A417 Missing Link
TR010056

6.4 Environmental Statement
Appendix 13.11 Water Features Survey (Part 1 of 2)

Planning Act 2008

APFP Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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Infrastructure Planning

Planning Act 2008

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A417 Missing Link

Development Consent Order 202[x]

6.4 Environmental Statement
Appendix 13.11 Water Features Survey
(Part 1 of 2)

Regulation Number:	5(2)(a)
Planning Inspectorate Scheme Reference	TR010056
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Author:	A417 Missing Link

Version	Date	Status of Version
C01	May 2021	Application Submission

Water Feature Survey Reports

Water Features Survey Identification Form

Applicant Name		**Highways England**	**Borehole Location (e.g. Black Farm, Stirling)**	**A417 Missing Link study area**
Survey Completed by:	**(Name)**	**Karen Scott / Harry Jarvis / Tom Tubridy / Chris Millward**		
(Company)		**Mott MacDonald Sweco JV**	**Borehole NGR**	**N/A**
(Telephone No.)			**Date(s) of survey**	**16th – 19th April 2018, 29th – 31st May 2018, 23rd – 27th July 2018, 4th – 8th February 2019, 18th – 22nd March 2019**

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
1	SO930158	SW – stream (Norman's Brook tributary)	-	-	-	-	16/04/2018 Watercourse directed through culvert (approx. 0.5m diameter) beneath road and house. Difficult to access. Immediately DS of culvert estimated at 1m wide, 5cm deep and is flowing at approximately 0.048575 m3/s (measured twice on 16/04/2018 15:40 0.994 m/s and 0.949 m/s). Flow direction: WSW 254˚. (1mx0.05mx0.994m/s= 0.0497 m3/s) (1mx0.05mx0.949m/s= 0.0475 m3/s) 18/04/2018 Measured again on 18/04/2018 (11:05) as it rained heavily overnight, flowing at approximately 0.11228m3/s and is estimated at 1m wide 14cm deep (in the centre of the channel). (1m*0.14m*0.802m/s) 24/07/2018 12:53 Pool of standing water immediately DS of culvert. Not flowing and dry beyond that. 05/02/2019 09:00 Pool of standing water immediately DS of culvert, very slight flow from culvert (dripping) and dry beyond that. 19/03/2019 (16:00) Flowing but inaccessible
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
2	SO930158	SW – stream (Norman's Brook)	-	-	-	-	16/04/2018 Approximately 50 yards downstream of no.1. Approximately 1.25m wide, 10cm deep and is flowing at approximately 0.12451 m3/s (measured twice on 16/04/2018 16:04: 30cm from right bank = 0.05401 m3/s (0.55*0.1*0.982m/s) and 80cm from right bank = 0.0705 m3/s (0.75*0.1*0.94m/s = m3/s) 24/07/2018 12:53 Pool of standing water immediately DS of culvert. Not flowing and dry beyond that. 24/07/2018 09:05 Patches of shallow water not flowing. 19/03/2019 (16:05) 0.9m wide, 0.1m deep and flowing at 0.01269m3/s (0.9*0.1*0.141=0.01269) Outfall observed on the right hand bank which was flowing, there was a very strong smell of hydrocarbons, possible road drainage.
	N/A	-	-	-	-	-	
5	SO898145	SW – stream	-	-	-	-	17/04/2018 Watercourse (OS maps identify it as coming from an issue) flowing in an NE direction, with a tributary (no. 6) feeding from the right bank. The watercourse
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							downstream of the confluence is approximately 76cm wide, 7cm deep (in the centre) and is flowing at approximately 0.03399 m3/s (17/04/2018 09:56). (0.76*0.07*0.639=0.03399m3/s) 25/07/2018 16:06. Approximately 80cm wide, 3 cm deep and 0.0053m3/s (0.80*0.03*0.221=0.0053m3/s) 07/02/2019 08:45-heavy rain night before DS of trib/conf - Watercourse approx. 0.5m wide, with a depth of 7cm deep in the centre and flowing at approximately 0.00791m3/s (0.5x0.07x0.226=0.00791) The watercourse upstream of the confluence is approximately 52cm wide, 7cm deep (in the centre) and is flowing at approximately 0.0141 m3/s (17/04/2018 10:00). (0.52*0.07*0.387=0.0141m3/s) 25/07/2018 16:06. Not measured, trib dry 07/02/2019 08:50 – heavy rain night before US of trib/conf - Watercourse approx. 0.6m wide, with a depth of 8cm deep in the centre and flowing at approximately 0.003118m3/s (0.6x0.08x0.336=0.003118)

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							20/03/2019 Approx. 0.5m wide, 0.05m deep and flowing at 0.00865m3/s (0.5*0.05*0.346=0.00865)
6	SO898145	SW – stream	-	-	-	-	17/04/2018 Not marked on OS mapping. This watercourse runs adjacent to the road and flows in a northerly direction until its confluence with no. 5. There was very little flow observed and therefore not able to be flow gauged. Upstream it flows from an outfall (approx. 0.5m diameter) where it is culverted under Coppers Hill Farm.
	N/A	-	-	-	-	-	
7	SO916141	SW – stream	-	-	-	-	17/04/2018 Watercourse flowing in an approximate WNW 292° direction. The watercourse is approximately 78cm wide and 5cm deep in the centre and is flowing at approximately 0.0365 m3/s (17/04/2018 11:47). (0.78*0.05*0.937=0.0365m3/s) Further downstream a tributary joins this watercourse on the right hand bank (not visible from public access paths). 25/07/2018 15:01. Approximately 30cm wide, 1cm deep – flowing but not enough to gauge. 07/02/2019 09:56 – heavy rain night before. Watercourse approx. 03m wide, with a depth of 5cm deep in the centre and
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							flowing at approximately 0.002805m3/s (0.3x0.05x0.187=0.002805)
8	SO916144	SW – stream	-	-	-	-	17/04/2018
	N/A	-	-	-	-	-	Watercourse flowing in an approximate NW 304˚ direction and is estimated to be 1m wide. There is no access to flow gauge. OS maps indicated it is culverted, the watercourse was not visible at the point and it is unclear where it goes.
9	SO916144	SW – open channel/pond	-	-	-	-	17/04/2018
	N/A	-	-	-	-	-	Small section of open channel/pond showing two watercourses directed through culverts/outfalls (one flowing in an approximate SW 223˚ direction and a second, which was not flowing, in an approximate NW 321˚ direction) before being directed through another culvert which has a trash grill covering it. There was no access to measure flow.
10	SO905149	SW – open channel and reservoir	-	-	-	-	17/04/2018
	N/A	-	-	-	-	-	One large reservoir split into three sections with weirs/spills ways to allow movement of water between the three sections. The reservoir is fed but numerous inlets to the south. A spill way located on the northern and southern section feeds the channel which runs along the east side of the reservoir in a northerly direction and forms the head of Horsbere Brook.
11	SO902146	SW – stream	-	-	-	-	17/04/2018 Watercourse directed through

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
	N/A	-	-	-	-	-	culvert/outfall. Flowing in an approximate E 96˚ direction into the reservoir (according to OS maps). No access for flow gauging.
12	SO901146	SW – stream	-	-	-	-	17/04/2018 Watercourse flowing in an approximate NNE 334˚ direction. The watercourse is approximately 56cm wide, 5cm deep in the centre and is flowing at approximately 0.0083 m3/s (17/04/2018 12:57). (0.56*0.05*0.298=0.0083m3/s) 26/07/2018. Not measured – poor access as crops in field. This is the downstream extent of no.5. 07/02/2019 10:37-heavy rain night before Watercourse approx. 0.3m wide, with a depth of 9cm deep in the centre and flowing at approximately 0.010989m3/s (0.3x0.09x0.407=0.010989)
	N/A	-	-	-	-	-	
13	SO906157	SW – stream	-	-	-	-	17/04/2018 Watercourse flowing in an NNE 336˚ direction, two weirs/steps at this point. Very little flow and no access for flow gauging.
	N/A	-	-	-	-	-	
14	SO906157	SW – stream	-	-	-	-	17/04/2018 Watercourse flowing in an approximate N 1˚ direction. The watercourse is approximately 70cm wide, 5cm deep in the centre and is flowing at approximately 0.0086 m3/s (17/04/2018 14:21) at the bridge crossing.
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							(0.70*0.05*0.247=0.0086m3/s) 25/07/2018 16:00 Dry 04/02/2019 14:59 Watercourse approx. 1.5m wide, with a depth of 3cm deep in the centre and flowing at approximately 0.0072m3/s (1.5x0.03x0.160=0.0072)
15	SO906157	SW – stream	-	-	-	-	17/04/2018 Watercourse identified adjacent to public footpath, no indication of this watercourse on the OS map. Water levels are low and there is very little obvious flow in the stream, therefore flow direction is unknown. Does not drain into no. 14 and could be a land drain? Poor access so unable to flow gauge or identify start/end.
	N/A	-	-	-	-	-	
16	SO930159	SW – spring flow gauged	-	-	-	-	18/04/2018 Watercourse is 84 cm wide flowing in a WNW 294˚ direction. It is flowing at approximately 0.0266 m3/s (measured twice: 16cm from the right bank, 8cm deep (0.38m*0.08m*0.625m/s=0.019m3/s) and 60cm from the right bank, 6cm deep (0.46m*0.06m*0.274m/s = 0.00756m3/s)) (18/04/18 10:18). 24/07/2018 Did not investigate as owner confirmed that
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							they were dry 05/02019 09:15 Dry - not running 19/03/2019 (15.45) Approx. 0.4m wide, 0.05m deep and 0.00656m3/s (0.4*0.05*0.328=0.00656)
17	SO930159	SW – spring flow gauged	-	-	-	-	18/04/2018 Watercourse is approximately 50cm wide (just upstream of the confluence with no. 16) and 8cm deep in the centre flowing in a NW 330˚. It is flowing at approximately 0.0168 m3/s (0.5m*0.08m*0.420m/s) (18/04/18 10:33). 24/07/2018 Did not investigate as owner confirmed that they were dry 05/02019 09:15 Dry - not flowing 19/03/2019 (15.30) Approx. 0.6m wide, 0.06m deep and 0.0069m3/s (0.6*0.06*0.192=0.0069)
	N/A	-	-	-	-	-	
18	SO931158	SW – spring flow gauged	-	-	-	-	18/04/2018 Watercourse is 96 cm wide flowing in an NNW 331˚ direction just below the confluence of no. 16 and no. 17.
	N/A	-	-	-	-	-	

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							It is flowing at approximately 0.0155m3/s (30cm from the right bank, 5cm deep (0.3m*0.05m*0.218m/s = 0.00327m3/s) and at 68cm from the right bank, 7cm deep (0.68m*0.07m*0.312m/s = 0.01223) (18/04/18 10:56). Immediately downstream of the gauging site the water course is culverted for approximately 1.5m. 24/07/2018 Did not investigate as owner confirmed that they were dry 05/02019 09:15 Dry - not flowing 19/03/2019 (15.13) Approx. 0.95m wide, 0.08m deep and 0.041m3/s (0.95*0.08*0.540=0.041)
19	SO931158	SW – spring flow gauged	-	-	-	-	18/04/2018 Watercourse is approximately 56cm wide and 10cm deep in the centre flowing in a W 282˚ direction. It is flowing at approximately 0.021896 m3/s (0.56m*0.1m*0.391m/s) (18/04/18 11:01). Immediately downstream of the flow gauging site the water course is culverted under the house and appears at no. 1. 24/07/2018 Did not investigate as owner confirmed that
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							they were dry 05/02019 09:15 Dry - not flowing 19/03/2019 (15.00) Approx. 0.5m wide, 0.19m deep and flowing at 0.0152m3/s (0.5*0.19*0.160=0.0152)
20	SO948123	SW - pond	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	The most downstream pond in the system of three. Downstream of this is a watercourse, which is a tributary of the River Frome. Upstream there is a small watercourse linking the pond with another upstream. Unknown use for this pond and the other two in the cascade.
21	SO948123	SW – watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	The downstream end of no. 20 showing a weir over spilling into the watercourse. No access to the watercourse for flow gauging
22	SO948123	SW - pond	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	Middle and upper pond. A weir is identified at the downstream end of pond upper pond and the upstream end of middle pond, the upstream pond spills into the middle pond when the water levels reach the top of the weir. There was no access for flow gauging.
23	SO948123	SW - pond	-	-	-	-	18/04/2018

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
	N/A	-	-	-	-	-	The upper pond is fed by a stream with flows in a south easterly direction at the head of the pond.
24	SO946126	SW - watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	Watercourse is approximately 137cm wide and 26cm deep in the centre flowing in a SE 138˚ direction. There is a tributary which enters on the right bank and upstream of this section the watercourse is culverted under a road. The watercourse is flowing at approximately 0.0442 m3/s downstream of the confluence (with no. 25) (18/04/18 13:56). (1.37*0.26*0.124=0.0442m3/s) 25/07/2018 10:00 U/S pools - small areas of standing water. D/S river – not running but isolated small pools of water. 07/02/2019 11:40-heavy rain night before DS of conf/trib. Watercourse is approx. 1.5m wide, with a depth of 15cm deep in the centre and flowing at approximately 0.083475m3/s (1.5x0.15x0.371=0.083475) US of conf/trib. Watercourse is approx. 1.5m wide, with a depth of 15cm deep in the centre and flowing at approximately 0.0612m3/s (1.5x0.15x0.272=0.0612)
25	SO966126	SW - watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	This watercourse is culverted under the road and upstream of this the watercourse

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							is open and is fed by system of ponds. Upstream of the culvert the watercourse is 70cm wide and 6cm deep in the centre flowing approximately in an ENE 60˚ direction. The watercourse is flowing at approximately 0.224 m3/s upstream of the culvert (18/04/18 13:59). (0.70*0.06*0.533=0.224m3/s) 25/07/2018 09:59 U/S dry and overgrown, D/S pools but not flowing – see no.24 07/02/2019 11:40-heavy rain night before DS of conf/trib. Watercourse is approx. 1.5m wide, with a depth of 15cm deep in the centre and flowing at approximately 0.083475m3/s (1.5x0.15x0.371=0.083475)
26	SO966126	SW - watercourse	-	-	-	-	18/04/2018 Small cascades along this entire stretch with springs entering the watercourse via the left bank.
	N/A	-	-	-	-	-	
27	SO944131	SW - watercourse	-	-	-	-	18/04/2018 The watercourse is 65cm wide and 27cm deep and is flowing at approximately 0.0474m3/s (18/04/18 14:38) (0.65*0.27*0.27=0.0474) in a SE direction. Upstream there is evidence of overland flow where the watercourse has broken its banks. An outfall is identified downstream which was not discharging. This is a potential surface water drain.
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							23/07/2018 15:27 – very little flow and overgrown. Poor access and not enough flow to gauge. 07/02/2019 12:07-heavy rain night before Spring-fed watercourse is approx. 0.8m wide, with a depth of 20cm deep in the centre and flowing at approximately 0. 05952m3/s (0.8x0.20x0.372=0.05952) Flowing heavy from the pool upstream
29	SO942132	SW - watercourse	-	-	-	-	18/04/2018 The watercourse is potentially spring fed and 48cm wide and 6cm deep in the centre. It is flowing at approximately 0.0173 m3/s (18/04/18 14:49). (0.48*0.06*0.60=0.0173m3/s) flowing approximately in an ENE 69˚ direction. This water course is upstream of the pond identified in no.28 and feeds it with another spring fed watercourse. 23/07/2018 14:50 Dry 07/02/2019 12:40-heavy rain night before Spring-fed watercourse is approx. 0.3m wide and 5cm deep in the centre and flowing at approximately 0. 0059m3/s (0.3x0.05x0.392=0.00588)
	N/A	-	-	-	-	-	
30	SO942133	SW - watercourse	-	-	-	-	18/04/2018

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
	N/A	-	-	-	-	-	Water course is potentially spring fed and is 35cm wide and 3cm deep in the centre. It is flowing at approximately 0.010m3/s (18/04/2018 14:49) in a SE (137˚) direction. (0.35*0.03*0.99=0.0104 m3/s) 23/07/2018 14:30 Damp ground but no flow 07/02/2019 12:31-heavy rain night before Spring-fed watercourse is approx. 0.25m wide, with a depth of 5cm deep in the centre and flowing at approximately 0. 0062m3/s (0.25x0.05x0.493=0.0061625)
31	SO945130	SW – watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	Watercourse is potentially spring fed and is 69cm wide and 4cm deep in the centre. It is flowing in at approximate 0.0080m3/s (18/04/2018 15:51) (0.69*0.04*0.289=0.00798m3/s) in a SW (224˚) direction. This watercourse joins no. 26 on its left bank. 23/07/2018 Very poor access, overgrown with fallen tree. No visible sign of flow from the bottom end at the confluence with main river. 07/02/2019 12:13-heavy rain night before Spring-fed watercourse is approx. 0.6m wide and 5cm deep in the centre and

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							flowing at approximately 0. 0026m3/s (0.6x0.05x0.087=0.00261)
32	N/A	SW - watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	Watercourse is flowing in an approximate ESE (68˚) direction and joins no.31 on its right bank.
33	SO945131	SW – watercourse	-	-	-	-	18/04/2018
	N/A	-	-	-	-	-	Watercourse is directed though a culvert, which runs under the road. It is flowing in a WSW (241˚) direction and is the upstream extent of no.31.
34	SO941130	SW – pond	-	-	-	-	Small pond. It is unknown if this is artificial or spring fed.
	N/A	-	-	-	-	-	
35	SO963154	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	This watercourse flows ENE (60°). A spring joins this watercourse from the left bank. There is no access for flow gauging (private land & highly vegetated)
36	SO964155	SW - watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Watercourse is 120cm wide with a depth of 7cm in the centre. It is flowing with an approximate velocity of 0.067m3/s in an E (87°) direction (19/04/18 9:25) (1.2*0.07*0.799=0.06711m3/s) 27/07/2018 10:51. Wet ground in places with small pools of standing water US. Dry at bridge where flow gauging previously carried out.

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							04/02/2019 13:01 Watercourse approx. 1m wide and 14cm deep in the centre, flowing at approximately 0.027m3/s (1x0.14x0.192=0.02688) 20/03/2019 Approx.1m wide, 0.17m deep and flowing at 0.046m3/s (1*0.17*0.272=0.04624)
37	SO964155	SW – watercourse	-	-	-	-	19/04/2018 River Churn, flowing in an S (101°) direction. Immediately downstream is confluence with no. 36. Flowing in a SSE direction (152°). No access for flow measurements. (19/04/18 9:35) 27/07/2018 10:53. Flowing, still no access to gauge.
	N/A	-	-	-	-	-	
38	SO965155	SW- watercourse	-	-	-	-	19/04/2018 Watercourse is approximately 150cm wide and 13cm deep in the centre. It is flowing at approximately 0.196 m3/s (19/04/18 09:38) (1.5*0.13*1.004=0.1958m3/s) in an approximate SW (226˚) direction. This section of the watercourse is the downstream extent of 50. It is a tributary of the River Churn (37) and joins it on its right bank immediately downstream. Churn flows in an ESE (190°) direction downstream of this confluence. 27/07/2018 10:56. Approximately 1.0m wide and 5cm deep in
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							the centre. It is flowing at approx. 0.033 m3/s (1*0.05*0.663=0.03315m3/s) 04/02/2019 13:17 Watercourse is approx. 1m wide and 8cm deep in the centre. It is flowing at approximately 0.065m3/s (1x0.08x0.812=0.06496)
39	SO962159	SW – watercourse	-	-	-	-	19/04/2018 Watercourse is approx..104cm wide and 14cm deep in the centre. It is flowing at approximately 0.193m3/s m/s (19/04/18 10:14) (1.04*0.14*1.324=0.19277m3/s) in a SE (160°) direction (at the point of gauging). This is the downstream extent of no. 47. 27/07/2018 11:16. Watercourse is approximately 98cm wide, 9cm deep in the centre and flowing at approx. 0.482 m3/s (0.98*0.09*0.482=0.0425m3/s) 04/02/2019 13:31 Bushes along the bank have been cut back. Watercourse is approx. 1m wide and 12cm deep in the centre, and flowing at approximately 0.072m3/s (1x0.12x0.598=0.07176) 20/03/2019 Watercourse is approx.1m wide, 0.11m
	N/A	-	-	-	-	-	

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							deep and flowing at approx. 0.077m3/s (1*0.11*0.703=0.07733)
40	SO962159	SW -waterfall	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Watercourse is either spring fed or is culverted underneath the road from an unknown start point. Downstream, there is a waterfall and beyond that the watercourse joins no. 39. This is private land with no access for flow gauging.
41	SO963159	SW – STW	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Coberley Sewage Treatment Works. Outfall discharge location unknown.
42	SO9664159	SW –watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	River Churn is approximately 175cm wide and 29cm deep in the centre. Flowing with an approximate velocity of 0.5222 m3/s (0.29*1.75*1.029=0.5222m3/s) in an SSW 205° direction. Immediately to the left of this flow gauging location there is a small tributary of over land flow. The watercourse is culverted underneath the road. Downstream of the culvert, a tributary enters on the left, flowing in a W (280°) direction. This is either flowing from a culvert underneath a house, a spring or part of some form of drainage network. 27/07/2018 11:31. Approximately 1.3m wide, 14cm deep and flowing at approx. 0.540 m3/s (1.3*0.14*0.540=0.09828m3/s). Further downstream, the watercourse is overgrown, so not possible to view tributary discharging

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							from the left. 04/02/2019 13:39 Watercourse is approx. 1.5m wide and 25cm deep in the centre, flowing at approximately 0.172m3/s (1.5x0.25x0.459=0.172125) 20/03/2019 Approx.1m wide, 0.32m deep and flowing at 0.208m3/s (1*0.32*0.651=0.20832)
43	SO965159	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	River Churn, upstream of no. 42, flowing in a SW (227°) direction. The watercourse is swollen and flowing slightly overland. Upstream, the watercourse is in a steep sided valley with very dense vegetated banks, so the river is not visible although it can be heard flowing. No access for flow measurements.
44	SO965160	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Drainage channel, potentially upstream of its confluence with 43. The very little visible flow is in a SSW (212°) direction.
45	SO965158	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Identified as a pond on OS maps. At the time of survey, it was present only as waterlogged land. Water is directed through a small outfall into this ‘pond’.
46	SO966157	SW – watercourse	-	-	-	-	19/04/2018

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
	N/A	-	-	-	-	-	Large pond (Leaden Wells) flowing into 2 outfalls under a bridge. At the downstream end of the pond, the watercourse is culverted and discharges through two outfalls in a W and SW direction.
47	SO960160	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Watercourse is culverted under the road. Downstream of this, there is a large pond. Upstream of the culvert, the watercourse flows in an ESE (110°) direction.
48	SO960159	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	This watercourse is the upstream extent of no. 47 and is flowing in an ESE (118°) direction. Further upstream, a spring-fed tributary joins the watercourse on its right-hand side. Upstream of this confluence, the watercourse is flowing in a NE (57°) direction.
49	SO960159	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	Watercourse is spring fed and is directed though a culvert under the road. Downstream of the culvert, it is approx. 99cm wide and 6cm deep with an approximate flow of 0.056 m3/s (19/04/28 11:45) (0.99*0.06*0.943=0.0560m3/s). It is flowing in an approximate NNW (335°) direction. 27/07/2018 11:47. Watercourse is approx. 76cm wide, 12cm deep with a flow of 0.40m3/s (0.76*0.12*0.402=0.03666m3/s). Gauged upstream of confluence with main river and

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							downstream of culvert. 04/02/2019 13:48 Upstream of confluence with main river and downstream of culvert, the watercourse is approx. 0.9m wide and 6cm deep in the centre, and flowing at approximately 0.015m3/s (0.9x0.06x0.276=0.014904) Main river: Watercourse is approx. 1.5m wide,and 6cm deep in the centre, and flowing at approximately 0.01m3/s (1.5x0.06x0.111=0.00999) Downstream of confluence with main river: Watercourse is approx. 1.5m wide and 6cm deep in the centre, and flowing at approximately 0.024m3/s (1.5x0.06x0.268=0.02412) 20/03/2019 Downstream of confluence with main river. Approx. 2m wide, 0.06m deep and flowing at 0.042m3/s (2*0.06*0.348=0.04176)
50	SO965148	SW – watercourse	-	-	-	-	19/04/2018
	N/A	-	-	-	-	-	The River Churn as viewed form the road bridge. A weir is situated upstream of the bridge.
51	SO946128	SW - Spring	-	-	-	-	25/07/2018 10:12
			-	-	-	-	Spring-fed watercourse is approx. 60cm

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							wide, 11cm deep, flowing in a SW (218˚) direction at approx. 0.0069m3/s (0.60*0.11*0.104=0.00686m3/s). Flows directly into 52 07/02/2019 11:52-heavy rain night before Spring-fed watercourse is approx. 0.8m wide, 12cm deep in the centre and flowing at approx. 0. 018m3/s (0.8x0.12x0.188=0.018048)
52	SO946128	SW - watercourse	-	-	-	-	25/07/2018 10:12 Upstream of spring confluence, watercourse is approx. 1m wide, 7cm deep and flowing at 0.0058m3/s. (1*0.07*0.083=0.00581m3/s) in a SE (137˚) direction. Downstream of spring confluence, watercourse is approx. 1.1m wide, 11cm deep, flowing at 0.011m3/s (1.1*0.11*0.088=0.0106m3/s) in a SE 137˚ direction. 07/02/2019 11:52 - heavy rain night before Downstream of spring confluence, watercourse is approx. 1.7m wide, 18cm deep in the centre and flowing at approx. 0. 0436m3/s (1.7x0.18x0.142=0.043452)
53	SO943132	SW- watercourse					23/07/2018 15:03 Flow gauging of the culvert at the downstream extent. Watercourse is 25cm wide, 2cm deep and flowing at 0.002m3/s

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							(0.02*0.25*0.360=0.0018m3/s) 07/02/2019 12:27 - heavy rain night before Flow gauging of the culvert at the downstream extent. Watercourse is approx. 0.25m wide, 5cm deep in the centre and flowing at approx. 0. 012m3/s (0.25x0.05x0.946=0.011825)
54	SO945129	SW - Watercourse					25/07/2018 10:33 Watercourse is approx. 1m wide, 3cm deep, flowing at approx. 0.0031m3/s (1*0.03*0.102=0.00306m3/s) in a SSE (162˚) direction. 07/02/2019 11:57- heavy rain night before Watercourse is approx. 1m wide 12cm deep in the centre and flowing at approximately 0. 044m3/s (1x0.12x0.363=0.04356)
58	393010 215847	SW - Watercourse					05/02/2019 09:56 Watercourse is approx. 1cm deep with only slight flow. Too shallow to gauge.
59	393001 215830	SW - Watercourse					05/02/2019 09:58 Dry watercourse with small pools of water upstream of culvert.
60	392988 215808	SW - Watercourse					16/04/2018 Watercourse directed through culvert (approx. 0.5m diameter) beneath overgrown grassed area. Possible spring observed on left hand bank directed through culvert to discharge into watercourse (Norman's

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							Brook tributary). No access for flow gauging (private land) 05/02/2019 Downstream of culvert on main stream. Flow through pipe but unable to gauge.
61	392987 215794	Spring					16/04/2018 Spring observed on left hand bank (approx. 3m above ground level) directed through culvert into watercourse (Norman's Brook tributary). Most likely to be culverted drainage from the spring upstream. Supplies almost all of flow at head of Norman's Brook tributary. No access for flow gauging (private land). 05/02/2019 Spring flowing into watercourse (Norman's Brook tributary) not flow gauged using a bucket as it was flowing too quick.
62	392983 215799	SW - Watercourse					05/02/2019 watercourse (Norman's Brook tributary) is flowing but too shallow to gauge (approx. 1cm deep). 19/03/2019 Watercourse (Norman's Brook tributary) is approx. 0.87m wide, 0.07m deep and flowing at 0.0086m3/s (0.87*0.07*0.141=0.0085869)

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
63	392982 215798	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary) is approx. 1-2cm deep immediately upstream of no.61, this is too shallow to flow gauge.
64	392974 215796	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary)downstream of 61 is approx. 5cm deep, 0.45m wide and flowing at 0.006m3/s (0.05*0.5*0.228=0.0057). 19/03/2019 Watercourse (Norman's Brook tributary) is approx. 0.87m wide, 0.06m deep and flowing at 0.019m3/s (0.87*0.06*0.355=0.018531)
65	392959 215793	SW - Watercourse					05/02/2019 (10:19) Watercourse (Norman's Brook tributary) approx. 5cm deep, 0.5m wide and flowing at 0.0057m3/s (0.05*0.5*0.226=0.00565).
66	392943 215775	SW - Watercourse					05/02/2019 (10:21) Watercourse (Norman's Brook tributary) slightly slower and wider than further upstream, with mini braids. It is approx. 1m wide and 1.5cm deep. Too shallow to gauge.
67	392922 215766	SW – Possible Road Drainage					05/02/2019 (10:23) Culvert observed discharging from the right hand bank into the watercourse (Norman's Brook tributary). The pipework and surrounds is broken and disconnected, this is potentially road drainage. Thewater depth

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
							in culvert approx. 1 cm and too shallow to gauge.
68	392832 215733	SW - Watercourse					05/02/2019 (10:37) Watercourse (Norman's Brook tributary) approx. 1m wide, 5cm deep and flowing at 0.015m3/s (0.05*1*0.307=0.01535). Culvert present immediately downstream.
69	392820 215718	Sping					05/02/2019 (10:47) Petrifying spring rises via a seepage area just within grazing land and flows through the fenced boundary and down the left hand bank to discharge into watercourse (Norman's Brook tributary) immediately downstream of a culverted section. Petrified twigs, shells, seed cases etc. and tufa present along bed of this spring-fed tributary, which is approx. 10m long and 3m wide at the confluence with the stream. The spring was too shallow to flow gauge (less than 1cm deep) 19/03/2019 Spring approx. 0.35m wide, 0.03m deep and flowing at 0.004m/s (0.35*0.03*0.334=0.003507)
70	392804 215719	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary) downstream of culvert and confluence with petrifying spring. Approx. 5cm deep and 0.5m wide, flowing at 0.007m3/s (0.05*0.5*0.261=0.006525)

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							19/03/2019 Watercourse (Norman's Brook tributary) approx.0.78m wide, 15cm deep and flowing at 0.044m3/s (0.78*0.15*0.334=0.043587)
71	392717 215698	SW - Watercourse					05/02/2019 (11:17) Watercourse (Norman's Brook tributary) banks and bed is modified to form a stepped weir like structure with a small waterfall
72	392691 215687	Spring					05/02/2019 (11:23) Springs flowing into watercourse (Norman's Brook tributary)from left hand bank. A pipe outfalls from the left hand bank but appears to be dry..
73	392690 215695	SW - Watercourse					05/02/2019 (11:25) Watercourse (Norman's Brook tributary) downstream of confluence with 72. Approx. 14cm deep (to silt), 0.5 m wide and flowing at 0.006m3/s (0.14*0.5*0.090=0.0063) 19/03/2019 Watercourse (Norman's Brook tributary) approx.0.93m wide, 16cm deep and flowing at 0.054m3/s (0.93*0.16*0.363=0.0540)
74	392686 215694	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary) is diverted through a culvert. The culvert area is modified with an approx. 1m high waterfall immediately upstream of the culvert. Pipe outfalls from right hand bank but no flow

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							evident
75	392637 215700	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary) downstream of culvert approx. 5cm deep, 1m wide and flowing at 0.012m3/s (0.05*1*0.243=0.01215)
76	392577 215689	SW – Watercourse – cascade of waterfalls					05/02/2019 (11:42) Stepped cascade with tufa evident on steps. Watercourse (Norman's Brook tributary) downstream of cascade is approx. 10cm deep, 1.5m wide and flowing at 0.015m3/s (0.10*1.5*0.1=0.015)
77	392551 215682	SW - Watercourse					05/02/2019 (11:45) Watercourse (Norman's Brook tributary) very clear with tufa present in bed. The stream flow is piped through a wall that crosses the watercourse.
78	392467 215678	Spring					05/02/2019 (11:53) Spring flowing into the watercourse (Norman's Brook tributary) from left hand bank. Approx. 10cm deep, 0.5m wide and flowing at 0.005m3/s (0.10*0.5*0.102=0.0051)
79	392453 215683	SW - Watercourse					05/02/2019 Watercourse (Norman's Brook tributary) downstream of confluence with spring (78). The watercourse is approx. 10cm deep, 0.5m wide and is flowing at 0.01m/s (0.10*0.5*0.194=0.0097)

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
80	392437 215700	Seepage					05/02/2019 (12:02) Seepage/large area of wet ground on right hand bank, discharging to the watercourse (Norman's Brook tributary).
81	392415 215702	Spring					05/02/2019 (12:07) Petrifying spring on right hand bank flowing towards the watercourse (Norman's Brook tributary). Wide, with petrified material present on bed of stream.
82	392240 215755	SW - Watercourse					06/02/2019 (10:02) Watercourse (Norman's Brook tributary), immediately upstream of a culvert under the foot bridge. The watercourse is approx. 1m wide, 10cm deep and is flowing at 0.0396m3/s (1*0.10*0.396=0.0396) This location was measured for the tracer test 19/03/19 (14:30) The watercourse (Norman's Brook tributary) is approx. 1m wide, 10cm deep and is flowing at 0.070m3/s (1*0.10*0.700=0.070)
83	392954 215873	Well					05/02/2019 (13:55) Well immediately adjacent to and joined to a wall. Well is dripping slightly stagnant water is present in the well bowl. A lead pipe is visible, which indicates the spring is possibly piped away.
84	393462 216182	Pond					05/02/2019 (14:17) Dew pond in a depression, water and reeds are visible.

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
85	391670 215983	Manhole – culverted watercourse					05/02/2019 (10:20) This manhole was identified by the Environment Agency as being part of the Norman's Brook watercourse. The manhole lid was lifted as part of the tracer test. It was confirmed to be the culverted watercourse (Norman's Brook tributary) directed from Crickley Hill at Fly up (feature 82) Flowing at approx. 0.771m/s – it was not possible to measure water depth or culvert size.
86	391336 216350	SW - Watercourse					06/02/2019 (10:45) Watercourse (Norman's Brook tributary) is approx. 1.5m wide, 12cm deep and flowing at 0.035m3/s (1.5*0.12*0.196=0.03528)
87	390302 219264	SW - Watercourse					07/02/2019 (14:23) Watercourse (Norman's Brook) no access for gauging, flowing with a milky colour
88	389123 220546	SW - Watercourse					07/02/2019 (14:29) Watercourse (Norman's Brook) no access for gauging, flowing with a milky colour
89	395688 216098	SW - Watercourse					20/03/2019 14:26 Watercourse (tributary of River Churn) is approx. 1.0m wide, 8cm deep and flowing at 0.060m3/s (1*0.08*0.744 m/s=0.05952).
90	395060 216183	Seepage					20/03/2019 14:50 Seepage on banks of the watercourse (River Churn tributary) marked by isolated boggy ground with distinct vegetation (identified as possibly dog's mercury).

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	Licence Ref	**Use (Agricultural/drinking water/industrial etc**	**Pump Suction Depth (m)**	**Dip Tube installed (Y/N)**	**Depth of Borehole (m)**	**Depth to pumped water level (m)**	
91	394728 216466	Culvert					20/03/2019 15:11 Culvert of watercourse (River Churn tributary headwaters) flowing east under the A417. The watercourse was flow gauged upstream of culvert and is approx. 0.8m wide, 11cm deep, and flowing at 0.040m3/s (0.8*0.11*0.45=0.0396).
92	394734 216462	Outfall – Road Drainage?					20/03/2019 15:12 Outfall (dry) on southern bank of the watercourse (River Churn tributary). Likely discharges road drainage to watercourse, upstream of culvert.
93	394718 216471	Outfall					20/03/2019 15:12 Outfall, discharging from Cotswolds Hills Golf Course and National Star College. The outfall feeds into the watercourse (River Churn tributary) upstream of 91.
94	395752 216089	Watercourse					20/03/2019 15:37 View of the watercourse (River Churn tributary) from top of valley at Downmans Farm.
95	394585 216613	Waste Treatment					21/03/2019 09:46 Waste treatment at Cotswolds Hills Golf Course. Treated effluent is discharges to the watercourse at 93 (River Churn tributary).
96	394620 216551	Catchpit					21/03/2019 09:22 Catchpit that attenuates effluent discharging from the National Start College before is discharges to the watercourse at 93 (River Churn tributary).

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97	394605 216555	Drain					21/03/2019 09:19 Drain that receives water discharging from the National Star College prior to being culverted to a catchpit (feature 96).
98	395076 216821	Lake (proposed)					21/03/2019 09:54 The location of a lake to be constructed at Cotswolds Hills golf course, once planning permission granted. Will be topped up using groundwater from an on-site borehole.
99	392872 214205	Pond					22/03/2019 10:00 A lined ornamental pond at Birdlip House.
G1	392400 215030	Outcrop					16/04/2018 14:45 Solution features (karstic) at outcrop on escarpment slope, indicating potential aquifer characteristics.
G2	392981 215828	Spring					18/04/2018 11:18 Minor spring/seepage at woodside house driveway, which discharges to drain.
G3	393330 215760	Dry Valley					16/04/2018 17:00 Dry valley where map is marked with a spring at top of escarpment. Dry valley goes down to Grove Farm/Crickley Hill Tractors.
G4	394531 214760	Spring collects					16/04/2018 17:34 Spring collects at top of valley at Stockwell Farm. Overflows to watercourse with low flows, downgradient to the north. Culverted at SO945148. Some tufa precipitation on collects where water overflows.
G5	394600 214936	Spring					16/04/2018 17:40 Outfall of culverted spring flows to surface

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							watercourse. Possible collects to the immediate west that likely combines with flows from the watercourse fed by G4. Moderate flow.
G6	394581 214955	Spring					16/04/2018 17:42 Spring that emerges from ground between outfall of spring flows and possible spring collects.
G8	389854 214310	Spring					17/04/2018 10:13 Possible spring collects located at Roman Villa ruins in Great Witcombe, collecting water from escarpment slope to the north. Mapped spring is not found.
G9	389914 214217	Spring					17/04/2018 10:24 Spring emerging from ground to the south-east of Roman Villa. 0.3m wide, 0.05m deep, 0.535 m/s (on gradient). 0.008025m3/s. 07/02/2019 09:07 Heavy rain night before Spring not running
G10	389778 213976	Spring					17/04/2018 10:41 Two large springs forming headwaters of watercourse in valley at Great Witcombe. Springs are well developed, with oolitic limestone exposed. An additional spring emerges from eastern slope approximately 25-30 metres downgradient. 07/02/2019 09:13 Heavy rain night before Spring approx. 0.5m wide, with a depth of

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							5cm deep in the centre and flowing at approximately 0.0061m3/s (0.5x0.05x0.243=0.006075)
G11	389977 213811	Seepage					17/04/2018 11:28 Seepages from woodland to south of public footpath. Dense vegetation prevents pinpointing seepage points, but some channels present. Continuing down path, marked spring is dry, may emerge downgradient but access not granted.
G13	391625 214425	Seepage					17/04/2018 12:07 Seepage in depression on slope in field, marked by rushes at lowpoint.
G14	390225 214634	Spring					17/04/2018 12:49 Unmarked spring emerging from side of field. Flows overground and pools before seeping back to ground.
G15	390698 215805	Seepage					17/04/2018 14:29 Possible seepage in field depression marked by rushes. Not accessed but viewed from public pathway.
G16	390744 215845	Spring					17/04/2018 14:31 Spring collects, where spring marked on map. Discharges to drain immediately.
G17	392692 215674	Spring					18/04/2018 11:58 Pipe driven into ground in field at Grove Farm to discharge spring flows to brook tributary to the north. Spring is productive, and ground can become extremely boggy so fenced off to keep livestock away.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G19	393033 215824	Pond					18/04/2018 11:29 Ornamental pond created by landowner at location of old GI borehole that was not sealed off. Artesian groundwater conditions flows up bore and into pond. Otherwise pond is dry. Borehole was not found.
G20	392809 215699	Spring					18/04/2018 11:41 Springs/seepages arising from ground marked by rushes along northern boundary of field. Low flows trickling to tributary. Land owner suggests not all spring locations are permanent and may pop up anywhere along the northern edge of his field.
G21	392787 215674	Borehole	N/A	50mm	12.82mbgl	2.44mbgl (rest)	18/04/2018 11:55 Ground investigation borehole. Plumbed depth 12.82m bgl. Gw level 2.44m bgl. Difficult to find, requires land owner to point out location.
G23	396587 215314	Watercourse					18/04/2018 14:10 Confluence of spring fed watercourse from the east (access not available), with River Frome. See Feature 51/52.
G24	394260 213317	Seepage					18/04/2018 15:18 Seepages marked by raised ground and rushes. South of Bushley Muzzard SSSI
G25	394250 213383	Spring					18/04/2018 15:20 Bushley Muzzard with distinct vegetation. Spring arises from behind fence in woodland. Watercourse is culverted under public pathways.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G26	394268 213223	Seepage					18/04/2018 15:12 Rushes on slope suggest seepages, ground damp.
G27	394435 213103	Well					18/04/2018 15:43 Well and pond viewed from public pathway in private property.
G28	394498 213076	Watercourse					18/04/2018 15:49 seepages (wet ground on slopes of watercourse and distinct vegetation).
G30	394553 213160	Watercourse					18/04/2018 16:06 Watercourse sourced by springs and seepages on private land/roadside culverted underneath road. Flows barely visible due to overgrowth of vegetation. Primary source is spring marked on OS map located on private land (discharge point is photographed).
G31	394422 213171	Watercourse					18/04/2018 16:18 Rushes and wet ground signify seepage area on banks of watercourse.
G32	394347 213139	Spring					18/04/2018 16:21 Unmarked spring on roadside. Flowing down road with low flows.
G33	393922 212692	Well					18/04/2018 16:36 Blocked well/water pump in village centre. Old, likely ornamental.
G35	396349 215487	Seepage					19/04/2018 09:18 River Churn, with multiple springs/seepages flowing down banks into watercourse
G36	396447 215539	Seepage					19/04/2018 09:37

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Noted by rushes and wet ground up slope of River Churn
G37	396518 215530	Spring					19/04/2018 09:41 Channel on banks of River Churn, possible spring. No flow, but damp ground.
G39	396448 215583	Seepage					19/04/2018 09:52 Seepages in field marked by rushes and extremely boggy and waterlogged ground.
G40	396405 215726	Seepage					19/04/2018 09:55 Seepages in field marked by rushes and wet ground. Spring head rises in north-west corner of field and follows depression towards river. Dry at the springhead location.
G41	396348 215830	Spring					19/04/2018 10:10 Spring in field. Arises from ground where rock is slightly exposed, and flow follows a slight depression down to River Churn.
G42	396325 215932	Seepage					19/04/2018 10:23 Seepage marked by rushes and boggy ground on banks of River Churn.
G43	396275 216001	Well					19/04/2018 10:33 Spring source turned to well in centre of village. Clear water with significant flow.
G44	396492 215938	Seepage					19/04/2018 10:45 Seepages marked by wet ground and rushes on slopes of River Churn tributary
G45	396852 215948	Spring					19/04/2018 10:58 Land marked with spring at Rookery. Not accessible, photo taken from public

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							pathway nearby. Spring flows likely follow channel.
G46	396660 215737	Seepage					19/04/2018 11:11 Seepages in field marked by rushes and wet ground. Rushes not clear in photo.
G47	395977 215944	Spring					19/04/2018 11:39 Springs located on close farm. Old, derelict pump house on side of road. 20/03/2019 17:33 Upstream of pump house on property 0.84m wide, 0.1m deep, 0.239 m/s. 0.0201 m3/s.
G48	395902 216054	Weir					19/04/2018 11:50 Weir controlling flows at Dowman's Farm. Viewed from public pathway as no access. Rushes on banks of river.
G49	396129 215950	Spring					19/04/2018 11:59 Multiple springs at Close Farm as viewed from road (no access). Flows to watercourse/pond. 20/03/2019 17:40 2.0m wide, 0.06m wide, 0.348 m/s 0.0418m3/s
G50	396927 214256	Watercourse					19/04/2018 13:18 River Churn culverted under road.
G51	396961 214219	Seepage					19/04/2018 13:08 Seepages/wetland on banks of River Churn
G52	396588 214011	Watercourse					19/04/2018 13:27

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Tributary of the River Churn in Cowley Wood. Steep slope so not accessible.
G53	396571 213979	Seepage					19/04/2018 13:30 Rushes and wet ground in Cowley wood suggest seepages from slope towards tributary of River Churn.
G54	396251 213918	Spring					19/04/2018 13:38 Springs from north and south slopes in Cowley wood with low flows to heavily modified/manmade lake. Video only. Lake is culverted to tributary of River Churn.
G55	396768 214212	Seepage					19/04/2018 14:50 Rushes on slopes of River Churn tributary.
G56	396723 214239	Spring					19/04/2018 14:49 Unmarked spring on roadside. Flowing to tributary of River Churn.
G57	392085 215651	Watercourse					29/05/2018 14:14 Watercourse with pools of standing water, no flow. Source is culvert upgradient. Likely land/spring drainage.
G58	392207 215510	Watercourse					29/05/2018 14:39 Confluence of two streams/drainage ditches culverted under pathway/road. Shallow, with very low flow.
G59	392158 215448	Seepage					29/05/2018 14:42 Rushes and channel mark seepage
G60	392158 215447	Seepage					29/05/2018 14:47 Flows managed by ditches and culverted under bike track. Exact source(s) not identified due to overgrowth.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G61	392199 215379	Seepage					29/05/2018 14:54 Flows managed by ditches and culverted under bike track. Exact source(s) not identified due to overgrowth.
G62	392292 215375	Seepage					29/05/2018 15:04 Rushes mark area of seepage.
G63	392326 215226	Seepage					29/05/2018 15:10 Rushes mark area of seepage.
G64	392374 215239	Seepage					29/05/2018 15:13 Spring/seepage with very low flows over road. Rushes to north.
G65	392435 215277	Spring					29/05/2018 15:19 Piped spring/land drainage. Flows into wooded area
G66	392550 215250	Seepage					29/05/2018 15:26 Rushes as viewed from bike track. Not accessible.
G67	392488 215361	Seepage					29/05/2018 15:31 Patch of rush on slope. Watercourse flows north in wooded area.
G68	392491 215408	Spring					29/05/2018 15:36 Spring marked by tree. No noticeable flow, but sodden ground. Culverted under bike track.
G69	392531 215442	Watercourse					29/05/2018 15:40 Spring-fed watercourse, covered by dense vegetation behind fence.
G70	392486 215489	Watercourse					29/05/2018 15:54 Spring fed watercourse (unmarked), culverted underneath bike track. Flows to

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							feature G69.
G71	392485 215639	Watercourse					29/05/2018 15:58 Spring fed watercourse, downstream of G69. Flows over track.
G72	392313 215708	Watercourse					29/05/2018 16:05 Culverted under track.
G73	392618 215258	Spring					29/05/2018 17:29 Spring feeding trough. Overflows to watercourse.
G74	393050 215693	Spring (abstracted for domestic use)	Unknown, gravity fed	N/A	N/A	N/A	29/05/2018 17:44 Piped, owner states that is always flowing. Fills trough and is culverted downstream underneath properties to discharge to Norman's Brook tributary. Gravity flows supply Grove Farm property and Crickley Hill Tractors directly from spring.
G75	393804 214392	Spring					30/05/2018 10:35 Confluence of flows (marked as springs) in fenced, wooded area. Overflows to trough. Not directly accessible due to fence and overgrowth.
G77	394674 215046	Watercourse					30/05/2018 11:49 Downstream of features G5/G6. Low flows, channel appears to stop. HADDMS marks culvert but not visible due to overgrowth. Possibly seeps back to ground.
G78	396193 215351	Watercourse					30/05/2018 12:15 Coldwell Bottom. Moderate flows, suggesting flowing springs between G78 and G77.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G79	394401 213651	Culvert					30/05/2018 13:57 Culvert with moderate flows exposed in middle of field. Road drainage and flows from Stockwell Farm. Discharges south as headwaters of River Frome.
G80	394401 213553	Culvert					30/05/2018 13:59 Collection of discharges from north and east, with moderate flows into pool, that continues to flow south towards River Frome.
G81	394469 213554	Watercourse					30/05/2018 14:08 Water flowing overland, arising from private field at Watercombe Farm. Moderate flows to culvert that discharges to G80. Marked as spring source on OS.
G82	394348 213216	Abstraction					30/05/2018 14:26 Abstraction from spring/well marked by windmill. Informed of use by Local Council. Requires discussion with landowner re uses, volumes etc.
G83	394220 213256	Seepage					30/05/2018 14:32 Puddled water, interpreted as seepage from slopes to south/upward leakage from aquifer.
G84	393929 213193	Spring					30/05/2018 14:45 Spring flowing from overgrowth behind barbed fence. Flows to ground and seeps back to ground.
G85	393893 213299	Seepage					30/05/2018 14:53 Seepage area marked by rushes and boggy

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							ground.
G86	393909 213324	Spring					30/05/2018 14:55 Springs and seepage collects into pond, possibly used for livestock. Slight flows into collect from wooded area/down gradient of G85.
G87	393901 213376 213376	Watercourse					30/05/2018 14:58 Watercourse/land drain collecting overflows from G86 and flows from the west. Flows east through field to Watercombe Farm/Bushley Muzzard.
G88	393793 213394	Watercourse					30/05/2018 15:02 Ponded water that is source of flows west of G87. Marked as spring flows from north, but not accessible at time of visit.
G89	393401 213495	Well					30/05/2018 15:17 Broken well/collects, overflowing to south. Source from north on private land which is not yet accessible.
G90	393620 213386	Seepage					30/05/2018 15:25 Seepage area marked by rushes, viewed from public right of way.
G91	392283 214111	Spring					30/05/2018 16:34 Spring at Bittom Barn, which flows into manmade pond. Used to control flow and turned into a feature. No visible flows. Not accessible as fenced off by owner.
G92	392728 214153	Pond					30/05/2018 16:48 Pond, unlikely groundwater fed (dew pond). Viewed from public footpath.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G93	390665 215897	Spring					31/05/2018 10:03 Managed springs, discharging to watercourse that flows south of Springfields Farm. Moderate flows, landowner claims spring is always running.
G94	391023 215401	Spring					31/05/2018 10:41 Springs/seepages that discharge north to watercourse, and then west to Little Witcombe.
G95	394457 216747	Spring					31/05/2018 11:21 Spring that is controlled by land manager and discharged to lake at National Star College.
G96	394453 216675	Discharge point					31/05/2018 11:26 Discharge of overflow from lake and effluent. Monitoring boreholes are located onsite but no access agreed with landowner, who said we would need to contact contractor (geotechnics?). Boreholes were drilled in relation to pollution event from effluent.
G97	394199 216597	Spring					31/05/2018 11:31 Spring that flows to land drain underground. Unclear where it flows to, land manager unsure.
G98	394148 216533	Pond					31/05/2018 11:32 Spring-fed pond, made into an ornamental water feature. Land manager notes some significant historical flooding.
G99	394122 216533	Spring					31/05/2018 11:37

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Spring that feeds G98. Rises from ground, flooded but not visibly flowing. Land manager has mentioned moderate flooding events from this spring/G98 over the years (could not specify dates).
G100	394493 213553	Spring					23/07/2018 14:17 Spring relating to flows at G81, arising from behind barbed fence. Flowing moderately.
G101	394364 213326	Spring					23/07/2018 14:41 Spring, possible overflow from G82. Piped, and flows south to watercourse, tributary of River Frome.
G102	394322 213432	Spring					23/07/2018 14:33 Spring, not visibly flowing but wet ground and rushes present in depression.
G103	394378 213388	Watercourse					23/07/2018 14:36 Confluence of spring flow from G102 to watercourse flowing south, tributary of River Frome. No visible flow from G102 but ground is boggy.
G104	394277 213308	Spring					23/07/2018 14:58 Spring flow and seepage (with rushes), downstream of G25.
G105	394287 213264	Spring					23/07/2018 15:00 Downstream of G104, flows emerging from ground, where flows upgradient seep back into ground. Flows to confluence with stream that flows west - east through Watercombe Farm/Bushley Muzzard. Very low flow.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G106	394320 213249	Culvert					23/07/2018 15:02 Culverted flows from watercourse flowing west - east through Watercombe Farm/Bushley Muzzard (G107). No visible flow out of pipe, suggesting most water seeps back to ground during low flows.
G108	394289 213253	Watercourse					23/07/2018 15:14 Confluence of spring flows from north (Bushley Muzzard) and west (G107). No flows from west, low flows from north.
G109	394358 213242	Watercourse					23/07/2018 15:17 Dry watercourse, with some boggy ground, downstream of G108 and G106. Watercourse is marked by rushes. Flows into pond in wooded area in SE corner of field.
G110	394367 213166	Seepage					23/07/2018 15:20 Seepage area on slope, marked by change in vegetation and slightly damp ground.
G111	394392 213186	Pond					23/07/2018 15:21 Overflow from pond, which is hidden in trees. Overflow shows signs of tufa precipitation.
G112	394457 212566	Seepage					25/07/2018 10:48 Seepage area marked by rushes in field. Rushes are in centre of the screen. Watercourse is dry (bottom of screen).
G113	394437 212704	Spring					25/07/2018 10:57 Spring noted by ground depression with rushes. Dry at time of visit, flowing

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							downslope to dry watercourse that overflows from ponds to the south west (G114) and flows to east towards River Frome.
G114	394402 212615	Pond					25/07/2018 11:00 Tiered ponds. Source not found due to overgrowth, marked on map as arising from different land parcel that would require additional land access. Pond levels low and thus not overflowing to watercourse towards River Frome.
G115	391449 216823	Well					25/07/2018 13:17 Feature not found. Possible horsetail/scouring and common rushes where located, likely from seepage.
G116	391588 216510	Spring					25/07/2018 13:38 Possible spring, dry, marked by rush and cracked ground. Patches continue along public path to north-east
G117	391658 216494	Lake					25/07/2018 13:42 Dry feature marked by significant depression filled with rushes. Possibly spring fed and dry during summer.
G118	391770 216650	Watercourse					25/07/2018 13:58 Culverted, dry. Likely drains springs towards brook to the west.
G119	392022 216692	Watercourse					25/07/2018 14:05 Watercourse, possibly spring fed. No flow, but damp ground with standing water. Marked as spring fed from springs arising

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							on the escarpment to the east.
G120	392124 216751	Watercourse					25/07/2018 14:07 Watercourse/land drain, collecting seepage to south-east (G121) and flows from north. Flows to G119.
G121	392173 216716	Seepage					25/07/2018 14:09 Seepage marked by rushes on slope. Photographed from public path with no direct access.
G122	392360 216788	Watercourse					25/07/2018 14:13 Culverted underneath property. No flow, with some standing water. Mostly dry. Marked as receiving water from springs arising from escarpment to SE.
G123	392444 216665	Watercourse					25/07/2018 14:16 Low flows, upstream of G122. Seeps back to ground (mostly overgrown between localities so not clear where seepage occurs).
G124	392430 216592	Spring					25/07/2018 14:22 Dry feature where marked as watercourse on map. Possible spring feeding into watercourse.
G125	392425 216577	Seepage					25/07/2018 14:29 Seepage marked by rushes on slope, slightly to the south of G124.
G127	393319 213572	Pond					27/07/2018 10:53 Pond, dry, which overflows south to well. Heavily overgrown, with barbed fence.
G128	394503 215650	Pond					24/07/2018 14:41

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Pond, likely a dew pond. Well on land not found, nor known to owner.
G129	394330 213695	Well					23/07/2018 16:45 Well in garden of Golden Heart Inn. No water visible when peering over top. Possibly sealed/ornamental, owner not present.
G130	391413 214358	Watercourse					26/07/2018 14:54 Dry watercourse/seepage area, which flows to south behind barbed fence and joining marked watercourse to south (on private land).
G131	391596 214262	Seepage					26/07/2018 15:02 Seepage from woodland, marked by boggy ground.
G132	391660 214139	Seepage					26/07/2018 15:10 Seepage, possible spring from woodland, which flows to watercourse (G133) which continues south. 07/02/2019 10:01 heavy rain night before. Spring approx. 2cm deep in the centre and flowing. Not enough to gauge.
G134	392825 213976	Spring					26/07/2018 15:30 Not found, and not known to owner. Considered a spurious feature. No Photo.
G135	394836 215011	Spring					18/03/2019 14:27 Spring feeding pond. Spring is piped, and pond seeps to ground. Some slight tufa

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							deposition in pond.
G136	395016 215203	Well					18/03/2019 14:38 Old well and collects. Disused.
G137	395600 215505	Seepage					18/03/2019 14:54 Seepage noted by rushes on northern slope of Coldwell Bottom. Spot mapped as access to land not permitted.
G138	395828 215351	Pond					18/03/2019 15:03 Pond parallel to Coldwell Bottom. Possibly groundwater fed. Spot mapped as access to land not permitted.
G139	395800 215359	Seepage					18/03/2019 15:00 Possible seepage, noted by semi-circular ground depression on southern bank of Coldwell Bottom.
G140	396175 215336	Seepage					18/03/2019 15:12 Area of seepage and confluence with spring flows to Coldwell Bottom. Spot mapped as access to land not permitted.
G141	396124 215367	Spring					18/03/2019 15:13 Spring, with decent flow, on northern slope of Coldwell Bottom. Spot mapped as access to land not permitted.
G142	393422 214659	Spring					18/03/2019 16:20 Spring/seepage/land drain, piped with low flow, that disappears into possible sinkhole in middle of ground depression. At contact between fuller's earth and inferior oolite. Depression also receives water from road/field drain from the west (dry) and

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							overflow from pond to the east when water level is high.
G143	394335 213983	Seepage					18/03/2019 17:03 Possible seepage in alluvial valley, as noted by solution features/slope failure on slopes possibly related to groundwater.
G144	395102 214277	Pond					18/03/2019 17:38 Pond, likely surface water but origin is unclear.
G145	394569 215149	Seepage					19/03/2019 09:42 Raised ground with some rushes. Possibly related to seepages or slope runoff.
G146	393893 215250	Seepage					19/03/2019 10:30 Raised ground and rushes at Shab Hill. Possible seepage on slopes, may be related to slope runoff.
G147	394505 213923	Spring					19/03/11:54 Spring piped with low flow from fence line with adjacent field. Water seeps back to ground.
G148	394488 213832	Spring					19/03/2019 11:56 Spring marked by tree. No noticeable flow, but sodden ground. Seeps back to ground.
G149	394364 213728	Outfall					19/03/2019 12:04 Large outfall driven in to alluvium at base of valley. Moderate flows, draining the alluvium that likely receives water from runoff, seepages and springs exposed in valley, and possibly upwelling from aquifer. May also drain surface water from farm

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							area.
G150	394442 213978	Seepage					19/03/2019 12:10 Possible seepage in alluvial valley, as noted by solution features/slope failure on slopes possibly related to groundwater.
G151	392613 215685	Seepage					19/03/2019 16:51 Seepage on banks of Normans Brook tributary, marked by boggy ground and distinct vegetation.
G152	392616 215649	Spring					19/03/2019 16:58 Spring in corner of field marked by trees, with roots exposed. Very low flow with heavily saturated ground. Flows over land and seeps back to ground. Seepage marked by rushes on slope. Blue pipe driven into ground may tap into water to supply troughs at Hill Farm
G153	392192 215178	Seepage					20/03/2019 10:16 Rushes and damp ground suggest seepages on escarpment slope. Blue pipe disappearing into ground map tap water supply for nearby troughs.
G154	392145 215233	Spring					20/03/2019 10:28 Spring with low flow by tree on slope. Seeps back to ground.
G155	392060 215237	Seepage					20/03/2019 10:31 Seepage point on slope at Hill Farm.
G156	391725 215483	Seepage					20/03/2019 11:51 Seepage point at bottom of escarpment slope, marked by damp ground and change

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							of vegetation to dog's mercury.
G157	395392 216140	Spring					20/03/2019 14:35 Spring on southern slope of River Churn tributary valley. Spring is possibly tapped to feed trough on northern slope by blue pipe. Damp ground and ponding on slope.
G159	395014 216162	Spring					20/03/2019 14:56 Spring in Clerk's patch, low flow. Flows north to join River Churn.
G160	392145 216502	Spring					21/03/2019 14:16 Spring (dry) at Oakland Farm. Owner stated spring is mapped in wrong place, and rarely flows in recent times.
G161	392212 216518	Spring					21/03/2019 14:20 Spring (piped, but dry and disused). Owner stated flows had ceased a long time ago and no water from pipe.
G162	392292 216492	Spring					21/03/2019 14:39 Spring feeding watercourse on escarpment slope, flowing north-west. Low flow.
G163	392258 216410	Spring					21/03/2019 14:47 Two well developed springs with low flow. Western spring has broken pipe. Both flows seep back to ground several metres downgradient.
G164	391646 216064	Spring					21/03/2019 16:24 Spring that feeds into drainage channel. Used to supply house (owner now on mains). Water feeds into Norman's brook trib. No flow, but damp ground.

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G166	394739 215102	Abstraction					18/03/2019 14:14 Possible groundwater abstraction that feeds troughs in area by blue pipe.
G167	395434 215467	Outfall					18/03/2019 14:47 Spring collects forming the headwaters of Coldwell Bottom. Outfall is dry, but water seeps several metres downstream of the outfall in watercourse.
G168	395487 215483	Seepage					18/03/2019 14:49 Seepage several metres downstream of dry outfall at Coldwell Bottom. Gradual seepage.
G169	395580 215499	Watercourse					18/03/2019 14:50 Seepages built to a noticeable flow in Coldwell Bottom.
G170	395677 215464	Pond					18/03/2019 14:58 Pond immediately to the north of Coldwell Bottom watercourse, likely groundwater fed. No direct access and access not permitted by landowner.
G171	395679 215447	Culvert					18/03/2019 14:58 Culvert under path Coldwell Bottom. Culvert is dry as watercourse levels low and fed by groundwater seepages.
G173	394488 214704	Abstraction					18/03/2019 15:50 Possible abstraction used for feeding troughs by blue pipe. Likely intercepts shallow flows over fullers earth.
G174	394456 214673	Seepage					18/03/2019 15:56 Waterlogged ground in proximity of

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							mapped spring. Likely seepage settling on fullers earth.
G175	393464 214711	Flooded ground					18/03/2019 16:15 Waterlogged field in topographical low point. Possibly sourced from groundwater seepages and surface water runoff.
G176	393451 214647	Pond					18/03/2019 16:17 Pond, possibly partially fed by groundwater seepage and surface water runoff. Bunded, with an overflow point to divert flows to the west during high water.
G177	393424 214641	Spring					18/03/2019 16:20 Piped spring, broken, with low flows. Flows north to swallow hole at G142. Possibly drains field to south of shallow groundwater flows and surface runoff.
G178	393136 214598	Drain					18/03/2019 16:32 Field drain (dry) which diverts flows east to G142. Likely also receives water from road drainage in the west as culverted from behind fenced off woodland (not accessed due to barbed fencing).
G179	394227 215244	Seepage					19/03/2019 09:05 Seepage occurring along a line in woodland south of Rushwood Kennels. Seepage can be significant, and completely waterlog land preventing vehicular access.
G180	394325 215215	Seepage					19/03/2019 09:06 Continuing along line from G179, seepage occurring along a line in woodland south of

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Rushwood Kennels. Seepage can be significant, and completely waterlog land preventing vehicular access.
G181	394354 215207	Spring					19/03/2019 09:08 Continuing along line from G179, area where significant seepage has been turned into a water collects. Owner states feature is likely ~100 years old. Low flows seep back into ground further downgradient.
G182	394821 215169	Seepage					19/03/2019 09:45 Possible seepage marked by rushes in grassland. Possibly due to runoff.
G183	393764 215103	Dry Valley					19/03/2019 10:35 Dry valley at Shab Hill. Surface water flooding is likely topographically related.
G184	393962 215255	Dry Valley					19/03/2019 10:54 Incised dry channel in Shab Hill valley, possibly due to minor seepage and surface water runoff.
G185	391842 215638	Watercourse					20/03/2019 09:23 Spring fed watercourse (marked as drain on map). Shallow water with no flow.
G186	391954 215421	Spring					20/03/2019 09:47 Spring marked by tree in woodland. Flows into watercourse onto Fly Up land and to G185. Very low flow, mostly damp ground in incised channel.
G187	392142 215254	Spring					20/03/2019 10:01 Spring feeding into pond. Very low flow.
G188	392016 215167	Spring					20/03/2019 10:41

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Dry, but well developed head of spring. Water seeps in downgradient.
G189	391959 215175	Spring					20/03/2019 10:43 Re-emergence of spring flows from G188, seeping back to ground after a few metres.
G190	391871 215201	Spring					20/03/2019 10:50 Re-emergence of spring flows from G189, seeping back to ground after a few metres and continuing to re-emergence where ground has collapsed by tree roots.
G191	391828 215204	Spring					20/03/2019 10:57 Re-emergence of spring flows, piped.
G192	391754 215198	Spring					20/03/2019 11:08 Two pipes driven into slope, low piper has flow (bucket test undertaken). Upper pipe is dry. Bucket test results 0.00021m3/s 0.00022m3/s 0.00022m3/s
G193	391679 215228	Spring					20/03/2019 11:20 Pond in collapsed ground, continuing downgradient from G188 - G192. Flows to continuous watercourse downstream, as marked on map.
G194	391646 215257	Watercourse					20/03/2019 11:25 Spring fed watercourse, downstream of G193. Low flows.
G195	391417 215491	Spring					20/03/2019 11:33

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Spring exposed in field at bottom of escarpment. Flows pool and seep back to ground after several metres. Seepage and waterlogged ground upgradient to G195.
G196	391455 215440	Seepage					20/03/2019 11:37 Seepage and waterlogged ground upgradient to G195.
G197	391620 215383	Spring					20/03/2019 11:44 Piped spring flows, discharging to field drain that runs along field/woodland boundary. Spring is damp with no flow.
G198	391752 215814	Seepage					20/03/2019 11:57 Ponded water, initially interpreted as pooled surface runoff but after viewing nearby features this was reviewed and may be seepage from groundwater.
G199	393355 215723	Well					20/03/2019 13:34 Well, historically used for emergency supply. Disused.
G200	395643 216081	Seepage					20/03/2019 14:20 Damp and waterlogged ground on slope south of river churn tributary.
G201	395263 216173	Seepage					20/03/2019 14:44 Waterlogged ground on slope north of river churn tributary.
G202	395053 216186	Watercourse					20/03/2019 14:52 Confluence of spring flows from Clerk's Patch to tributary of River Churn
G203	394688 216493	Seepage					20/03/2019 15:13

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							Seepages in field between catchpit at golf course to the north and outfall to south-east. Seepages marked by patches of rush. May be tapped by owner to supply troughs (owner not present at time of visit).
G204	396455 215631	Seepage					20/03/2019 16:27 Seepage on path to west of River Churn, marked by boggy ground. No noticeable flow.
G205	395201 216519	Borehole	Pump depth 64mbgl	3 inch	150m deep	30mbgl (rest). Not currently in use.	21/03/2019 09:35 Borehole, 150m deep with water level approx 30mbgl. Pump is 60 mbgl. Not currently used but plans to use for top up water when plans to construct lake go ahead. Spring/well turned into ornamental water feature at Fernbank garden. No flow.
G206	392857 215799	Spring					21/03/2019 12:48 Spring/well turned into ornamental water feature at Fernbank garden. No flow.
G207	391135 215999	Spring					21/03/2019 13:08 Spring, with low flow onto pavement adjacent to NB A417.
G208	392254 216546	Watercourse					21/03/2019 14:24 Spring fed watercourse with low flow.
G209	392347 216435	Spring					21/03/2019 14:44 Spring with low flows that seep back into ground almost immediately.
G210	392302 216413	Spring					21/03/2019 14:46 Spring with low flows that seep back into

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	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							ground almost immediately.
G211	392284 216346	Spring					21/03/2019 14:52 Spring with low flows that seep back into ground almost immediately.
G212	392334 216315	Pond					21/03/2019 14:55 Spring fed pond with waterlogged ground immediately downgradient.
G213	392008 216418	Well					21/03/2019 15:08 Well, disused, but likely still contains water.
G214	392516 216429	Watercourse					21/03/2019 17:06 Watercourse, which owner confirmed is spring fed (access denied by neighbour). Low flows
G215	392522 216436	Borehole					21/03/2019 17:06 Disused borehole used by previous owners. No longer accessible.
G216	392511 216461	Abstraction					21/03/2019 17:07 Spring abstraction at Journey's End. Flows into a collection chamber and is fed to house by gravity.
G217	392514 216462	Spring					21/03/2019 17:08 Spring with low flows rising in middle of garden at journey's end. Outfalls to roadside to north and flows to drain
G218	392592 216523	Abstraction					21/03/2019 17:11 Abstraction directly from spring that feeds Greenfields Farm. Spring fed watercourse surrounded by seepages. Low flows
G219	394490 213493	Spring					22/03/2019 09:11 Spring feeding into gravel catchpit and

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
							culverted under field.
G220	394436 213485	Outfall					22/03/2019 09:12 Outfall of culverted spring and seepages at G219/G221. Flows to watercourses forming headwaters of River Frome.
G221	394489 213518	Seepage					22/03/2019 09:13 Seepages collect in perforated pipe and join culverted spring flows before discharging at G220.
G222	394559 213180	Spring					22/03/2019 09:36 Spring with low flows. Flows to the south and culverted to road at G30.
G223	394620 213205	Drain					22/03/2019 09:38 Drain that receives run-off from farm area and some seepage from slopes to the north, although rarely
G224	393239 214114	Well					22/03/2019 10:32 Well, disused and partially infilled. Water may seep from well into patch in front garden, as discussed with landowner.
G225	393221 214119	Seepage					22/03/2019 10:35 Seepage, possible arising from blocked well to the east.
G226	393292 214141	Seepage					22/03/2019 10:37 Area of minor seepage. Ground slightly damp, but owner noted that it can get waterlogged.
G227	392641 214870	Pond					22/03/2019 11:25 Dew pond which rarely contains water according to owner.

No	NGR	Type (well/borehole/pond/spring/ river/wetland etc)	Abstraction Rate (m3/d)	Diameter of Borehole (mm)	Datum (m)	Depth to rest water level (m) (date)	Water feature description (inc. any access issues)
	Licence Ref	Use (Agricultural/drinking water/industrial etc	Pump Suction Depth (m)	Dip Tube installed (Y/N)	Depth of Borehole (m)	Depth to pumped water level (m)	
G228	392518 216469	Outfall					21/03/2018 17:30 Outfall draining springs arising in garden at journey's end. Culverted under road.
G229	393880 215324	Septic Tank					21/03/2019 12:00 Possible septic tank at Birdlip Radio Station.
G230	393090 215920	Septic Tank					27/03/2019 17:00 Septic tank located at Woodside House, likely leading to feature 1.
G231	392839 215713	Spring					18/04/2018 Head of spring that rises in field and flows west to feature 69, where abundant tufa is precipitated.

Water Feature Survey photos
(Part 1 of 2)

1_looking SE_160418

2_looking SW DS_160418

5_at conf looking SE_070219

6_looking SW from conf_170418

7_looking W DS_070219

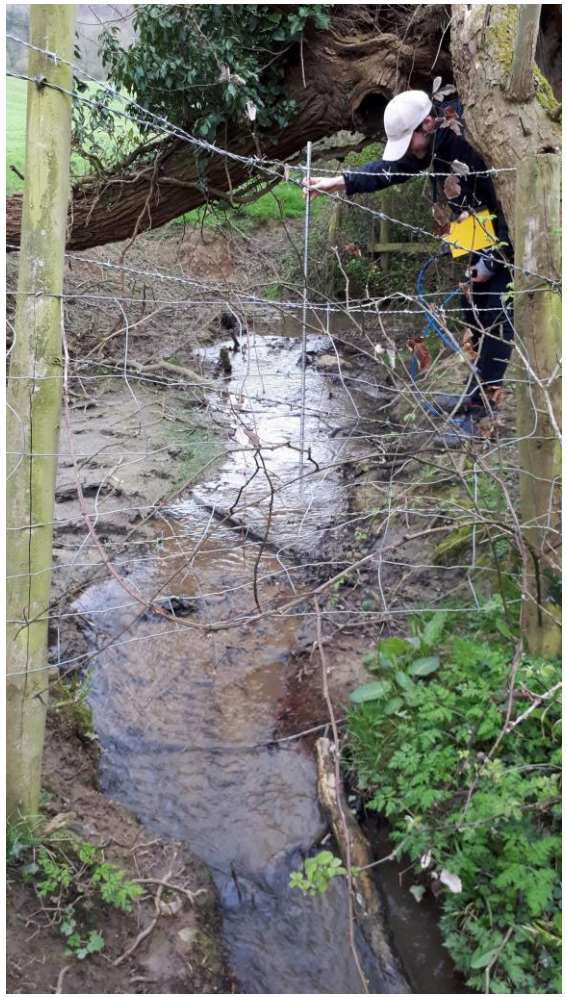
8_looking US in a SE direction_170418

9_looking E_170418

10_viewed from 6_170418

11_looking US in W direction_170418

13_looking W US_170418



12_looking W US_170418

14_looking W US from bridge_170418

15_looking W_170418

16_looking looking NW DS_180418

17_looking E US_180418

18_looking E 16 & 17 confluence_180418

19_looking W DS to culvert under the house_180418

20_DS extent looking E_180418

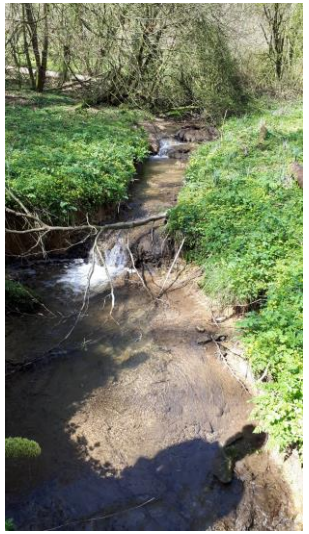
21_looking N_070219

22_looking W at weir between upper and middle pond_180418

23_looking W upper pond showing feeder stream to the right_180418

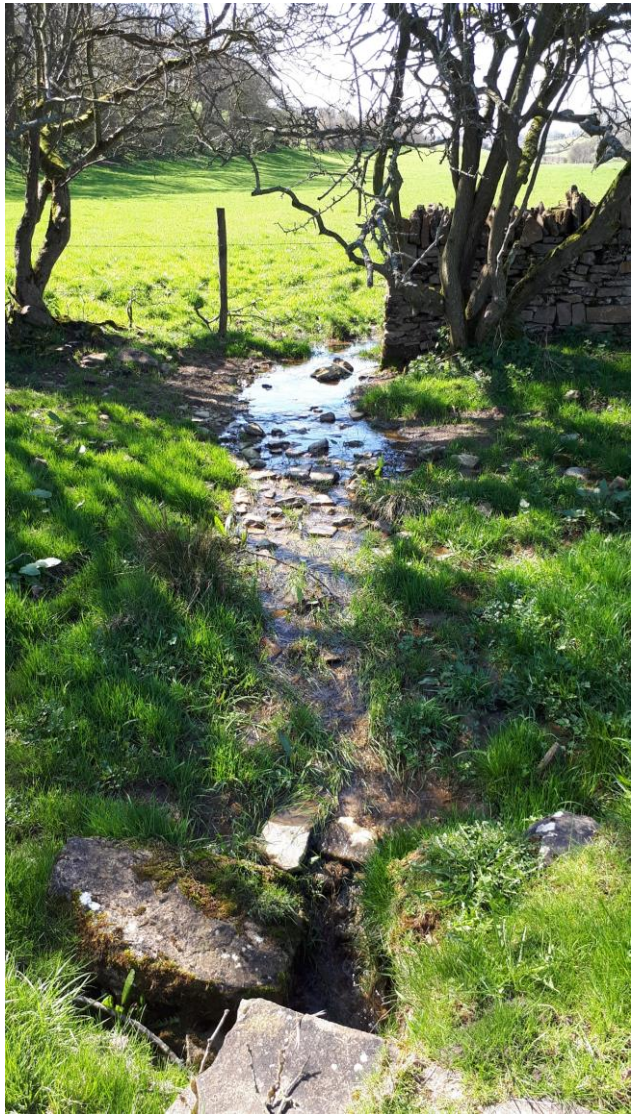
24_R bank looking W at L bank and conf with 25_180418

25_looking W US of culvert to gauging location_180418



26_ looking N upstream towards cascades_180418

27_Looking NW US_180418



29_looking W US_180418

30_looking DS_070219

31_looking SW towards its conf with 26_180418

32_looking SW DS_070219

33_looking SE US extent of 31 where it is culverted under the road_180418

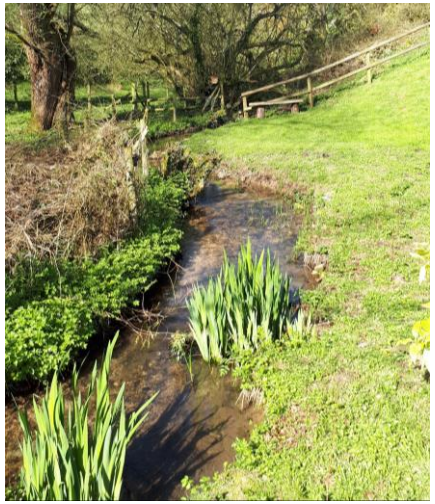
34_looking W_180418

35_Looking W US_190418

36_Looking E DS_190418

37_Looking S DS towards the confluence trib 36 on R bank_190418

38_Looking E towards the confluence with 38 to the left and 37 to the right_190418



39_gauging location looking W US_190418

40_US extent outfall looking SE DS of outfall showing conf with 39_190418

41_looking SW at STW_190418

42_looking N US showing pooling and break of R bank_190418

43_looking N US breaking watercourse banks_190418

44_looking NW from the top of the valley_190418

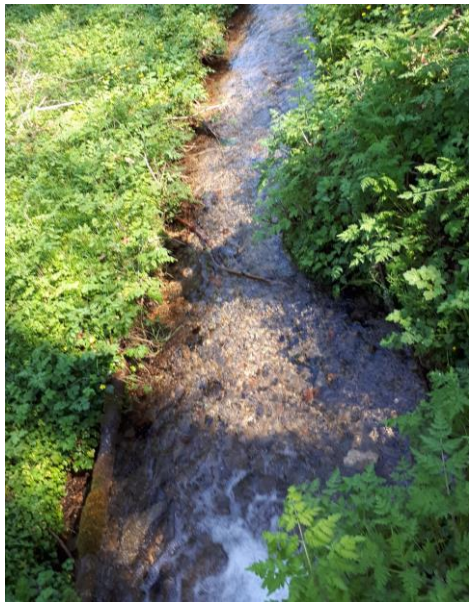
45_ looking SE outfall into area marked as pond on OS maps

46_looking NE shows culvert_190418

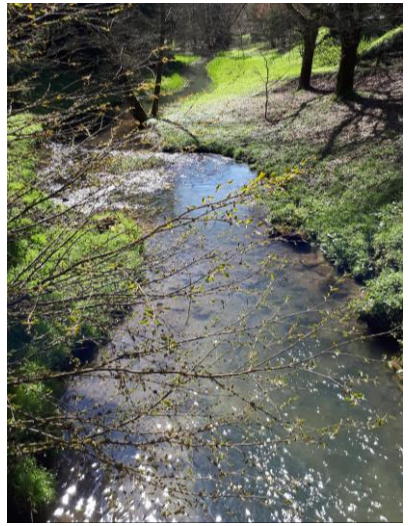
46_looking W DS of right outfall_190418

47_looking E at bridge DS_190418

48_49_conf looking NW_040218



49_spring at road culvert looking NE towards conf with 48_190418



50_looking S
DS_190418

52_looking N towards 51_070219

52_looking SE DS_070219

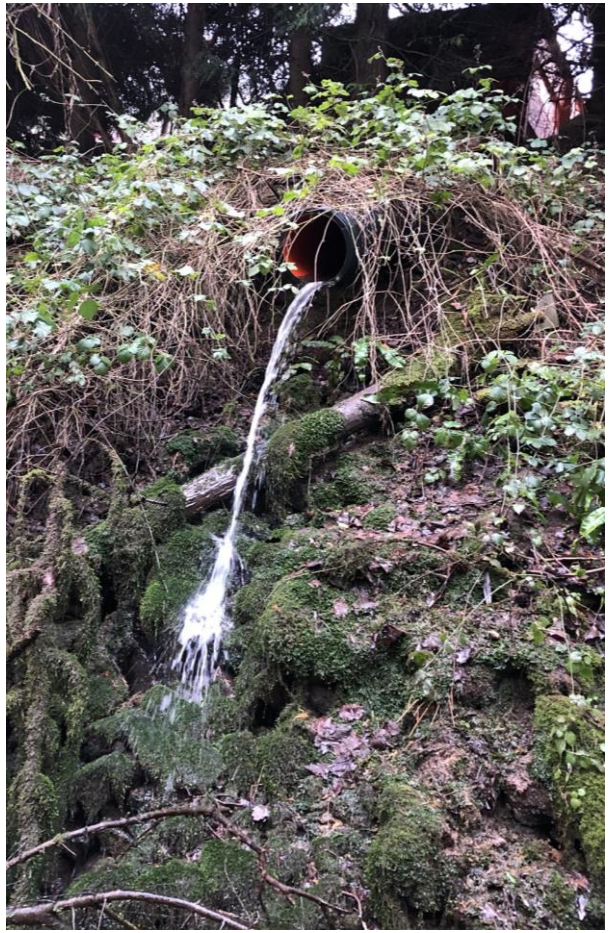
53_looking S further DS_070219

54_looking S DS_070219

60_looking SE_160418

58_looking SE_050219

59_looking SE_050219



61_lookingSE_050219

64_looking SE DS_050219

62_looking SE_050219

63_looking NW DS to 63 from 61_050219

65_looking E
US_050219

66_looking S R bank to L bank_050219

67_looking N US towards outfall_050219

68_looking SW DS_050219

69_looking NW to conf_050219

71_looking SE US_050219

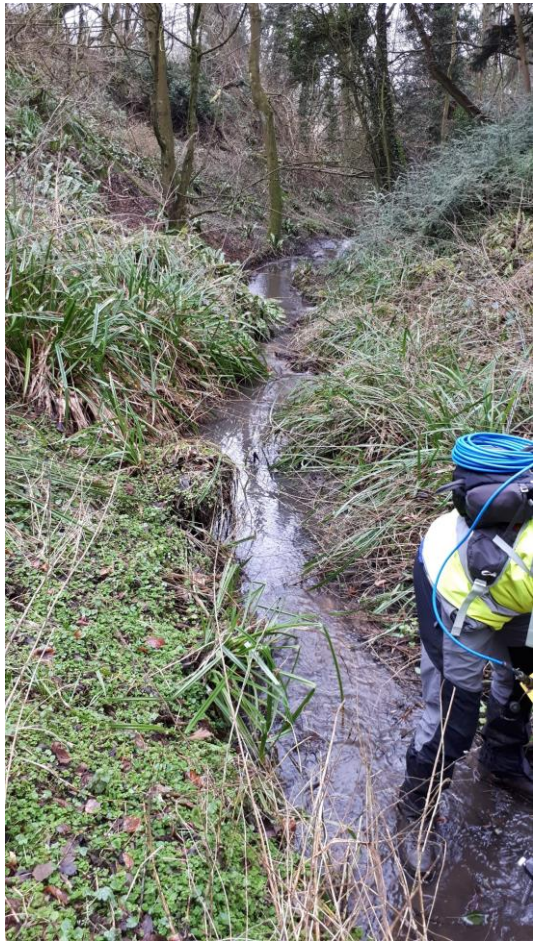
70_looking W DS_050219

72_looking S US_050219

73_DS extent_050219

74_looking NE US_050219

74_looking N at pipe on R bank_050219



75_looking W DS_050219

76_looking E US_050219

77_looking W DS_050219

78_looking NW DS at 79_050219

79_looking N at conf with 78_050219

80_seepage looking N_050219

81_tufa spring seepage looking NW_050219

82_looking W DS_060218

83_looking N_050219

84_Looking N_050219

85_looking S_060219

86_looking N_050219

87_looking SE US_070219

88_looking E US_070219

90_Looking W US of watercourse_seepage on banks of River Churn tributary marked by dogs mercury

89_ Looking E DS

91_culverted flows of churn tributary headwaters_looking S DS

92_looking N US of 91_outfall likely from road drainage

93_looking US of culvert and outfall, showing outfall of flows from golf course, college and seepages

93_looking NW US at outfall from golf course and college

94_Looking S towards River Churn tributary

95_waste treatment at golf course

96_looking SE catchpit of flows from NSC

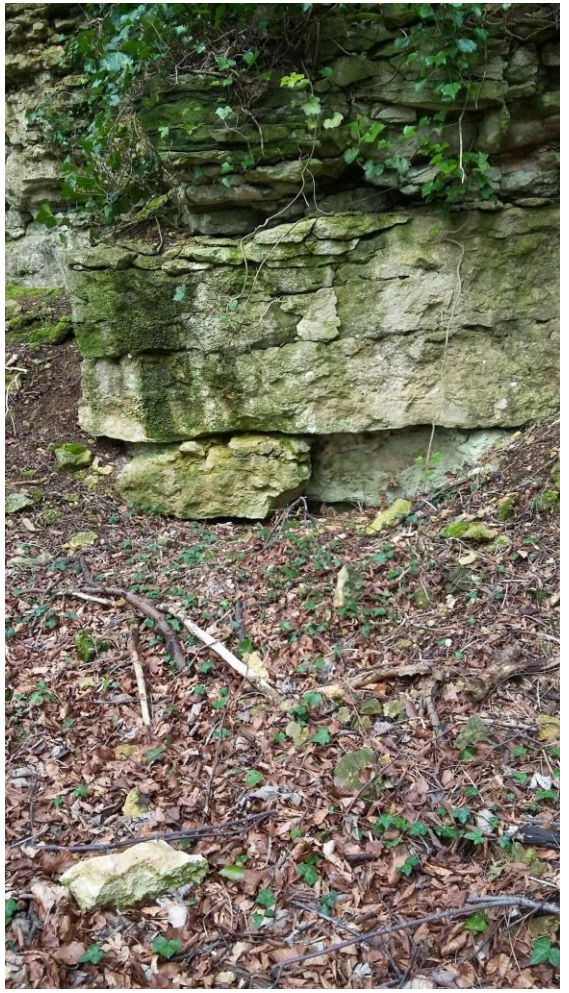
97_looking E US at outfall from national star college

98_location of proposed lake approved for construction

99_lined pond

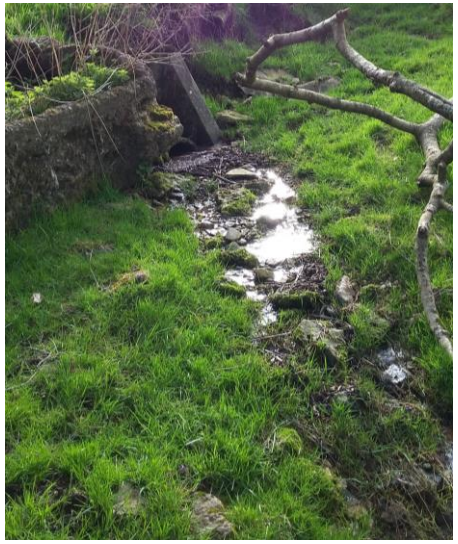
G3_dry valley where spring marked on OS map_looking W

G2_Spring at start of drive of Woodside House_looking E



G1_Solution features on lmst outcrop barrow wake

G4_spring collects_looking NE



G5_spring culvert discharge_looking NW

G6_spring_facing SW

G8_possible spring collects or well Facing WNW

G9_spring with tufa facing WNW

G11_possible seepages onto pathway no spring visible in valley where marked on OS Facing S

G10_Looking US_170418

G13_rushes in depression in field Facing E

G14_spring flow in field facing ENE

G15_rushes in field viewed from path
Facing W

G16_piped spring facing E

G17_fenced off spring in field facing E

G19_pond with old GI borehole not found facing WSW

G21_old GI borehole in field facing S

G20_rushes in field facing S

G23_confluence of River Frome and spring fed trib facing E

G24_seepage on slope at Bushley Muzzard facing S

G25_springs at Bushley Muzzard facing N_230718

G25_Bushley Muzzard facing N

G26_minor seepage on slope facing S

G27_well at Ivy Cottage facing N

G28_seepage on banks of River Frome trib

G30_piped spring flow from Watercombe Farm

G31_seepage on banks of River Frome trib

G32_spring on roadside facing E

G35_seepage on banks of River Churn trib facing N

G33_blocked well likely ornamental facing W

G36_seepage on banks of River Churn trib facing W

G37_seepage on banks of River Churn trib facing S

G39_seepage upgradient of River Churn trib starts facing S

G40_seepage upgradient of River Churn trib starts facing N

G41_spring upgradient of River Churn trib starts facing W

G42_seepage on banks of River Churn trib facing N E

G43_well in Coberley facing E

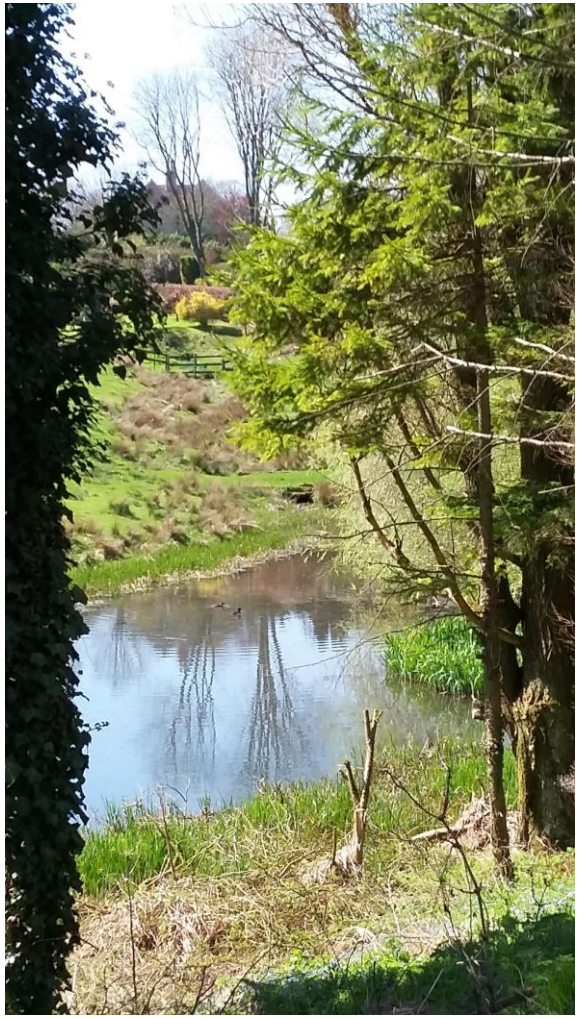
G44_seepage on banks of River Churn trib facing N E

G45_spring as viewed from public access land facing W

G46_seepage in field facing S

G48_weir and seepage slopes facing S

G47_spring fed flow and pump house facing E



G49_springs and seepage as viewed from road facing S

G50_River Churn culverted under road facing NW

G51_River Churn facing S

G52_trib of River Churn viewed from path facing N

G53_rushes in woodland facing S

G54_spring fed lake that feeds trib of River Churn starts facing SW

G55_rushes on slope facing SW

G56_spring facing SE

G57_watercourse facing N E

G58_spring fed watercourse culverted under road facing S

G59_rushes and seepage facing S

G60_seepages on slope facing S

G61_seepage on slope facing S

G63_rushes facing S

G62_seepage on slope facing S

G64_spring facing N

G65_piped spring facing S

G66_rushes as viewed from path facing SE

G69_overgrown watercourse facing E

G67_hidden watercourse and seepage patches on slope facing E

G68_spring marked by tree facing W

G70_rushes on slope starts facing W

G71_watercourse flowing to Norman's Brook flowing over path facing SE

G72_watercourse flowing under path to Norman's Brook facing N

G73_spring that feeds trough and overflows N to watercourse facing SW

G75_spring fed watercourse and pond facing N

G77_watercourse seeps to ground marked as culvert but overgrown so not proved facing N W

G78_Coldwell Bottom facing W

G79_culvert exposed in ground flowing S possible road drainage

G80_flow confluence through culverts facing W

G83_standing water, possibly from seepage facing W

G81-spring flowing over ground facing S

G82_abstraction at Watercombe Farm facing W

G84_marked spring facing S

G85_rushes on slope and boggy ground facing W

G86_spring collects flowing N facing E

G87_drain facing N

G88_confluence of drains facing N

G89_well facing N

G90_rushes on slope facing S

G91_spring fed pond facing S

G92_pond facing S

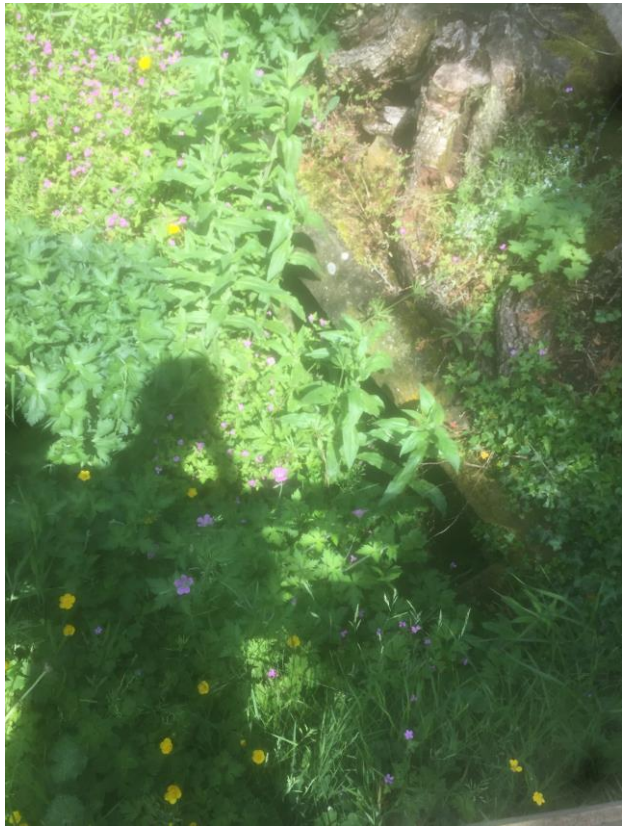
G93_spring collects

G94_spring facing N

G95_spring managed by college, discharged to lake

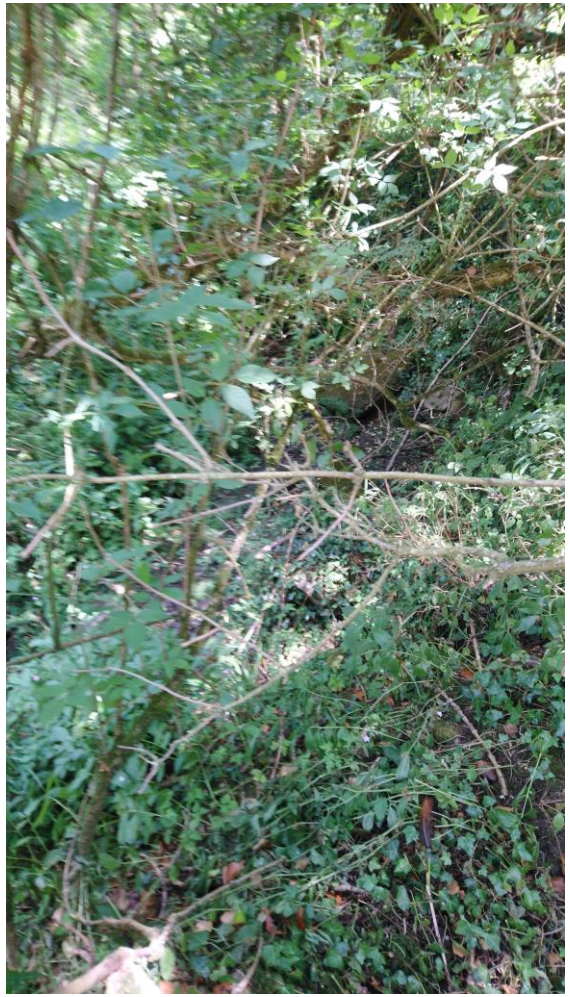
G96_lake and effluent discharge

G99_spring facing W



G97_spring drain underneath property

G98_spring fed pond facing W



G100_spring facing N

G101_piped spring facing W

G102_spring facing N W

G103_spring issues facing N W

G104_rushes on slope facing W

G106_culverted spring fed watercourse facing W

G105_spring flow facing N

G108_confluence of spring fed watercourse facing N

G109_spring fed watercourse facing W

G110_seepage on slope facing S

G111_overflow from pond possible tufa precipitation
Looking NW from 27_180418

G112_seepage and dry watercourse facing S

G113_spring facing N

G114_pond facing N

G115_rushes in location of well facing S

G116_dry seepage patch

G117_dry seepage area possible pond as aquatic veg in large depression facing E

G118_dry watercourse facing W

G119_dry spring fed watercourse facing N

G120_land drain facing E

G121_rushes on slope facing E

G123_spring fed watercourse with low flow facing SE

G122_culverted watercourse facing NW

G124_dry spring facing E

G125_rushes on slope facing N

G127_dry spring fed pond facing N

G128_pond possibly dew pond facing E

G129_well facing E

G130_dry watercourse facing E

G131_seepage from woodland facing W

G132_looking S DS_070219

G135_spring at Stockwell Farm facing N

G136 _ disused well at Stockwell Farm

G138 _ facing N pond on L bank at Coldwell Bottom

G137 _ possible seepage on L bank at Coldwell Bottom

G139 _ facing W sunken ground on R bank at Coldwell Bottom

G140 _ confluence of spring on northern slope with Coldwell Bottom facing W

G141 _ spring N of Coldwell Bottom facing W

G142 _ flow into ground depression from G177

G143 _ alluvial valley and solution features at Stockwell Farm facing S

G144 _ pond at Stockwell Farm facing E

G145 _ raised ground on slopes in Barber Wood S

G146 _ raised ground and subordinate rush on northern slope of Shab Hill

G147 _ spring at Stockwell Farm N of Watercombe Farm facing S