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.054	98.109	0.008	-0.024	97.842	-0.004	-0.19	97.48	-0.029	0.03	98.109	0.004	-0.028	98.104	-0.003	-0.215	98.082	-0.027	0.036	98.109	0.005	-0.027	98.072	-0.003	-0.212	98.056	-0.027
GU01_124585	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.054	98.109	0.005	-0.024	97.842	-0.003	-0.19	97.48	-0.017	0.03	98.109	0.002	-0.028	98.104	-0.002	-0.215	98.082	-0.015	0.036	98.109	0.003	-0.027	98.072	-0.002	-0.212	98.056	-0.015
GU_124044	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.053	98.109	0.005	-0.024	97.842	-0.003	-0.184	97.481	-0.019	0.03	98.109	0.003	-0.028	98.104	-0.002	-0.214	98.082	-0.018	0.038	98.109	0.003	-0.027	98.073	-0.002	-0.21	98.056	-0.018
GU_124024_aU	[redacted]	[redacted]	ORIFICE OPEN	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.481	0	0	98.109	0	0	98.104	0	0	98.082	0	0	98.109	0	0	98.073	0	0	98.056	0
GU_124004	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.053	98.109	0.006	-0.024	97.842	-0.003	-0.184	97.481	-0.021	0.03	98.109	0.003	-0.028	98.104	-0.002	-0.214	98.082	-0.018	0.038	98.109	0.003	-0.027	98.073	-0.002	-0.21	98.056	-0.019
GU_123341	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.059	98.109	0.005	-0.023	97.842	-0.003	-0.182	97.481	-0.017	0.036	98.109	0.003	-0.028	98.104	-0.002	-0.213	98.083	-0.015	0.044	98.109	0.003	-0.027	98.073	-0.002	-0.21	98.056	-0.015
GU_123321_OU	[redacted]	[redacted]	SPILL	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.481	0	0	98.109	0	0	98.104	0	0	98.083	0	0	98.109	0	0	98.073	0	0	98.056	0
GU_123301	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.059	98.109	0.004	-0.023	97.842	-0.002	-0.182	97.481	-0.014	0.036	98.109	0.002	-0.028	98.104	-0.002	-0.213	98.083	-0.012	0.044	98.109	0.003	-0.027	98.073	-0.002	-0.21	98.056	-0.012
GU01_121589	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.062	98.109	0.005	-0.022	97.842	-0.002	-0.167	97.482	-0.012	0.052	98.109	0.003	-0.028	98.104	-0.002	-0.192	98.083	-0.011	0.043	98.109	0.002	-0.027	98.073	-0.002	-0.202	98.057	-0.012
GU_121569_OD	[redacted]	[redacted]	SPILL	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.482	0	0	98.109	0	0	98.104	0	0	98.083	0	0	98.109	0	0	98.073	0	0	98.057	0
GU01_121549	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.062	98.109	0.004	-0.022	97.842	-0.001	-0.167	97.482	-0.011	0.052	98.109	0.002	-0.028	98.104	-0.001	-0.192	98.083	-0.009	0.043	98.109	0.002	-0.027	98.073	-0.001	-0.202	98.057	-0.01
GU01_118415	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.071	98.109	0.004	-0.017	97.842	-0.001	-0.142	97.482	-0.009	0.097	98.109	0.004	-0.028	98.105	-0.001	-0.183	98.083	-0.008	0.051	98.109	0.002	-0.027	98.073	-0.001	-0.198	98.058	-0.008
GU_118395_SU	[redacted]	[redacted]	SPILL	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	0	97.842	0	0	97.482	0	0	98.109	0	0	98.105	0	0	98.083	0	0	98.109	0	0	98.073	0	0	98.058	0
GU01_118375	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.071	98.109	0.004	-0.017	97.842	-0.001	-0.142	97.482	-0.009	0.097	98.109	0.004	-0.028	98.105	-0.001	-0.183	98.083	-0.008	0.051	98.109	0.002	-0.027	98.073	-0.001	-0.198	98.058	-0.008
GU01_117981	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.004	98.109	0	-0.011	97.842	-0.003	-0.08	97.482	-0.009	0.623	98.109	0.055	0.588	98.104	0.052	-0.002	98.083	0	0.889	98.109	0.08	0.835	98.071	0.076	-0.013	98.056	-0.001
GU01_117941	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.002	98.109	0	-0.011	97.842	-0.003	-0.08	97.482	-0.017	0.623	98.109	0.106	0.588	98.103	0.101	0	98.082	0	0.889	98.109	0.157	0.835	98.069	0.148	-0.011	98.055	-0.002
GU01_117941	[redacted]	[redacted]	BRIDGE ARCH	OX Pound 7-8	98.13	98.23	98.08	0.002	98.109	0	-0.011	97.842	-0.003	-0.08	97.482	-0.017	0.623	98.109	0.106	0.588	98.103	0.101	0	98.082	0	0.889	98.109	0.157	0.835	98.069	0.148	-0.011	98.055	-0.002
GU01_117941D	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0.002	98.109	0	-0.011	97.842	-0.003	-0.08	97.482	-0.017	0.623	98.109	0.106	0.588	98.103	0.101	0	98.082	0	0.889	98.109	0.157	0.835	98.069	0.148	-0.011	98.055	-0.002
GU01_117881	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	-0.011	97.842	-0.001	-0.08	97.482	-0.007	0.623	98.109	0.042	0.588	98.103	0.039	0.05	98.082	0.003	0.889	98.109	0.061	0.835	98.069	0.058	-0.006	98.055	0
GUC_058c	[redacted]	[redacted]	RIVER SECTION	OX Pound 7-8	98.13	98.23	98.08	0	98.109	0	-0.011	97.842	-0.001	-0.08	97.482	-0.007	0.623	98.109	0.042	0.588	98.103	0.039	0.082	98.082	0.005	0.889	98.109	0.061	0.835	98.069	0.058	-0.005	98.055	0
GUT_weir1us	[redacted]	[redacted]	SPILL	GU Pound 21-22	71.41	71.48	71.36	0	71.696	0	0	71.639	0	0	71.53	0	0	71.567	0	0	71.562	0	0	71.529	0	0	71.592	0	0	71.576	0	0	71.53	0
GUT_weir2us	[redacted]	[redacted]	SPILL	GU Pound 21-22	71.41	71.48	71.36	0.01	71.696	0	0.002	71.639	0	0	71.53	0	0	71.535	0	0	71.53	0	0	71.529	0	0	71.539	0	0	71.51	0	0	71.502	0
GUT_006	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.321	71.696	0.025	-0.001	71.639	0	-0.088	71.53	-0.007	0.624	71.532	0.049	0.601	71.522	0.047	0	71.52	0	0.933	71.532	0.075	0.867	71.49	0.07	-0.002	71.483	0
GUT_weir3us	[redacted]	[redacted]	SPILL	GU Pound 21-22	71.41	71.48	71.36	0	71.696	-0.004	0	71.639	-0.004	0	71.53	-0.004	0	71.532	-0.004	0	71.522	-0.004	0	71.52	-0.004	0	71.532	-0.004	0	71.49	-0.004	0	71.483	-0.004
GUT_007	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.321	71.696	0.025	-0.001	71.639	0	-0.088	71.53	-0.007	0.624	71.532	0.049	0.601	71.522	0.047	0	71.52	0	0.933	71.532	0.075	0.867	71.49	0.07	-0.002	71.483	0
GUT_008	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.185	71.696	0.015	-0.003	71.639	0	-0.075	71.53	-0.006	0.624	71.531	0.05	0.601	71.51	0.049	0.003	71.508	0	0.933	71.531	0.078	0.867	71.464	0.073	-0.002	71.458	0
GUT_weir4us	[redacted]	[redacted]	SPILL	GU Pound 21-22	71.41	71.48	71.36	0	71.696	0.009	0	71.639	0.009	0	71.53	0.009	0	71.531	0.009	0	71.51	0.009	0	71.508	0.009	0	71.531	0.009	0	71.464	0.009	0	71.458	0.009
GUT_009	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.185	71.696	0.015	-0.003	71.639	0	-0.075	71.53	-0.006	0.624	71.531	0.05	0.601	71.51	0.049	0.003	71.508	0	0.933	71.531	0.078	0.867	71.464	0.073	-0.002	71.458	0
GUT_157	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.185	71.696	0.024	-0.003	71.639	0	-0.07	71.53	-0.009	0.624	71.531	0.084	0.601	71.51	0.081	0.002	71.508	0	0.933	71.531	0.133	0.867	71.463	0.125	-0.002	71.457	0
GUT_010	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.184	71.696	0.013	-0.003	71.639	0	-0.062	71.53	-0.004	0.624	71.531	0.046	0.601	71.51	0.044	0.002	71.508	0	0.933	71.531	0.071	0.867	71.463	0.066	-0.002	71.457	0
GUT_weir5us	[redacted]	[redacted]	SPILL	GU Pound 21-22	71.41	71.48	71.36	0	71.696	0.004	0	71.639	0.004	0	71.53	0.004	0	71.531	0.004	0	71.51	0.004	0	71.508	0.004	0	71.531	0.004	0	71.463	0.004	0	71.457	0.004
GUT_011	[redacted]	[redacted]	RIVER SECTION	GU Pound 21-22	71.41	71.48	71.36	0.184	71.696	0.013	-0.003	71.639	0	-0.062	71.53	-0.004	0.624	71.531	0.046	0.601	71.51	0.044	0.002	71.508	0	0.933	71.531	0.071	0.867	71.463	0.066	-0.002	71.457	0
131960	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.18	71.697	0.014	-0.003	71.639	0	-0.043	71.53	-0.003	0.624	71.56	0.047	0.601	71.554	0.045	0.018	71.528	0.001	0.933	71.571	0.069	0.867	71.558	0.065	0	71.53	0
131980	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.18	71.697	0.017	-0.003	71.639	0	-0.044	71.53	-0.004	0.624	71.56	0.059	0.601	71.554	0.057	0.007	71.528	0.001	0.933	71.571	0.087	0.867	71.558	0.082	0	71.53	0
132000	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.18	71.697	0.015	-0.003	71.639	0	-0.044	71.53	-0.004	0.624	71.56	0.052	0.601	71.554	0.05	0.003	71.528	0	0.933	71.57	0.076	0.867	71.557	0.072	-0.001	71.53	0
132050	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.179	71.697	0.019	-0.003	71.639	0	-0.045	71.53	-0.005	0.624	71.56	0.066	0.601	71.553	0.064	0	71.528	0	0.933	71.569	0.097	0.867	71.556	0.092	-0.001	71.53	0
132100	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.178	71.697	0.018	-0.003	71.639	0	-0.046	71.53	-0.005	0.624	71.559	0.061	0.601	71.553	0.059	-0.001	71.528	0	0.933	71.568	0.09	0.867	71.554	0.085	-0.001	71.53	0
132150	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.177	71.697	0.023	-0.003	71.639	0	-0.047	71.53	-0.006	0.624	71.558	0.079	0.601	71.552	0.077	-0.002	71.528	0	0.933	71.566	0.116	0.867	71.552	0.11	-0.001	71.53	0
132200	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.176	71.697	0.022	-0.003	71.639	0	-0.048	71.53	-0.006	0.624	71.558	0.075	0.601	71.551	0.073	-0.002	71.528	0	0.933	71.564	0.111	0.867	71.55	0.105	-0.001	71.53	0
132220	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.176	71.697	0.028	-0.003	71.639	0	-0.049	71.53	-0.008	0.624	71.557	0.097	0.601	71.55	0.094	-0.001	71.528	0	0.933	71.563	0.143	0.867	71.549	0.135	-0.001	71.53	0
132240	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.176	71.697	0.025	-0.003	71.639	0	-0.049	71.53	-0.007	0.624	71.557	0.089	0.601	71.55	0.086	-0.001	71.528	0	0.933	71.562	0.131	0.867	71.548	0.124	-0.001	71.53	0
132250	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.176	71.697	0.02	-0.003	71.639	0	-0.049	71.53	-0.006	0.624	71.557	0.069	0.601	71.55	0.067	-0.001	71.528	0	0.933	71.562	0.102	0.867	71.548	0.097	-0.001	71.53	0
132300	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.175	71.697	0.01	-0.003	71.639	0	-0.051	71.53	-0.003	0.624	71.557	0.034	0.601	71.549	0.033	-0.001	71.528	0	0.933	71.562	0.051	0.867	71.547	0.048	-0.001	71.53	0
132350	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.173	71.697	0.021	-0.003	71.639	0	-0.052	71.53	-0.006	0.624	71.556	0.074	0.601	71.548	0.071	-0.001	71.528	0	0.933	71.56	0.109	0.867	71.546	0.103	-0.002	71.53	0
132400	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.172	71.697	0.019	-0.003	71.639	0	-0.053	71.53	-0.006	0.624	71.556	0.068	0.601	71.548	0.066	-0.001	71.528	0	0.933	71.559	0.101	0.867	71.544	0.095	-0.002	71.53	0
132450	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.171	71.697	0.018	-0.003	71.639	0	-0.054	71.53	-0.006	0.624	71.555	0.066	0.601	71.547	0.064	-0.001	71.528	0	0.933	71.558	0.097	0.867	71.543	0.092	-0.002	71.53	0
132500	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.17	71.697	0.021	-0.003	71.639	0	-0.055	71.53	-0.007	0.624	71.555	0.074	0.601	71.547	0.072	-0.001	71.528	0	0.933	71.558	0.111	0.867	71.543	0.105	-0.002	71.53	0
132550	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.17	71.697	0.02	-0.003	71.639	0	-0.056	71.53	-0.007	0.624	71.555	0.074	0.601	71.547	0.072	-0.001	71.528	0	0.933	71.557	0.11	0.867	71.542	0.104	-0.002	71.53	0
132600	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.169	71.697	0.019	-0.003	71.639	0	-0.057	71.53	-0.006	0.624	71.555	0.068	0.601	71.547	0.066	-0.001	71.528	0	0.933	71.557	0.101	0.867	71.542	0.096	-0.002	71.53	0
132650	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.168	71.697	0.022	-0.003	71.639	0	-0.058	71.53	-0.008	0.624	71.555	0.08	0.601	71.546	0.077	-0.001	71.528	0	0.933	71.557	0.119	0.867	71.541	0.112	-0.002	71.53	0
132700	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.167	71.697	0.021	-0.003	71.639	0	-0.059	71.53	-0.008	0.624	71.554	0.078	0.601	71.546	0.076	-0.001	71.528	0	0.933	71.556	0.117	0.867	71.54	0.111	-0.002	71.53	0
132750	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.166	71.697	0.026	-0.003	71.639	0	-0.06	71.53	-0.009	0.624	71.554	0.095	0.601	71.545	0.092	-0.001	71.528	0	0.933	71.556	0.141	0.867	71.539	0.134	-0.002	71.53	0
132772	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.166	71.697	0.034	-0.003	71.639	-0.001	-0.06	71.53	-0.012	0.624	71.554	0.126	0.601	71.545	0.122	0	71.528	0	0.933	71.555	0.188	0.867	71.538	0.178	-0.002	71.53	0
132792	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.166	71.697	0.032	-0.003	71.639	0	-0.06	71.53	-0.012	0.624	71.554	0.119	0.601	71.545	0.115	0	71.528	0	0.933	71.554	0.177	0.867	71.538	0.168	-0.002	71.53	0
132800	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.166	71.697	0.029	-0.003	71.639	0	-0.06	71.53	-0.01	0.624	71.554	0.106	0.601	71.545	0.103	0	71.528	0	0.933	71.554	0.158	0.867	71.538	0.15	-0.002	71.53	0
132850	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.165	71.697	0.021	-0.003	71.639	0	-0.06	71.53	-0.008	0.624	71.553	0.077	0.601	71.545	0.075	0	71.528	0	0.933	71.554	0.115	0.867	71.538	0.109	-0.002	71.529	0
132900	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.164	71.697	0.02	-0.003	71.639	0	-0.061	71.53	-0.007	0.624	71.553	0.074	0.601	71.544	0.072	0	71.528	0	0.933	71.554	0.111	0.867	71.537	0.105	-0.002	71.529	0
132950	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.163	71.697	0.02	-0.003	71.639	0	-0.061	71.53	-0.007	0.624	71.553	0.074	0.601	71.544	0.071	0	71.528	0	0.933	71.554	0.11	0.867	71.536	0.104	-0.002	71.528	0
133000	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.162	71.697	0.02	-0.003	71.639	0	-0.061	71.53	-0.008	0.624	71.553	0.076	0.601	71.544	0.073	0	71.528	0	0.933	71.553	0.113	0.867	71.536	0.107	-0.002	71.528	0
133050	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.161	71.697	0.025	-0.003	71.639	0	-0.061	71.53	-0.01	0.624	71.553	0.096	0.601	71.543	0.093	0	71.528	0	0.933	71.553	0.144	0.867	71.535	0.137	-0.002	71.527	0
133100	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.16	71.697	0.023	-0.003	71.639	0	-0.062	71.53	-0.009	0.624	71.552	0.089	0.601	71.543	0.086	0	71.528	0	0.933	71.552	0.133	0.867	71.534	0.126	-0.002	71.526	0
133150	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.159	71.697	0.024	-0.003	71.639	0	-0.062	71.53	-0.009	0.624	71.552	0.092	0.601	71.543	0.089	0	71.528	0	0.933	71.552	0.138	0.867	71.533	0.131	-0.002	71.525	0
133200	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.158	71.697	0.021	-0.003	71.639	0	-0.061	71.53	-0.008	0.624	71.552	0.083	0.601	71.542	0.081	0	71.528	0	0.933	71.551	0.125	0.867	71.533	0.118	-0.002	71.525	0
133250	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.157	71.697	0.024	-0.003	71.639	0	-0.061	71.53	-0.009	0.624	71.552	0.092	0.601	71.542	0.089	0	71.528	0	0.933	71.551	0.138	0.867	71.532	0.131	-0.002	71.524	0
133300	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.156	71.697	0.022	-0.003	71.639	0	-0.061	71.53	-0.008	0.624	71.551	0.086	0.601	71.542	0.084	0	71.528	0	0.933	71.55	0.13	0.867	71.531	0.123	-0.002	71.523	0
133350	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.155	71.697	0.014	-0.003	71.639	0	-0.061	71.53	-0.006	0.624	71.551	0.057	0.601	71.542	0.055	0	71.528	0	0.933	71.55	0.085	0.867	71.531	0.081	-0.002	71.523	0
133400	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.153	71.697	0.025	-0.003	71.639	0	-0.06	71.53	-0.01	0.624	71.551	0.099	0.601	71.541	0.096	0	71.528	0	0.933	71.549	0.149	0.867	71.53	0.141	-0.002	71.522	0
133415	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.153	71.697	0.027	-0.003	71.639	0	-0.06	71.53	-0.011	0.624	71.551	0.108	0.601	71.541	0.105	0	71.528	0	0.933	71.549	0.163	0.867	71.529	0.153	-0.002	71.521	0
133435	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.153	71.697	0.021	-0.003	71.639	0	-0.06	71.53	-0.008	0.624	71.551	0.084	0.601	71.541	0.082	0	71.529	0	0.933	71.549	0.127	0.867	71.53	0.119	-0.002	71.522	0
133450	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.153	71.697	0.019	-0.003	71.639	0	-0.06	71.53	-0.007	0.624	71.551	0.077	0.601	71.541	0.075	0	71.529	0	0.933	71.549	0.116	0.867	71.53	0.11	-0.002	71.522	0
133500	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.151	71.697	0.013	-0.003	71.639	0	-0.06	71.53	-0.005	0.624	71.551	0.055	0.601	71.541	0.053	0	71.529	0	0.933	71.549	0.083	0.867	71.53	0.078	-0.002	71.522	0

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
133550	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.15	71.697	0.011	-0.003	71.639	0	-0.059	71.53	-0.004	0.624	71.551	0.046	0.601	71.541	0.045	0	71.529	0	0.933	71.549	0.069	0.867	71.529	0.066	-0.002	71.521	0
133600	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.148	71.697	0.018	-0.003	71.639	0	-0.058	71.53	-0.007	0.624	71.551	0.076	0.601	71.541	0.073	0	71.529	0	0.933	71.549	0.114	0.867	71.529	0.108	-0.002	71.521	0
133650	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.147	71.697	0.016	-0.003	71.639	0	-0.058	71.53	-0.006	0.624	71.551	0.066	0.601	71.54	0.064	0	71.529	0	0.933	71.548	0.1	0.867	71.528	0.095	-0.002	71.52	0
133700	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.146	71.697	0.018	-0.003	71.639	0	-0.058	71.53	-0.007	0.624	71.55	0.076	0.601	71.54	0.074	0	71.529	0	0.933	71.548	0.115	0.867	71.528	0.109	-0.002	71.52	0
133750	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.145	71.697	0.016	-0.003	71.639	0	-0.057	71.53	-0.006	0.624	71.55	0.068	0.601	71.54	0.066	0	71.529	0	0.933	71.548	0.103	0.867	71.527	0.097	-0.002	71.519	0
133800	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.144	71.697	0.018	-0.003	71.639	0	-0.058	71.53	-0.007	0.624	71.55	0.077	0.601	71.54	0.074	0	71.529	0	0.933	71.547	0.116	0.867	71.527	0.11	-0.002	71.519	0
133850	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.142	71.697	0.017	-0.003	71.639	0	-0.058	71.53	-0.007	0.624	71.55	0.073	0.601	71.539	0.07	0	71.529	0	0.933	71.547	0.11	0.867	71.526	0.104	-0.002	71.518	0
133900	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.141	71.697	0.018	-0.003	71.639	0	-0.059	71.53	-0.007	0.624	71.55	0.079	0.601	71.539	0.076	0	71.529	0	0.933	71.547	0.119	0.867	71.525	0.113	-0.002	71.518	0
133950	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.14	71.697	0.022	-0.003	71.639	0	-0.06	71.53	-0.009	0.624	71.549	0.096	0.601	71.539	0.093	0	71.529	0	0.933	71.546	0.146	0.867	71.524	0.138	-0.002	71.517	0
134000	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.139	71.697	0.021	-0.003	71.639	0	-0.061	71.53	-0.009	0.624	71.549	0.091	0.601	71.538	0.088	0	71.529	0	0.933	71.546	0.138	0.867	71.524	0.13	-0.002	71.516	0
134050	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.139	71.697	0.022	-0.003	71.639	0	-0.061	71.53	-0.01	0.624	71.549	0.098	0.601	71.538	0.095	0	71.529	0	0.933	71.545	0.149	0.867	71.523	0.14	-0.002	71.515	0
134100	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.138	71.697	0.018	-0.003	71.639	0	-0.062	71.53	-0.008	0.624	71.549	0.081	0.601	71.538	0.079	0	71.529	0	0.933	71.545	0.124	0.867	71.522	0.117	-0.002	71.515	0
134150	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.137	71.697	0.02	-0.003	71.639	0	-0.062	71.53	-0.009	0.624	71.549	0.089	0.601	71.537	0.086	0	71.529	0	0.933	71.544	0.135	0.867	71.522	0.127	-0.002	71.514	0
134200	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.136	71.697	0.02	-0.003	71.639	0	-0.063	71.53	-0.009	0.624	71.548	0.092	0.601	71.537	0.089	0	71.53	0	0.933	71.544	0.14	0.867	71.521	0.132	-0.002	71.513	0
134250	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.136	71.697	0.016	-0.003	71.639	0	-0.063	71.53	-0.007	0.624	71.548	0.073	0.601	71.537	0.071	0	71.53	0	0.933	71.544	0.111	0.867	71.521	0.105	-0.002	71.513	0
134300	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.135	71.697	0.016	-0.003	71.639	0	-0.063	71.53	-0.008	0.624	71.548	0.075	0.601	71.537	0.073	-0.001	71.53	0	0.933	71.543	0.114	0.867	71.52	0.108	-0.003	71.512	0
134350	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.134	71.697	0.018	-0.003	71.639	0	-0.064	71.53	-0.008	0.624	71.548	0.083	0.601	71.536	0.08	-0.001	71.53	0	0.933	71.543	0.126	0.867	71.519	0.119	-0.003	71.512	0
134400	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.133	71.697	0.022	-0.003	71.639	0	-0.064	71.53	-0.011	0.624	71.547	0.103	0.601	71.536	0.1	-0.001	71.529	0	0.933	71.542	0.158	0.867	71.518	0.15	-0.003	71.51	0
134450	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.132	71.697	0.023	-0.003	71.639	0	-0.064	71.53	-0.011	0.624	71.547	0.107	0.601	71.535	0.103	-0.001	71.528	0	0.933	71.542	0.163	0.867	71.517	0.154	-0.003	71.509	0
134500	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.131	71.697	0.02	-0.003	71.639	0	-0.065	71.53	-0.01	0.624	71.547	0.096	0.601	71.535	0.093	-0.001	71.528	0	0.933	71.541	0.147	0.867	71.516	0.139	-0.003	71.509	0
134550	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.131	71.697	0.018	-0.003	71.639	0	-0.066	71.53	-0.009	0.624	71.547	0.087	0.601	71.535	0.084	-0.001	71.527	0	0.933	71.541	0.133	0.867	71.515	0.126	-0.003	71.508	0
134600	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.13	71.697	0.025	-0.003	71.639	-0.001	-0.066	71.53	-0.013	0.624	71.546	0.12	0.601	71.534	0.117	-0.001	71.527	0	0.933	71.54	0.184	0.867	71.514	0.174	-0.003	71.506	-0.001
134650	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.13	71.697	0.027	-0.003	71.639	-0.001	-0.067	71.53	-0.014	0.624	71.546	0.129	0.601	71.533	0.125	-0.001	71.527	0	0.933	71.539	0.197	0.867	71.512	0.186	-0.003	71.504	-0.001
134664	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.13	71.697	0.028	-0.003	71.639	-0.001	-0.067	71.53	-0.014	0.624	71.546	0.134	0.601	71.533	0.129	-0.001	71.527	0	0.933	71.539	0.204	0.867	71.511	0.192	-0.003	71.504	-0.001
134684	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.129	71.697	0.027	-0.003	71.639	-0.001	-0.067	71.53	-0.014	0.624	71.545	0.128	0.601	71.533	0.124	-0.001	71.527	0	0.933	71.538	0.197	0.867	71.511	0.186	-0.003	71.503	-0.001
134700	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.129	71.697	0.027	-0.003	71.639	-0.001	-0.067	71.53	-0.014	0.624	71.545	0.13	0.601	71.532	0.126	-0.001	71.527	0	0.933	71.538	0.2	0.867	71.51	0.189	-0.003	71.503	-0.001
134750	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.129	71.697	0.025	-0.003	71.639	-0.001	-0.068	71.53	-0.013	0.624	71.545	0.119	0.601	71.532	0.115	-0.001	71.527	0	0.933	71.537	0.183	0.867	71.509	0.172	-0.003	71.502	-0.001
134800	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.128	71.697	0.021	-0.003	71.639	0	-0.068	71.53	-0.011	0.624	71.545	0.104	0.601	71.532	0.101	-0.001	71.527	0	0.933	71.537	0.16	0.867	71.508	0.151	-0.003	71.501	0
134850	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.128	71.697	0.021	-0.003	71.639	0	-0.068	71.53	-0.011	0.624	71.544	0.101	0.601	71.531	0.098	-0.001	71.526	0	0.933	71.536	0.156	0.867	71.507	0.147	-0.003	71.5	0
134900	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.127	71.697	0.019	-0.003	71.639	0	-0.069	71.53	-0.01	0.624	71.544	0.093	0.601	71.531	0.09	-0.001	71.526	0	0.933	71.536	0.143	0.867	71.506	0.135	-0.003	71.499	0
135000	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.126	71.697	0.021	-0.003	71.639	0	-0.069	71.53	-0.012	0.624	71.543	0.107	0.601	71.53	0.103	-0.001	71.526	0	0.933	71.535	0.165	0.867	71.504	0.156	-0.003	71.497	-0.001
135050	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.125	71.697	0.024	-0.003	71.639	-0.001	-0.069	71.53	-0.013	0.624	71.543	0.122	0.601	71.529	0.118	-0.001	71.526	0	0.933	71.534	0.188	0.867	71.502	0.177	-0.003	71.495	-0.001
135100	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.125	71.697	0.021	-0.003	71.639	-0.001	-0.069	71.53	-0.012	0.624	71.543	0.108	0.601	71.529	0.105	-0.001	71.526	0	0.933	71.534	0.168	0.867	71.501	0.159	-0.003	71.494	-0.001
135150	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.124	71.697	0.022	-0.003	71.639	-0.001	-0.069	71.53	-0.012	0.624	71.542	0.111	0.601	71.528	0.107	-0.001	71.526	0	0.933	71.534	0.173	0.867	71.5	0.163	-0.003	71.493	-0.001
135200	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.122	71.697	0.014	-0.004	71.639	0	-0.068	71.53	-0.008	0.624	71.542	0.071	0.601	71.528	0.069	-0.001	71.526	0	0.933	71.534	0.11	0.867	71.5	0.104	-0.003	71.493	0
135250	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.121	71.697	0.016	-0.004	71.639	0	-0.068	71.53	-0.009	0.624	71.542	0.084	0.601	71.528	0.081	-0.001	71.526	0	0.933	71.534	0.13	0.867	71.499	0.122	-0.003	71.492	0
135300	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.12	71.697	0.019	-0.004	71.639	0	-0.068	71.53	-0.011	0.624	71.542	0.102	0.601	71.527	0.099	-0.001	71.525	0	0.933	71.534	0.161	0.867	71.498	0.152	-0.003	71.49	-0.001
135350	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.118	71.697	0.017	-0.004	71.639	0	-0.067	71.53	-0.009	0.624	71.542	0.089	0.601	71.527	0.086	-0.001	71.525	0	0.933	71.534	0.14	0.867	71.497	0.132	-0.003	71.49	0
135400	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.117	71.697	0.017	-0.004	71.639	0	-0.067	71.53	-0.01	0.624	71.541	0.092	0.601	71.526	0.09	-0.001	71.524	0	0.933	71.534	0.145	0.867	71.496	0.137	-0.003	71.489	0
135450	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.116	71.697	0.018	-0.004	71.639	0	-0.068	71.53	-0.01	0.624	71.541	0.098	0.601	71.526	0.095	-0.001	71.524	0	0.933	71.534	0.153	0.867	71.495	0.144	-0.003	71.488	-0.001
135500	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.115	71.697	0.018	-0.004	71.639	0	-0.068	71.53	-0.011	0.624	71.541	0.099	0.601	71.526	0.096	-0.001	71.523	0	0.933	71.534	0.155	0.867	71.494	0.146	-0.003	71.487	-0.001
135550	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.114	71.697	0.018	-0.004	71.639	-0.001	-0.068	71.53	-0.011	0.624	71.541	0.101	0.601	71.525	0.098	-0.002	71.523	0	0.933	71.534	0.157	0.867	71.493	0.147	-0.003	71.486	-0.001
135587	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.113	71.697	0.016	-0.004	71.639	0	-0.068	71.53	-0.01	0.624	71.54	0.09	0.601	71.525	0.087	-0.002	71.523	0	0.933	71.534	0.138	0.867	71.492	0.13	-0.003	71.486	0
135600	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.113	71.697	0.015	-0.004	71.639	0	-0.068	71.53	-0.009	0.624	71.54	0.084	0.601	71.525	0.081	-0.002	71.523	0	0.933	71.534	0.131	0.867	71.492	0.123	-0.003	71.485	0
135650	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.112	71.697	0.014	-0.004	71.639	0	-0.068	71.53	-0.008	0.624	71.54	0.078	0.601	71.525	0.076	-0.002	71.523	0	0.933	71.533	0.123	0.867	71.492	0.116	-0.003	71.485	0
135700	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.11	71.697	0.012	-0.004	71.639	0	-0.068	71.53	-0.007	0.624	71.54	0.071	0.601	71.525	0.068	-0.003	71.523	0	0.933	71.533	0.111	0.867	71.492	0.105	-0.003	71.485	0
135750	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.108	71.697	0.01	-0.004	71.639	0	-0.067	71.53	-0.006	0.624	71.54	0.057	0.601	71.525	0.055	-0.003	71.522	0	0.933	71.533	0.089	0.867	71.491	0.084	-0.003	71.484	0
135800	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.106	71.697	0.015	-0.004	71.639	0	-0.067	71.53	-0.01	0.624	71.54	0.092	0.601	71.524	0.089	-0.004	71.522	-0.001	0.933	71.533	0.146	0.867	71.49	0.138	-0.003	71.483	0
135850	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.104	71.697	0.015	-0.004	71.639	0	-0.066	71.53	-0.01	0.624	71.54	0.093	0.601	71.524	0.09	-0.003	71.521	-0.001	0.933	71.533	0.148	0.867	71.489	0.139	-0.003	71.482	0
135900	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.102	71.697	0.013	-0.004	71.639	0	-0.065	71.53	-0.008	0.624	71.539	0.078	0.601	71.523	0.076	-0.004	71.521	0	0.933	71.533	0.124	0.867	71.488	0.117	-0.003	71.481	0
135950	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.099	71.697	0.013	-0.004	71.639	0	-0.063	71.53	-0.008	0.624	71.539	0.08	0.601	71.523	0.078	-0.004	71.521	-0.001	0.933	71.533	0.126	0.867	71.487	0.119	-0.003	71.481	0
136000	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.097	71.697	0.014	-0.004	71.639	0	-0.061	71.53	-0.009	0.624	71.539	0.092	0.601	71.523	0.089	-0.004	71.52	-0.001	0.933	71.533	0.146	0.867	71.486	0.137	-0.003	71.48	0
136050	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.094	71.697	0.016	-0.004	71.639	-0.001	-0.059	71.53	-0.01	0.624	71.539	0.105	0.601	71.522	0.102	-0.004	71.52	-0.001	0.933	71.533	0.166	0.867	71.485	0.156	-0.003	71.478	-0.001
136100	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.091	71.697	0.015	-0.004	71.639	-0.001	-0.057	71.53	-0.01	0.624	71.538	0.108	0.601	71.522	0.105	-0.004	71.519	-0.001	0.933	71.533	0.172	0.867	71.483	0.162	-0.003	71.477	-0.001
136150	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.086	71.697	0.013	-0.004	71.639	0	-0.055	71.53	-0.008	0.624	71.538	0.1	0.601	71.521	0.096	-0.005	71.519	-0.001	0.933	71.533	0.161	0.867	71.482	0.152	-0.003	71.475	-0.001
136200	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.081	71.697	0.012	-0.004	71.639	0	-0.051	71.53	-0.007	0.624	71.538	0.092	0.601	71.521	0.09	-0.006	71.518	-0.001	0.933	71.533	0.149	0.867	71.481	0.141	-0.003	71.474	0
136250	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.074	71.697	0.011	-0.004	71.639	0	-0.047	71.53	-0.007	0.624	71.537	0.091	0.601	71.52	0.088	-0.006	71.518	-0.001	0.933	71.533	0.147	0.867	71.48	0.138	-0.003	71.473	0
136300	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.068	71.697	0.012	-0.004	71.639	-0.001	-0.043	71.53	-0.008	0.624	71.537	0.118	0.601	71.519	0.114	-0.006	71.517	-0.001	0.933	71.533	0.19	0.867	71.477	0.179	-0.003	71.471	-0.001
136350	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.061	71.697	0.011	-0.004	71.639	-0.001	-0.039	71.53	-0.007	0.624	71.537	0.112	0.601	71.519	0.109	-0.006	71.516	-0.001	0.933	71.533	0.182	0.867	71.476	0.172	-0.003	71.469	-0.001
GU01_51346	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.052	71.697	0.006	-0.004	71.639	0	-0.037	71.53	-0.004	0.624	71.536	0.074	0.601	71.519	0.072	-0.008	71.516	-0.001	0.933	71.533	0.119	0.867	71.475	0.112	-0.003	71.469	0
GU01_51336a	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 22-23	71.505	71.655	71.355	0	71.697	0	0	71.639	0	0	71.53	0	0	71.536	0	0	71.519	0	0	71.516	0	0	71.533	0	0	71.475	0	0	71.469	0
136400	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.052	71.697	0.006	-0.004	71.639	0	-0.037	71.53	-0.004	0.624	71.536	0.074	0.601	71.519	0.072	-0.008	71.516	-0.001	0.933	71.533	0.119	0.867	71.475	0.112	-0.003	71.469	0
136450	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.044	71.697	0.01	-0.004	71.639	-0.001	-0.037	71.53	-0.007	0.624	71.536	0.146	0.601	71.517	0.141	-0.009	71.515	-0.002	0.933	71.533	0.236	0.867	71.472	0.222	-0.003	71.465	-0.001
136500	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.036	71.697	0.005	-0.004	71.639	0	-0.037	71.53	-0.004	0.624	71.536	0.093	0.601	71.517	0.09	-0.008	71.515	-0.001	0.933	71.533	0.151	0.867	71.471	0.142	-0.003	71.465	0
136550	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.025	71.697	0.004	-0.004	71.639	-0.001	-0.037	71.53	-0.005	0.624	71.536	0.106	0.601	71.516	0.102	-0.014	71.514	-0.002	0.933	71.533	0.172	0.867	71.47	0.162	-0.003	71.463	-0.001
136600	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.015	71.697	0.004	-0.004	71.639	-0.001	-0.038	71.53	-0.006	0.624	71.535	0.149	0.601	71.515	0.144	-0.011	71.512	-0.002	0.933	71.533	0.253	0.867	71.465	0.239	-0.003	71.458	-0.001
136650	[redacted]	[redacted]	RIVER SECTION	GU Pound 22-23	71.505	71.655	71.355	0.005	71.697	0.001	-0.004	71.639	0	-0.038	71.53	-0.004	0.624	71.535	0.092	0.601	71.514	0.089	0.004	71.512	0.001	0.933	71.533	0.151	0.867	71.463	0.142	-0.003	71.457	0
Lock_23_us	[redacted]	[redacted]	SLUICE VERTICAL	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0	74.229	0	0	74.155	0	0	74.009	0	0	74.153	0	0	74.144	0	0	74.014	0	0	74.15	0	0	74.127	0	0	74.009	0
136800	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	0.743	74.229	0.06	-0.004	74.155	0	-0.656	74.013	-0.055	0.827	74.153	0.067	0.601	74.144	0.045	-0.548	74.018	-0.045	0.933	74.15	0.071	0.867	74.127	0.067	-0.65	74.013	-0.054
136850	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	1.279	74.229	0.112	-0.004	74.155	0	-1.058	74.023	-0.095	1.356	74.153	0.118	0.601	74.144	0.049	-0.95	74.027	-0.085	1.28	74.15	0.112	0.867	74.127	0.072	-1.057	74.023	-0.095
136900	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	1.8	74.229	0.132	-0.004	74.155	0	-1.364	74.035	-0.102	1.868	74.153	0.136	0.601	74.144	0.041	-1.247	74.039	-0.093	1.799	74.15	0.132	0.867	74.127	0.06	-1.357	74.035	-0.102
136950	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.276	74.229	0.189	-0.004	74.155	0	-1.545	74.048	-0.131	2.338	74.153	0.193	0.601	74.144	0.046	-1.434	74.052	-0.121	2.274	74.15	0.189	0.867	74.127	0.068	-1.544	74.048	-0.131
137000	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.632	74.229	0.223	-0.004	74.155	0	-1.621	74.055	-0.14	2.682	74.153	0.227	0.601	74.144	0.047	-1.507	74.059	-0.13	2.624	74.15	0.223	0.867	74.127	0.069	-1.62	74.055	-0.14
GU01_50712	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.794	74.229	0.273	-0.004	74.155	0	-1.64	74.056	-0.162	2.849	74.153	0.277	0.601	74.144	0.053	-1.521	74.061	-0.15	2.792	74.15	0.272	0.867	74.126	0.078	-1.639	74.057	-0.162
GU01_50701	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.82	74.229	0.473	-0.004	74.155	-0.001	-1.644	74.055	-0.277	2.878	74.153	0.481	0.601	74.143	0.093	-1.52	74.059	-0.255	2.821	74.151	0.473	0.867	74.126	0.136	-1.639	74.055	-0.276
GU01_50698	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.827	74.229	0.473	-0.004	74.155	-0.001	-1.644	74.055	-0.276	2.881	74.153	0.481	0.601	74.143	0.094	-1.519	74.059	-0.254	2.824	74.151	0.473	0.867	74.126	0.138	-1.64	74.055	-0.275
GU01_50694	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.832	74.229	0.445	-0.004	74.155	-0.001	-1.644	74.055	-0.259	2.884	74.153	0.452	0.601	74.143	0.089	-1.518	74.06	-0.238	2.827	74.151	0.444	0.867	74.126	0.13	-1.641	74.056	-0.259
GU01_50690	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.838	74.229	0.352	-0.004	74.155	0	-1.643	74.057	-0.205	2.886	74.153	0.357	0.601	74.144	0.07	-1.518	74.061	-0.189	2.83	74.151	0.351	0.867	74.126	0.102	-1.641	74.057	-0.204
GU01_50678	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.854	74.229	0.273	-0.004	74.155	0	-1.642	74.058	-0.158	2.903	74.153	0.277	0.601	74.144	0.053	-1.518	74.062	-0.146	2.847	74.151	0.272	0.867	74.126	0.078	-1.642	74.058	-0.158
137100	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.887	74.229	0.234	-0.004	74.155	0	-1.656	74.06	-0.135	2.942	74.153	0.238	0.601	74.144	0.045	-1.523	74.063	-0.124	2.885	74.151	0.234	0.867	74.126	0.066	-1.658	74.06	-0.135
137150	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.935	74.229	0.279	-0.004	74.155	0	-1.727	74.061	-0.164	2.99	74.153	0.283	0.601	74.144	0.052	-1.587	74.065	-0.15	2.93	74.151	0.278	0.867	74.126	0.077	-1.728	74.062	-0.164
137200	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.955	74.229	0.34	-0.004	74.155	0	-1.794	74.056	-0.204	3.011	74.153	0.345	0.601	74.143	0.063	-1.648	74.06	-0.187	2.947	74.151	0.339	0.867	74.126	0.093	-1.79	74.057	-0.204
137250	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.949	74.229	0.374	-0.004	74.155	0	-1.815	74.05	-0.226	3.014	74.154	0.381	0.601	74.143	0.069	-1.674	74.053	-0.208	2.949	74.151	0.374	0.867	74.125	0.102	-1.815	74.05	-0.226
137300	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.95	74.229	0.35	-0.004	74.155	0	-1.79	74.045	-0.207	3.012	74.154	0.356	0.601	74.143	0.065	-1.654	74.049	-0.191	2.948	74.151	0.35	0.867	74.125	0.095	-1.791	74.045	-0.207
137350	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.95	74.229	0.39	-0.004	74.155	0	-1.718	74.038	-0.219	3.011	74.154	0.397	0.601	74.143	0.071	-1.585	74.041	-0.202	2.947	74.151	0.39	0.867	74.125	0.104	-1.717	74.038	-0.219
GU01_50360	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	2.969	74.229	0.287	-0.004	74.155	0	-1.642	74.039	-0.152	3.033	74.154	0.292	0.601	74.143	0.051	-1.517	74.042	-0.14	2.968	74.151	0.287	0.867	74.125	0.075	-1.643	74.039	-0.152
GU01_50311	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.133	74.229	0.311	-0.004	74.155	0	-1.52	74.037	-0.146	3.192	74.153	0.316	0.601	74.143	0.052	-1.411	74.04	-0.135	3.128	74.151	0.311	0.867	74.125	0.077	-1.52	74.037	-0.145
GU01_50295	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.211	74.229	0.376	-0.004	74.155	0	-1.516	74.035	-0.17	3.275	74.153	0.381	0.601	74.143	0.061	-1.411	74.038	-0.157	3.211	74.152	0.375	0.867	74.125	0.09	-1.515	74.035	-0.17
GU01_50283	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.25	74.229	0.533	-0.004	74.155	-0.001	-1.521	74.027	-0.242	3.309	74.153	0.541	0.601	74.143	0.09	-1.42	74.029	-0.225	3.245	74.152	0.532	0.867	74.124	0.131	-1.521	74.027	-0.242
GU01_50278	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.26	74.229	0.568	-0.004	74.155	-0.001	-1.523	74.025	-0.257	3.321	74.153	0.577	0.601	74.143	0.095	-1.422	74.027	-0.239	3.257	74.152	0.567	0.867	74.124	0.139	-1.522	74.025	-0.256
GU01_50270	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.274	74.229	0.433	-0.004	74.155	0	-1.526	74.03	-0.195	3.336	74.153	0.44	0.601	74.143	0.072	-1.426	74.033	-0.181	3.273	74.152	0.432	0.867	74.124	0.105	-1.525	74.03	-0.194
GU01_50253	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.302	74.229	0.332	-0.004	74.155	0	-1.542	74.033	-0.148	3.362	74.153	0.336	0.601	74.143	0.053	-1.443	74.036	-0.138	3.299	74.153	0.331	0.867	74.124	0.078	-1.539	74.033	-0.148
137500	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.335	74.229	0.473	-0.004	74.155	0	-1.56	74.025	-0.211	3.401	74.153	0.481	0.601	74.143	0.075	-1.467	74.028	-0.197	3.337	74.153	0.474	0.867	74.124	0.11	-1.56	74.025	-0.211
137550	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.451	74.229	0.375	-0.004	74.155	0	-1.618	74.025	-0.167	3.515	74.153	0.381	0.601	74.143	0.058	-1.53	74.028	-0.157	3.451	74.153	0.375	0.867	74.124	0.085	-1.616	74.025	-0.167
137600	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.527	74.229	0.386	-0.004	74.155	0	-1.659	74.02	-0.171	3.587	74.153	0.391	0.601	74.143	0.058	-1.579	74.023	-0.162	3.525	74.153	0.385	0.867	74.124	0.085	-1.659	74.02	-0.171
137650	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.602	74.229	0.424	-0.004	74.155	0	-1.674	74.005	-0.182	3.649	74.154	0.429	0.601	74.142	0.061	-1.598	74.007	-0.173	3.6	74.154	0.424	0.867	74.123	0.09	-1.672	74.005	-0.181
137700	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	3.885	74.229	0.433	-0.004	74.155	0	-1.66	73.995	-0.168	3.908	74.154	0.435	0.601	74.142	0.057	-1.587	73.996	-0.16	3.882	74.154	0.432	0.867	74.123	0.084	-1.658	73.995	-0.168
137750	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	4.204	74.229	0.437	-0.004	74.155	0	-1.634	73.995	-0.155	4.203	74.155	0.438	0.601	74.142	0.054	-1.566	73.995	-0.148	4.198	74.155	0.437	0.867	74.122	0.079	-1.633	73.995	-0.155
137800	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	4.515	74.229	0.484	-0.004	74.155	0	-1.641	73.991	-0.157	4.517	74.156	0.484	0.601	74.142	0.054	-1.577	73.991	-0.15	4.516	74.156	0.484	0.867	74.122	0.079	-1.641	73.991	-0.157
137850	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	4.807	74.229	0.57	-0.004	74.155	0	-1.704	73.981	-0.175	4.808	74.156	0.57	0.601	74.142	0.057	-1.633	73.981	-0.167	4.808	74.156	0.57	0.867	74.122	0.085	-1.703	73.981	-0.175
137900	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	5.039	74.229	0.674	-0.004	74.155	0	-1.777	73.963	-0.203	5.041	74.158	0.674	0.601	74.142	0.064	-1.693	73.964	-0.192	5.041	74.158	0.674	0.867	74.122	0.095	-1.774	73.964	-0.202
137950	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	5.269	74.229	0.695	-0.004	74.155	0	-1.821	73.948	-0.2	5.271	74.158	0.695	0.601	74.142	0.062	-1.731	73.948	-0.19	5.271	74.158	0.695	0.867	74.122	0.092	-1.819	73.948	-0.2
138000	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	5.537	74.229	0.733	-0.004	74.155	0	-1.829	73.928	-0.194	5.535	74.161	0.733	0.601	74.141	0.06	-1.738	73.928	-0.184	5.535	74.161	0.733	0.867	74.121	0.089	-1.826	73.928	-0.193
138050	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	6.145	74.229	0.735	-0.004	74.155	0	-1.785	73.916	-0.166	6.143	74.162	0.735	0.601	74.141	0.053	-1.695	73.916	-0.157	6.143	74.162	0.735	0.867	74.121	0.078	-1.781	73.916	-0.166
138100	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	6.737	74.229	1.032	-0.004	74.155	0	-1.688	73.875	-0.191	6.736	74.163	1.033	0.601	74.141	0.064	-1.601	73.875	-0.18	6.736	74.163	1.033	0.867	74.121	0.095	-1.683	73.875	-0.19
138150	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	7.199	74.229	1.11	-0.004	74.155	0	-1.558	73.832	-0.17	7.2	74.171	1.11	0.601	74.141	0.062	-1.473	73.832	-0.16	7.2	74.171	1.11	0.867	74.121	0.092	-1.555	73.832	-0.169
138200	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	7.663	74.229	1.233	-0.004	74.155	0	-1.393	73.781	-0.152	7.664	74.179	1.233	0.601	74.141	0.063	-1.309	73.781	-0.142	7.664	74.179	1.233	0.867	74.12	0.092	-1.391	73.781	-0.152
138250	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	8.549	74.229	1.154	-0.004	74.155	0	-1.187	73.761	-0.107	8.549	74.184	1.154	0.601	74.141	0.052	-1.153	73.761	-0.099	8.549	74.184	1.154	0.867	74.12	0.076	-1.186	73.761	-0.107
138300	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	9.902	74.229	1.078	-0.004	74.155	0	-1.181	73.766	-0.079	9.9	74.179	1.077	0.601	74.141	0.042	-1.181	73.767	-0.079	9.9	74.179	1.077	0.867	74.12	0.062	-1.181	73.767	-0.079
GU01_49395u	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	11.525	74.229	1.383	-0.004	74.155	0	-0.61	73.732	-0.047	11.526	74.151	1.381	0.601	74.141	0.044	-0.525	73.732	-0.041	11.526	74.15	1.381	0.867	74.12	0.065	-0.612	73.732	-0.047
GU01_49395	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	11.525	74.229	1.383	-0.004	74.155	0	-0.61	73.732	-0.047	11.526	74.151	1.381	0.601	74.141	0.044	-0.525	73.732	-0.041	11.526	74.15	1.381	0.867	74.12	0.065	-0.612	73.732	-0.047
138400	[redacted]	[redacted]	RIVER SECTION	GU Pound 23-24 (GUT)	74.275	74.375	74.205	9.418	74.229	0.904	-0.004	74.155	0	-2.539	73.435	-0.402	9.414	74.152	0.903	0.601	74.141	0.037	-2.539	73.435	-0.402	9.414	74.151	0.903	0.867	74.12	0.055	-2.539	73.435	-0.402
138700	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.065	80.411	-0.004	0.624	80.422	0.04	0.601	80.417	0.039	-0.006	80.412	0	0.933	80.42	0.061	0.867	80.406	0.057	-0.003	80.404	0
138750	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.065	80.411	-0.006	0.624	80.422	0.063	0.601	80.417	0.06	-0.007	80.412	-0.001	0.933	80.42	0.094	0.867	80.406	0.088	-0.004	80.403	0
138800	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.065	80.411	-0.005	0.624	80.422	0.055	0.601	80.416	0.054	-0.007	80.412	-0.001	0.933	80.42	0.084	0.867	80.406	0.078	-0.004	80.403	0
138850	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.066	80.411	-0.004	0.624	80.422	0.048	0.601	80.416	0.046	-0.005	80.412	0	0.933	80.42	0.072	0.867	80.406	0.067	-0.004	80.403	0
GU01_48877	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.004	80.454	0	-0.066	80.411	-0.004	0.624	80.422	0.047	0.601	80.416	0.046	-0.004	80.412	0	0.933	80.42	0.071	0.867	80.406	0.066	-0.005	80.403	0

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
GU01_48867	[redacted]	[redacted]	SPILL	GU Pound 26-27	80.51	80.66	80.36	0.08	80.561	0	0.001	80.454	0	0	80.411	0	0	80.422	0	0	80.416	0	0	80.412	0	0	80.42	0	0	80.406	0	0	80.403	0
GU01_48857	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.01	0.624	80.422	0.047	0.601	80.416	0.046	-0.004	80.412	0	0.933	80.42	0.071	0.867	80.406	0.066	-0.005	80.403	0
138900	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.009	0.624	80.422	0.047	0.601	80.416	0.045	-0.004	80.412	0	0.933	80.42	0.071	0.867	80.406	0.066	-0.005	80.403	0
138950	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.01	0.624	80.422	0.049	0.601	80.416	0.048	-0.004	80.412	0	0.933	80.42	0.074	0.867	80.405	0.069	-0.005	80.403	0
139000	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.01	0.624	80.422	0.05	0.601	80.416	0.049	-0.004	80.412	0	0.933	80.42	0.076	0.867	80.405	0.071	-0.005	80.403	0
139050	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.011	0.624	80.422	0.057	0.601	80.416	0.055	-0.004	80.412	0	0.933	80.42	0.086	0.867	80.405	0.08	-0.005	80.403	0
139100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.145	80.411	-0.01	0.624	80.422	0.051	0.601	80.416	0.05	-0.004	80.412	0	0.933	80.42	0.078	0.867	80.405	0.073	-0.005	80.402	0
139150	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.011	0.624	80.422	0.054	0.601	80.416	0.052	-0.004	80.412	0	0.933	80.42	0.082	0.867	80.405	0.076	-0.005	80.402	0
139171	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	-0.001	-0.146	80.411	-0.016	0.624	80.422	0.078	0.601	80.416	0.075	-0.004	80.412	0	0.933	80.42	0.118	0.867	80.404	0.11	-0.005	80.402	-0.001
139191	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	-0.001	-0.146	80.411	-0.016	0.624	80.422	0.078	0.601	80.416	0.075	-0.004	80.412	0	0.933	80.42	0.117	0.867	80.404	0.11	-0.005	80.402	-0.001
139200	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.012	0.624	80.422	0.062	0.601	80.416	0.06	-0.004	80.412	0	0.933	80.42	0.094	0.867	80.404	0.088	-0.005	80.402	-0.001
139250	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.011	0.624	80.422	0.054	0.601	80.416	0.052	-0.004	80.412	0	0.933	80.42	0.082	0.867	80.404	0.076	-0.005	80.402	0
139300	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.008	0.624	80.422	0.042	0.601	80.416	0.04	-0.004	80.412	0	0.933	80.42	0.063	0.867	80.404	0.059	-0.005	80.402	0
139350	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.008	0.624	80.422	0.041	0.601	80.416	0.039	-0.004	80.412	0	0.933	80.42	0.062	0.867	80.404	0.057	-0.005	80.402	0
139400	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.009	0.624	80.422	0.043	0.601	80.416	0.042	-0.005	80.412	0	0.933	80.42	0.066	0.867	80.404	0.061	-0.006	80.402	0
139450	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.009	0.624	80.422	0.043	0.601	80.416	0.042	-0.005	80.412	0	0.933	80.42	0.065	0.867	80.404	0.061	-0.006	80.402	0
139500	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.146	80.411	-0.009	0.624	80.421	0.047	0.601	80.416	0.045	-0.004	80.412	0	0.933	80.42	0.071	0.867	80.404	0.066	-0.006	80.401	0
139550	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.561	0	-0.005	80.454	0	-0.147	80.411	-0.01	0.624	80.421	0.049	0.601	80.415	0.047	-0.004	80.412	0	0.933	80.42	0.074	0.867	80.404	0.069	-0.006	80.401	0
139600	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.147	80.411	-0.009	0.624	80.421	0.043	0.601	80.415	0.041	-0.005	80.412	0	0.933	80.42	0.065	0.867	80.404	0.06	-0.006	80.401	0
139650	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.147	80.411	-0.009	0.624	80.421	0.044	0.601	80.415	0.042	-0.007	80.412	-0.001	0.933	80.42	0.066	0.867	80.404	0.062	-0.006	80.401	0
139700	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.147	80.411	-0.009	0.624	80.421	0.045	0.601	80.415	0.043	-0.009	80.412	-0.001	0.933	80.42	0.068	0.867	80.403	0.063	-0.006	80.401	0
139750	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.148	80.411	-0.009	0.624	80.421	0.045	0.601	80.415	0.043	-0.01	80.412	-0.001	0.933	80.42	0.068	0.867	80.403	0.063	-0.006	80.401	0
139800	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.148	80.411	-0.009	0.624	80.421	0.044	0.601	80.415	0.042	-0.012	80.412	-0.001	0.933	80.42	0.066	0.867	80.403	0.061	-0.006	80.401	0
139850	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.148	80.411	-0.008	0.624	80.421	0.04	0.601	80.415	0.039	-0.015	80.412	-0.001	0.933	80.42	0.061	0.867	80.403	0.057	-0.006	80.401	0
139900	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.148	80.411	-0.009	0.624	80.421	0.045	0.601	80.415	0.043	-0.017	80.412	-0.001	0.933	80.42	0.068	0.867	80.403	0.063	-0.006	80.401	0
139950	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.149	80.411	-0.01	0.624	80.421	0.047	0.601	80.415	0.046	-0.02	80.412	-0.001	0.933	80.42	0.072	0.867	80.403	0.067	-0.006	80.401	0
140000	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.149	80.411	-0.009	0.624	80.421	0.041	0.601	80.415	0.04	-0.023	80.412	-0.002	0.933	80.42	0.063	0.867	80.403	0.058	-0.006	80.401	0
140050	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.15	80.411	-0.007	0.624	80.421	0.036	0.601	80.415	0.035	-0.027	80.412	-0.002	0.933	80.42	0.055	0.867	80.403	0.052	-0.006	80.4	0
140100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.15	80.411	-0.008	0.624	80.421	0.042	0.601	80.415	0.041	-0.032	80.412	-0.002	0.933	80.42	0.064	0.867	80.403	0.06	-0.006	80.4	0
140150	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.151	80.411	-0.008	0.624	80.421	0.039	0.601	80.415	0.038	-0.036	80.412	-0.002	0.933	80.42	0.06	0.867	80.403	0.056	-0.006	80.4	0
140200	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.151	80.411	-0.012	0.624	80.421	0.059	0.601	80.415	0.056	-0.039	80.412	-0.004	0.933	80.42	0.089	0.867	80.402	0.083	-0.006	80.4	-0.001
140229	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	-0.001	-0.152	80.411	-0.017	0.624	80.421	0.081	0.601	80.415	0.079	-0.04	80.412	-0.005	0.933	80.42	0.123	0.867	80.402	0.115	-0.006	80.399	-0.001
140250	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	-0.001	-0.152	80.411	-0.017	0.624	80.421	0.082	0.601	80.414	0.079	-0.041	80.412	-0.005	0.933	80.42	0.124	0.867	80.402	0.116	-0.006	80.399	-0.001
140300	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.152	80.411	-0.009	0.624	80.42	0.044	0.601	80.415	0.042	-0.042	80.412	-0.003	0.933	80.42	0.066	0.867	80.402	0.062	-0.006	80.399	0
140350	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.153	80.411	-0.01	0.624	80.42	0.046	0.601	80.415	0.045	-0.042	80.412	-0.003	0.933	80.42	0.07	0.867	80.402	0.065	-0.006	80.399	0
140400	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.153	80.411	-0.008	0.624	80.42	0.038	0.601	80.415	0.037	-0.042	80.412	-0.003	0.933	80.42	0.058	0.867	80.402	0.054	-0.006	80.399	0
140450	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.154	80.411	-0.009	0.624	80.42	0.042	0.601	80.414	0.04	-0.043	80.412	-0.003	0.933	80.42	0.063	0.867	80.402	0.059	-0.006	80.399	0
140500	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.155	80.411	-0.01	0.624	80.42	0.048	0.601	80.414	0.047	-0.045	80.412	-0.003	0.933	80.42	0.073	0.867	80.401	0.068	-0.006	80.399	0
140550	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.155	80.411	-0.01	0.624	80.42	0.046	0.601	80.414	0.044	-0.048	80.412	-0.004	0.933	80.42	0.07	0.867	80.401	0.065	-0.006	80.399	0
140600	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.156	80.411	-0.011	0.624	80.42	0.051	0.601	80.414	0.05	-0.051	80.412	-0.004	0.933	80.42	0.078	0.867	80.401	0.073	-0.006	80.399	-0.001
140650	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.157	80.411	-0.009	0.624	80.42	0.044	0.601	80.414	0.042	-0.053	80.412	-0.004	0.933	80.42	0.067	0.867	80.401	0.062	-0.006	80.399	0
140700	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0.001	80.562	0	-0.005	80.454	0	-0.158	80.411	-0.011	0.624	80.42	0.052	0.601	80.414	0.05	-0.054	80.412	-0.004	0.933	80.42	0.078	0.867	80.401	0.073	-0.006	80.399	-0.001
140750	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.158	80.411	-0.012	0.624	80.42	0.052	0.601	80.414	0.051	-0.055	80.412	-0.005	0.933	80.42	0.079	0.867	80.401	0.074	-0.006	80.398	-0.001
140800	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.159	80.411	-0.008	0.624	80.42	0.038	0.601	80.414	0.037	-0.055	80.412	-0.003	0.933	80.42	0.058	0.867	80.401	0.054	-0.006	80.398	0
140850	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.16	80.411	-0.012	0.624	80.42	0.056	0.601	80.414	0.054	-0.054	80.412	-0.005	0.933	80.42	0.085	0.867	80.4	0.079	-0.006	80.398	-0.001
140900	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.161	80.411	-0.011	0.624	80.42	0.051	0.601	80.414	0.049	-0.052	80.412	-0.004	0.933	80.42	0.078	0.867	80.4	0.072	-0.006	80.398	-0.001
140925	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.162	80.411	-0.011	0.624	80.42	0.049	0.601	80.414	0.047	-0.051	80.412	-0.004	0.933	80.42	0.074	0.867	80.4	0.069	-0.006	80.398	0
140950	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.162	80.411	-0.009	0.624	80.42	0.042	0.601	80.414	0.04	-0.049	80.412	-0.003	0.933	80.42	0.063	0.867	80.4	0.059	-0.006	80.398	0
140975	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.163	80.411	-0.011	0.624	80.42	0.05	0.601	80.414	0.048	-0.047	80.412	-0.004	0.933	80.42	0.075	0.867	80.4	0.07	-0.006	80.398	0
141000	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.164	80.411	-0.011	0.624	80.42	0.051	0.601	80.414	0.049	-0.045	80.412	-0.004	0.933	80.42	0.077	0.867	80.4	0.072	-0.006	80.398	-0.001
141030	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	-0.001	-0.164	80.411	-0.017	0.624	80.42	0.073	0.601	80.414	0.07	-0.043	80.412	-0.005	0.933	80.42	0.11	0.867	80.4	0.103	-0.006	80.397	-0.001
141050	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.164	80.411	-0.013	0.624	80.42	0.054	0.601	80.414	0.052	-0.042	80.412	-0.004	0.933	80.42	0.082	0.867	80.4	0.077	-0.006	80.398	-0.001
141100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.166	80.411	-0.01	0.624	80.42	0.042	0.601	80.414	0.041	-0.036	80.412	-0.002	0.933	80.42	0.064	0.867	80.4	0.06	-0.006	80.398	0
141150	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.167	80.411	-0.012	0.624	80.42	0.051	0.601	80.414	0.049	-0.028	80.412	-0.002	0.933	80.42	0.077	0.867	80.4	0.072	-0.006	80.397	-0.001
141200	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.168	80.411	-0.012	0.624	80.42	0.051	0.601	80.414	0.049	-0.02	80.412	-0.002	0.933	80.42	0.078	0.867	80.399	0.072	-0.006	80.397	-0.001
141250	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.169	80.411	-0.013	0.624	80.42	0.053	0.601	80.413	0.051	-0.011	80.412	-0.001	0.933	80.42	0.081	0.867	80.399	0.075	-0.006	80.397	-0.001
141300	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.17	80.411	-0.011	0.624	80.42	0.048	0.601	80.413	0.046	-0.002	80.412	0	0.933	80.42	0.072	0.867	80.399	0.067	-0.006	80.397	0
141350	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.171	80.411	-0.012	0.624	80.42	0.051	0.601	80.413	0.05	0	80.412	0	0.933	80.42	0.078	0.867	80.399	0.073	-0.006	80.397	-0.001
141400	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.172	80.411	-0.01	0.624	80.42	0.043	0.601	80.413	0.042	0	80.412	0	0.933	80.42	0.065	0.867	80.399	0.061	-0.006	80.397	0
141450	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.173	80.411	-0.011	0.624	80.42	0.046	0.601	80.413	0.045	0	80.412	0	0.933	80.42	0.07	0.868	80.399	0.066	-0.006	80.397	0
141500	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.175	80.411	-0.012	0.624	80.42	0.049	0.601	80.413	0.047	-0.004	80.412	0	0.933	80.42	0.075	0.868	80.399	0.069	-0.006	80.397	0
141550	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.176	80.411	-0.008	0.624	80.42	0.033	0.601	80.413	0.032	-0.007	80.412	0	0.933	80.42	0.05	0.868	80.399	0.047	-0.006	80.397	0
141600	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.178	80.411	-0.011	0.624	80.42	0.045	0.601	80.413	0.043	-0.01	80.412	-0.001	0.933	80.42	0.068	0.868	80.399	0.064	-0.006	80.396	0
141650	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.179	80.411	-0.012	0.624	80.42	0.049	0.601	80.413	0.047	-0.012	80.412	-0.001	0.933	80.42	0.074	0.868	80.398	0.069	-0.006	80.396	0
141700	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.18	80.411	-0.01	0.624	80.42	0.042	0.601	80.413	0.041	-0.014	80.412	-0.001	0.933	80.42	0.064	0.868	80.398	0.06	-0.006	80.396	0
141750	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.182	80.411	-0.011	0.624	80.42	0.044	0.601	80.413	0.043	-0.015	80.412	-0.001	0.933	80.42	0.067	0.868	80.398	0.063	-0.006	80.396	0
141800	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.183	80.411	-0.013	0.624	80.42	0.052	0.601	80.413	0.05	-0.017	80.412	-0.001	0.933	80.42	0.079	0.868	80.398	0.073	-0.006	80.396	-0.001
141850	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.185	80.411	-0.011	0.624	80.42	0.045	0.601	80.413	0.043	-0.019	80.412	-0.001	0.933	80.42	0.068	0.868	80.398	0.064	-0.006	80.396	0
141900	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.186	80.411	-0.012	0.624	80.42	0.045	0.601	80.413	0.043	-0.021	80.412	-0.002	0.933	80.42	0.068	0.868	80.398	0.063	-0.006	80.396	0
141950	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.187	80.411	-0.015	0.624	80.42	0.055	0.601	80.413	0.053	-0.023	80.412	-0.002	0.933	80.42	0.084	0.868	80.398	0.078	-0.006	80.396	-0.001
142000	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.188	80.411	-0.009	0.624	80.42	0.036	0.601	80.413	0.034	-0.024	80.412	-0.001	0.933	80.42	0.054	0.868	80.398	0.05	-0.006	80.396	0
142050	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.189	80.411	-0.012	0.624	80.42	0.045	0.601	80.413	0.044	-0.025	80.412	-0.002	0.933	80.42	0.069	0.868	80.398	0.064	-0.006	80.395	0
142100	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.191	80.411	-0.011	0.624	80.42	0.039	0.601	80.413	0.038	-0.024	80.412	-0.002	0.933	80.42	0.06	0.868	80.398	0.056	-0.006	80.395	0
142150	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.192	80.411	-0.012	0.624	80.421	0.044	0.601	80.413	0.043	-0.024	80.412	-0.002	0.933	80.42	0.068	0.868	80.397	0.063	-0.007	80.395	0
142200	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.193	80.411	-0.014	0.624	80.421	0.051	0.601	80.412	0.049	-0.022	80.412	-0.002	0.933	80.42	0.077	0.868	80.397	0.072	-0.007	80.395	-0.001
142250	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.195	80.411	-0.013	0.624	80.421	0.047	0.601	80.412	0.045	-0.02	80.412	-0.001	0.933	80.42	0.071	0.868	80.397	0.066	-0.007	80.395	0
142288	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.196	80.411	-0.015	0.624	80.421	0.056	0.601	80.412	0.054	-0.018	80.412	-0.002	0.933	80.42	0.085	0.868	80.397	0.079	-0.007	80.395	-0.001
142300	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	-0.001	-0.196	80.411	-0.027	0.624	80.421	0.097	0.601	80.412	0.093	-0.018	80.411	-0.003	0.933	80.42	0.147	0.868	80.396	0.137	-0.007	80.394	-0.001
142308	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	-0.001	-0.196	80.411	-0.02	0.624	80.421	0.072	0.601	80.412	0.069	-0.018	80.412	-0.002	0.933	80.42	0.109	0.868	80.396	0.101	-0.007	80.394	-0.001
142350	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.197	80.411	-0.013	0.624	80.421	0.049	0.601	80.412	0.047	-0.016	80.412	-0.001	0.933	80.42	0.074	0.868	80.397	0.069	-0.007	80.395	-0.001
142400	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.198	80.411	-0.014	0.624	80.421	0.049	0.601	80.412	0.048	-0.014	80.412	-0.001	0.933	80.42	0.075	0.868	80.396	0.07	-0.007	80.394	-0.001
142450	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.199	80.411	-0.01	0.624	80.421	0.035	0.601	80.412	0.034	-0.014	80.412	-0.001	0.933	80.42	0.053	0.868	80.397	0.05	-0.007	80.394	0
142500	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.201	80.411	-0.011	0.624	80.421	0.039	0.601	80.412	0.038	-0.013	80.411	-0.001	0.933	80.42	0.06	0.868	80.396	0.056	-0.007	80.394	0
142550	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.203	80.411	-0.012	0.624	80.421	0.042	0.601	80.412	0.041	-0.012	80.411	-0.001	0.933	80.42	0.065	0.868	80.396	0.06	-0.006	80.394	0
142600	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.205	80.411	-0.011	0.624	80.421	0.038	0.601	80.412	0.036	-0.01	80.411	-0.001	0.933	80.42	0.057	0.868	80.396	0.054	-0.006	80.394	0
142650	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.206	80.411	-0.011	0.624	80.421	0.04	0.601	80.412	0.039	-0.007	80.411	0	0.933	80.42	0.062	0.868	80.396	0.057	-0.006	80.394	0
142700	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.208	80.411	-0.013	0.624	80.421	0.044	0.601	80.412	0.043	-0.003	80.411	0	0.933	80.42	0.068	0.868	80.396	0.063	-0.006	80.394	0
142750	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.21	80.411	-0.01	0.624	80.421	0.034	0.601	80.412	0.033	-0.002	80.411	0	0.933	80.42	0.052	0.868	80.396	0.048	-0.006	80.394	0
142800	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.211	80.411	-0.012	0.624	80.421	0.042	0.601	80.412	0.041	-0.002	80.411	0	0.933	80.42	0.064	0.868	80.396	0.06	-0.006	80.394	0
142850	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.213	80.411	-0.013	0.624	80.421	0.043	0.601	80.412	0.042	-0.001	80.411	0	0.933	80.42	0.066	0.868	80.396	0.061	-0.005	80.394	0
142900	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.215	80.411	-0.012	0.624	80.421	0.042	0.601	80.412	0.04	-0.001	80.411	0	0.933	80.42	0.064	0.868	80.396	0.059	-0.005	80.394	0
142923	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.215	80.411	-0.019	0.624	80.421	0.064	0.601	80.412	0.062	-0.002	80.411	0	0.933	80.42	0.098	0.868	80.395	0.091	-0.005	80.393	0
142943	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.216	80.411	-0.017	0.624	80.421	0.056	0.601	80.412	0.054	-0.003	80.411	0	0.933	80.42	0.085	0.868	80.395	0.079	-0.005	80.393	0
142950	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.216	80.411	-0.013	0.624	80.421	0.045	0.601	80.412	0.044	-0.005	80.411	0	0.933	80.42	0.069	0.868	80.395	0.064	-0.005	80.393	0
143000	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.217	80.411	-0.012	0.624	80.421	0.038	0.601	80.412	0.037	-0.006	80.411	0	0.933	80.42	0.058	0.868	80.395	0.054	-0.004	80.393	0
143050	[redacted]	[redacted]	RIVER SECTION	GU Pound 26-27	80.51	80.66	80.36	0	80.562	0	-0.005	80.454	0	-0.219	80.411	-0.012	0.624	80.421	0.038	0.601	80.412	0.037	-0.002	80.411	0	0.933	80.42	0.058	0.868	80.395	0.054	-0.003	80.393	0
143200	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0	82.681	0	-0.005	82.39	0	-0.22	82.271	-0.014	0.624	82.692	0.056	0.601	82.387	0.049	-0.005	82.257	0	0.933	82.686	0.088	0.868	82.33	0.075	-0.003	82.22	0
143250	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.002	82.681	0	-0.005	82.39	0	-0.222	82.271	-0.013	0.625	82.692	0.053	0.601	82.387	0.046	-0.009	82.256	-0.001	0.933	82.686	0.083	0.868	82.33	0.071	-0.003	82.22	0
143300	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.006	82.681	0	-0.005	82.39	0	-0.223	82.271	-0.011	0.627	82.692	0.046	0.601	82.387	0.039	-0.01	82.256	-0.001	0.936	82.686	0.072	0.868	82.33	0.06	-0.004	82.22	0
143350	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.01	82.681	0.001	-0.005	82.39	0	-0.225	82.271	-0.012	0.629	82.692	0.056	0.601	82.387	0.047	-0.009	82.256	-0.001	0.939	82.686	0.089	0.868	82.33	0.073	-0.004	82.219	0
GU01_44373	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.011	82.681	0.001	-0.005	82.39	0	-0.225	82.271	-0.012	0.63	82.692	0.056	0.601	82.387	0.047	-0.003	82.256	0	0.94	82.686	0.089	0.868	82.33	0.073	-0.004	82.219	0
GU01_44351	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.012	82.681	0.002	-0.005	82.39	-0.001	-0.226	82.271	-0.027	0.631	82.692	0.123	0.601	82.386	0.104	-0.002	82.255	0	0.941	82.685	0.193	0.868	82.328	0.161	-0.004	82.217	-0.001
143400	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.013	82.681	0.001	-0.005	82.39	0	-0.226	82.271	-0.015	0.631	82.692	0.068	0.601	82.386	0.057	-0.001	82.255	0	0.942	82.685	0.107	0.868	82.328	0.088	-0.004	82.217	0
143450	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.016	82.681	0.001	-0.005	82.39	0	-0.228	82.271	-0.012	0.633	82.692	0.053	0.601	82.386	0.045	-0.002	82.255	0	0.945	82.685	0.085	0.868	82.328	0.07	-0.004	82.217	0
143500	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.02	82.681	0.002	-0.005	82.39	0	-0.229	82.271	-0.012	0.635	82.692	0.052	0.601	82.386	0.044	-0.002	82.255	0	0.948	82.685	0.082	0.868	82.328	0.068	-0.004	82.217	0
143550	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.024	82.681	0.002	-0.005	82.39	0	-0.231	82.271	-0.012	0.638	82.692	0.051	0.601	82.386	0.044	-0.002	82.255	0	0.951	82.685	0.081	0.868	82.328	0.068	-0.004	82.217	0
143600	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.027	82.681	0.003	-0.005	82.39	0	-0.232	82.271	-0.015	0.64	82.692	0.059	0.601	82.386	0.051	-0.002	82.255	0	0.954	82.685	0.094	0.868	82.328	0.078	-0.004	82.217	0
143650	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.03	82.681	0.002	-0.005	82.39	0	-0.234	82.271	-0.012	0.641	82.692	0.046	0.601	82.386	0.04	-0.002	82.255	0	0.957	82.685	0.073	0.868	82.328	0.062	-0.004	82.217	0
GU01_44329	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.03	82.681	0.003	-0.005	82.39	0	-0.234	82.271	-0.012	0.642	82.692	0.053	0.601	82.386	0.045	-0.002	82.255	0	0.958	82.685	0.085	0.868	82.328	0.07	-0.004	82.216	0
GU01_44066	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.032	82.681	0.001	-0.005	82.39	0	-0.235	82.271	-0.007	0.643	82.692	0.024	0.601	82.386	0.021	-0.001	82.255	0	0.959	82.685	0.037	0.868	82.328	0.032	-0.004	82.216	0
GU01_44046a	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 27-28	82.59	82.74	82.44	2.154	82.681	0	0.132	82.39	0	0	82.271	0	2.303	82.692	0	0.135	82.386	0	0	82.255	0	2.213	82.685	0	0.086	82.328	0	0	82.216	0
GU01_44046	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.521	82.681	0.099	0.592	82.39	0.019	0.08	82.271	0.003	4.203	82.692	0.117	1.209	82.386	0.041	0.109	82.255	0.004	4.569	82.685	0.128	1.524	82.328	0.054	0.106	82.216	0.004
GU01_44026	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.52	82.679	0.18	0.592	82.39	0.036	0.079	82.271	0.006	4.203	82.69	0.213	1.209	82.385	0.077	0.11	82.255	0.008	4.568	82.683	0.233	1.524	82.327	0.103	0.106	82.216	0.008
143710	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.52	82.68	0.127	0.592	82.39	0.025	0.079	82.271	0.004	4.203	82.691	0.151	1.209	82.386	0.053	0.11	82.255	0.005	4.568	82.684	0.165	1.524	82.327	0.071	0.106	82.216	0.005
143720	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.52	82.679	0.189	0.592	82.39	0.037	0.079	82.271	0.006	4.202	82.689	0.224	1.209	82.385	0.079	0.11	82.255	0.008	4.568	82.682	0.245	1.524	82.327	0.105	0.106	82.216	0.008
143750	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.52	82.678	0.216	0.592	82.39	0.044	0.077	82.271	0.007	4.202	82.688	0.255	1.209	82.385	0.094	0.11	82.255	0.01	4.567	82.68	0.279	1.524	82.326	0.126	0.106	82.216	0.009
143800	[redacted]	[redacted]	RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.519	82.677	0.213	0.592	82.39	0.043	0.075	82.271	0.007	4.201	82.687	0.253	1.209	82.385	0.093	0.11	82.254	0.01	4.566	82.679	0.276	1.524	82.326	0.125	0.106	82.216	0.009

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
143850	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.518	82.676	0.224	0.592	82.39	0.045	0.073	82.271	0.007	4.2	82.685	0.266	1.209	82.385	0.097	0.11	82.254	0.01	4.566	82.677	0.291	1.524	82.326	0.131	0.106	82.215	0.01
143900	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.517	82.675	0.215	0.592	82.39	0.044	0.072	82.271	0.006	4.199	82.684	0.254	1.209	82.384	0.094	0.11	82.254	0.01	4.565	82.676	0.278	1.524	82.325	0.127	0.106	82.215	0.01
143950	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.517	82.674	0.217	0.592	82.39	0.045	0.07	82.271	0.006	4.198	82.683	0.258	1.209	82.384	0.095	0.11	82.254	0.01	4.564	82.674	0.282	1.524	82.325	0.129	0.106	82.215	0.01
144000	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.516	82.674	0.211	0.592	82.39	0.043	0.068	82.271	0.006	4.197	82.682	0.25	1.209	82.384	0.093	0.11	82.254	0.01	4.563	82.673	0.274	1.524	82.324	0.125	0.106	82.214	0.009
144050	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.515	82.673	0.206	0.592	82.39	0.043	0.067	82.271	0.006	4.197	82.681	0.244	1.209	82.384	0.091	0.11	82.254	0.01	4.562	82.672	0.267	1.524	82.324	0.123	0.106	82.214	0.009
144100	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.514	82.672	0.204	0.592	82.39	0.042	0.065	82.271	0.006	4.196	82.68	0.242	1.209	82.383	0.089	0.11	82.254	0.009	4.561	82.671	0.266	1.524	82.323	0.121	0.106	82.214	0.009
144150	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.513	82.671	0.221	0.592	82.389	0.045	0.064	82.271	0.006	4.195	82.678	0.262	1.209	82.383	0.097	0.11	82.254	0.01	4.56	82.669	0.287	1.524	82.323	0.13	0.106	82.214	0.01
144200	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.513	82.671	0.207	0.592	82.389	0.041	0.063	82.271	0.005	4.194	82.677	0.245	1.209	82.383	0.088	0.11	82.253	0.009	4.559	82.668	0.269	1.524	82.323	0.119	0.106	82.213	0.009
144250	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.512	82.67	0.196	0.592	82.389	0.039	0.062	82.271	0.005	4.193	82.677	0.232	1.209	82.383	0.084	0.11	82.253	0.009	4.558	82.667	0.255	1.524	82.322	0.113	0.106	82.213	0.008
144300	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.511	82.67	0.188	0.592	82.389	0.038	0.061	82.271	0.005	4.192	82.676	0.223	1.209	82.383	0.081	0.11	82.253	0.008	4.558	82.666	0.245	1.524	82.322	0.109	0.106	82.213	0.008
144350	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.51	82.669	0.175	0.592	82.389	0.035	0.061	82.271	0.004	4.191	82.676	0.208	1.209	82.383	0.074	0.11	82.253	0.008	4.557	82.666	0.227	1.524	82.322	0.099	0.106	82.213	0.007
144363	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.51	82.667	0.287	0.592	82.389	0.058	0.06	82.271	0.007	4.191	82.672	0.341	1.209	82.382	0.125	0.11	82.253	0.013	4.556	82.661	0.375	1.524	82.321	0.168	0.105	82.212	0.013
144383	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.51	82.668	0.224	0.592	82.389	0.045	0.06	82.271	0.005	4.191	82.673	0.267	1.209	82.382	0.096	0.11	82.253	0.01	4.556	82.663	0.292	1.524	82.321	0.128	0.105	82.213	0.009
144400	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.51	82.669	0.147	0.592	82.389	0.029	0.06	82.271	0.003	4.191	82.675	0.174	1.209	82.383	0.061	0.11	82.253	0.006	4.556	82.665	0.191	1.524	82.322	0.082	0.105	82.213	0.006
144417	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.509	82.669	0.104	0.592	82.389	0.02	0.06	82.271	0.002	4.19	82.676	0.123	1.209	82.383	0.043	0.108	82.253	0.004	4.555	82.665	0.135	1.524	82.322	0.058	0.105	82.213	0.004
144428	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.509	82.669	0.1	0.592	82.389	0.02	0.06	82.271	0.002	4.19	82.676	0.119	1.209	82.383	0.042	0.107	82.253	0.004	4.555	82.665	0.131	1.524	82.322	0.057	0.105	82.213	0.004
144439	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.509	82.669	0.116	0.592	82.389	0.023	0.06	82.271	0.003	4.19	82.675	0.138	1.209	82.383	0.05	0.105	82.253	0.005	4.555	82.665	0.152	1.524	82.322	0.067	0.105	82.213	0.005
144450	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.508	82.668	0.187	0.592	82.389	0.038	0.06	82.271	0.005	4.189	82.674	0.222	1.209	82.382	0.081	0.104	82.253	0.008	4.555	82.663	0.244	1.524	82.321	0.109	0.105	82.213	0.008
144500	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.508	82.666	0.232	0.592	82.389	0.047	0.059	82.271	0.006	4.188	82.671	0.276	1.209	82.382	0.101	0.101	82.253	0.01	4.554	82.66	0.304	1.524	82.32	0.137	0.105	82.212	0.01
144550	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.507	82.666	0.2	0.592	82.389	0.041	0.059	82.271	0.005	4.188	82.671	0.238	1.209	82.382	0.088	0.098	82.253	0.008	4.553	82.66	0.261	1.524	82.32	0.119	0.105	82.212	0.009
144600	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.506	82.665	0.2	0.592	82.389	0.042	0.059	82.271	0.005	4.186	82.67	0.238	1.209	82.382	0.091	0.096	82.253	0.008	4.552	82.658	0.262	1.524	82.32	0.124	0.105	82.212	0.009
144650	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.504	82.665	0.14	0.592	82.389	0.039	0.059	82.271	0.006	4.184	82.67	0.165	1.209	82.381	0.089	0.094	82.252	0.009	4.549	82.659	0.184	1.524	82.319	0.128	0.105	82.211	0.01
144700	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.501	82.664	0.196	0.592	82.389	0.043	0.06	82.271	0.005	4.181	82.668	0.231	1.209	82.381	0.093	0.092	82.252	0.008	4.546	82.656	0.259	1.524	82.319	0.126	0.105	82.211	0.009
144750	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.498	82.664	0.108	0.592	82.389	0.024	0.061	82.271	0.003	4.178	82.669	0.128	1.209	82.381	0.053	0.091	82.252	0.005	4.543	82.657	0.141	1.524	82.319	0.074	0.106	82.211	0.006
GUT_031	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	3.497	82.664	0.156	0.592	82.389	0.03	0.062	82.271	0.004	4.177	82.668	0.186	1.209	82.381	0.063	0.09	82.252	0.005	4.542	82.656	0.203	1.524	82.319	0.084	0.106	82.211	0.006
GUT_weir10us	[redacted]		SPILL	GU Pound 27-28	82.59	82.74	82.44	2.079	82.664	0	0.572	82.389	0	0.102	82.271	0	2.106	82.668	0	0.546	82.381	0	0.059	82.252	0	2.024	82.656	0	0.339	82.319	0	0	82.211	0
GUT_032	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.427	82.664	0.064	0.02	82.389	0.001	-0.143	82.271	-0.007	2.081	82.668	0.092	0.663	82.381	0.036	-0.035	82.252	-0.002	2.528	82.656	0.113	1.186	82.319	0.066	-0.02	82.211	-0.001
144800	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.426	82.664	0.028	0.02	82.389	0	-0.141	82.271	-0.004	2.08	82.668	0.041	0.663	82.381	0.018	-0.035	82.252	-0.001	2.527	82.656	0.05	1.186	82.319	0.034	-0.02	82.211	-0.001
144850	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.422	82.664	0.018	0.02	82.389	0	-0.133	82.271	-0.002	2.075	82.668	0.026	0.663	82.381	0.012	-0.037	82.252	-0.001	2.522	82.656	0.032	1.186	82.319	0.023	-0.019	82.211	0
144900	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.416	82.664	0.017	0.02	82.389	0	-0.123	82.271	-0.002	2.069	82.668	0.024	0.663	82.381	0.011	-0.04	82.252	-0.001	2.516	82.656	0.03	1.186	82.319	0.02	-0.017	82.211	0
144950	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.41	82.664	0.015	0.02	82.389	0	-0.114	82.271	-0.002	2.062	82.668	0.022	0.663	82.381	0.01	-0.042	82.252	-0.001	2.509	82.656	0.028	1.186	82.319	0.019	-0.015	82.211	0
145000	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.407	82.663	0.081	0.02	82.389	0.001	-0.108	82.271	-0.008	2.059	82.667	0.118	0.663	82.381	0.049	-0.042	82.252	-0.004	2.506	82.655	0.145	1.186	82.318	0.094	-0.015	82.211	-0.001
145050	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.406	82.663	0.08	0.02	82.389	0.001	-0.106	82.271	-0.007	2.058	82.667	0.117	0.663	82.381	0.05	-0.042	82.252	-0.004	2.505	82.655	0.144	1.186	82.318	0.095	-0.015	82.211	-0.001
145100	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.405	82.663	0.076	0.02	82.389	0.001	-0.104	82.271	-0.007	2.057	82.667	0.11	0.663	82.381	0.047	-0.042	82.252	-0.003	2.504	82.654	0.136	1.186	82.318	0.09	-0.015	82.21	-0.001
145150	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.404	82.663	0.087	0.02	82.389	0.001	-0.103	82.271	-0.008	2.056	82.666	0.127	0.663	82.381	0.056	-0.042	82.252	-0.004	2.503	82.654	0.157	1.186	82.317	0.107	-0.015	82.21	-0.001
145200	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.403	82.663	0.086	0.02	82.389	0.001	-0.101	82.271	-0.008	2.055	82.666	0.125	0.663	82.381	0.053	-0.041	82.252	-0.004	2.502	82.653	0.154	1.186	82.317	0.101	-0.015	82.21	-0.001
145250	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.402	82.663	0.077	0.02	82.389	0.001	-0.099	82.271	-0.007	2.054	82.666	0.112	0.663	82.381	0.049	-0.04	82.252	-0.003	2.5	82.653	0.138	1.186	82.317	0.094	-0.015	82.21	-0.001
145300	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.401	82.663	0.077	0.02	82.389	0.001	-0.097	82.271	-0.007	2.052	82.666	0.113	0.663	82.381	0.05	-0.039	82.252	-0.003	2.499	82.653	0.139	1.186	82.317	0.096	-0.015	82.209	-0.001
145350	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.398	82.663	0.022	0.02	82.389	0	-0.091	82.271	-0.002	2.049	82.666	0.032	0.663	82.381	0.016	-0.034	82.252	-0.001	2.495	82.653	0.043	1.186	82.317	0.032	-0.014	82.209	0
145400	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.393	82.663	0.034	0.02	82.389	0	-0.083	82.271	-0.004	2.043	82.666	0.05	0.663	82.381	0.026	-0.025	82.252	-0.001	2.49	82.653	0.072	1.186	82.317	0.054	-0.014	82.209	-0.001
145450	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.389	82.663	0.027	0.02	82.389	0	-0.077	82.271	-0.003	2.039	82.666	0.04	0.663	82.381	0.02	-0.016	82.252	-0.001	2.485	82.653	0.052	1.186	82.317	0.039	-0.015	82.209	-0.001
145500	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.384	82.663	0.037	0.02	82.389	0	-0.077	82.271	-0.005	2.034	82.666	0.053	0.663	82.38	0.033	-0.016	82.252	-0.001	2.48	82.653	0.094	1.186	82.316	0.068	-0.015	82.209	-0.001
145550	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.38	82.663	0.028	0.02	82.389	0	-0.074	82.271	-0.003	2.03	82.666	0.041	0.663	82.38	0.021	-0.016	82.252	-0.001	2.476	82.653	0.056	1.186	82.316	0.042	-0.015	82.209	-0.001
145600	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.378	82.662	0.082	0.02	82.389	0.001	-0.071	82.271	-0.007	2.027	82.665	0.12	0.663	82.38	0.054	-0.015	82.251	-0.001	2.473	82.651	0.149	1.186	82.316	0.105	-0.015	82.208	-0.001
145650	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.377	82.662	0.084	0.02	82.389	0.001	-0.071	82.271	-0.007	2.026	82.665	0.124	0.663	82.38	0.056	-0.015	82.251	-0.001	2.472	82.651	0.153	1.186	82.315	0.108	-0.014	82.208	-0.001
145700	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.376	82.661	0.126	0.02	82.389	0.002	-0.07	82.271	-0.009	2.025	82.662	0.185	0.663	82.38	0.075	-0.015	82.251	-0.002	2.472	82.647	0.228	1.186	82.314	0.141	-0.014	82.206	-0.002
145750	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.375	82.661	0.081	0.02	82.389	0.001	-0.07	82.271	-0.006	2.024	82.662	0.119	0.663	82.38	0.052	-0.015	82.25	-0.001	2.471	82.646	0.147	1.186	82.313	0.101	-0.014	82.206	-0.001
145800	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.373	82.661	0.071	0.02	82.389	0.001	-0.07	82.271	-0.006	2.022	82.661	0.105	0.663	82.379	0.054	-0.015	82.25	-0.001	2.469	82.646	0.134	1.186	82.312	0.104	-0.014	82.205	-0.001
145850	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.371	82.661	0.053	0.02	82.389	0.001	-0.069	82.271	-0.006	2.02	82.661	0.079	0.663	82.379	0.045	-0.015	82.25	-0.001	2.466	82.646	0.125	1.186	82.312	0.092	-0.014	82.205	-0.001
145900	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.368	82.661	0.058	0.02	82.389	0.001	-0.068	82.271	-0.006	2.017	82.661	0.085	0.663	82.379	0.05	-0.015	82.25	-0.001	2.463	82.646	0.137	1.186	82.312	0.101	-0.013	82.205	-0.001
145950	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.365	82.661	0.053	0.02	82.389	0.001	-0.067	82.271	-0.005	2.014	82.661	0.077	0.663	82.379	0.042	-0.016	82.25	-0.001	2.46	82.645	0.111	1.186	82.312	0.083	-0.013	82.205	-0.001
146000	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.363	82.661	0.049	0.02	82.389	0.001	-0.068	82.271	-0.004	2.011	82.661	0.072	0.663	82.379	0.035	-0.016	82.25	-0.001	2.458	82.645	0.091	1.186	82.312	0.07	-0.013	82.204	-0.001
146050	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.361	82.66	0.057	0.02	82.389	0.001	-0.07	82.271	-0.005	2.009	82.661	0.084	0.663	82.379	0.042	-0.016	82.25	-0.001	2.455	82.645	0.109	1.186	82.311	0.083	-0.013	82.204	-0.001
146100	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.359	82.66	0.064	0.02	82.389	0.001	-0.072	82.271	-0.007	2.007	82.66	0.095	0.663	82.379	0.052	-0.016	82.249	-0.001	2.453	82.644	0.137	1.186	82.311	0.104	-0.013	82.203	-0.001
146150	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.357	82.66	0.072	0.02	82.389	0.001	-0.073	82.271	-0.007	2.005	82.66	0.107	0.663	82.379	0.054	-0.016	82.249	-0.001	2.452	82.643	0.139	1.186	82.31	0.106	-0.013	82.203	-0.001
146200	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.355	82.66	0.059	0.02	82.389	0.001	-0.074	82.271	-0.005	2.005	82.66	0.087	0.663	82.379	0.041	-0.016	82.249	-0.001	2.452	82.643	0.108	1.186	82.31	0.08	-0.013	82.203	-0.001
146250	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.355	82.66	0.055	0.02	82.389	0.001	-0.073	82.271	-0.005	2.004	82.66	0.081	0.663	82.379	0.038	-0.016	82.249	-0.001	2.451	82.643	0.101	1.186	82.31	0.075	-0.013	82.203	-0.001
GUT_033	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	1.355	82.66	0.082	0.02	82.389	0.001	-0.072	82.271	-0.006	2.004	82.659	0.121	0.663	82.379	0.051	-0.017	82.249	-0.001	2.451	82.642	0.151	1.186	82.309	0.098	-0.013	82.203	-0.001
GUT_weir11us	[redacted]		SPILL	GU Pound 27-28	82.59	82.74	82.44	1.362	82.66	0	0.027	82.389	0	0	82.271	0	1.352	82.659	0	0.024	82.379	0	0	82.249	0	1.128	82.642	0	0.012	82.309	0	0	82.203	0
GUT_034	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.016	82.66	0.001	-0.007	82.389	-0.001	-0.072	82.271	-0.006	0.674	82.659	0.057	0.639	82.379	0.05	-0.017	82.249	-0.001	1.416	82.642	0.124	1.174	82.309	0.097	-0.013	82.203	-0.001
146300	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.015	82.66	0.001	-0.007	82.389	-0.001	-0.072	82.271	-0.006	0.673	82.659	0.057	0.639	82.379	0.05	-0.016	82.249	-0.001	1.417	82.642	0.124	1.174	82.309	0.097	-0.013	82.202	-0.001
146350	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.012	82.66	0.001	-0.007	82.389	0	-0.07	82.271	-0.004	0.669	82.659	0.043	0.639	82.379	0.036	-0.019	82.249	-0.001	1.417	82.642	0.093	1.174	82.309	0.071	-0.013	82.202	-0.001
146400	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.007	82.66	0	-0.007	82.389	0	-0.067	82.271	-0.005	0.665	82.659	0.047	0.639	82.379	0.039	-0.02	82.249	-0.001	1.418	82.642	0.102	1.174	82.309	0.078	-0.013	82.202	-0.001
146450	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.004	82.66	0	-0.007	82.389	0	-0.065	82.271	-0.005	0.664	82.659	0.051	0.639	82.379	0.044	-0.018	82.249	-0.001	1.417	82.642	0.111	1.174	82.309	0.087	-0.013	82.202	-0.001
146500	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.004	82.66	0	-0.007	82.389	0	-0.062	82.271	-0.005	0.663	82.659	0.053	0.639	82.379	0.046	-0.015	82.249	-0.001	1.414	82.642	0.115	1.174	82.309	0.09	-0.013	82.202	-0.001
146550	[redacted]		RIVER SECTION	GU Pound 27-28	82.59	82.74	82.44	0.003	82.66	0	-0.007	82.389	0	-0.058	82.271	-0.003	0.662	82.659	0.038	0.639	82.379	0.034	-0.013	82.249	-0.001	1.411	82.642	0.081	1.174	82.309	0.065	-0.013	82.202	-0.001
146650	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				-0.006	84.911	0	-0.011	84.898	-0.001	-0.063	84.888	-0.003	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001
146750	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.002	84.911	0	-0.011	84.898	0	-0.073	84.888	-0.003	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001
146850	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.011	84.911	0.001	-0.011	84.898	-0.001	-0.077	84.888	-0.004	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	-0.001
146900	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.013	84.911	0	-0.011	84.898	0	-0.076	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	0	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	0
146950	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.013	84.911	0	-0.011	84.898	0	-0.073	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.022	84.888	0	-0.006	84.909	0	-0.011	84.897	0	-0.023	84.888	0
147000	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.013	84.911	0	-0.011	84.898	0	-0.07	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.022	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.023	84.888	0
147050	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.016	84.911	0	-0.011	84.898	0	-0.07	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.022	84.888	0	-0.006	84.909	0	-0.011	84.897	0	-0.023	84.888	0
147100	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.019	84.911	0	-0.011	84.898	0	-0.07	84.888	-0.002	-0.006	84.909	0	-0.011	84.897	0	-0.022	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.023	84.888	-0.001
147150	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.019	84.911	0	-0.011	84.898	0	-0.068	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.022	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.022	84.888	0
147200	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.017	84.911	0	-0.011	84.898	0	-0.064	84.888	-0.001	-0.006	84.909	0	-0.011	84.897	0	-0.021	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.022	84.888	0
147250	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.015	84.911	0	-0.011	84.898	0	-0.059	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	0	-0.021	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.022	84.888	0
147300	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.01	84.911	0	-0.011	84.898	0	-0.051	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	0	-0.021	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.021	84.888	0
147350	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				0.001	84.911	0	-0.011	84.898	-0.001	-0.04	84.888	-0.002	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	-0.001	-0.021	84.888	-0.001
147400	[redacted]		RIVER SECTION	INT Pound 28-29 (GUT)				-0.005	84.911	0	-0.011	84.898	0	-0.024	84.888	-0.001	-0.005	84.909	0	-0.011	84.897	0	-0.021	84.888	0	-0.005	84.909	0	-0.011	84.897	0	-0.021	84.888	0
Lock_29_ds	[redacted]		SLUICE VERTICAL	INT Pound 28-29 (GUT)				0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0	0	86.4	0
147550	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.019	86.485	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.017	86.486	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.017	86.485	-0.002
147600	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.02	86.485	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.018	86.486	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.018	86.485	-0.002
147650	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.021	86.485	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.019	86.486	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.019	86.485	-0.002
147700	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	0	-0.022	86.485	-0.001	0.003	86.579	0	-0.007	86.527	0	-0.02	86.486	-0.001	0.003	86.579	0	-0.007	86.527	0	-0.02	86.485	-0.001
147750	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.023	86.485	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.021	86.486	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.021	86.485	-0.001
147800	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.023	86.485	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.021	86.486	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.021	86.485	-0.001
147850	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.024	86.485	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.022	86.486	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.022	86.485	-0.001
147900	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.024	86.485	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.022	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.022	86.485	-0.002
147950	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.024	86.485	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.022	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.022	86.485	-0.002
148000	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.025	86.485	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.023	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.023	86.485	-0.002
148050	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.025	86.485	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.023	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.023	86.485	-0.002
148100	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	-0.001	-0.025	86.485	-0.003	0.005	86.579	0.001	-0.007	86.527	-0.001	-0.023	86.486	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.023	86.485	-0.002
148150	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0.001	-0.007	86.529	-0.001	-0.026	86.485	-0.003	0.005	86.579	0.001	-0.007	86.527	-0.001	-0.024	86.486	-0.003	0.005	86.579	0.001	-0.007	86.527	-0.001	-0.024	86.485	-0.003
148200	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	-0.001	-0.026	86.485	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.024	86.486	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.024	86.485	-0.002
148250	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.026	86.485	-0.003	0.005	86.579	0	-0.007	86.527	-0.001	-0.024	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.024	86.485	-0.002
148300	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	-0.001	-0.026	86.485	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.024	86.486	-0.002	0.004	86.579	0	-0.007	86.527	-0.001	-0.024	86.485	-0.002
148350	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.026	86.485	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.024	86.486	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.024	86.485	-0.001
148400	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.026	86.485	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.024	86.486	-0.001	0.004	86.579	0	-0.007	86.527	0	-0.024	86.485	-0.001
148450	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.001	0.005	86.579	0	-0.007	86.527	0	-0.025	86.486	-0.001	0.005	86.579	0	-0.007	86.527	0	-0.025	86.485	-0.001
148500	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.006	86.586	0	-0.007	86.529	0	-0.028	86.485	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.026	86.486	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.026	86.485	-0.002
148550	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.006	86.586	0	-0.007	86.529	0	-0.028	86.485	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.026	86.486	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.026	86.485	-0.002
148600	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.006	86.586	0	-0.007	86.529	0	-0.028	86.485	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.002
148650	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	0	-0.028	86.485	-0.002	0.006	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.002	0.005	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.002
148700	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	0	-0.028	86.485	-0.001	0.005	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.001	0.005	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.001
148750	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	0	-0.029	86.485	-0.002	0.005	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.002	0.005	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.002
148800	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	-0.001	-0.029	86.485	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.002	0.005	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.002
148850	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.005	86.586	0	-0.007	86.529	0	-0.029	86.485	-0.002	0.005	86.579	0	-0.007	86.527	0	-0.028	86.486	-0.002	0.005	86.579	0	-0.007	86.527	0	-0.028	86.485	-0.002
148900	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.029	86.485	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.486	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.485	-0.002
148950	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.029	86.485	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.486	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.485	-0.002
149000	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.004	86.586	0	-0.007	86.529	0	-0.029	86.485	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.486	-0.002	0.004	86.579	0	-0.007	86.527	0	-0.028	86.485	-0.002
149050	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.486	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.485	-0.002
149100	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.002	0.002	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.002	0.002	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.002
149150	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.486	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.485	-0.002
149200	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.486	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.485	-0.001
GUT_040	[redacted]		RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	-0.001	-0.027	86.485	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.026	86.486	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.026	86.485	-0.002
GUT_weir12us	[redacted]		SPILL	GU Pound 29-30	86.54	86.69	86.39	0	86.586	0	0	86.529	0	0	86.485	0	0	86.579	0	0	86.527	0	0	86.486	0	0	86.579	0	0	86.527	0	0	86.485	0

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
GUT_041	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586		-0.007	86.529	-0.001	-0.027	86.485	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.026	86.486	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.026	86.485	-0.002
149250	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.486	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.026	86.485	-0.001
149300	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	0	-0.027	86.485	-0.002	0.001	86.579	0	-0.007	86.527	0	-0.027	86.486	-0.001	0.001	86.579	0	-0.007	86.527	0	-0.027	86.485	-0.002
149350	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.002	0.002	86.579	0	-0.007	86.527	0	-0.028	86.486	-0.002	0.002	86.579	0	-0.007	86.527	0	-0.028	86.485	-0.002
149383	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.004	0.002	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.004	0.002	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.004
149400	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.004	0.002	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.004	0.002	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.004
149450	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.003	0.002	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.003
149500	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.003
149550	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.003
149600	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.003
149650	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.004	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.004	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.004
149700	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.028	86.485	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.486	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.028	86.485	-0.002
149750	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.027	86.485	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.486	-0.002	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.485	-0.002
149800	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.003	86.586	0	-0.007	86.529	-0.001	-0.027	86.485	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.486	-0.003	0.003	86.579	0	-0.007	86.527	-0.001	-0.027	86.485	-0.003
149850	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.026	86.485	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.026	86.486	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.026	86.485	-0.002
149900	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.002	86.586	0	-0.007	86.529	-0.001	-0.026	86.485	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.025	86.486	-0.002	0.002	86.579	0	-0.007	86.527	-0.001	-0.025	86.485	-0.002
149950	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	-0.001	-0.025	86.485	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.025	86.486	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.025	86.485	-0.002
150000	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0.001	86.586	0	-0.007	86.529	-0.001	-0.024	86.485	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.024	86.486	-0.002	0.001	86.579	0	-0.007	86.527	-0.001	-0.024	86.485	-0.002
150050	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0	86.586	0	-0.007	86.529	-0.001	-0.023	86.485	-0.002	0	86.579	0	-0.007	86.527	-0.001	-0.023	86.486	-0.002	0	86.579	0	-0.007	86.527	-0.001	-0.023	86.485	-0.002
150100	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	0	86.586	0	-0.007	86.529	-0.001	-0.022	86.485	-0.002	0	86.579	0	-0.007	86.527	-0.001	-0.022	86.486	-0.002	0	86.579	0	-0.007	86.527	-0.001	-0.022	86.485	-0.002
150150	[redacted]	[redacted]	RIVER SECTION	GU Pound 29-30	86.54	86.69	86.39	-0.001	86.586	0	-0.007	86.529	-0.001	-0.022	86.485	-0.002	-0.001	86.579	0	-0.007	86.527	-0.001	-0.022	86.486	-0.002	-0.001	86.579	0	-0.007	86.527	-0.001	-0.022	86.485	-0.002
Lock26_BW_u	[redacted]	[redacted]	ORIFICE OPEN	GU Pound 26-27	80.51	80.66	80.36	0.063	80.561	0	0.001	80.454	0	0	80.411	0	0	80.422	0	0	80.417	0	0	80.412	0	0	80.42	0	0	80.407	0	0	80.404	0
17400	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.041	92.476	-0.005	0.672	92.537	0.069	0.622	92.527	0.064	-0.007	92.473	-0.001	0.902	92.539	0.092	0.86	92.532	0.089	-0.003	92.471	0
17450	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.009	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.536	0.071	0.622	92.527	0.066	-0.006	92.473	-0.001	0.902	92.538	0.094	0.86	92.531	0.09	-0.004	92.471	0
17500	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.009	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.536	0.075	0.622	92.526	0.069	-0.006	92.473	-0.001	0.902	92.537	0.1	0.86	92.53	0.095	-0.004	92.471	0
17550	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.009	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.535	0.075	0.622	92.526	0.069	-0.006	92.473	-0.001	0.902	92.536	0.099	0.86	92.529	0.095	-0.004	92.47	0
17600	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.009	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.535	0.071	0.622	92.525	0.066	-0.007	92.473	-0.001	0.902	92.535	0.095	0.86	92.528	0.091	-0.004	92.47	0
17650	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.534	0.07	0.622	92.525	0.065	-0.007	92.473	-0.001	0.902	92.534	0.094	0.86	92.527	0.09	-0.004	92.47	0
17700	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.534	0.07	0.622	92.524	0.064	-0.008	92.473	-0.001	0.902	92.533	0.093	0.86	92.526	0.089	-0.004	92.47	0
17750	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.003	-0.041	92.476	-0.005	0.672	92.533	0.071	0.622	92.524	0.065	-0.008	92.473	-0.001	0.902	92.532	0.094	0.86	92.525	0.09	-0.004	92.469	0
17800	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.533	0.071	0.622	92.523	0.065	-0.008	92.473	-0.001	0.901	92.531	0.094	0.86	92.524	0.09	-0.004	92.469	0
17850	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.01	0.024	92.511	0.003	-0.042	92.476	-0.006	0.672	92.532	0.086	0.622	92.523	0.08	-0.007	92.473	-0.001	0.901	92.53	0.115	0.86	92.523	0.11	-0.004	92.469	-0.001
17900	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.012	0.024	92.511	0.004	-0.042	92.476	-0.007	0.672	92.531	0.103	0.622	92.521	0.095	-0.007	92.473	-0.001	0.901	92.527	0.137	0.86	92.521	0.131	-0.004	92.468	-0.001
17905	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.013	0.024	92.511	0.004	-0.042	92.476	-0.007	0.672	92.531	0.111	0.622	92.521	0.103	-0.007	92.473	-0.001	0.901	92.527	0.149	0.86	92.52	0.142	-0.004	92.468	-0.001
19100	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.078	92.521	0.013	0.024	92.511	0.004	-0.041	92.476	-0.007	0.672	92.526	0.112	0.622	92.516	0.103	-0.006	92.473	-0.001	0.901	92.516	0.15	0.86	92.51	0.144	-0.004	92.465	-0.001
18150	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.078	92.521	0.009	0.024	92.511	0.003	-0.041	92.476	-0.005	0.672	92.525	0.08	0.622	92.515	0.073	-0.006	92.473	-0.001	0.901	92.515	0.107	0.86	92.509	0.102	-0.004	92.465	-0.001
18200	[redacted]	[redacted]	Aqueduct, V6	OX Pound 2-1	92.563	92.613	92.488	0.078	92.521	0.01	0.024	92.511	0.003	-0.041	92.476	-0.006	0.672	92.524	0.089	0.622	92.514	0.082	-0.005	92.473	-0.001	0.901	92.513	0.12	0.86	92.507	0.115	-0.004	92.464	-0.001
18250	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.078	92.521	0.012	0.024	92.511	0.004	-0.041	92.476	-0.006	0.672	92.523	0.1	0.622	92.513	0.092	-0.006	92.473	-0.001	0.901	92.511	0.134	0.86	92.505	0.129	-0.004	92.464	-0.001
18300	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.079	92.521	0.008	0.024	92.511	0.002	-0.041	92.476	-0.004	0.672	92.523	0.065	0.622	92.513	0.06	-0.006	92.473	-0.001	0.901	92.511	0.088	0.86	92.505	0.084	-0.004	92.464	0
18350	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.01	0.024	92.511	0.003	-0.042	92.476	-0.005	0.672	92.522	0.082	0.622	92.513	0.075	-0.007	92.473	-0.001	0.901	92.509	0.11	0.86	92.503	0.105	-0.004	92.463	-0.001
18400	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.009	0.024	92.511	0.003	-0.043	92.476	-0.005	0.672	92.521	0.079	0.622	92.512	0.072	-0.009	92.473	-0.001	0.902	92.508	0.106	0.86	92.502	0.101	-0.004	92.463	-0.001
18450	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.009	0.024	92.511	0.003	-0.044	92.476	-0.005	0.672	92.521	0.071	0.622	92.511	0.065	-0.01	92.473	-0.001	0.902	92.507	0.095	0.86	92.501	0.091	-0.004	92.463	0
18500	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.082	92.521	0.008	0.024	92.511	0.002	-0.044	92.476	-0.005	0.673	92.52	0.07	0.622	92.511	0.064	-0.011	92.473	-0.001	0.902	92.506	0.094	0.86	92.5	0.09	-0.004	92.462	0
19800	[redacted]	[redacted]	Aquaduct, Old Leicester Rd	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.002	-0.045	92.476	-0.005	0.673	92.514	0.066	0.622	92.504	0.061	-0.011	92.473	-0.001	0.902	92.492	0.09	0.86	92.487	0.086	-0.006	92.458	-0.001
19825	[redacted]	[redacted]	Aquaduct, Old Leicester Rd	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.013	0.024	92.511	0.004	-0.045	92.476	-0.007	0.673	92.513	0.108	0.622	92.503	0.1	-0.01	92.473	-0.002	0.902	92.49	0.147	0.86	92.485	0.14	-0.006	92.458	-0.001
19850	[redacted]	[redacted]	Aquaduct, Old Leicester Rd	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.009	0.024	92.511	0.003	-0.045	92.476	-0.005	0.673	92.513	0.077	0.622	92.503	0.071	-0.01	92.473	-0.001	0.902	92.49	0.104	0.86	92.485	0.1	-0.006	92.458	-0.001
19900	[redacted]	[redacted]	Aquaduct, River Swiff	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.002	-0.045	92.476	-0.005	0.673	92.512	0.068	0.622	92.503	0.062	-0.01	92.473	-0.001	0.902	92.489	0.092	0.86	92.484	0.088	-0.006	92.458	-0.001
19950	[redacted]	[redacted]	Aquaduct, River Swiff	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.011	0.024	92.511	0.003	-0.045	92.476	-0.006	0.673	92.512	0.095	0.622	92.502	0.088	-0.01	92.473	-0.001	0.902	92.487	0.129	0.86	92.482	0.123	-0.006	92.457	-0.001
20000	[redacted]	[redacted]	Aquaduct, River Swiff	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.007	0.024	92.511	0.002	-0.045	92.476	-0.004	0.673	92.511	0.063	0.622	92.502	0.058	-0.01	92.473	-0.001	0.902	92.486	0.086	0.86	92.482	0.082	-0.006	92.457	-0.001
20050	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.007	0.024	92.511	0.002	-0.045	92.476	-0.004	0.673	92.511	0.063	0.622	92.501	0.058	-0.01	92.473	-0.001	0.902	92.486	0.086	0.86	92.481	0.082	-0.006	92.457	-0.001
20100	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.08	92.521	0.008	0.024	92.511	0.002	-0.045	92.476	-0.005	0.673	92.51	0.068	0.622	92.501	0.063	-0.01	92.473	-0.001	0.902	92.485	0.093	0.86	92.48	0.089	-0.006	92.456	-0.001
20150	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.081	92.521	0.008	0.024	92.511	0.002	-0.046	92.476	-0.004	0.673	92.51	0.064	0.622	92.5	0.059	-0.012	92.473	-0.001	0.902	92.484	0.087	0.86	92.479	0.083	-0.006	92.456	-0.001
20900	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.062	92.521	0.006	-0.002	92.511	0	-0.047	92.476	-0.004	0.673	92.505	0.063	0.615	92.495	0.057	-0.013	92.471	-0.001	0.903	92.481	0.087	0.86	92.468	0.083	-0.007	92.453	-0.001
20950	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.005	-0.002	92.511	0	-0.046	92.476	-0.004	0.673	92.505	0.058	0.615	92.495	0.052	-0.012	92.471	-0.001	0.903	92.481	0.079	0.86	92.468	0.075	-0.007	92.452	-0.001
21000	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.062	92.521	0.006	-0.002	92.511	0	-0.047	92.476	-0.004	0.673	92.504	0.063	0.615	92.494	0.057	-0.013	92.471	-0.001	0.903	92.481	0.087	0.86	92.467	0.082	-0.007	92.452	-0.001
21050	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.063	92.521	0.006	-0.002	92.511	0	-0.047	92.476	-0.005	0.674	92.504	0.069	0.615	92.494	0.062	-0.015	92.471	-0.002	0.904	92.481	0.094	0.86	92.466	0.09	-0.007	92.452	-0.001
21100	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.064	92.521	0.007	-0.002	92.511	0	-0.048	92.476	-0.005	0.674	92.503	0.075	0.615	92.494	0.068	-0.016	92.471	-0.002	0.904	92.481	0.103	0.86	92.465	0.098	-0.007	92.451	-0.001
21150	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.064	92.521	0.007	-0.002	92.511	0	-0.048	92.476	-0.005	0.674	92.503	0.07	0.615	92.493	0.064	-0.016	92.471	-0.002	0.904	92.481	0.097	0.86	92.464	0.092	-0.007	92.451	-0.001
21200	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.063	92.521	0.007	-0.002	92.511	0	-0.047	92.476	-0.005	0.674	92.502	0.073	0.615	92.493	0.067	-0.015	92.47	-0.002	0.904	92.481	0.101	0.86	92.463	0.096	-0.007	92.451	-0.001
21250	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.062	92.521	0.008	-0.002	92.511	0	-0.047	92.476	-0.006	0.674	92.501	0.09	0.615	92.492	0.082	-0.014	92.47	-0.002	0.904	92.481	0.125	0.86	92.461	0.119	-0.007	92.45	-0.001
21300	[redacted]	[redacted]	Aqueduct 7, Brownsover	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.009	-0.002	92.511	0	-0.047	92.476	-0.007	0.674	92.499	0.104	0.615	92.489	0.094	-0.013	92.469	-0.002	0.904	92.481	0.143	0.86	92.454	0.136	-0.008	92.447	-0.001
21350	[redacted]	[redacted]	Aquduct River Avon	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.008	-0.002	92.511	0	-0.047	92.476	-0.006	0.674	92.498	0.089	0.615	92.488	0.08	-0.013	92.468	-0.002	0.904	92.481	0.122	0.86	92.453	0.116	-0.008	92.447	-0.001
21350aa	[redacted]	[redacted]	Aquduct River Avon	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.008	-0.002	92.511	0	-0.047	92.476	-0.006	0.674	92.497	0.089	0.615	92.487	0.08	-0.013	92.468	-0.002	0.904	92.481	0.123	0.86	92.452	0.117	-0.008	92.446	-0.001
21400	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.007	-0.002	92.511	0	-0.047	92.476	-0.005	0.674	92.497	0.075	0.615	92.487	0.068	-0.012	92.468	-0.001	0.904	92.481	0.103	0.86	92.451	0.098	-0.008	92.446	-0.001
21450	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.061	92.521	0.005	-0.002	92.511	0	-0.048	92.476	-0.004	0.675	92.497	0.06	0.615	92.487	0.054	-0.013	92.468	-0.001	0.905	92.481	0.083	0.86	92.45	0.079	-0.008	92.446	-0.001
21500	[redacted]	[redacted]	Aquaduct 9, Clifton Aqueduct	OX Pound 2-1	92.563	92.613	92.488	0.064	92.521	0.005	-0.002	92.511	0	-0.049	92.476	-0.004	0.676	92.497	0.059	0.615	92.487	0.053	-0.015	92.468	-0.001	0.906	92.481	0.081	0.86	92.45	0.077	-0.008	92.446	-0.001
21550	[redacted]	[redacted]	Aquaduct 9, Clifton Aqueduct	OX Pound 2-1	92.563	92.613	92.488	0.066	92.521	0.006	-0.002	92.511	0	-0.05	92.476	-0.005	0.677	92.496	0.064	0.615	92.486	0.057	-0.018	92.467	-0.002	0.907	92.481	0.088	0.86	92.449	0.084	-0.008	92.445	-0.001
21600	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.067	92.521	0.006	-0.002	92.511	0	-0.051	92.476	-0.005	0.678	92.496	0.065	0.615	92.486	0.059	-0.02	92.467	-0.002	0.908	92.481	0.091	0.86	92.448	0.086	-0.008	92.445	-0.001
21650	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.067	92.521	0.006	-0.002	92.511	0	-0.052	92.476	-0.005	0.679	92.495	0.063	0.615	92.485	0.057	-0.02	92.467	-0.002	0.908	92.481	0.088	0.86	92.447	0.083	-0.008	92.444	-0.001
21700	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.067	92.521	0.006	-0.002	92.511	0	-0.052	92.476	-0.005	0.678	92.495	0.061	0.615	92.485	0.055	-0.019	92.467	-0.002	0.908	92.481	0.085	0.86	92.446	0.08	-0.008	92.444	-0.001
21750	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.066	92.521	0.006	-0.002	92.511	0	-0.051	92.476	-0.005	0.678	92.495	0.062	0.615	92.485	0.056	-0.018	92.467	-0.002	0.908	92.481	0.086	0.86	92.445	0.081	-0.008	92.443	-0.001
21800	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.065	92.521	0.006	-0.002	92.511	0	-0.051	92.476	-0.005	0.678	92.494	0.067	0.615	92.484	0.06	-0.018	92.466	-0.002	0.908	92.481	0.093	0.86	92.445	0.088	-0.008	92.442	-0.001
21850	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.065	92.521	0.007	-0.002	92.511	0	-0.051	92.476	-0.006	0.678	92.494	0.078	0.615	92.484	0.07	-0.018	92.466	-0.002	0.908	92.481	0.108	0.86	92.443	0.102	-0.008	92.441	-0.001
21900	[redacted]	[redacted]	XS	OX Pound 2-1	92.563	92.613	92.488	0.065	92.521	0.008	-0.002	92.511	0	-0.051	92.476	-0.006	0.678	92.493	0.082	0.615	92.483	0.074	-0.018	92.466	-0.002	0.908	92.481	0.115	0.86	92.442	0.108	-0.008	92.439	-0.001
71400	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.034	109.072	0.004	-0.007	109.006	-0.001	-0.077	108.976	-0.007	0.663	109.096	0.068	0.592	109.02	0.06	0.059	108.97	0.006	0.921	109.077	0.095	0.839	108.999	0.086	-0.003	108.956	0
71450	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.035	109.072	0.003	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.663	109.095	0.051	0.592	109.02	0.044	0	108.97	0	0.922	109.077	0.071	0.839	108.999	0.064	-0.006	108.956	0
71500	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.036	109.072	0.003	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.664	109.095	0.056	0.592	109.02	0.049	-0.001	108.97	0	0.922	109.076	0.079	0.839	108.998	0.071	-0.01	108.956	-0.001
71550	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.036	109.072	0.003	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.664	109.095	0.052	0.592	109.019	0.045	-0.001	108.97	0	0.922	109.076	0.073	0.839	108.998	0.066	-0.014	108.955	-0.001
71600	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.037	109.072	0.003	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.664	109.095	0.055	0.592	109.019	0.048	-0.001	108.97	0	0.922	109.075	0.077	0.839	108.997	0.069	-0.017	108.955	-0.001
71650	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.038	109.072	0.003	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.664	109.095	0.054	0.592	109.019	0.047	0	108.97	0	0.922	109.075	0.075	0.839	108.997	0.068	-0.019	108.954	-0.002
71700	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.042	109.072	0.003	-0.007	109.006	0	-0.077	108.976	-0.005	0.663	109.094	0.047	0.592	109.019	0.041	0.001	108.97	0	0.922	109.075	0.066	0.839	108.996	0.059	-0.021	108.954	-0.002
71750	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.046	109.072	0.004	-0.007	109.006	-0.001	-0.077	108.976	-0.006	0.663	109.094	0.057	0.592	109.019	0.05	0.001	108.97	0	0.921	109.074	0.08	0.839	108.996	0.072	-0.022	108.954	-0.002
71800	[redacted]	[redacted]	Braunston Tunnel	GU Pound 6-7	108.945	109.045	108.895	0.05	109.072	0.004	-0.007	109.006	-0.001	-0.077	108.976	-0.005	0.663	109.094	0.048	0.592	109.018	0.042	0.001	108.97	0	0.921	109.074	0.067	0.839	108.995	0.061	-0.023	108.953	-0.002
73750	[redacted]	[redacted]	Braunston Tunnel	GU Pound 6-7	108.945	109.045	108.895	0.058	109.072	0.006	-0.007	109.006	-0.001	-0.078	108.976	-0.007	0.664	109.081	0.063	0.592	109.004	0.055	-0.021	108.963	-0.002	0.922	109.046	0.09	0.839	108.964	0.081	-0.023	108.927	-0.002
73800	[redacted]	[redacted]	Braunston Tunnel	GU Pound 6-7	108.945	109.045	108.895	0.058	109.072	0.004	-0.007	109.006	0	-0.078	108.976	-0.005	0.664	109.081	0.042	0.592	109.004	0.037	-0.021	108.962	-0.001	0.922	109.046	0.06	0.839	108.964	0.054	-0.023	108.927	-0.001
73850	[redacted]	[redacted]	Braunston Tunnel	GU Pound 6-7	108.945	109.045	108.895	0.058	109.072	0.004	-0.007	109.006	0	-0.078	108.976	-0.004	0.664	109.081	0.041	0.592	109.004	0.036	-0.02	108.962	-0.001	0.922	109.046	0.058	0.839	108.964	0.052	-0.023	108.927	-0.001
73900	[redacted]	[redacted]	Braunston Tunnel	GU Pound 6-7	108.945	109.045	108.895	0.058	109.072	0.004	-0.007	109.006	0	-0.078	108.976	-0.005	0.664	109.08	0.043	0.592	109.004	0.038	-0.02	108.962	-0.001	0.922	109.045	0.062	0.839	108.963	0.056	-0.022	108.927	-0.001
73950	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.058	109.072	0.004	-0.007	109.006	0	-0.078	108.976	-0.004	0.664	109.08	0.04	0.592	109.003	0.035	-0.021	108.962	-0.001	0.922	109.045	0.058	0.839	108.963	0.052	-0.022	108.926	-0.001
74000	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.059	109.072	0.004	-0.007	109.006	0	-0.078	108.976	-0.005	0.664	109.08	0.043	0.592	109.003	0.038	-0.022	108.962	-0.001	0.922	109.045	0.062	0.839	108.963	0.055	-0.022	108.926	-0.001
74036	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.061	109.072	0.009	-0.007	109.006	-0.001	-0.078	108.976	-0.011	0.664	109.08	0.098	0.592	109.003	0.085	-0.023	108.961	-0.003	0.922	109.044	0.141	0.839	108.961	0.126	-0.023	108.925	-0.003
74050	[redacted]	[redacted]	XS	GU Pound 6-7	108.945	109.045	108.895	0.061	109.072	0.007	-0.007	109.006	-0.001	-0.078	108.976	-0.008	0.664	109.08	0.075	0.592	109.003	0.065	-0.023	108.961	-0.003	0.922	109.044	0.106	0.839	108.961	0.096	-0.023	108.925	-0.003
84400	[redacted]	[redacted]	Aquaduct, Station	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.011	0.116	89.922	0.004	-0.043	89.908	-0.002	0.779	89.95	0.027	0.634	89.934	0.023	0.016	89.91	0.001	1.019	89.964	0.035	0.826	89.943	0.029	0.042	89.912	0.002
84450	[redacted]	[redacted]	Aquaduct, Station	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.03	0.116	89.922	0.012	-0.045	89.908	-0.005	0.779	89.949	0.076	0.634	89.933	0.063	0.014	89.91	0.001	1.019	89.963	0.099	0.826	89.941	0.081	0.042	89.912	0.004
84490	[redacted]	[redacted]	Aquaduct, Station	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.03	0.116	89.922	0.012	-0.045	89.908	-0.005	0.779	89.948	0.076	0.634	89.933	0.063	0.013	89.91	0.001	1.019	89.962	0.099	0.826	89.941	0.081	0.042	89.912	0.004
84500	[redacted]	[redacted]	Aquaduct, Station	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.024	0.116	89.922	0.009	-0.045	89.908	-0.004	0.779	89.948	0.062	0.634	89.933	0.051	0.013	89.91	0.001	1.019	89.962	0.079	0.826	89.941	0.066	0.042	89.912	0.003
84550	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.308	89.946	0.021	0.116	89.922	0.008	-0.046	89.908	-0.003	0.779	89.948	0.054	0.634	89.932	0.045	0.013	89.91	0.001	1.019	89.962	0.07	0.826	89.941	0.058	0.042	89.912	0.003
84600	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.946	0.024	0.116	89.922	0.009	-0.047	89.908	-0.004	0.779	89.948	0.059	0.634	89.932	0.049	0.012	89.91	0.001	1.019	89.961	0.077	0.826	89.94	0.063	0.042	89.912	0.003
84650	[redacted]	[redacted]	Aquaduct, River Nene	GU Pound 13-14	89.79	89.89	89.79	0.307	89.946	0.024	0.116	89.922	0.009	-0.048	89.908	-0.004	0.779	89.947	0.062	0.634	89.932	0.051	0.012	89.91	0.001	1.019	89.96	0.08	0.826	89.94	0.066	0.042	89.912	0.003
84700	[redacted]	[redacted]	Aquaduct, River Nene	GU Pound 13-14	89.79	89.89	89.79	0.307	89.946	0.028	0.116	89.922	0.011	-0.048	89.908	-0.004	0.779	89.947	0.07	0.634	89.932	0.058	0.012	89.91	0.001	1.019	89.96	0.09	0.826	89.939	0.074	0.042	89.912	0.004
84750	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.023	0.116	89.922	0.009	-0.049	89.908	-0.004	0.779	89.946	0.057	0.634	89.931	0.047	0.012	89.91	0.001	1.019	89.959	0.074	0.826	89.939	0.061	0.042	89.912	0.003
84800	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.022	0.116	89.922	0.008	-0.05	89.907	-0.004	0.779	89.946	0.055	0.634	89.931	0.045	0.013	89.91	0.001	1.019	89.959	0.071	0.826	89.938	0.058	0.042	89.912	0.003
84850	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.021	0.116	89.922	0.008	-0.051	89.907	-0.004	0.779	89.946	0.054	0.634	89.931	0.045	0.013	89.91	0.001	1.019	89.958	0.07	0.826	89.938	0.058	0.042	89.912	0.003
84900	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.022	0.116	89.922	0.009	-0.051	89.907	-0.004	0.779	89.946	0.056	0.634	89.931	0.047	0.014	89.91	0.001	1.019	89.958	0.073	0.826	89.938	0.06	0.042	89.912	0.003
84940	[redacted]	[redacted]	Aquaduct, church aqueduct	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.05	0.116	89.922	0.019	-0.051	89.907	-0.009	0.779	89.944	0.128	0.634	89.93	0.105	0.014	89.909	0.002	1.019	89.955	0.166	0.826	89.936	0.136	0.042	89.912	0.007
84950	[redacted]	[redacted]	Aquaduct, church aqueduct	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.05	0.116	89.922	0.019	-0.052	89.907	-0.009	0.779	89.943	0.128	0.634	89.929	0.105	0.014	89.909	0.002	1.019	89.954	0.166	0.826	89.935	0.136	0.042	89.912	0.007
85000	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.024	0.116	89.922	0.009	-0.052	89.907	-0.004	0.779	89.943	0.061	0.634	89.929	0.05	0.015	89.909	0.001	1.019	89.953	0.079	0.826	89.935	0.065	0.042	89.912	0.003
85050	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.025	0.116	89.922	0.01	-0.052	89.907	-0.004	0.779	89.943	0.064	0.634	89.929	0.053	0.017	89.909	0.001	1.019	89.953	0.083	0.826	89.934	0.069	0.042	89.911	0.004
85100	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.023	0.116	89.922	0.009	-0.053	89.907	-0.004	0.779	89.942	0.059	0.634	89.928	0.049	0.018	89.909	0.001	1.019	89.952	0.077	0.826	89.934	0.063	0.042	89.911	0.003
85117	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.01	0.116	89.922	0.004	-0.053	89.907	-0.002	0.779	89.942	0.026	0.634	89.928	0.021	0.019	89.909	0.001	1.019	89.952	0.033	0.826	89.934	0.027	0.042	89.911	0.001
85135	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.009	0.116	89.922	0.004	-0.053	89.907	-0.002	0.779	89.942	0.024	0.634	89.928	0.02	0.02	89.909	0.001	1.019	89.952	0.031	0.826	89.934	0.026	0.042	89.911	0.001
85150	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.013	0.116	89.922	0.005	-0.053	89.907	-0.002	0.779	89.942	0.032	0.634	89.928	0.026	0.02	89.909	0.001	1.019	89.952	0.041	0.826	89.934	0.034	0.042	89.911	0.002
85200	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.02	0.116	89.922	0.008	-0.054	89.907	-0.004	0.779	89.942	0.051	0.634	89.928	0.042	0.02	89.909	0.001	1.019	89.952	0.066	0.826	89.934	0.054	0.042	89.911	0.003
85250	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.02	0.116	89.922	0.008	-0.054	89.907	-0.004	0.779	89.942	0.051	0.634	89.928	0.042	0.019	89.909	0.001	1.019	89.951	0.067	0.826	89.933	0.055	0.042	89.911	0.003
85276	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.307	89.945	0.029	0.116	89.922	0.011	-0.054	89.907	-0.005	0.779	89.941	0.073	0.634	89.928	0.06	0.019	89.909	0.002	1.019	89.951	0.095	0.826	89.933	0.078	0.042	89.911	0.004
91100	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.24	89.944	0.014	0.006	89.922	0	-0.063	89.905	-0.004	0.56	89.917	0.031	0.513	89.908	0.029	-0.006	89.901	0	0.748	89.913	0.042	0.684	89.897	0.039	0	89.888	0
91115	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.24	89.944	0.013	0.006	89.922	0	-0.063	89.905	-0.003	0.56	89.917	0.029	0.513	89.908	0.027	-0.005	89.901	0	0.748	89.913	0.039	0.684	89.897	0.036	0	89.888	0
91121	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.24	89.944	0.015	0.006	89.922	0	-0.063	89.905	-0.004	0.56	89.917	0.035	0.513	89.908	0.033	-0.005	89.901	0	0.748	89.913	0.047	0.684	89.897	0.044	0	89.888	0

Grid references for continued monitoring locations redacted

FM_label	Easting (m)	Northing (m)	Unit_Type	P_name	NWL (mAOD)	NOZ+ (mAOD)	NOZ- (mAOD)	BL_Qmax (m^3/s)	BL_Wlmax (mAOD)	BL_Vmax (m/s)	BL_Qmean (m3/s)	BL_Wlmean (mAOD)	BL_Vmean (m/s)	BL_Qmin (m3/s)	BL_Wlmin (mAOD)	BL_Vmin (m/s)	57_Qmax (m3/s)	57_Wlmax (mAOD)	57_Vmax (m/s)	57_Qmean (m3/s)	57_Wlmean (mAOD)	57_Vmean (m/s)	57_Qmin (m3/s)	57_Wlmin (mAOD)	57_Vmin (m/s)	115_Qmax (m3/s)	115_Wlmax (mAOD)	115_Vmax (m/s)	115_Qmean (m3/s)	115_Wlmean (mAOD)	115_Vmean (m/s)	115_Qmin (m3/s)	115_Wlmin (mAOD)	115_Vmin (m/s)
91129	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.24	89.944	0.013	0.006	89.922	0	-0.063	89.905	-0.003	0.56	89.917	0.03	0.513	89.908	0.028	-0.005	89.901	0	0.748	89.913	0.041	0.684	89.897	0.038	0	89.888	0
91150	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.241	89.944	0.017	0.006	89.922	0	-0.063	89.905	-0.004	0.56	89.917	0.038	0.513	89.908	0.035	-0.004	89.901	0	0.748	89.913	0.051	0.684	89.897	0.048	0	89.888	0
91200	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.241	89.944	0.021	0.006	89.922	0	-0.063	89.905	-0.005	0.56	89.917	0.048	0.513	89.907	0.044	-0.003	89.9	0	0.748	89.913	0.064	0.684	89.897	0.059	0	89.888	0
91250	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.242	89.944	0.022	0.006	89.922	0.001	-0.063	89.905	-0.006	0.56	89.917	0.05	0.513	89.907	0.046	-0.003	89.9	0	0.748	89.913	0.067	0.684	89.896	0.062	-0.001	89.887	0
91300	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.243	89.944	0.021	0.006	89.922	0	-0.064	89.905	-0.005	0.56	89.916	0.047	0.513	89.907	0.043	-0.003	89.9	0	0.748	89.913	0.063	0.684	89.896	0.058	-0.001	89.887	0
91350	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.243	89.944	0.017	0.006	89.922	0	-0.064	89.905	-0.004	0.56	89.916	0.039	0.513	89.907	0.036	-0.004	89.9	0	0.748	89.913	0.053	0.684	89.896	0.049	-0.001	89.887	0
91400	[redacted]	[redacted]	Aqueduct - brrok river	GU Pound 13-14	89.79	89.89	89.79	0.244	89.944	0.019	0.006	89.922	0	-0.064	89.905	-0.005	0.56	89.916	0.043	0.513	89.907	0.04	-0.006	89.9	0	0.748	89.913	0.058	0.684	89.895	0.054	-0.001	89.887	0
91450	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.244	89.944	0.019	0.006	89.922	0	-0.064	89.905	-0.005	0.56	89.916	0.044	0.513	89.907	0.041	-0.007	89.9	-0.001	0.748	89.913	0.06	0.684	89.895	0.055	-0.001	89.886	0
91500	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.245	89.944	0.017	0.006	89.922	0	-0.064	89.905	-0.005	0.56	89.916	0.039	0.513	89.906	0.036	-0.009	89.9	-0.001	0.748	89.913	0.053	0.684	89.895	0.049	-0.001	89.886	0
91550	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.246	89.944	0.018	0.006	89.922	0	-0.065	89.905	-0.005	0.56	89.916	0.041	0.513	89.906	0.038	-0.01	89.899	-0.001	0.748	89.913	0.056	0.684	89.895	0.051	-0.001	89.886	0
91600	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.246	89.944	0.017	0.006	89.922	0	-0.065	89.905	-0.005	0.56	89.916	0.039	0.513	89.906	0.036	-0.012	89.899	-0.001	0.748	89.913	0.052	0.684	89.894	0.048	-0.001	89.886	0
91650	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.247	89.944	0.017	0.006	89.922	0	-0.065	89.905	-0.004	0.56	89.915	0.037	0.513	89.906	0.034	-0.013	89.899	-0.001	0.748	89.913	0.05	0.684	89.894	0.046	-0.001	89.885	0
91700	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.248	89.944	0.018	0.006	89.922	0	-0.065	89.905	-0.005	0.56	89.915	0.041	0.513	89.906	0.038	-0.014	89.899	-0.001	0.748	89.913	0.055	0.684	89.894	0.051	-0.001	89.885	0
91743	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.249	89.944	0.022	0.006	89.922	0	-0.065	89.905	-0.006	0.56	89.915	0.049	0.513	89.906	0.045	-0.014	89.899	-0.001	0.748	89.913	0.066	0.684	89.894	0.061	-0.001	89.885	0
91750	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.25	89.944	0.032	0.006	89.922	0.001	-0.065	89.905	-0.008	0.56	89.915	0.072	0.513	89.906	0.067	-0.014	89.899	-0.002	0.748	89.913	0.097	0.684	89.893	0.09	-0.001	89.885	0
91763	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.25	89.944	0.03	0.006	89.922	0.001	-0.065	89.905	-0.008	0.56	89.915	0.068	0.513	89.905	0.062	-0.014	89.899	-0.002	0.748	89.913	0.091	0.684	89.893	0.084	-0.001	89.884	0
91800	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.25	89.944	0.018	0.006	89.922	0	-0.065	89.905	-0.005	0.56	89.915	0.041	0.513	89.905	0.038	-0.014	89.899	-0.001	0.748	89.913	0.055	0.684	89.893	0.051	-0.001	89.884	0
98850	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.224	89.944	0.014	-0.028	89.922	-0.002	-0.082	89.904	-0.005	0.527	89.912	0.033	0.479	89.896	0.03	-0.03	89.89	-0.002	0.715	89.913	0.046	0.65	89.876	0.042	-0.032	89.869	-0.002
98900	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.224	89.944	0.017	-0.028	89.922	-0.002	-0.081	89.904	-0.006	0.527	89.912	0.039	0.479	89.896	0.036	-0.03	89.89	-0.002	0.715	89.913	0.054	0.65	89.876	0.049	-0.032	89.868	-0.002
98950	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.224	89.944	0.017	-0.028	89.922	-0.002	-0.081	89.904	-0.006	0.527	89.912	0.039	0.479	89.896	0.036	-0.03	89.89	-0.002	0.715	89.913	0.054	0.65	89.875	0.049	-0.032	89.868	-0.002
99000	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.016	-0.028	89.922	-0.002	-0.081	89.904	-0.006	0.527	89.912	0.038	0.479	89.896	0.035	-0.03	89.89	-0.002	0.715	89.913	0.053	0.65	89.875	0.048	-0.032	89.868	-0.002
99050	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.016	-0.028	89.922	-0.002	-0.081	89.904	-0.006	0.527	89.912	0.038	0.479	89.896	0.035	-0.03	89.889	-0.002	0.715	89.913	0.053	0.65	89.875	0.049	-0.032	89.868	-0.002
99100	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.018	-0.028	89.922	-0.002	-0.08	89.904	-0.006	0.527	89.912	0.042	0.479	89.896	0.039	-0.03	89.889	-0.002	0.715	89.913	0.058	0.65	89.875	0.053	-0.032	89.868	-0.003
99150	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.018	-0.028	89.922	-0.002	-0.08	89.904	-0.006	0.527	89.912	0.042	0.479	89.895	0.038	-0.03	89.889	-0.002	0.715	89.913	0.058	0.65	89.874	0.053	-0.032	89.867	-0.003
99200	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.017	-0.028	89.922	-0.002	-0.08	89.904	-0.006	0.527	89.912	0.039	0.479	89.895	0.035	-0.031	89.889	-0.002	0.715	89.913	0.054	0.65	89.874	0.049	-0.032	89.867	-0.002
99250	[redacted]	[redacted]	Blisworth Tunnel	GU Pound 13-14	89.79	89.89	89.79	0.225	89.944	0.012	-0.028	89.922	-0.001	-0.079	89.904	-0.004	0.527	89.912	0.028	0.479	89.895	0.025	-0.031	89.889	-0.002	0.715	89.913	0.038	0.65	89.874	0.035	-0.032	89.867	-0.002
99300	[redacted]	[redacted]	Blisworth Tunnel	GU Pound 13-14	89.79	89.89	89.79	0.227	89.944	0.013	-0.028	89.922	-0.002	-0.079	89.904	-0.004	0.527	89.912	0.03	0.479	89.895	0.028	-0.031	89.889	-0.002	0.715	89.913	0.042	0.65	89.874	0.038	-0.032	89.867	-0.002
102200	[redacted]	[redacted]	Blisworth Tunnel	GU Pound 13-14	89.79	89.89	89.79	0.24	89.944	0.012	-0.029	89.922	-0.001	-0.046	89.902	-0.002	0.527	89.912	0.027	0.479	89.883	0.024	-0.029	89.878	-0.001	0.715	89.913	0.037	0.65	89.851	0.034	-0.03	89.846	-0.001
102250	[redacted]	[redacted]	Blisworth Tunnel	GU Pound 13-14	89.79	89.89	89.79	0.239	89.944	0.015	-0.029	89.922	-0.002	-0.045	89.902	-0.003	0.527	89.912	0.034	0.479	89.883	0.031	-0.03	89.878	-0.002	0.715	89.913	0.048	0.65	89.851	0.044	-0.03	89.846	-0.002
102288	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.253	89.944	0.012	-0.029	89.922	-0.001	-0.044	89.902	-0.002	0.527	89.912	0.025	0.479	89.883	0.023	-0.03	89.878	-0.001	0.715	89.913	0.035	0.65	89.851	0.032	-0.03	89.846	-0.001
102294	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.257	89.944	0.012	-0.029	89.922	-0.001	-0.044	89.902	-0.002	0.527	89.912	0.024	0.479	89.883	0.022	-0.031	89.878	-0.001	0.715	89.913	0.034	0.65	89.851	0.031	-0.03	89.846	-0.001
102300	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.261	89.944	0.012	-0.029	89.922	-0.001	-0.044	89.902	-0.002	0.527	89.912	0.024	0.479	89.883	0.022	-0.031	89.878	-0.001	0.715	89.913	0.034	0.65	89.851	0.031	-0.03	89.846	-0.001
102350	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.279	89.944	0.021	-0.029	89.922	-0.002	-0.051	89.902	-0.004	0.527	89.912	0.04	0.479	89.883	0.037	-0.032	89.878	-0.002	0.715	89.913	0.056	0.65	89.85	0.051	-0.029	89.845	-0.002
102400	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.281	89.944	0.019	-0.029	89.922	-0.002	-0.05	89.902	-0.003	0.527	89.912	0.036	0.479	89.883	0.033	-0.032	89.878	-0.002	0.715	89.913	0.051	0.65	89.85	0.047	-0.029	89.845	-0.002
102450	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.271	89.944	0.019	-0.029	89.922	-0.002	-0.041	89.902	-0.003	0.527	89.912	0.037	0.479	89.883	0.034	-0.032	89.877	-0.002	0.715	89.913	0.052	0.65	89.85	0.048	-0.029	89.845	-0.002
102500	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.262	89.944	0.021	-0.029	89.922	-0.002	-0.04	89.902	-0.003	0.527	89.912	0.042	0.479	89.883	0.039	-0.031	89.877	-0.002	0.715	89.913	0.059	0.65	89.849	0.054	-0.029	89.845	-0.002
102550	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.259	89.944	0.022	-0.029	89.922	-0.002	-0.04	89.902	-0.003	0.527	89.912	0.045	0.479	89.883	0.041	-0.03	89.877	-0.002	0.715	89.913	0.063	0.65	89.849	0.057	-0.029	89.844	-0.002
102600	[redacted]	[redacted]	XS	GU Pound 13-14	89.79	89.89	89.79	0.248	89.944	0.024	-0.029	89.922	-0.003	-0.04	89.902	-0.004	0.527	89.912	0.051	0.479	89.882	0.047	-0.027	89.877	-0.003	0.715	89.913	0.072	0.65	89.849	0.065	-0.029	89.844	-0.003
113700	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.472	71.696	0.045	0.003	71.639	0	-0.067	71.528	-0.007	0.624	71.575	0.058	0.601	71.57	0.056	-0.017	71.529	-0.002	0.934	71.61	0.083	0.867	71.592	0.078	-0.001	71.53	0
113750	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.465	71.696	0.05	0.003	71.639	0	-0.06	71.528	-0.007	0.624	71.575	0.065	0.601	71.57	0.063	-0.015	71.529	-0.002	0.934	71.609	0.093	0.867	71.591	0.088	0	71.53	0
113800	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.447	71.696	0.037	0.003	71.639	0	-0.048	71.529	-0.004	0.624	71.574	0.05	0.601	71.569	0.049	-0.012	71.529	-0.001	0.934	71.608	0.072	0.867	71.59	0.068	0	71.53	0
113850	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.441	71.696	0.041	0.003	71.639	0	-0.047	71.529	-0.004	0.624	71.574	0.057	0.601	71.569	0.055	-0.01	71.529	-0.001	0.934	71.607	0.082	0.867	71.59	0.077	0	71.53	0
113900	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.428	71.696	0.041	0.003	71.639	0	-0.045	71.529	-0.004	0.624	71.574	0.058	0.601	71.568	0.056	-0.008	71.529	-0.001	0.934	71.606	0.083	0.867	71.589	0.079	0	71.53	0
113950	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.426	71.696	0.043	0.003	71.639	0	-0.044	71.529	-0.005	0.624	71.573	0.062	0.601	71.568	0.06	-0.007	71.529	-0.001	0.934	71.605	0.09	0.867	71.588	0.085	0	71.53	0
114000	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.42	71.696	0.035	0.003	71.639	0	-0.044	71.529	-0.004	0.624	71.573	0.051	0.601	71.568	0.05	-0.007	71.529	-0.001	0.934	71.604	0.074	0.867	71.587	0.07	0	71.53	0
114050	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.416	71.696	0.036	0.003	71.639	0	-0.043	71.529	-0.004	0.624	71.572	0.053	0.601	71.567	0.051	-0.006	71.529	-0.001	0.934	71.604	0.077	0.867	71.586	0.073	0	71.53	0
114100	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.412	71.696	0.035	0.003	71.639	0	-0.043	71.529	-0.004	0.624	71.572	0.052	0.601	71.567	0.051	-0.006	71.529	0	0.934	71.603	0.076	0.867	71.586	0.071	0	71.53	0
114150	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.404	71.696	0.036	0.003	71.639	0	-0.041	71.529	-0.004	0.624	71.572	0.055	0.601	71.567	0.053	-0.004	71.529	0	0.934	71.602	0.079	0.867	71.585	0.075	0	71.53	0
114184	[redacted]	[redacted]	Aqueduct, Irong trunk	GU Pound 21-22	71.41	71.48	71.36	0.401	71.696	0.07	0.003	71.639	0	-0.041	71.529	-0.007	0.624	71.57	0.108	0.601	71.565	0.104	-0.003	71.529	0	0.934	71.6	0.158	0.867	71.583	0.148	0	71.53	0
114200	[redacted]	[redacted]	Aqueduct, Irong trunk	GU Pound 21-22	71.41	71.48	71.36	0.4	71.696	0.07	0.003	71.639	0	-0.041	71.53	-0.007	0.624	71.57	0.108	0.601	71.565	0.104	-0.003	71.529	-0.001	0.934	71.598	0.158	0.867	71.581	0.149	0	71.53	0
114250	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.4	71.696	0.034	0.003	71.639	0	-0.042	71.53	-0.004	0.624	71.569	0.052	0.601	71.564	0.05	-0.003	71.529	0	0.934	71.597	0.075	0.867	71.581	0.071	0	71.53	0
114300	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.397	71.696	0.033	0.003	71.639	0	-0.042	71.53	-0.004	0.624	71.569	0.052	0.601	71.564	0.05	-0.003	71.529	0	0.934	71.596	0.075	0.867	71.58	0.071	0	71.53	0
114350	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.395	71.696	0.033	0.003	71.639	0	-0.043	71.53	-0.004	0.624	71.569	0.051	0.601	71.564	0.05	-0.003	71.529	0	0.934	71.596	0.074	0.867	71.579	0.07	0	71.53	0
114450	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.392	71.696	0.033	0.003	71.639	0	-0.044	71.53	-0.004	0.624	71.568	0.051	0.601	71.563	0.05	-0.002	71.529	0	0.934	71.595	0.075	0.867	71.579	0.07	0	71.53	0
114500	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.39	71.696	0.032	0.003	71.639	0	-0.045	71.53	-0.004	0.624	71.568	0.05	0.601	71.563	0.048	-0.002	71.529	0	0.934	71.594	0.073	0.867	71.578	0.069	0	71.53	0
114550	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.387	71.696	0.033	0.003	71.639	0	-0.046	71.53	-0.004	0.624	71.567	0.052	0.601	71.563	0.051	-0.002	71.529	0	0.934	71.594	0.076	0.867	71.577	0.072	0	71.53	0
114600	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.386	71.696	0.047	0.003	71.639	0	-0.047	71.53	-0.006	0.624	71.567	0.074	0.601	71.562	0.072	-0.002	71.529	0	0.934	71.592	0.108	0.867	71.576	0.102	0	71.53	0
114650	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.385	71.696	0.034	0.003	71.639	0	-0.048	71.53	-0.004	0.624	71.567	0.054	0.601	71.562	0.052	-0.002	71.529	0	0.934	71.592	0.078	0.867	71.576	0.074	0	71.53	0
114700	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.383	71.696	0.034	0.003	71.639	0	-0.049	71.53	-0.004	0.624	71.566	0.055	0.601	71.561	0.053	-0.002	71.529	0	0.934	71.591	0.08	0.867	71.575	0.075	0	71.53	0
117100	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.338	71.696	0.037	0.002	71.639	0	-0.074	71.529	-0.008	0.624	71.543	0.069	0.601	71.539	0.067	-0.001	71.529	0	0.933	71.547	0.103	0.867	71.529	0.097	-0.001	71.52	0
117150	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.337	71.696	0.039	0.002	71.639	0	-0.075	71.529	-0.009	0.624	71.542	0.072	0.601	71.538	0.069	-0.001	71.529	0	0.933	71.546	0.108	0.867	71.528	0.101	-0.002	71.519	0
117200	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.336	71.696	0.041	0.002	71.639	0	-0.076	71.529	-0.009	0.624	71.541	0.077	0.601	71.538	0.074	-0.001	71.529	0	0.933	71.546	0.115	0.867	71.526	0.108	-0.002	71.517	0
117250	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.336	71.696	0.044	0.002	71.639	0	-0.077	71.529	-0.01	0.624	71.54	0.082	0.601	71.537	0.079	-0.001	71.529	0	0.933	71.545	0.124	0.867	71.524	0.116	-0.002	71.516	0
117300	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.335	71.696	0.041	0.002	71.639	0	-0.077	71.53	-0.01	0.624	71.54	0.077	0.601	71.536	0.074	-0.001	71.529	0	0.933	71.544	0.115	0.867	71.522	0.109	-0.002	71.514	0
117350	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.335	71.696	0.045	0.002	71.639	0	-0.078	71.53	-0.011	0.624	71.539	0.085	0.601	71.535	0.082	-0.001	71.529	0	0.933	71.543	0.128	0.867	71.52	0.12	-0.002	71.512	0
117400	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.335	71.696	0.041	0.002	71.639	0	-0.079	71.53	-0.01	0.624	71.538	0.077	0.601	71.534	0.074	-0.001	71.529	0	0.933	71.542	0.116	0.867	71.518	0.109	-0.002	71.51	0
117450	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.334	71.696	0.033	0.002	71.639	0	-0.08	71.53	-0.008	0.624	71.537	0.062	0.601	71.534	0.06	-0.001	71.529	0	0.933	71.542	0.094	0.867	71.517	0.089	-0.002	71.509	0
117500	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.333	71.696	0.037	0.002	71.639	0	-0.08	71.53	-0.009	0.624	71.537	0.07	0.601	71.533	0.068	0	71.529	0	0.933	71.541	0.106	0.867	71.515	0.1	-0.002	71.507	0
117550	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.331	71.696	0.025	0.002	71.639	0	-0.081	71.53	-0.006	0.624	71.536	0.049	0.601	71.533	0.047	0	71.529	0	0.933	71.541	0.074	0.867	71.514	0.07	-0.002	71.506	0
117575	[redacted]	[redacted]	Aqueduct, V6	GU Pound 21-22	71.41	71.48	71.36	0.331	71.696	0.048	0.002	71.639	0	-0.082	71.53	-0.012	0.624	71.536	0.091	0.601	71.532	0.088	0	71.529	0	0.933	71.54	0.137	0.867	71.513	0.128	-0.002	71.505	0
117600	[redacted]	[redacted]	Aqueduct, V6	GU Pound 21-22	71.41	71.48	71.36	0.332	71.696	0.048	0.002	71.639	0	-0.082	71.53	-0.012	0.624	71.536	0.091	0.601	71.531	0.088	0	71.529	0	0.933	71.54	0.137	0.867	71.512	0.128	-0.002	71.504	0
117650	[redacted]	[redacted]	Aqueduct, V6	GU Pound 21-22	71.41	71.48	71.36	0.332	71.696	0.05	0.002	71.639	0	-0.082	71.53	-0.012	0.624	71.536	0.095	0.601	71.531	0.091	0	71.529	0	0.933	71.54	0.143	0.867	71.512	0.134	-0.002	71.504	0
117675	[redacted]	[redacted]	Aqueduct, V6	GU Pound 21-22	71.41	71.48	71.36	0.332	71.696	0.05	0.002	71.639	0	-0.082	71.53	-0.012	0.624	71.536	0.095	0.601	71.531	0.091	0	71.529	0	0.933	71.539	0.143	0.867	71.511	0.134	-0.002	71.503	0
117700	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.332	71.696	0.036	0.002	71.639	0	-0.082	71.53	-0.009	0.624	71.536	0.068	0.601	71.531	0.066	0	71.529	0	0.933	71.539	0.103	0.867	71.51	0.097	-0.002	71.502	0
117750	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.331	71.696	0.025	0.002	71.639	0	-0.082	71.53	-0.006	0.624	71.535	0.047	0.601	71.53	0.045	0	71.529	0	0.933	71.539	0.071	0.867	71.51	0.067	-0.002	71.502	0
117759	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.331	71.696	0.02	0	71.639	0	-0.082	71.53	-0.005	0.624	71.535	0.039	0.601	71.53	0.037	0	71.529	0	0.933	71.539	0.058	0.867	71.51	0.055	-0.002	71.502	0
117716	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.33	71.696	0.02	0	71.639	0	-0.083	71.53	-0.005	0.624	71.535	0.038	0.601	71.53	0.037	0	71.528	0	0.933	71.539	0.058	0.867	71.509	0.054	-0.002	71.501	0
117800	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.329	71.696	0.033	0	71.639	0	-0.083	71.53	-0.008	0.624	71.535	0.064	0.601	71.53	0.061	0	71.528	0	0.933	71.538	0.097	0.867	71.508	0.091	-0.002	71.5	0
117850	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.329	71.696	0.04	0	71.639	0	-0.084	71.53	-0.01	0.624	71.535	0.077	0.601	71.529	0.074	0	71.527	0	0.933	71.538	0.117	0.867	71.506	0.11	-0.002	71.499	0
117900	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.328	71.696	0.033	0	71.639	0	-0.084	71.53	-0.008	0.624	71.534	0.063	0.601	71.528	0.061	0	71.526	0	0.933	71.537	0.096	0.867	71.505	0.091	-0.002	71.497	0
117950	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.328	71.696	0.034	0	71.639	0	-0.084	71.53	-0.009	0.624	71.534	0.065	0.601	71.528	0.063	0	71.526	0	0.933	71.537	0.099	0.867	71.504	0.093	-0.002	71.496	0
118000	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.327	71.696	0.038	0	71.639	0	-0.084	71.53	-0.01	0.624	71.534	0.074	0.601	71.527	0.071	0	71.525	0	0.933	71.536	0.113	0.867	71.502	0.106	-0.002	71.495	0
118026	[redacted]	[redacted]	XS	GU Pound 21-22	71.41	71.48	71.36	0.327	71.696	0.04	0	71.639	0	-0.085	71.53	-0.01	0.624	71.534	0.077	0.601	71.527	0.074	0	71.525	0	0.933	71.536	0.118	0.867	71.501	0.11	-0.002	71.494	0

E Appendix: Hydraulic Model Method Statement

Grand Union Canal SRO –Hydraulic Model Method Statement Gate 2

Final

December 2021

www.jbaconsulting.com

Author names redacted

JBA Project Manager

[redacted]

JBA Consulting, Pipe House, Lupton Road, WALLINGFORD, Oxfordshire, OX10 9BS

Revision History

Revision Ref/Date	Amendments	Issued to
S1.P01 14/07/2021	First Issue	[redacted](Affinity Water)
S1.P02 13/12/2021	Final	[redacted]Affinity Water)

Contract

This report describes work commissioned by Affinity Water, by a purchase order AWP120016343 dated 18/05/2021. Affinity Water's representative for the contract was [redacted]. [redacted]of JBA Consulting carried out this work.

Prepared by .... [redacted] BEng PGDip MSc MCIWEM C.WEM

Principal Analyst

Reviewed by .... [redacted] BA CertWEM CEnv MCIWEM C.WEM

.... Technical Director

Purpose

This document has been prepared as a Draft Report for AFFINITY WATER. JBA Consulting accepts no responsibility or liability for any use that is made of this document other than by the Client for the purposes for which it was originally commissioned and prepared.

JBA Consulting has no liability regarding the use of this report except to AFFINITY WATER.

Copyright

Contents

List of Figures

List of Tables

Individual's name redacted

1 Introduction

1.1 Document Aim

This report provides an initial summary of the available information and its quality and, proposes a method to deliver the hydraulic modelling requirements of Affinity Water Grand Union Canal (GUC) Strategic Resource Option (SRO) option. It was first developed for Gate 1, aiming to make the best use of the existing information where that was adequate for using at that stage (Gate 1) of Affinity Water's SRO investigations.

This document is intended to be a working document. In this stage (Gate 2), the updates on the document focused on the incorporation of the recommendations made during Gate 1 for improving the hydraulic model as the study progresses.

1.2 Overview

The Grand Union Canal SRO was proposed in WRMP19 as an option for transfer of water from the Severn Trent Water Ltd (STWL) area south east to Affinity Water. The SRO proposal under consideration is that 20 to 100 Ml/d Annual Average Deployable Output (ADO) of water is transferred from STWL's Minworth STW to Affinity Water's area via the Grand Union Canal. To account for transfer and treatment losses up to 15%, testing and design should be based upon a transfer of 23 to 115 Ml/d. Affinity Water would abstract the water at a point to be determined between Leighton Buzzard and Watford.

In WRMP19, two schemes were put forward for economic modelling. One yielding a maximum of 50Ml/d and the other a maximum of 100Ml/d. The Gate 1 modelling for GUC looked to understand the optimum yield of this transfer whilst also recognising the minimum sweetening flows required for the associated treatment[1].

The Gate 2 Integrated Design Strategy consists of a number of parallel investigations including an engineering study identifying areas of potential impact of the scheme. In addition, there is ongoing work to refine the input and output locations and to define treatment requirements at Minworth and at the point of abstraction.

The Gate 2 modelling study has been commissioned to build and develop the hydraulic and hydrological models. This report addresses the methodology for developing the hydraulic model, which will be undertaken across four phases:

- Phase 1:
  - Define the detailed modelling methodology for the hydraulic modelling.
  - Develop tools to facilitate the linkage of flow inputs from the Aquator water resources model into the Flood Modeller Pro hydraulic model.
  - Prepare tools to automate reporting from the hydraulic model.
- Phase 2:
  - Write the specification for collecting new topographic survey to add more detailed representation of the canal features;
- Phase 3:
  - Incorporate the new topographic survey;
  - Undertake model calibration exercise.
- Phase 4:

---

1 Email from [redacted] (27/08/2020) and feedback on draft water resources method note.

- Scenario testing.

1.3 Deliverables

The key deliverable is to develop a hydraulic model of the SRO route to assess hydrological and hydraulic performance and impacts. This will be delivered along with a model build report, project report which will include recommendations for improvements in the model and data as the scheme progresses.

The model will be used to identify the areas where the SRO will change canal behaviour (e.g., spills including additional flood risks, water levels and flow, inflow to the canal and interactions with other rivers) and assess the scale and direction of change for a range of scenarios. Initial scenario testing carried out in Gate 1 was used to understand further data collection and model improvement work is required for Gate 2.

The updated model during Gate 2 should:

- Demonstrate SRO progress for Gate 2
- Reflect the current interactions between the canal and connected rivers (i.e., pre-transfer)
- Identify areas of the canal where existing infrastructure (e.g., level bank levels or pumping station capacity) would constrain the system with the SRO in place and where changes will be required. For example, if the SRO would affect the canal navigability or lead to an increase in flood risk from canal spills.
- Assess the response times for moving the water downstream
- Identify where else the water goes e.g., to from/ reservoirs, spills including additional risk of flooding
- Inform recommendations for future developments and requirements for supporting data
- Provide a platform for further development into a water quality and/or sediment transport model (scope to be developed separately).

2 Available Data and Information

A comprehensive review of the hydrology data and information can be found in the water resources model method statement prepared for Gate 1 and updated for Gate 2. This will not be repeated here.

The data and information reviewed in this section will focus on information relating specifically to the hydraulics of the Grand Union Canal.

2.1 Existing hydraulic models

Three hydraulic models were developed as part of the Gate 1, two of them were high-levels models of the Oxford Grand Union (OXGU) which includes a reach of the Birmingham Canal (BNC) and the Grand Union Tring (GUT) and, one detailed model of the Grand Union South (GUS).

All models have been developed using Flood Modeller Pro (FMP) version 4.5.1.6163. FMP is an industry standard 1-dimensional and 2-dimesional solver that is capable of modelling sub-critical, supercritical and transitional flow regimes. The built models are 1-dimensional (1D).

Details of these models are provided in Table 2-1.

Table 2-1: Environment Agency hydraulic models

Model name	Description
OXGU GUT	1D high-level including the following features: Pounds: Pounds have been represented using River Sections. Each canal section uses an indicative width, which is taken from the Aquator model build information provided by the Trust. The bed level of each section has been sourced from topographic survey data and the bank levels have been taken from LIDAR data. Waste Weirs: represented using spill units using data provided by the Canal and River Trust. Locks: Locks and pumps have been represented using Abstraction units, with flows representing flows through the locks (accounting for lockage, by-weir, sluices, leakage and paddles) and back pumps. Flow rates moved through locks were taken from Aquator model. The main limitations of these models are: i) No bridges, aqueducts or tunnels have been represented directly in the high-level models. Whilst these structures will likely have a local impact on water levels and velocities in the pounds, they are not the main control on water levels with the GU system. ii) Locks and pumps have not been represented explicitly in the hydraulic model -and instead are represented as boundaries moving water from one pound to another. This is considered to be a significant limitation of the model as the boundary conditions come from the Aquator model. What may work in the Aquator model (which uses a daily timestep), may not work in the hydraulic model, which uses a sub-daily timestep. iii) The high-level models developed are large in geographic size, this makes checking and analysing the modelling difficult, and the modelling process unwieldy. iv) No cross-sectional survey of the canal pounds was available, as

Model name	Description
	such bank levels have been taken from LIDAR. This process is subjective and may result in inaccuracies in the bank levels. v) At a number of pounds throughout both models, the model became unstable as the channel became dry (likely an issue with using outputs from the Aquator model which uses a daily timestep). As such, lock or pumping flows at these locations needed to be manually amended or a sweetener flow had to be added.
GUS	The model was based on the existing 1D-2D flood model of the Gade and Bulbourne, developed by the Environment Agency in 2016. This model includes a detailed representation of the Grand Union Canal from Lock 48 (Dudswell Lock) to Lock 80 (Lot Mead) and, all interactions with the rivers Bulbourne and Gade. The 2016 flood model was developed primarily for the use for flood mapping, as such for using within a low flow study amendment were required to aid model stability. In addition, to aid model run times, a large number of model units were removed from the model, including bridges that had been considered to have a limited impact on high flows. The model utilises the representation of the Grand Union Canal and River Bulbourne that is included in the 2016 Gade and Bulbourne hydraulic model. No changes have been made to the representation of these structures. However, to aid model stability some bridge and culvert units were changed to orifice units The 2016 hydraulic model contained detailed representation of all lock gates on the Grand Union Canal, this representation has been retained in the updated model. The locks have been represented using sluice gates, to represent the lock gates themselves and a reservoir unit to represent the locks themselves. The main limitations of this model are: i) As discussed above, a number of simplifications have been made to the existing 2016 model, to enable to run as a low flows model. Whilst these simplifications may have a localised effect on model results, it is considered that they will not impact the overall results of the modelling. ii) It is assumed the 2016 model has been adequately schematised and constructed. iii) No changes to structure coefficients or geometry have been made, other than the simplifications above detailed to the 2016 model. iv) The locks gates have been represented as fully closed throughout the model runs. The movement of water through the lock takes place only through the crest of the lock gates functioning as weirs. Lockage, paddles, sluice, by-weir and back-pump flows are not accounted.

2.2 The Canal & River Trust asset open data

Dataset	Description
The Canal & River Trust Planning Buffer (.shp)	A polygon feature service depicting both the major and minor planning buffer zones around the Canal & River Trust network. Details include: Location, Buffer type.
Pumping Stations (.shp)	A public view data set containing point locations of Pumping Stations that are owned by or impact on the Canal & River Trust land. Details include: Location, Description (name/associated Lock (if relevant)/pumping station type (if associated with a lock)/if operational).
Winding Holes and Turning Points (.shp)	A public view dataset containing point locations of the winding and turning points located on the Canal & River Trust network. Details include: Brief description of location
Wharves (.shp)	A public view dataset containing point locations of wharves that are owned by or impact on the Canal & River Trust land. Details include: name.
Embankments (.shp)	A public view dataset containing polygons of embankments that are owned by or impact on the Canal & River Trust land. Details include: description (name/location), functional location.
Dry Dock (.shp)	A public view dataset containing point locations of dry docks that are owned by or impact on the Canal & River Trust land. Details include: description (name/location/if operational), functional location.
Culverts (.shp)	A public view dataset containing point locations of culverts that are owned by or impact on the Canal & River Trust land. Details include: brief description (name/location/diameter (few entries)/culvert use (few entries)), functional location.
Bridges (.shp)	A public view dataset containing point locations of bridges that are owned by or impact on the Canal & River Trust land. Details include: description (name/location), functional location, angle.
Aqueducts (.shp)	A public view dataset containing point locations of aqueducts that are owned by or impact on the Canal & River Trust land. Details include: description (name/location), functional location.
Boat Lifts (.shp)	A public view dataset containing point locations of boat lifts that are owned by or impact on the Canal & River Trust land. (None within relevant area).
Docks (.shp)	A public view dataset containing polygons of docks that are owned by or impact on the Canal & River Trust land. Details include: description (name/location), functional location.
Slipway (.shp)	A public view dataset containing point locations of slipways that are owned by or impact on the Canal & River Trust land. Details include: description (name/location/if operational), functional location.
Reservoir (.shp)	A public view dataset containing polygon locations of reservoirs that are owned by or impact on the Canal & River Trust land. Details include: description (reservoir name), functional location.
Lakes Ponds and Fisheries (.shp)	A public view dataset containing polygon locations of lakes, ponds and fisheries that are owned by or impact on the Canal & River Trust land. Details include: description (fishery name), functional location, area and length.
Locks (.shp)	A public view dataset containing point locations of locks that are owned by or impact on the Canal & River Trust land. Details include: description (name/location/if operational), functional location, angle.
Sluices (.shp)	A public view dataset containing point locations of sluices that are owned by or impact on the Canal & River Trust land. Details include: description (name/location/if operational/if let off valve), functional location.
Tunnels (.shp)	A public view dataset containing line locations of tunnels that are owned by or impact on the Canal & River Trust land. Details include: description

Dataset	Description
	(name/location/if operational), functional location.
Tunnel Portal (.shp)	A public view dataset containing point locations of tunnel portals that are owned by or impact on the Canal & River Trust land. Details include: description (name/portal location in relation to associated tunnel), functional location.
Weirs (.shp)	A public view dataset containing point locations of weirs that are owned by or impact on the Canal & River Trust land. Details include: description (name/some detail on weir type/if operational), functional location.
Canals KM (.shp)	A public view dataset of line data showing the individual kilometre lengths of the Canal & River Trust network. Details include: description (canal name), functional location, length.

2.3 Asset information

Survey data of the GUC that the Canal & River Trust hold is summarised in Table 2-2.

Table 2-2: Asset data

Name	Location	Date	Format	Description
Aqueducts 1.xlsx Aqueducts 2.xlsx	Whole study area	21/09/2020	Excel spreadsheets	Information on all aqueducts in the study area. Includes length, minimum width and maximum height for all but one aqueduct. Corresponds to Aqueducts .shp
Bridges Export 1.xlsx Bridges Export 2.xlsx Bridges Export 3.xlsx	Whole study area	21/09/2020	Excel spreadsheets	Information on all bridges in the study area. Includes bridge type, width and span, navigational width at Water Level. Many bridges do not have information associated with them. Corresponds to Bridges .shp
Tunnel Portals.xlsx	Whole study area	21/09/2020	Excel spreadsheets	Information on all tunnels in study area.

Name	Location	Date	Format	Description
				No geometry of the tunnels is included in the spreadsheet. Corresponds to Tunnels .shp
Weir_Control_Points.shp	Whole Study area	21/09/2020	GIS file	Information on all weirs in the study area. Includes weir type, level (assume of crest).
Weirs1.xlsx Weirs2.xlsx Weirs3.xlsx	Whole Study area	21/09/2020	Excel spreadsheets	Information on all weirs in the study area. Includes length, Crest Level, Upstream Depth and purpose. Many weirs do not have information associated with them.
GU South Model Brief.xlsx	Grand Union South		Excel spreadsheet	Schematic of all the pounds, feeders pumps and customers within the GUS. Weir info includes information crest level, crest breadth and crest length. Not all weirs have this information. Includes information on feeders , included effluent discharge.
GU Tring Model Brief.xlsx	Grand Union Tring		Excel spreadsheet	Same information as for GUS.
Model build.xlsx	Oxford Grand Union		Excel spreadsheet	Same information as

Name	Location	Date	Format	Description
				for GUS.

2.4 Survey information

Survey information for the entire study area has been provided in .dat format. Cross sections of the canal have been taken every 50m. The date and the source (LIDAR, bathymetry, topographic survey) is not known – though it is likely to come from a variety of sources.

The sections in the .dat files are not geo-referenced. A GIS shapefile has been included (Hydrographic_Survey_Points.shp), which details the location of the cross sections. However, this file is not cross referenced against the .dat file.

A review of the survey data shows that only the bed has been surveyed – and that the survey does not extend to banks on either side of the canal. This limits the use of this survey to inform a hydraulic model. This dataset is referred in the following sections of the report as 'existing cross-sectional data'.

During Gate 2, a topographic survey specification[2] was produced and commissioned to collect cross-sections along the canal, including bridges and weir. Figure 2-1 illustrates the locations of the topographic survey undertaken which will be used to update the hydraulic model.

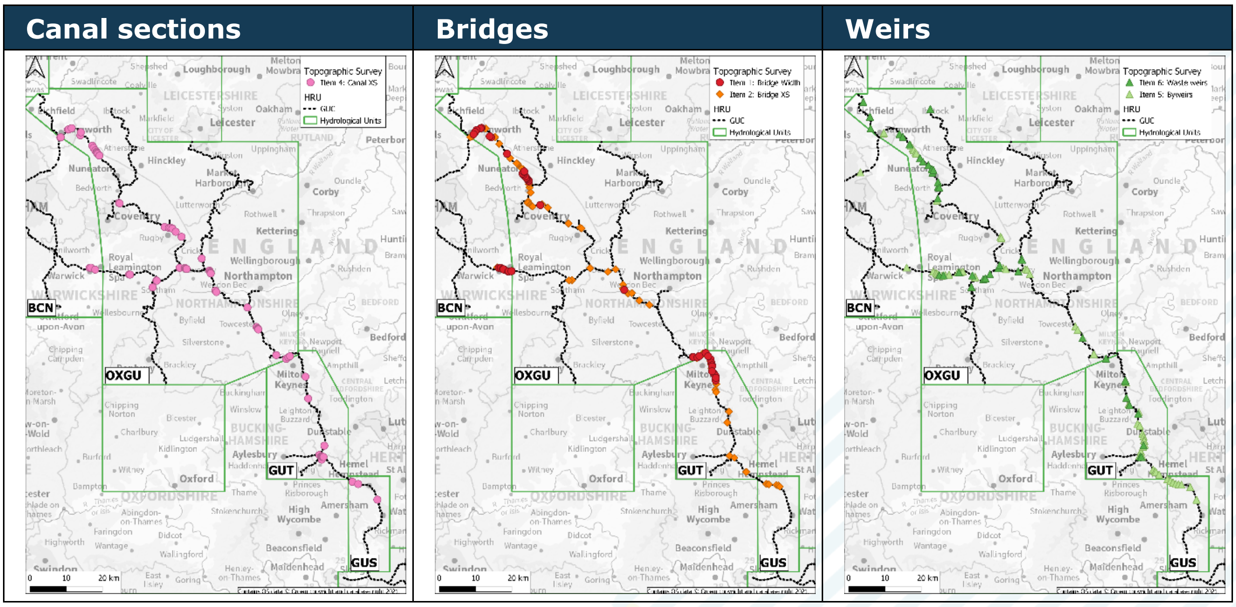


Figure 2-1: Locations of new topographic survey

2.5 Aquator models

There are existing Aquator models for the Grand Union Tring (GUT), Oxford Grand Union (OGU) and for the Birmingham Canal Network (BCN). For Gate 1, the first two model were available in the version 4.3 of the software while the BCN was available in the latest version XV. For Gate 2, all these models are available in Aquator XV.

The following information is included in the Aquator models:

2 JBA, August 2021, Topographic survey specification, FYZ-JBAU-XX-XX-TN-Z-0001-Topographic_survey_specifications-P02.docx

- Waste weirs – crest elevation and breadth;
- By-pass weirs – crest elevation and breadth;
- Lock gate – create level and breadth; and
- Pounds – length, average width, depth and bed level.

3 Hydraulic Understanding

To transfer water along a canal system, there needs to be a hydraulic gradient. The hydraulic gradient is dependent on:

- Canal dimensions;
- Channel form;
- Vegetation; and
- Flow rate.

At any constricting structure (such as bridges, tunnels etc) where the channel narrows energy losses will lead to a rise in water level – which will change the hydraulic gradient.

3.1 Hydraulic structures

3.1.1 Locks

For the purpose of the proposed transfer, locks are split into two types; uphill and downhill locks. These are both discussed in the sections below.

Uphill locks

With regards to moving water as part of the Union Canal SRO option, pumping stations will be necessary to lift water around uphill locks. There are a number of existing pumping stations used to back-pump water from low points (troughs) towards higher points (summits) to ensure sufficient water levels for navigation are maintained within each pound. The existing pumps do not have sufficient capacity to transfer the additional water[3].

Downhill locks

To transfer water at the downstream sections, the lock gates would need to be by-passed using by-weirs. Work undertaken in 2012 has shown that the existing by-pass weirs are deemed to be of insufficient capacity for bulk water transfer.

3.1.2 Bridges

The velocity of flow through narrow bridge openings can have an impact on navigation. Acceptable velocities are specified by the Canal and River Trust in the Water Control Manual[4] and recorded for each pound. In principle, in this study, a range of velocities between 0.2 to 0.3m/s will be considered acceptable. However, on previous studies related to water transfer, this range was considered between 0.2 and 0.37m/s.

The minimum bridge widths required to pass flows below an acceptable velocity are provided in Table 3-1. All surveyed bridges that are likely to cause flow constrictions will be explicitly represented in the model.

Table 3-1: Minimum bridge width required to pass flows below an acceptable velocity

Transfer flow (Ml/d)	Minimum bridge width (m)
50	2.10
100	3.26
200	5.58

3 Black & Veatch, High Level Cost Estimate for Water Transfer Routes via the Canal System, 2016

4 The reader should note that the Water Control Manual produced by the Canal and River Trust are sensitive information and they were not made available at the time this document was prepared.

Besides existing bridges, there are a number of engineered constrictions of the canal, thought to be either the locations of historic bridges which have been removed, or control points where stop logs were placed to isolate a section of live canal from a subsequent section under construction. These constrictions would, at least until bank-full levels are met, have a similar hydraulic impact as a bridge.

If the bridge is too narrow then it may be possible to increase the channel width by removing and diverting the towpath. If the existing clear span is not sufficient, the bridge may need to be replaced, or providing a bypass channel.

Where the transfer leads to an increase in water levels at bridges, there is a risk that there will be insufficient headroom or "air-draught" for boats to safely pass. Headroom per each structure is also recorded in the Water Control Manuals in each pound. Initially, it is assumed that if the headroom underneath the bridge were reduced to less than 2.6m, the bridge would need to be reconstructed. This will need to be confirmed by the Canal and River Trust or from the Water Control Manuals when available.

3.1.3 Aqueducts

Where there is no reduction in waterway width compared to the canal no work would be required as the increase in velocity would be within acceptable criteria.

Where the aqueduct causes a narrowing in waterway width compared to the canal, as with bridges the tow path could be removed or lifted, or the structure would need to be replaced.

It is assumed that where a rise in water level along the aqueduct greater than 250mm is predicted as a result of the transfer, then the structure would need to be replaced or modified. Please note that this design requirement has been assumed as the standard existing freeboard. It is not specified in any document provide for this study and, it would need to be confirmed by the Canal and River Trust.

3.1.4 Tunnels

Where there is no reduction in waterway width compared to the tunnel no work would be required as the increase in velocity would be within acceptable criteria.

Where the aqueduct causes a narrowing in waterway width compared to the tunnel, as with bridges the tow path could be removed or lifted, or the structure would need to be replaced.

Where a rise in water level along the tunnel was greater than 250mm, then the structure would need to be replaced or modified. Please note that this design is not specified in any document provide for this study and, it would need to be confirmed by the Canal and River Trust. It is expected that this information will be derived from the Water Control Manuals.

3.2 Proposed approach

During Gate 1, the hydraulic model was separated into three models as follows:

- Birmingham Canal Network (BCN) and Oxford Grand Union (OxGU);
- Grand Union Tring (GUT);
- Grand Union South (GUS).

For the BCN, OxGU, and GUT the hydraulic models were high level models that made best use of the available data to understand the flow splits and water level within the canal itself.

The GUS interacts closely with the rivers Bulbourne and Gade, meaning that a more detailed hydraulic model was required to understand these complex interactions. The data review has shown that there are a number of existing Environment Agency hydraulic models that include the GUC -as such these were used to develop a model for this unit.

The proposed approach for Gate 2 is to combine these three models developed during Gate 1 into one hydraulic model, incorporating the new topographic survey and the updated information from the water resource models provided by The Canal and River Trust for Gate 2. A single model has the following benefits:

- There will be a single Aquator model supplying inflow data, making the interaction between the two models simpler.
- No additional boundaries between models are required.
- Simpler to export results and link these to GIS data for display and interpretation.
- Whilst linking the three existing models into one model will result in a large and complex model, the simulation times of the individual models are reasonably short and it is considered that simulation times of a combined model will be manageable.

3.2.1 Software choice

It is proposed that the Flood Modeller (FM) hydraulic modelling software package is used. FM is a UK standard 1D river solver which can simulate flows and level in open channels.

Benefits of using this software package are:

- Direct use of the existing fluvial model developed by the Environment Agency along the GUS hydrological unit, instead of converting the model into a different software.
- Direct use of the model developed during Gate 1.
- Representation of the flow through structures such as lock gates, weirs, culvert and tunnels.
- Generation of timeseries of various parameters such as flows, water levels, depth, velocity and average shear stress at each canal section included in the model.
- FMP includes a water quality module (see separate Water Quality gate 2 Phase 1 report for further details)..

4 Update models

The main data sources used for updating the high-level models developed for Gate 1 will be:

- Topographic survey collected during Phase 2;
- Existing survey from the Canal and River Trust;
- LIDAR terrain data;
- Existing Aquator models;
- Existing 1D-2D hydraulic model of the River Gade and Bulbourne, developed by the Environment Agency 2017.

The modelling approach for various canal elements are detailed in the sections below.

4.1 Interaction between models

The hydraulic models and the Aquator models are used for different purposes. The hydraulic models will used for the following:

- Derivation of in-channel water levels;
- Improved understating of flood risk (i.e., spill from waste weirs).

As such, there is no interaction between the models, though as discussed in the proceeding sections the hydraulic model will make use of information contained within the Aquator models.

4.2 Model extents

The model extent depends upon where Minworth water will be added to the canal. However, Table 7-1 and Figure 4-1, detail the likely maximum extent of the model.

Table 4-1: Hydraulic model extents

Canal Section	HRU	Will it be included in the Gate 2 Model?	Extents
Birmingham and Fazeley canal	BCN	No – but include as inflows/outflows and extent from Minworth to Curdworth (Coventry Canal Lock 13)	Minworth to Curdworth (Lock 13 on the Coventry Canal)
Northampton Arm	OXGU	No – Extracts water from the mainline and will be included as an outflow.	N/A
Coventry Canal	OXGU	Yes	Lock 13 (west side) to Lock 1 (connection with Oxford Canal to the southeast)
Leicester Line	OXGU	No – but included as an inflow into the system. Outflow to represent back-pump.	N/A
Oxford Canal	OXGU	Yes	Hawksbury Lock (northwest side) to connection with the Grand Union Canal
Grand Union	OXGU	Yes	Hatton Flight/Lock 23 (west side) to Lock (E) 21 (east side)

Canal Section	HRU	Will it be included in the Gate 2 Model?	Extents
Napton Locks	OXGU	No – but included as an inflow into the system. Outflow to represent back-pump.	N/A
Gran Union	GUT	Yes	Lock (E) 21 (west side) to Lock 54 (southeast side)
Aylesbury Arm	GUT	No – but included as an outflow/inflow to represent bout movement and back-pump.	N/A
Tring Summit	GUT	No – but inflows represented in the system	N/A
Grand Union	GUS	Yes	Lock 55 (west side) to Lock 77 (southeast)
River Bulbourne	GUS	Yes	From upstream of Lock 55 to confluence with River Gade.
River Gade	GUS	Yes	From the confluence with GU canal at Hemel Hempstead to M25 crossing at Watford

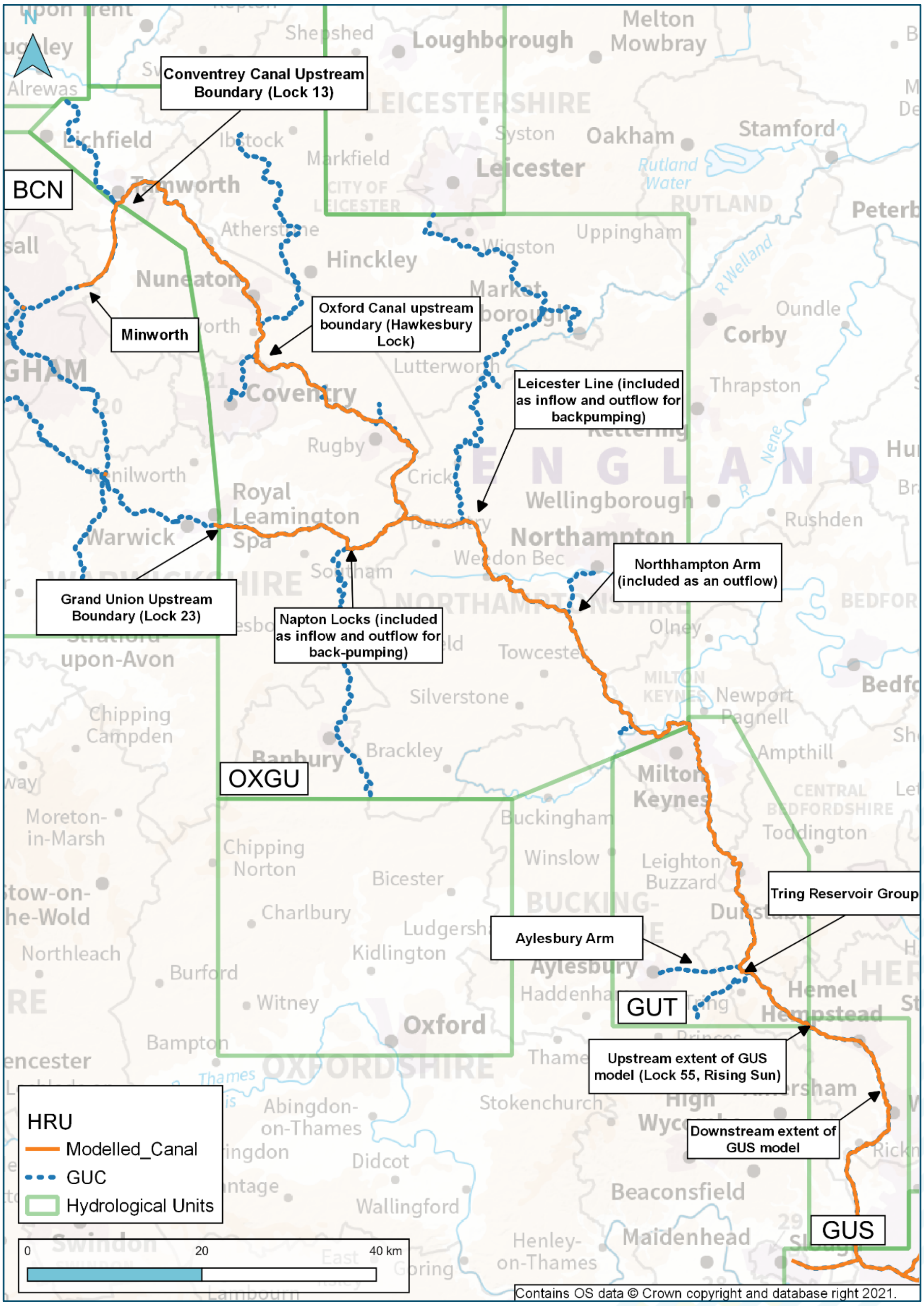


Figure 4-1: Proposed modelling extent

4.3 Pounds

Pounds will be represented in the model using River Sections informed from the topographic survey undertaken during Gate 2 as indicated in Section 2.4.

Additional cross-section will be required to provide model stability and to represent less critical features within pounds. These sections will be represented using the existing cross-sectional data. Please note that this existing cross-sectional data do not include a full cross section of the canal, as such it cannot be used to define the full geometry of the canal.

As such, to develop a representation of the canal section along the pounds, the following process will be followed:

- For each additional canal section, the bed level will be informed by the existing cross-sectional data and the bank levels will be informed by LIDAR.
- Each section will have an indicative width – which will be taken from the closer cross-sections surveyed during Gate 2 and the information recorded in the Aquator models.

An example of this additional canal section is shown in Figure 4-2.

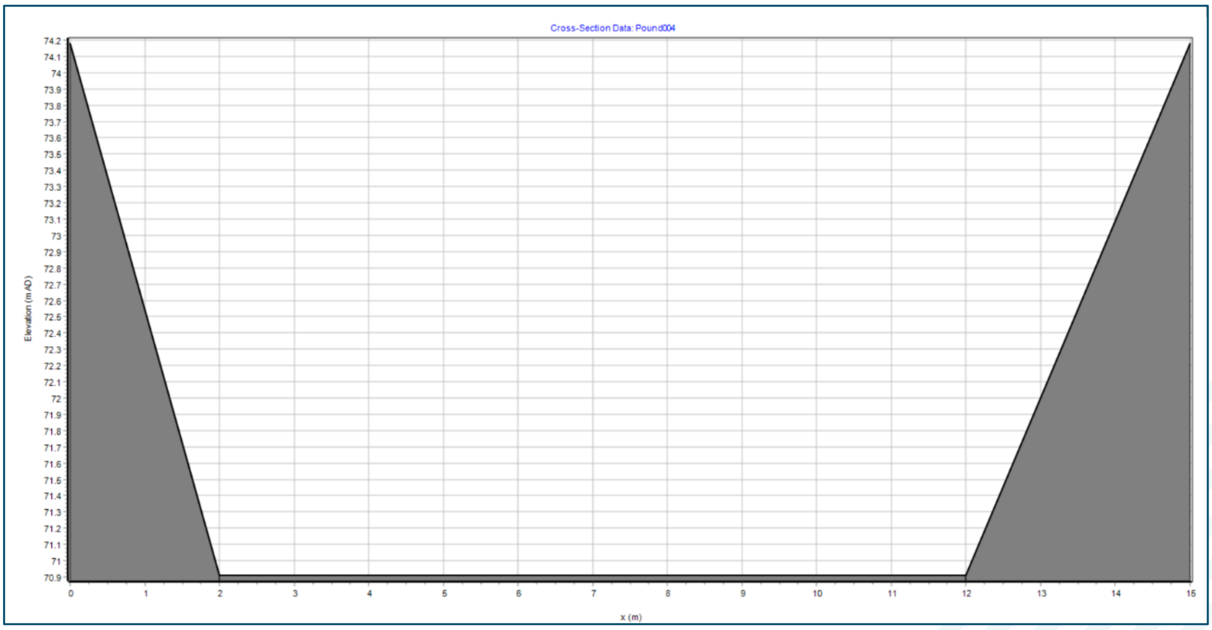


Figure 4-2: Example indicative canal section

Constrictions within pounds such as bridges will be represented using the topographic survey information collected during Gate 2. These structures will be represented explicitly using specific FM units for each type of structures. Tunnels will be represented using culverts units, accounting inlet and outlet losses. Aqueducts will be represented using standard cross-sections.

Roughness value will be assessed using photographic information collected in the topographic survey, site visit inspections and online street views. It will be implemented using Manning's n values ranging from 0.016 to 0.026 for unvegetated canals depending on type of protection lining. Significant seasonal variation in vegetation coverage will be considered and the unvegetated roughness value will be adjusted as follows[5]:

$$N = nf + \alpha K$$

Where:

N = net Manning's n roughness coefficient;

n_f *= Manning's n roughness coefficient for unvegetated canal;*

α = 0.156 (a constant);

---

5 British Waterways, Jan 2011, BW Approved Standard: Hydraulic Design of Canal Works, Section 3.2.1 Hydraulic Gradients along Open Channel Reaches

K = ratio between the plan area of margin reeds present in a reach to the total plan area of canal reach.

4.4 Waste weirs

Waste weirs will be represented in the hydraulic model using a Spill unit. A spill unit solves the weir equation taking into account a variable crest level. The breadth and elevation of the waste weirs will be informed from the topographic survey collected during Gate 2 or informed from the Aquator model where survey information is not available. An example of a waste weir spill unit is shown in Figure 4-3. The discharge coefficient (Cd) value will be selected based on weir type.

Towpaths constructed over weir crest or slots positioned in front of weirs will be modelled as an orifice, allowing the structure to act as a weir and/or an orifice depending on water levels in the canal.

Discussion with the Canal and River Trust suggests that many waste weirs discharge directly into culverts. Detailed information of these culverts will not be collected in the topographic survey undertaken in Gate 2. It is assumed that these waste weirs have been designed to operate at modular flow and that the discharge will not be affected by the downstream conditions, which is in line with recommendation on the British Waterways hydraulic design standard when sizing a new or replacement culvert and/or weir[6]. Therefore, it is not proposed to include these culverts in the model at this stage. It is also assumed that the discharge of these weirs is not affected by flood levels in adjacent watercourses.

Sensitivity testing for the baseline scenario will be used to indicate which structures might be sensitive to a constriction in the system and indicate spill volumes. It is assumed that waste weirs will be raised and designed to operate in modular flow conditions throughout its operation range once the transfer takes place. This will be addressed during the detailed design stage.

6 British Waterways, Jan 2011, BW Approved Standard: Hydraulic Design of Canal Works, Section 2.7.1 culverts immediately downstream of weirs.

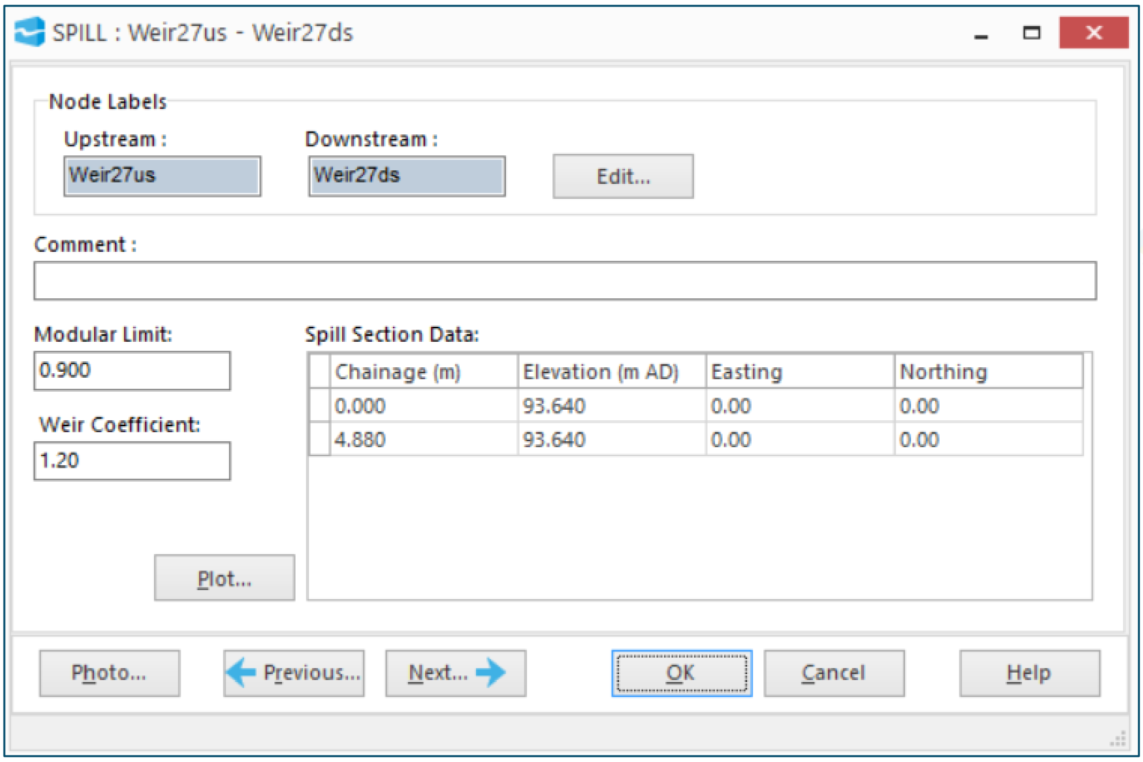


Figure 4-3: Example waste weir (Fixed Weir 27)

4.5 By-pass weirs (by-weirs)

By-pass weirs will be represented in the hydraulic model using Spill units. The breadth and elevation of the waste weirs will be informed from the topographic survey collected in 2021 and, from the Aquator model where this data is not available. An example of a waste weir spill unit is shown in Figure 4-4. The discharge coefficient (Cd) value will be selected based on weir type.

Letterbox type of weirs will be modelled as an orifice, allowing the structure to act as a weir and/or an orifice depending on water levels in the canal.

Discussion with the Canal and River Trust suggests that many by-pass weirs discharge directly into culverts (by-wash culverts). It is assumed that by-pass weir remains in modular flow throughout its operation range and that the lack of by-wash culverts capacity does not results in drowning of the by-pass weir, causing it to flow in non-modular condition. At this stage, it is not proposed to represent explicitly these by-wash culverts, which are likely to add numerical instabilities and increasing simulation times. Sensitivity testing on the modular limit parameter will be carried out to identify structure that are sensitive, which may need to be investigated at detailed design stage.

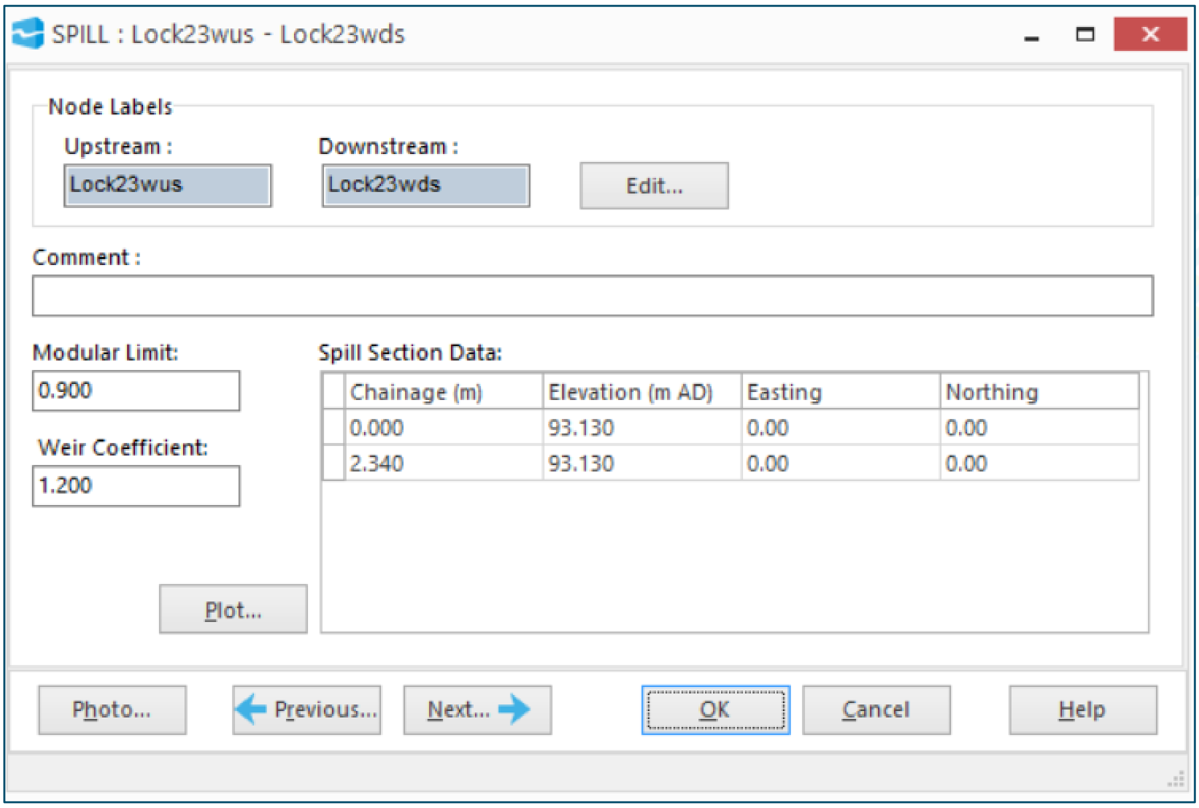


Figure 4-4: Example by-pass weir (Lock 23)

4.6 Lock gates

Vertical sluice gates units will be used to represent explicitly the locks incorporating the dimension collected in the topographic survey undertaken in Gate 2 and, the Canal & River Trust information where available.

Leakages through the lock gates are likely to be small, and potentially highly variable depending on how tightly a gate has been closed, and on the current condition of a gate. Representing this in the hydraulic model may not be possible due to limitations in the size of flow that can be applied in the model (to three decimal places). Gate leakage may, nevertheless, be significant at specific locations on "uphill" sections, as it represents a downwards recirculation of water being pumped up for the transfer. Where the hydrometric survey finds significant leakage at individual locks, these may need to be modelled.

Flights of locks will be also represented explicitly using vertical sluice gates informed from the topographic survey undertaken in Gate 2. During high flows, water may spill over the lock gates. However, it is unlikely that water moving up the first lock in the flight will not move through all the locks in that flight.

Lockage will be represented using abstraction units to transfer flows across a lock structure from the upper to the lower pound. These abstractions units will be directly linked to each lock gate. Lockage flow rates will be derived from the water resources model (Aquator).

4.7 Pumps

Back pumps at lock gates will be represented in the model using Abstraction units. The volume of flow to be transferred at each will be discussed with the Canal & River Trust. Where possible, operation rules will be placed based on water levels, otherwise, they will be informed from the outputs of the water resource model (Aquator).

It is likely that some simplifications to the pumps will have to be made, depending on the complexity of their operating rules. This will be discussed and agreed with the Canal & River Trust.

It should be noted that the setting of the abstraction unit does not take flows out of the system. They will be directly linked to the lower and upper gate, in each lock structure.

4.8 Model inflows

Inflows into the hydraulic models will be based on the existing Aquator model and will be applied as QT (flow-time boundaries) in the hydraulic model. Sensitivity testing to understand how important the daily variation in canal inflow and flow boundary assumptions obtained from the Aquator model are for implementing in the hydraulic model as sub-daily inflows.

4.9 Model abstractions

Abstractions refer to losses from system (i.e., leakage) and licensed abstractions.

Abstractions in the hydraulic models will be based on the existing Aquator model and will be represented using Abstraction units in the hydraulic model.

One abstraction is leakage from the canal pounds. Every effort will be made to include this value in the hydraulic model. However, due to potential limitations in in the size of flow that can be applied in the model (to three decimal places), the representation of leakage may not be possible.

4.10 Grand Union South (GUS) reach

The approach to developing the model along the GUS hydrological unit was based on using the existing Environment Agency flood models to develop a 1D model of the Grand Union Canal where canal and river are a single channel, and of the dual/multiple channels where they divide.

4.10.1 Model changes

The following changes were required to ensure that the model can be used for low flows.

- De-couple the 1D model from the 2D model domain;
- Remove surplus model nodes; and
- Amendments to facilitate low flows modelling.

4.10.2 Model inflows

The following model inflows were represented in the hydraulic model:

- River Bulbourne inflow;
- River Gade inflow;
- River Colne inflow;
- River Chess;
- Maple Cross Sewage Treatment Works (STW);
- Berkhamsted STW; and
- Groundwater discharges.

4.10.3 Model abstractions

A review of the incoming data shows that there are no abstractions from the GUS canal.

4.10.4 Model structures

A review of the model has shown that the Environment Agency models represent the hydraulic control structures (weirs, sluices etc) explicitly in the model. Some changes may be required to enable them to work effectively in a low flows model.

4.10.5 Lakes and ponds

There are a number of lakes and ponds that are parallel to the canal within the GUS. At low and high flows they may have an impact. In the existing models, they are represented in the 2D domain. Where appropriate, they will be represented in the 1D model using Reservoir units with the level-area relationship derived from LiDAR

4.11 Model runs and scenarios

The model will be used to test the benefits and impacts of the SRO, scenarios will be identified by the steering group as the option is refined in the parallel investigations.

The high-level hydraulic models will be verified against Aquator for the Birmingham/ Oxford GU and Tring sections and these will provide the inflow to the detailed GUS model at an appropriate timestep. We will also verify models against available Canal & River Trust flow datasets, these have been requested and verification approach will be confirmed once the length and quality of datasets is known. We recognise that there is a significant risk to this, as models may not agree. However, the hydraulic model can use a daily flow boundary for the canal input (i.e., an Aquator output if necessary) and still run the model at a sub-daily timestep. Other factors that may impact the ability of the models to agree include:

- Structure losses;
- Operational rules for pumping; and
- Survey accuracy.

The hydraulic models are 1D only, run time depends on size of model and timestep but we anticipate run time of a few hours which is feasible for this study.

5 Model limitations

Flood Modeller (FM) is a software package designed primarily for high flow flood modelling purposes. Whilst it can and has been used to undertake low flows modelling there may a number of limitations. Potential model limitations include:

- Model stability – due to the fact that FM is a uses a finite difference numerical scheme, instabilities occur when the channel goes dry. Due to the fact that a canal will likely have a large volume of water in it at all times, even during a drought this is unlikely to be a significant issue.
- Simplifications – as discussed in the preceding sections, a number of simplifications will need to be made to hydraulic structures.
- As with any hydraulic modelling, there are a number of key input criteria that are based on subjective judgements by the modeller (e.g., selection of Manning’s n values). Sensitivity testing on these values will be undertaken to understand the sensitivity of the system.

6 Sensitivity Testing and Validation

6.1 Sensitivity testing

To understand the impact on the model results on the selection of key model input criteria the following sensitivity tests are proposed to be undertaken on the models developed as part of this study:

- Canal operating assumptions;
- Model inflow (+/-20%);
- Canal pound Manning's n (+/-20%);
- Weir coefficient values (+/- 20%);
- Initial water level (+/-300mm);
- Lock flow rate (+/-20%);
- Back-pumping rate (+/-20%):

6.2 Model validation

The model will be validated using hydrometric data collected during Phase 2 and, using existing Canal & River Trust and EA flow and level gauge data in the canal, along with Environment Agency and Affinity flow and level data in the river sections that interact with the canal in GUS.

7 Summary

Table 7-1 summarises each relevant HRU and the proposed modelling approach. Work for Gate 1 was concentrated on flow for the period 2013 to 2019, this includes a significant drought period (2017-19) and a number of notable high flow events as well as 2015/16 where conditions were average.

Work for Gate 2 will be concentrated in validating the baseline model and reassessing the baseline on similar flow conditions for the period analysed in Gate 1. However, these periods and scenario testing will be defined throughout Gate 2.

Table 7-1: Summary of hydraulic modelling approach

<table>
<tr><th>HRU</th><th>Gate 1</th><th>Gate 2</th></tr>
<tr><td>Birmingham Canal Network</td><td>High level model formed by a two pounds and a lock features. Due to its relatively small size, it was included in the Oxford Grand Union model.</td><td rowspan="4">All models built in Gate 1 will be combined into one model which incorporates:
i) New topographic survey
ii) Explicitly representation of gates/locks
iii) Operation rules to represent the existing condition conditions for pumping and paddles operation</td></tr>
<tr><td>Oxford Grand Union</td><td>High level model, using existing information from survey and existing Aquator model.</td></tr>
<tr><td>Grand Union Tring</td><td>High level model, using existing information from survey and existing Aquator model.</td></tr>
<tr><td>Grand Union South</td><td>Detailed model, using existing Environment Agency models.</td></tr>
<tr><td>London</td><td>Extent of the proposed transfer into the London area was discharged during this phase.</td><td>N/A</td></tr>
</table>

Offices at

Coleshill
Doncaster
Dublin
Edinburgh
Exeter
Glasgow
Haywards Heath
Isle of Man
Limerick
Newcastle upon Tyne
Newport
Peterborough
Saltaire
Skipton
Tadcaster
Thirsk
Wallingford
Warrington

Registered Office
1 Broughton Park
Old Lane North
Broughton
SKIPTON
North Yorkshire
BD23 3FD
United Kingdom

+44(0)1756 799919
info@jbaconsulting.com
www.jbaconsulting.com
Follow us:

Jeremy Benn Associates Limited

Registered in England 3246693

JBA Group Ltd is certified to:
ISO 9001:2015
ISO 14001:2015
OHSAS 18001:2007