EXHIBIT LIST

Reference No: HOL/10024
Petitioner: Buckinghamshire Standard Pack
Published to Collaboration Area: Tuesday 18-Oct-2016

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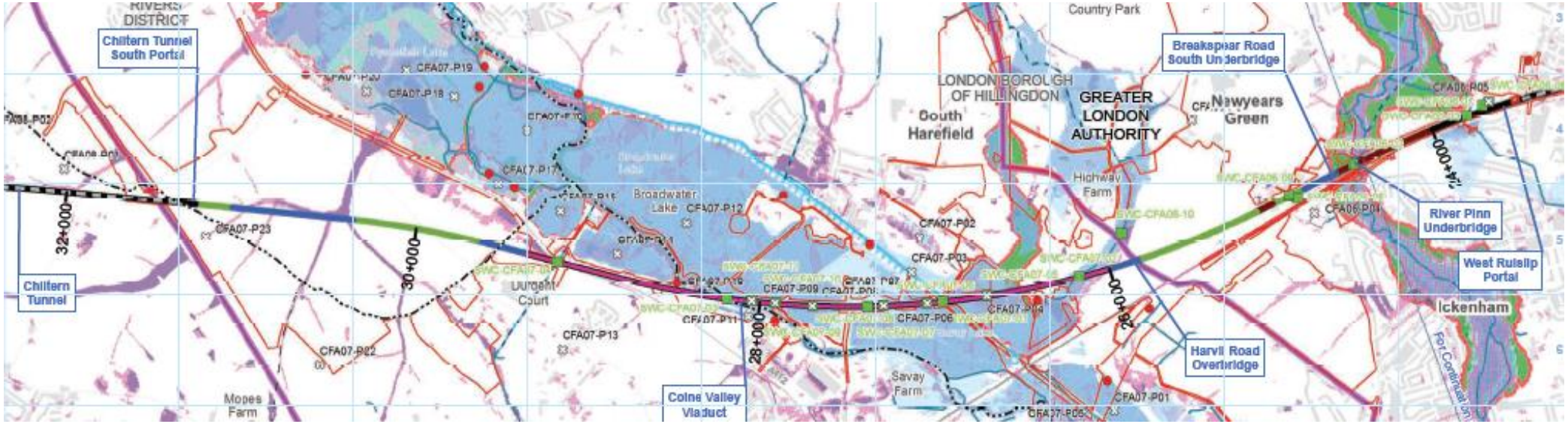
Water resources and flood risk assessment (1)

- The assessment for the Environmental Statement was based upon the identification of surface water features within 1km of the route of the Proposed Scheme, except where there is clearly no hydraulic connectivity. In urban areas the extent was 500m.

- All groundwater bodies were considered within 1km horizontally of the route of the Proposed Scheme and/or within 10m of the lowest possible construction or dewatering depth.



P3741 (1)

Source: Presentation to Select Committee by the Promoter's witness, Peter Miller

Water resources and flood risk assessment (2)

- The design of the Proposed Scheme provides the level of detail necessary for the purposes of the Bill and the requirements of the Environmental Impact Assessment Directive.

- The Environment Agency stated the following regarding the assessment in their Environmental Statement Consultation response:

> *'We have provided a range of environmental information and technical advice to High Speed 2 Ltd. We note the majority of comments made by the Environment Agency in response to the draft Environmental Statement consultation last year have been taken into account. As a result, we believe the potential environmental effects that lie within the remit of our organisation have been appropriately assessed at this stage.'*

P3741 (2)

Source: Presentation to Select Committee by the Promoter's witness, Peter Miller

Protection of Ground and Surface Water

- Part 5 of Schedule 32, Protective Provisions, of the Bill, states that before beginning to construct any "specified work" (in the main, those affecting drainage, flood storage and flood defence, the flow or purity of water and conservation of water resources), the nominated undertaker will submit plans, including method statements, for the works to the Environment Agency or other regulatory bodies for approval. Works will be constructed in accordance with the approved plans.
- In relation to groundwater, the appropriate body is the Environment Agency. In relation to watercourses, it is either the Environment Agency, or the Lead Local Flood Authority, or the Internal Drainage Board, as explained within Information Paper E25: Authorising works affecting watercourses.
- Therefore, no works affecting the flow, level or quality of groundwater or surface water can commence until the appropriate body is satisfied that any impacts from construction are properly understood and any required mitigation is adequate.

River Misbourne

- The Chilterns tunnel crosses under the River Misbourne in two locations.
- There will be at least two tunnel diameters depth between the river bed and the top of the tunnel.
- There is a low risk that tunnelling will induce settlement producing enhanced permeability and loss of water from the river and lake.
- Mitigation measures include monitoring of ground settlement, lake levels and river flows where the route passes beneath the River Misbourne and Shardeloes Lake and for a suitable distance up and downstream, in order to underpin prompt decision making should further mitigation be necessary.
- The potential for the tunnel to obstruct groundwater flow and exacerbate flooding has been identified, however the tunnel is very small in comparison to the overall thickness and extent of the aquifer so the impact on river flows is considered to be negligible.
- Ground investigation has been undertaken at the location the tunnel crosses the Misbourne, which will be used for further detailed assessments.
- Monitoring is being carried out to establish conditions ahead of construction.

High Speed Two Ltd
25th Floor, One Canada Square
Canary Wharf
London
E14 5AB
E-mail: _____

Our Ref: HNL-150430 HS2

Your Ref:

Date: 19 May 2015

Dear Simon

Re: River Misbourne crossing

Thank you for your e-mail of 4 April 2015.

As described in the Environmental Statement (ES) submitted in support of the Hybrid Bill for Phase One, the route is proposed to cross beneath the River Misbourne in a tunnel at two locations – east of Chalfont St Giles, and north of Shardeloes Lake.

As set out in the ES, a number of avoidance and mitigation measures are proposed to be incorporated into the design of the route in this area, including:

- a minimum cover of two tunnel diameters depth being provided between the river bed of the River Misbourne and the top of the tunnel
- operating the tunnel boring machine in a closed face mode within water bearing parts of the aquifer, and designing the tunnel lining to keep leakage rates to a minimum
- closely monitoring river flows during construction, immediately upstream and downstream of crossing points – and working with us to agree appropriate trigger levels to prompt where further mitigation could be required

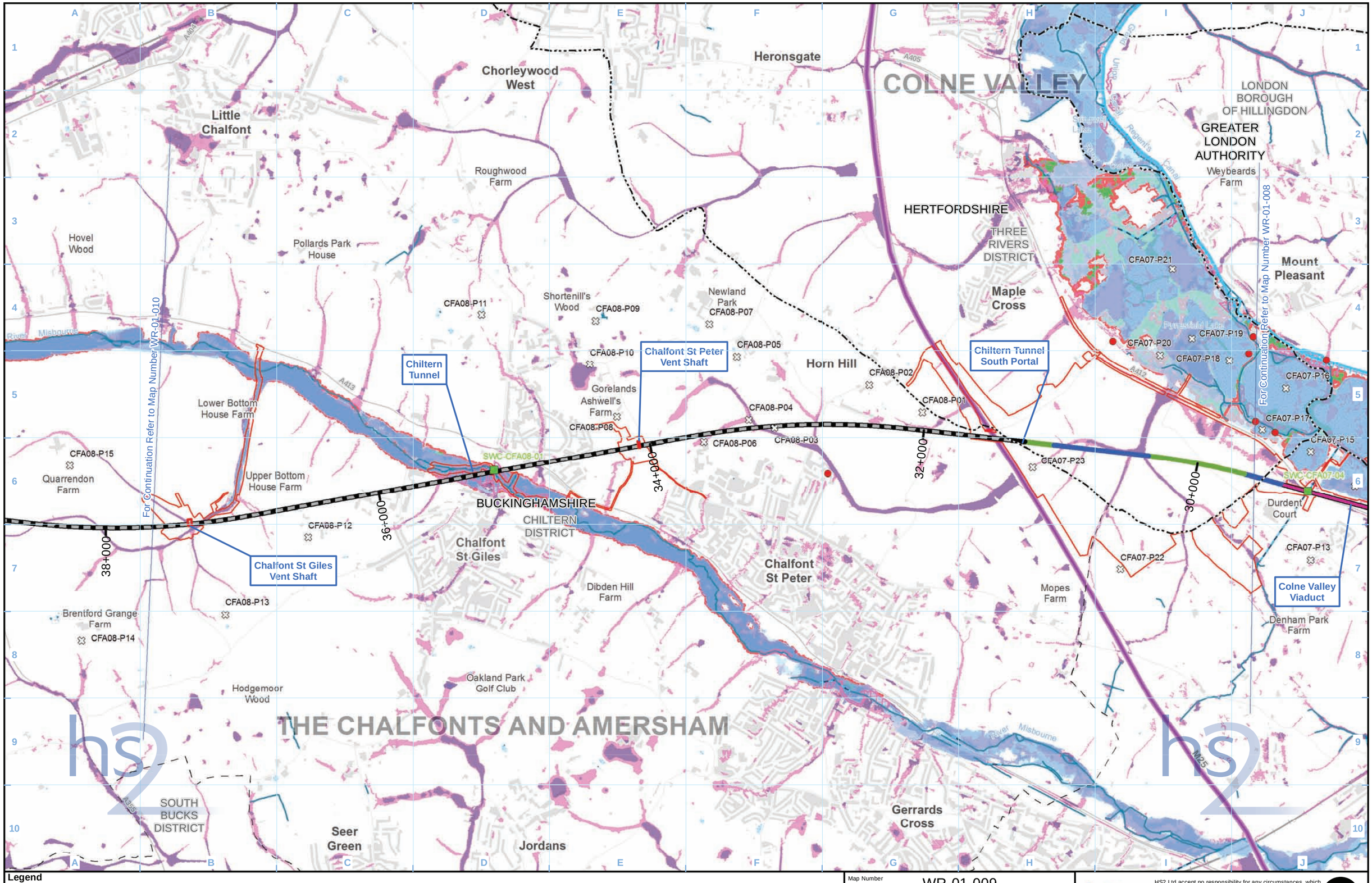
The ES identified a potential significant effect in relation to the proximity of the works to local public water supply sources. Alongside Affinity Water we will continue to provide advice (in line with our statutory role) to ensure a management strategy and mitigation measures are agreed. This will have to demonstrate that Affinity Water is able to maintain the resilience of public water supplies at all times both during construction, and in the longer term, in accordance with their Water Resources Management Plan.

Ultimately, before we could approve applications in line with the Protective Provisions within the Hybrid Bill and other UK legislation, we will need to be satisfied that all potential risks to the river and the surrounding environment have been mitigated. This will need to be supported by evidence from your ground investigation programme.

We will continue to provide advice to ensure the proposed mitigation will be acceptable, and that approvals can be issued.

Yours sincerely

Jim Kitchen
Project Manager



Legend

- Route on embankment
- Route in bored tunnel
- Route in cutting
- Route in green tunnel
- Route in retaining wall
- Route in station
- Tunnel portal
- Route on viaduct
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community forum boundary
- County boundary
- District/Borough boundary
- Licensed surface water abstraction (exc. public water supplies)
- Pond location (label example: CFA01-P01)
- Open water
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Surface water crossing location
- Surface water discharge location
- Historic flooding area
- Flood Zone 2
- Flood Zone 3
- Flood Map for Surface Water - (200yr) Shallow (+0.1m)
- Flood Map for Surface Water - (200yr) Deep (+0.3m)
- Reservoir inundation area

Map Number: WR-01-009

Map Name: Surface Water Baseline

Community Forum Area CFA8: The Chalfonts and Amersham

Registered in England. Registration number 06791686.
Registered office: Eland House, Bressenden Place, London SW1E 5DU.

Scale at A3: 1:25,000

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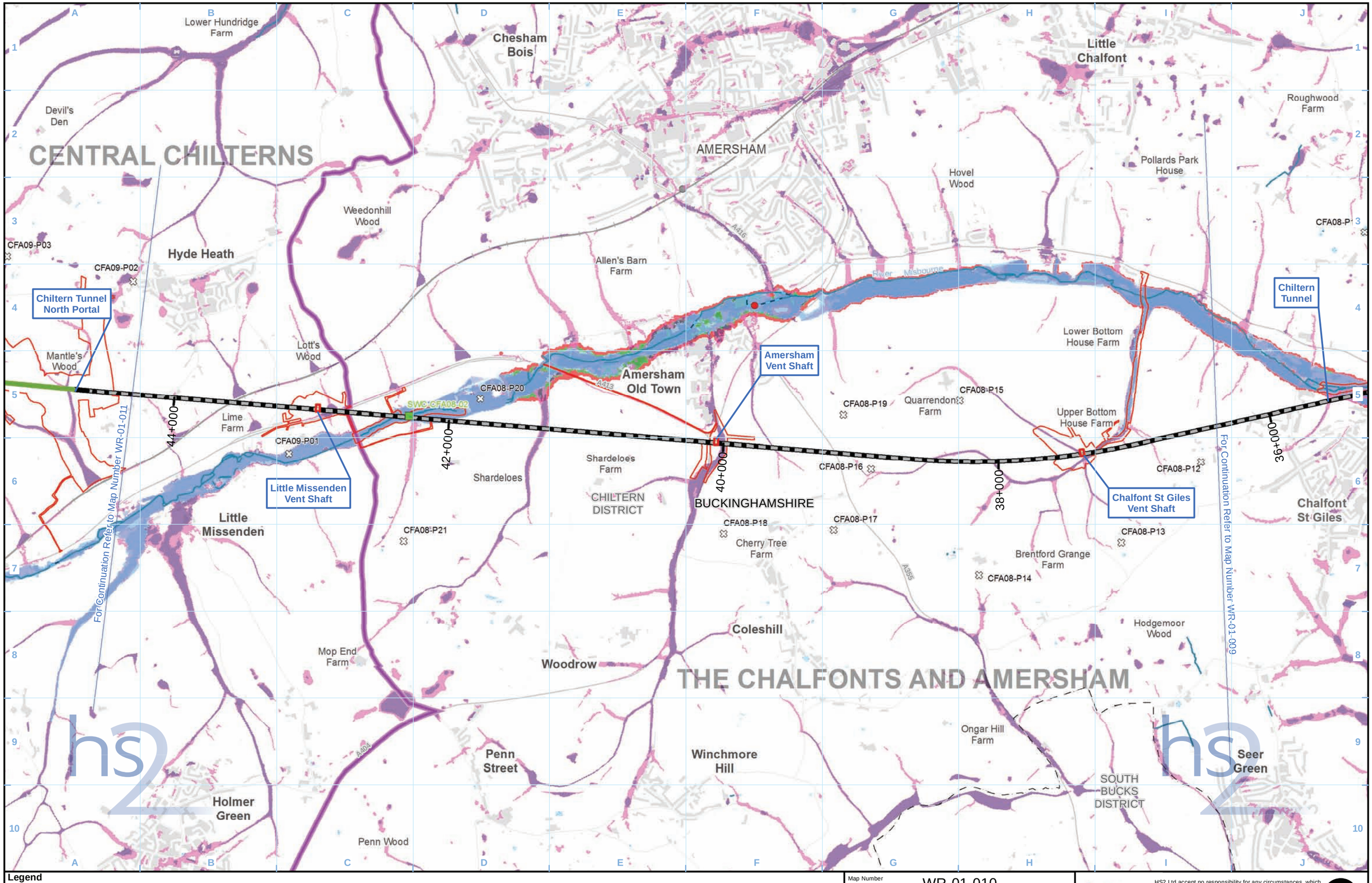
Doc Number: C252-ETM-EV-MAP-020-001428-P06.00

P3743 (4)

HOL/10024/0008



Legend

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- Reservoir inundation area

Map Number: WR-01-010

Map Name: Surface Water Baseline

Community Forum Area CFA8: The Chalfonts and Amersham

Scale at A3: 1:25,000

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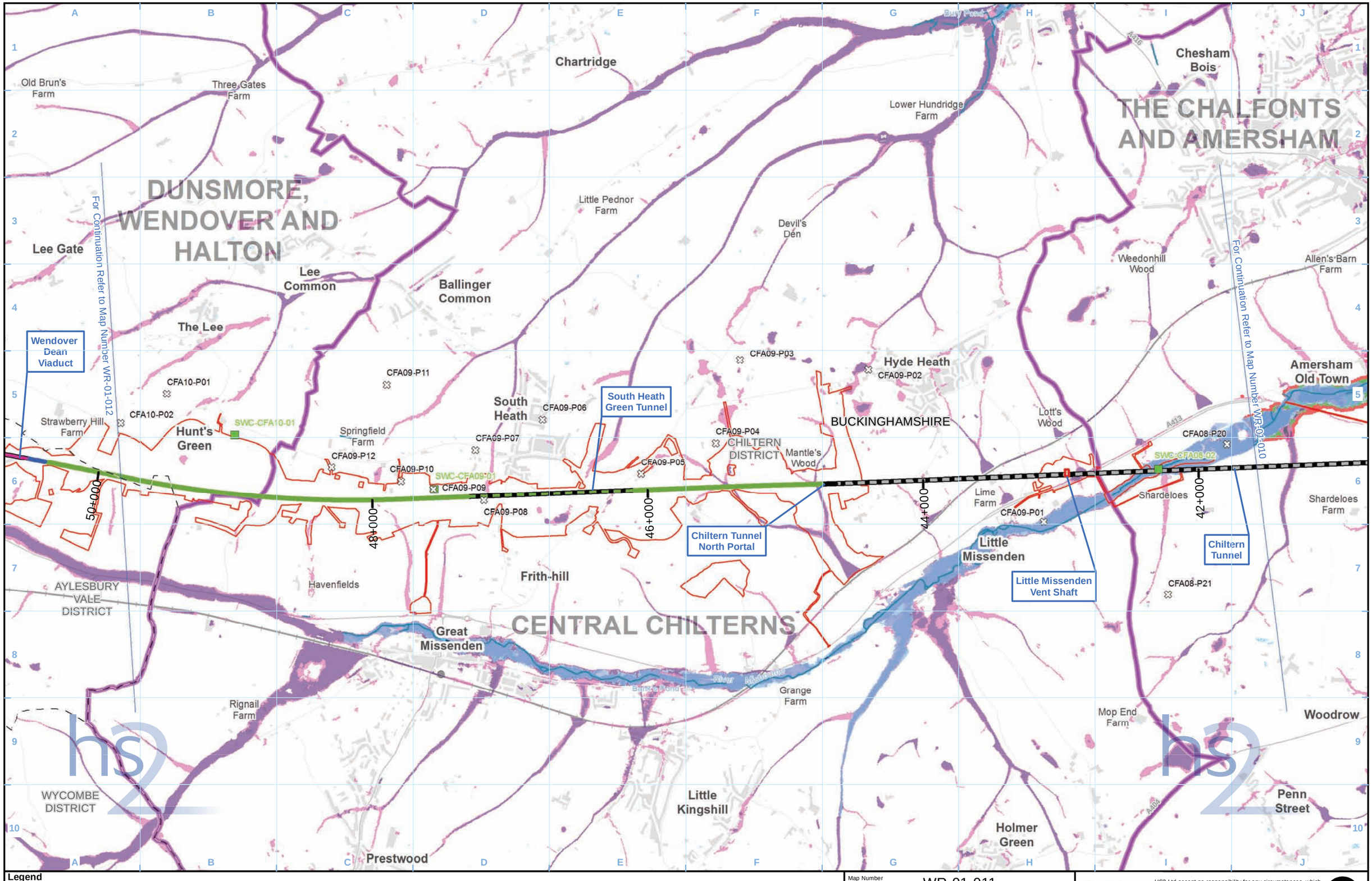

Legend

- Route on embankment
- Route in bored tunnel
- Route in cutting
- Route in green tunnel
- Route in retaining wall
- Route in station
- Tunnel portal
- [illegible] on viaduct
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- Flood Map for Surface Water - (200yr) Shallow (+0.1m)
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- Reservoir inundation area

Map Number: WR-01-011

Map Name: Surface Water Baseline

Community Forum Area CFA9: Central Chilterns

Registered in England. Registration number 06791686.
Registered office: Eland House, Bressenden Place, London SW1E 5DU.

Scale at A3: 1:25,000

0 250 500 750 1,000 Metres

Doc Number: C252-ETM-EV-MAP-020-001430-P06.00

DUNSMORE, WENDOVER AND HALTON

Halton
Wendover Woods
Lanes End
Old Brun's Farm
Three Gates Farm
Chartridge
Cock's Hill
Boddington Hill
Grand Union Canal (Wendover Arm)
Weston Turville Reservoir
Little Pednor Farm
Lee Gate
AYLESBURY VALE DISTRICT
WENDOVER
World's End
Lee Common
Ballinger Common
Kingsash
CFA10-P04
The Lee
CFA10-P07
CFA10-P06
Wellhead Farm
CFA10-P08
A413
BUCKINGHAMSHIRE
Wendover Dean Viaduct
CHILTERN DISTRICT
CFA10-P01
CFA09-P11
South Heath
For Continuation Refer to Map Number WR-01-011
54+000
52+000
50+000
48+000
43+000
CFA10-P09
CFA10-P02
Hunt's Green
SWC-CFA10-01
Durham Farm
Wellwick Farm
Bacombe Hill
CFA10-P05
Smalldean Farm
Small Dean Viaduct
Upper Wendoverdean Farm
Springfield Farm
CFA09-P12
CFA09-P07
CFA09-P06
CFA09-P10
CFA09-P09
CFA09-P05
Wendover Green Tunnel
For Continuation Refer to Map Number WR-01-013
Wendover Dean
CFA10-P03
SWC-CFA09-01
CFA09-P08
Butler's Cross
Coombe Hill
Dunsmore
Havenfields
Frith-hill
Dutchlands Farm
South Heath Green Tunnel
Lodge Hill Farm
Dunsmore Old Farm
Great Missenden
River Misbourne
Ellesborough
WYCOMBE DISTRICT
Rignall Farm
Little Hampden
CENTRAL CHILTERNS
Beacon Hill
Chequers
Buckmoorend
Hampden Bottom
Andlows Farm

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- Reservoir inundation area

Map Number: WR-01-012

Map Name: Surface Water Baseline

Community Forum Area CFA10: Dunsmore, Wendover and Halton

Registered in England. Registration number 06791686.
Registered office: Eland House, Bressenden Place, London SW1E 5DU.

Scale at A3: 1:25,000

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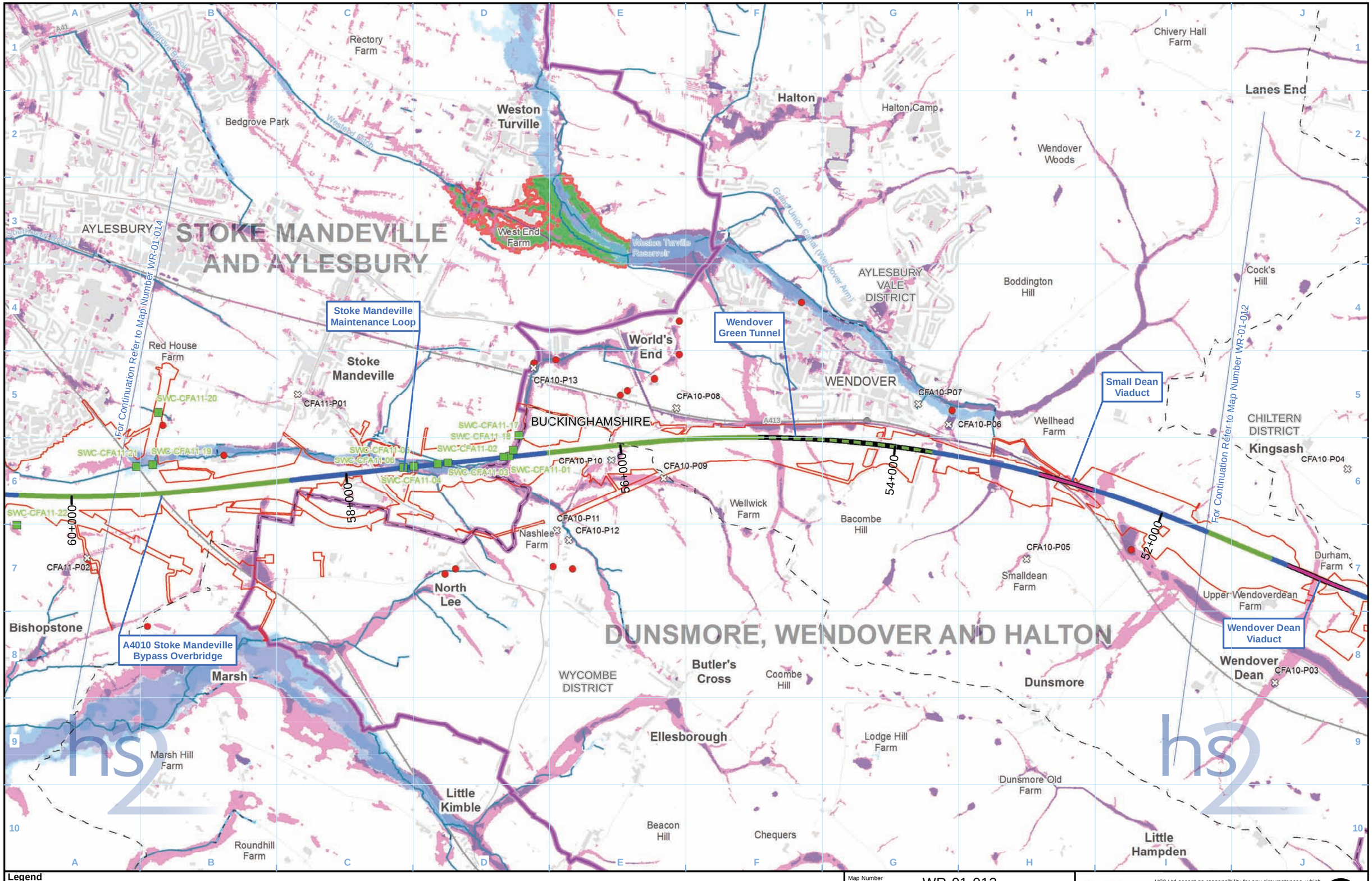

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Map Number: WR-01-013

Map Name: Surface Water Baseline

Community Forum Area CFA10: Dunsmore, Wendover and Halton

Scale at A3: 1:25,000

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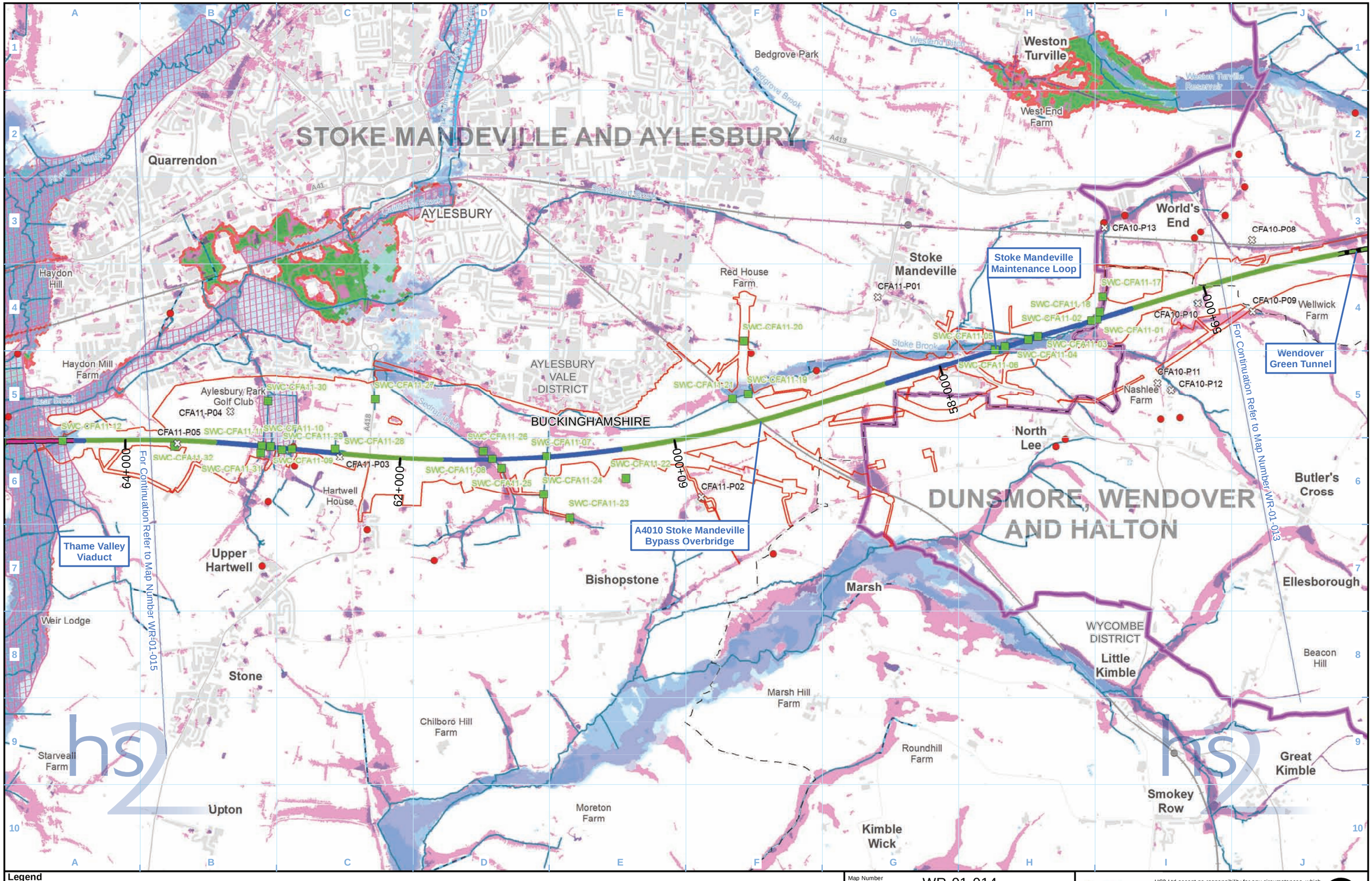
Doc Number: C252-ETM-EV-MAP-020-001432-P06.00



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Map Number: WR-01-014

Map Name: Surface Water Baseline

Community Forum Area CFA11: Stoke Mandeville and Aylesbury

Scale at A3: 1:25,000

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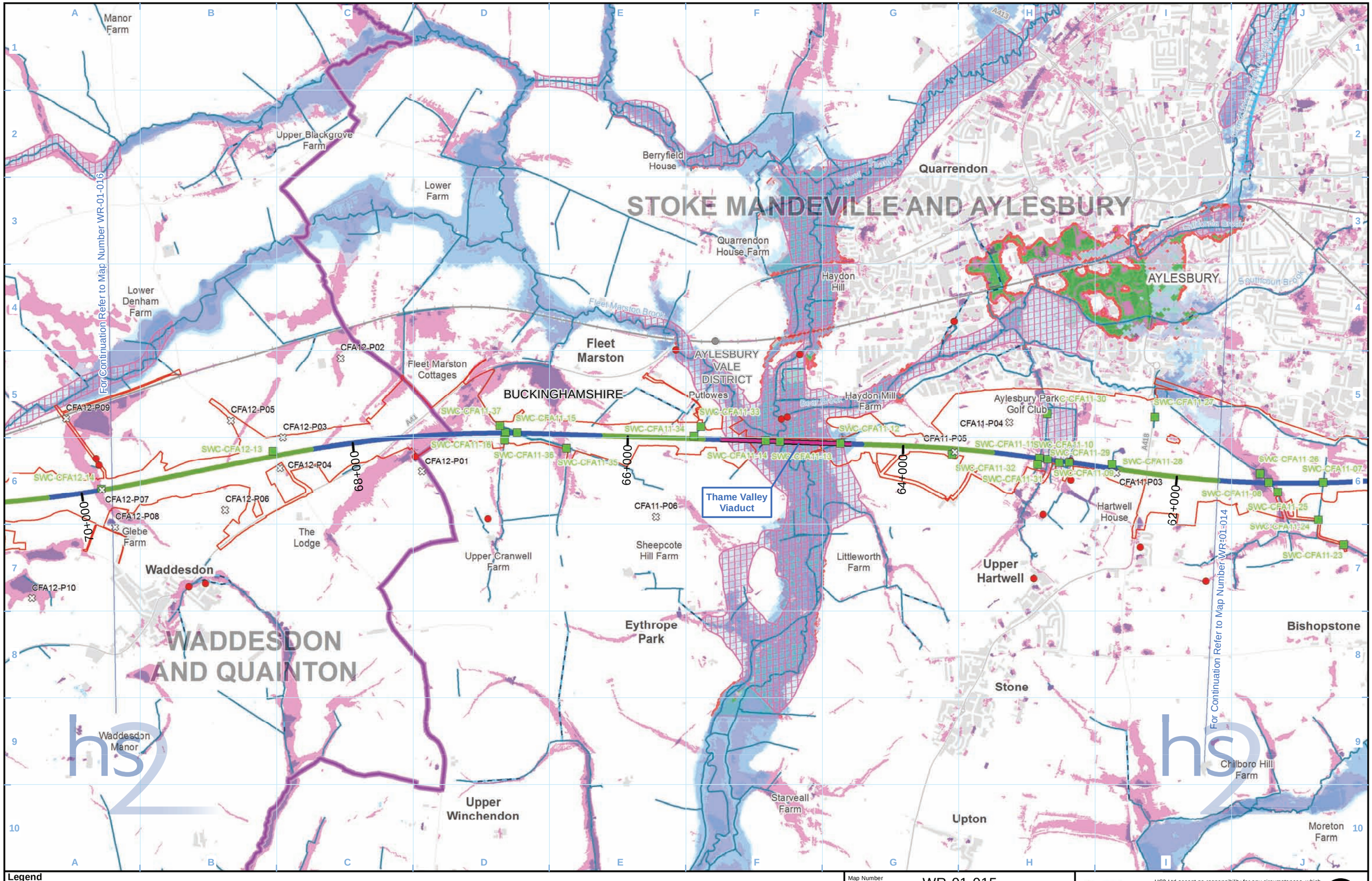
Doc Number: C252-ETM-EV-MAP-020-001433-P06.00



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- Reservoir inundation area

Map Number: WR-01-015

Map Name: Surface Water Baseline

Community Forum Area CFA11: Stoke Mandeville and Aylesbury

Scale at A3: 1:25,000

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Doc Number: C252-ETM-EV-MAP-020-001434-P06.00