In Parliament – Session 2022 - 2023

HS2

High Speed Rail (Crewe – Manchester)

Background information and data accompanying SES2 and AP2 ES

Water resources and flood risk
BID WR-002-00001 SES2 and AP2 ES
Water Framework Directive compliance assessment baseline data - Part 1 of 2

S110

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Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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1 Introduction

1.1.1 This report presents baseline data relating to the Water Framework Directive (WFD)[1] compliance assessment which has been undertaken for the Supplementary Environmental Statement 2 (SES2) and Additional Provision 2 Environmental Statement (AP2 ES).

1.1.2 This report provides an update to the High Speed Two (HS2) High Speed Rail (Crewe – Manchester) Environmental Statement (ES) published in 2022[2] (the main ES) and the Background Information and Data (BID)[3] reports which accompanied it (the main BID reports), and the Supplementary Environmental Statement 1 (SES1) and Additional Provision 1 Environmental Statement (AP1 ES) also published in 2022[4]. This update should be read in conjunction with the Water Framework Directive compliance assessment set out in the main ES Volume 5, Appendix: WR-001-00000, and the SES1 and AP1 ES Volume 5, Appendix: WR-001-00000.

1.1.3 The WFD compliance assessment is a route-wide assessment; this document presents the baseline data for the section of the proposed HS2 High Speed Rail (Crewe – Manchester), which relates to the following community areas:

- Hough to Walley's Green (MA01);
- Wimboldsley to Lostock Gralam (MA02);
- Pickmere to Agden and Hulseheath (MA03);
- Hulseheath to Manchester Airport (MA06);
- Davenport Green to Ardwick (MA07); and
- Manchester Piccadilly Station (MA08).

1.1.4 The following reports should be referred to for details of:

- the WFD compliance assessment (Volume 5, Appendix: WR-001-00000) and the WFD compliance assessment summary (Volume 3, Route-wide effects) of the main ES;

[1] *The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (SI 2017 No. 407)*. Available online at: https://www.legislation.gov.uk/uksi/2017/407/contents/made.

[2] High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester)*, Environmental Statement.* Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

[3] High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data*. Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

[4] High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-1-and-additional-provision-1-environmental-statement.

- the WFD compliance assessment (SES1 and AP1 ES Volume 5, Appendix: WR-001-00000) and the WFD compliance assessment summary (SES1 and AP1 ES Volume 3, Route-wide effects);
- the WFD compliance assessment (SES2 and AP2 ES Volume 5, Appendix: WR-001-00000) and the WFD compliance assessment summary (SES2 and AP2 ES Volume 3, Route-wide effects);
- the Water resources assessments and Flood risk assessments (Volume 5, Appendices: WR-003 and WR-005) of the main ES;
- the SES1 and AP1 ES Water resources assessments (SES1 and AP1 ES Volume 5, Appendix: WR-003);
- the SES2 and AP2 ES Water resources assessments and Flood risk assessments (SES2 and AP2 ES Volume 5, Appendices: WR-003 and WR-005);
- the Hydraulic modelling reports which support the Flood risk assessments (Volume 5, Appendix: WR-006) of the main ES; and
- the SES2 and AP2 ES Hydraulic modelling reports which support the Flood risk assessments (SES2 and AP2 ES Volume 5, Appendix: WR-006) of the main ES.

1.1.5 A draft water resources and flood risk operation and maintenance plan that accompanied the main ES (Volume 5, Appendix: WR-007-00000).

1.1.6 The WFD assessment for off-route works at Annandale depot can be found in SES2 and AP2 ES Volume 5, Appendix: WR-001-OR003. WFD baseline data is set out in BID WR-002-OR003 of the main ES.

1.1.7 Additional information is also included in Water resources assessment baseline data, which is reported per community area (BID WR-004) accompanying the main ES and accompanying the SES2 and AP2 ES (SES2 and AP2 ES BID WR-004).

1.1.8 Route-wide WFD maps are set out in the Volume 5, Water resources and flood risk Map Books: Map Series WR-03 - Water Framework Directive that accompanied the main ES, SES1 and AP1 ES, and SES2 and AP2 ES.

1.1.9 The River Basin Management Plan (RBMP)[5] Cycle 2 data (published in 2015 with an update to status information in 2019) was used as the baseline for the SES2 and AP2 ES assessment. The Cycle 3 RBMP which included updates to environmental objectives was published in December 2022. The WFD BID reports and assessments will be updated to the Cycle 3 data during the progression of the Bill.

[5] Under the WFD, 'water bodies' are the basic management units and are defined as all or part of a river system or aquifer. These water bodies form part of a larger 'river basin district' (RBD), for which 'river basin management plans' (RBMP) are developed, and environmental objectives are set for all water bodies. These RBMP are produced every six years by the Environment Agency in England and by the Scottish Environment Protection Agency in Scotland, in accordance with the river basin management planning cycle.

2 Surface water baseline

2.1 WFD surface water bodies

2.1.1 Table 1 presents the baseline information for all WFD surface water bodies in the study area and indicates whether they have been screened in for WFD preliminary assessment based on their potential to be affected by the AP2 revised scheme. WFD surface water bodies are given a water body ID by the Environment Agency (in the format GB1234567890) and these are presented in Table 1.

2.1.2 Locations of the relevant WFD surface water bodies are shown in Figure 1 to Figure 3.

2.1.3 The 2015 status and status objectives information along with the 2019 status for each WFD surface water body are then provided in the below sections.

Table 1: Summary of all WFD surface water bodies within the study area and their 2015 Cycle 2 and 2019 status classifications

WFD water body name and ID	River Basin District/ management plan	Environment Agency management catchment	Water body type (hydro - morphological designation)	2015			2019			Screened in for WFD preliminary assessment
				Overall status	Ecological status/potential	Chemical status	Overall status	Ecological status/potential	Chemical status[6]	
Wistaston Brook GB112068055280	North-West	Weaver Gowy	River (not Artificial (A)/Heavily Modified Water Body (HMWB))	Bad	Bad	Good	Bad	Bad	Fail	Yes
Valley Brook (Englesea Brook to Weaver) GB112068055310	North-West	Weaver Gowy	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Fowle Brook GB112068055400	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Poor	Poor	Fail	No
Weaver (Marbury Brook to Dane) GB112068060460	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Poor	Poor	Fail	Yes
Shropshire Union Canal, Market Drayton to Ellesmere Port GB71210133	North-West	North-West AWB	Canal (Artificial Water Body (AWB))	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Wheelock (Fowle Brook to Dane) GB112068055380	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Bad	Bad	Fail	No

[6] The chemical status assessment for 2019 changed since 2015, as it now includes assessment of uPBT substances (ubiquitous, persistent, bioaccumulative, toxic) and a new priority substance: Cypermethrin (previously only assessed as part of the ecological classification). This has meant that most surface water bodies in England now fail chemical status classifications.

WFD water body name and ID	River Basin District/ management plan	Environment Agency management catchment	Water body type (hydro - morphological designation)	2015			2019			Screened in for WFD preliminary assessment
				Overall status	Ecological status/potential	Chemical status	Overall status	Ecological status/potential	Chemical status[6]	
Dane (Wheelock to Weaver) GB112068060470	North-West	Weaver Gowy	River (not A/HMWB)	Bad	Bad	Good	Moderate	Moderate	Fail	Yes
Trent and Mersey Canal, summit to Preston Brook Tunnel GB71210247	North-West	North-West AWB	Canal (AWB)	Moderate	Moderate	Fail	Moderate	Moderate	Fail	Yes
Puddinglake Brook GB112068060220	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Poor	Poor	Fail	Yes
Wade Brook GB112068060370	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Fail	Poor	Poor	Fail	Yes
Peover Eye GB112068060390	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Bad	Bad	Fail	Yes
Smoker Brook (Gale Brook to Wincham Brook) GB112068060410	North-West	Weaver Gowy	River (not A/HMWB)	Poor	Poor	Good	Bad	Bad	Fail	Yes
Bollin (Ashley Mill to Manchester Ship Canal) GB112069061382	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Sinderland Brook GB112069060980	North-West	Mersey Upper	River (not A/HMWB)	Poor	Poor	Good	Poor	Poor	Fail	Yes

WFD water body name and ID	River Basin District/ management plan	Environment Agency management catchment	Water body type (hydro - morphological designation)	2015			2019			Screened in for WFD preliminary assessment
				Overall status	Ecological status/potential	Chemical status	Overall status	Ecological status/potential	Chemical status[6]	
Birkin Brook - Mobberley Brook to River Bollin (including Rostherne Brook) GB112069061370	North-West	Mersey Upper	River (not A/HMWB)	Bad	Bad	Good	Bad	Bad	Fail	Yes
Sugar Brook GB112069061350	North-West	Mersey Upper	River (not A/HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Bollin (River Dean to Ashley Mill) GB112069061381	North-West	Mersey Upper	River (not A/HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Timperley Brook GB112069061260	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Mersey (upstream of Manchester Ship Canal) GB112069061030	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Chorlton Brook (Princess Parkway to Mersey) GB112069061040	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	No
Fallowfield Brook GB112069061410	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes

WFD water body name and ID	River Basin District/ management plan	Environment Agency management catchment	Water body type (hydro - morphological designation)	2015			2019			Screened in for WFD preliminary assessment
				Overall status	Ecological status/potential	Chemical status	Overall status	Ecological status/potential	Chemical status[6]	
Platt Brook (Source to Fallowfield Bk) GB112069061060	North-West	Mersey Upper	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) GB112069061452	North-West	Irwell	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	No
Medlock (Lumb Brook to Irwell) GB112069061152	North-West	Irwell	River (HMWB)	Moderate	Moderate	Good	Moderate	Moderate	Fail	Yes
Rostherne Mere GB31232650	North-West	Mersey Upper	Lake (not A/HMWB)	Bad	Bad	Good	Bad	Bad	Fail	Yes

Figure 1: WFD surface water bodies within the study area (Part 1)

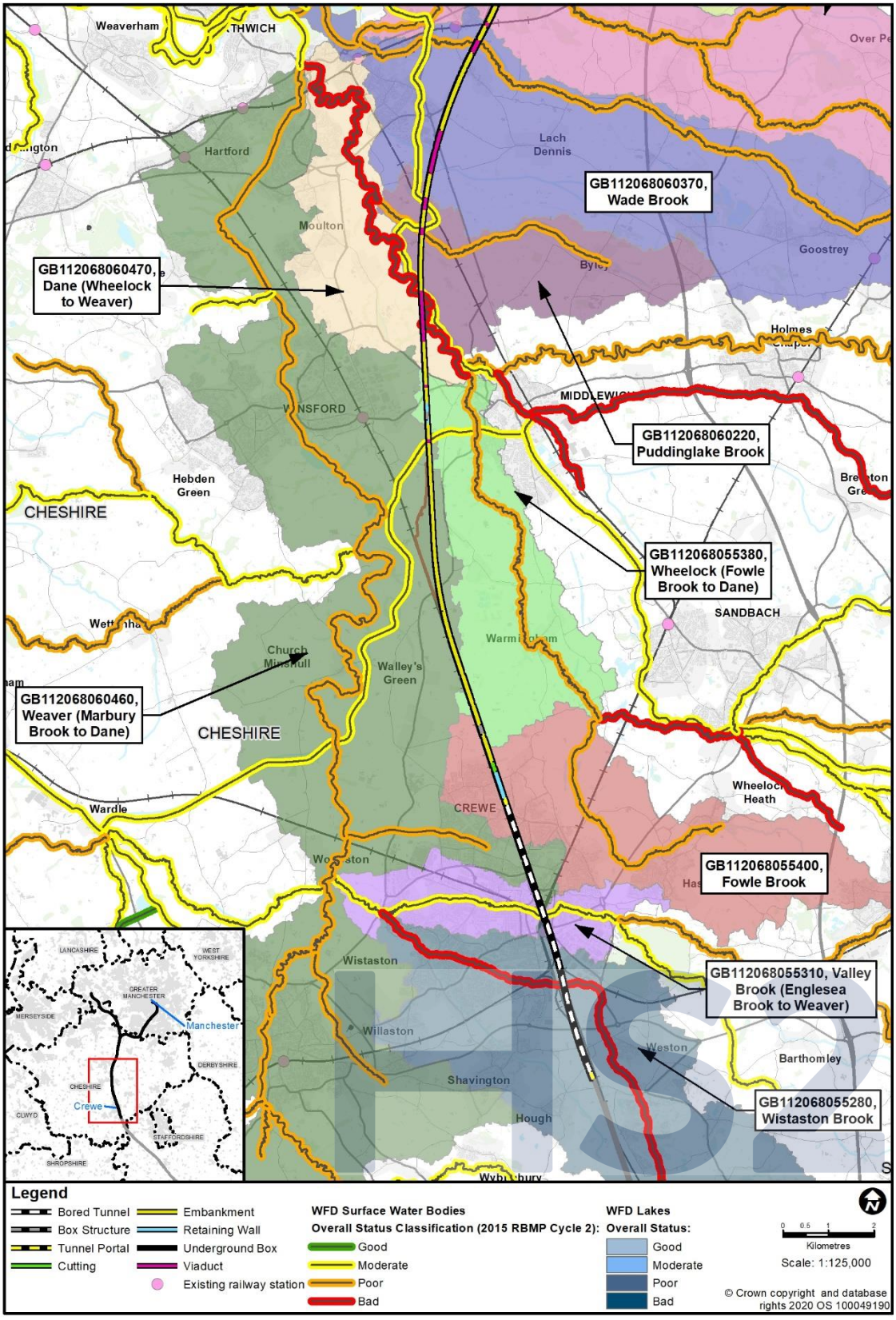


Figure 2: WFD surface water bodies within the study area (Part 2)

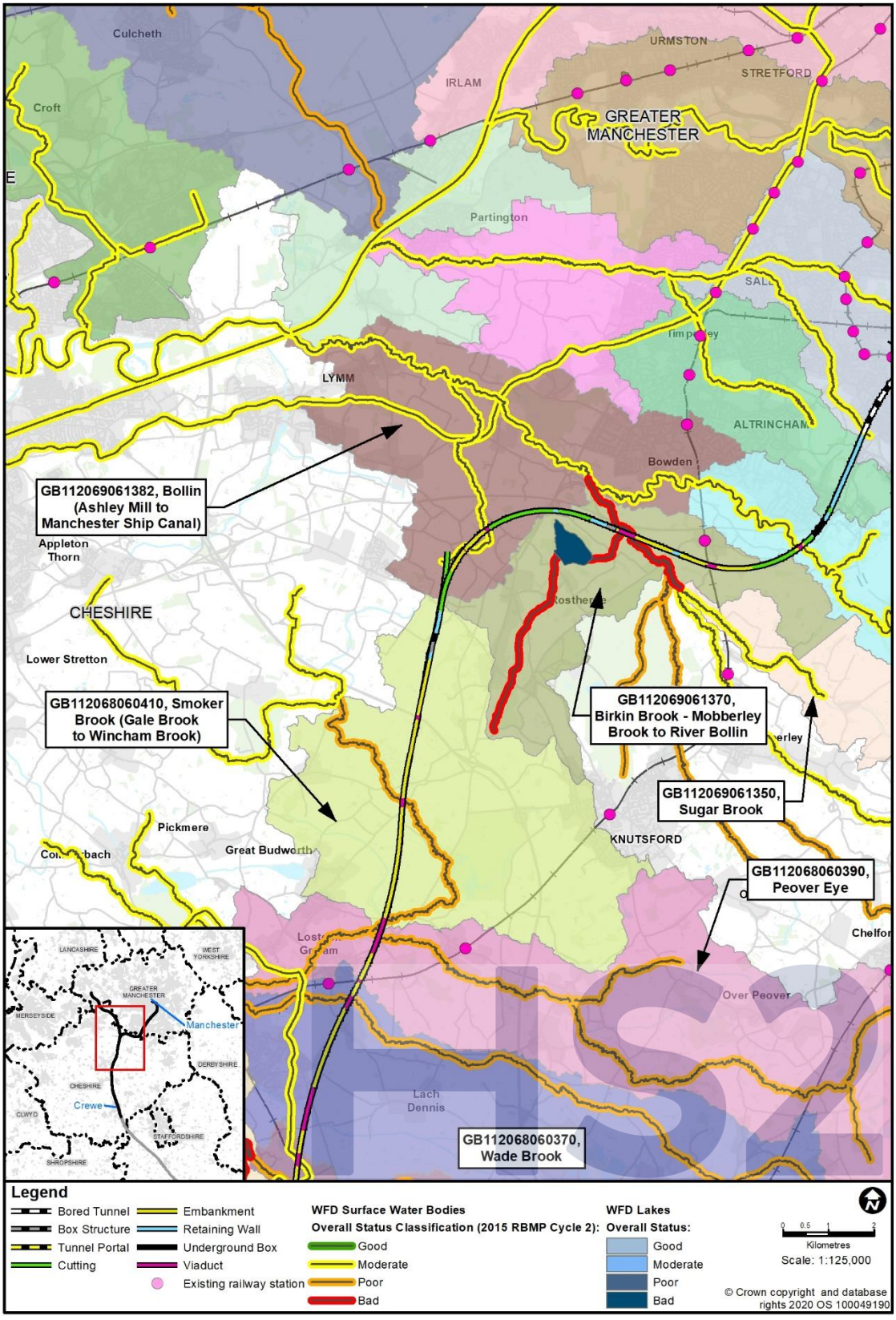
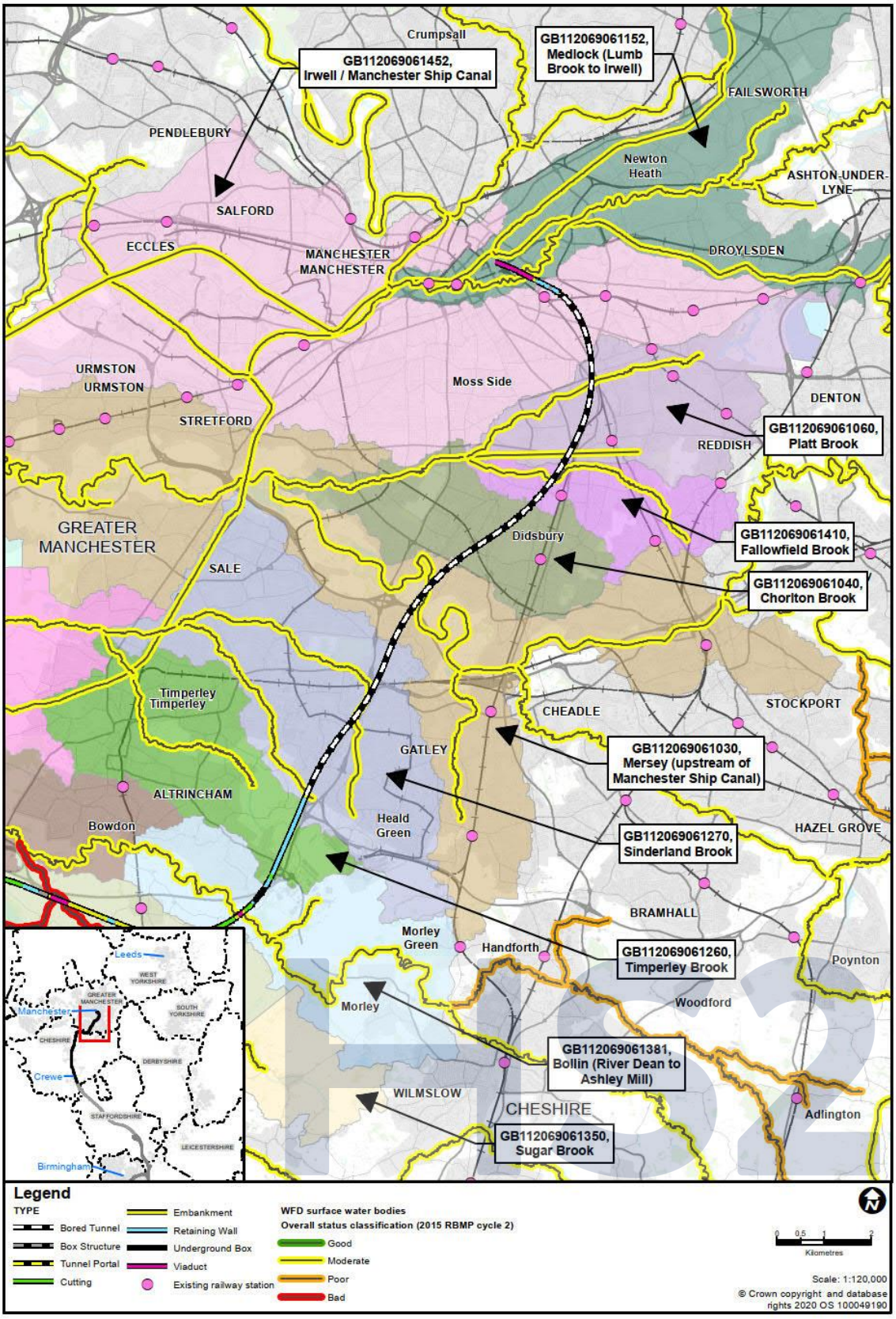


Figure 3: WFD surface water bodies within the study area (Part 3)



Wistaston Brook (GB112068055280)

2.1.4 The Wistaston Brook (GB112068055280) water body is assessed in 2015 as having bad overall status, bad ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.5 The 2015 Cycle 2 status classification and objectives data and 2019 status data for the water body are shown in Table 2, which shows those status elements that are currently failing to achieve good status.

Table 2: Wistaston Brook – 2015 Cycle 2 status classification, status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Bad	Good by 2027	Bad
Ecological status	Bad	Good by 2027	Bad
Biological status	Bad	Good by 2027	Bad
Fish	Bad	Good by 2027	Bad
Invertebrates	Good	Good by 2015	Good
Macrophytes and phytobenthos	Poor	Good by 2027	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	High
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	Moderate	Good by 2015	Moderate
pH	High	-	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Valley Brook (Englesea Brook to Weaver) (GB112068055310)

2.1.6 The Valley Brook (Englesea Brook to Weaver) (GB112068055310) water body is a Heavily Modified Water Body (HMWB) and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.7 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 3, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 3: Valley Brook (Englesea Brook to Weaver) – 2015 Cycle 2 status classification, status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	Bad	Good by 2027	Bad
Fish	Bad	Good by 2027	Bad
Invertebrates	Bad	Good by 2027	Bad
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Good
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	-	-
Chemical status	Good	Good by 2015	Fail

Fowle Brook (GB112068055400)

2.1.8 The Fowle Brook (GB112068055400) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.9 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 4, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 4: Fowle Brook – 2015 Cycle 2 status classification, status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Poor
Ecological status	Poor	Good by 2027	Poor
Biological status	Poor	Good by 2027	Poor

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Fish	-	-	-
Invertebrates	Poor	Good by 2027	Poor
Macrophytes and phytobenthos	Poor	Good by 2027	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	High	Supports good by 2015	High
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Good
Dissolved oxygen	Bad	Good by 2027	Poor
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Weaver (Marbury Brook to Dane) (GB112068060460)

2.1.10 The Weaver (Marbury Brook to Dane) (GB112068060460) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.11 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 5, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 5: Weaver (Marbury Brook to Dane) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Poor
Ecological status	Poor	Good by 2027	Poor
Biological status	Poor	Good by 2027	Poor
Fish	Poor	Good by 2027	Poor
Invertebrates	Poor	Good by 2027	Poor
Macrophytes and phytobenthos	Poor	Good by 2027	Poor
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Moderate
Dissolved oxygen	High	Good by 2015	Good
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Shropshire Union Canal, Market Drayton to Ellesmere Port (GB71210133)

2.1.12 The Shropshire Union Canal, Market Drayton to Ellesmere Port (GB71210133) water body is an Artificial Water Body (AWB) and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.13 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 6, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 6: Shropshire Union Canal, Market Drayton to Ellesmere Port – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2021	Moderate
Ecological potential	Moderate	Good by 2021	Moderate
Biological status	-	Not assessed	-
Fish	-	-	-
Invertebrates	-	-	-
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	-	Not assessed	-
Hydrological regime	-	-	-
Morphology	-	-	-
Physicochemical status	High	Good by 2015	High
Ammonia (phys-chem)	High	Good by 2015	High

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Dissolved oxygen	High	Good by 2015	-
pH	High	Good by 2015	High
Phosphate	-	-	-
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2021	Fail

Wheelock (Fowle Brook – Dane) (GB112068055380)

2.1.14 The Wheelock (Fowle Brook – Dane) (GB112068055380) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status. In the 2019 classification, the overall status, ecological status and biological status all changed to bad, with chemical status changing to fail. The water body is therefore currently failing its good overall status objective under the WFD.

2.1.15 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 7, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 7: Wheelock (Fowle Brook – Dane) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Bad
Ecological status	Poor	Good by 2027	Bad
Biological status	Poor	Good by 2027	Bad
Fish	Moderate	Good by 2027	Moderate
Invertebrates	Moderate	Good by 2027	Bad
Macrophytes and phytobenthos	Poor	Good by 2027	Poor
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Good
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Dane (Wheelock to Weaver) (GB112068060470)

2.1.16 The Dane (Wheelock to Weaver) (GB112068060470) water body is currently assessed in 2015 as having bad overall status, bad ecological status, and good chemical status. The water body is therefore currently failing its good overall status objective under the WFD. In the 2019 classification, the overall status, ecological status and biological status all increased to moderate, with chemical status changing to fail.

2.1.17 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 8, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 8: Dane (Wheelock to Weaver) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Bad	Moderate by 2027	Moderate
Ecological status	Bad	Moderate by 2027	Moderate
Biological status	Bad	Moderate by 2027	Moderate
Fish	Good	Good by 2015	Moderate
Invertebrates	Bad	Good by 2027	Good
Macrophytes and phytobenthos	-	-	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	High	-	High
pH	High	Good by 2015	High
Phosphate	Poor	Poor by 2015	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Trent and Mersey Canal, summit to Preston Brook Tunnel (GB71210247)

2.1.18 The Trent and Mersey Canal, summit to Preston Brook Tunnel (GB71210247) water body is an AWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and a failing chemical status. The 2019 classifications remained unchanged. The water body met its moderate by 2015 overall status objective under the WFD but fails to meet the 2027 objective.

2.1.19 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 9, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 9: Trent and Mersey Canal, summit to Preston Brook Tunnel – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	-	Not assessed	-
Fish	-	-	-
Invertebrates	-	-	-
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	-	Not assessed	-
Hydrological regime	-	-	-
Morphology	-	-	-
Physicochemical status	High	Good by 2015	High
Ammonia (phys-chem)	-	-	-
Dissolved oxygen	-	-	-
pH	High	Good by 2015	High
Phosphate	-	-	-
Temperature	-	-	-
Specific pollutants status	-	Not assessed	-
Chemical status	Fail	Fail by 2015	Fail

Puddinglake Brook (GB112068060220)

2.1.20 The Puddinglake Brook (GB112068060220) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status (changing to fail

in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.21 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 10, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 10: Puddinglake Brook – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Poor
Ecological status	Poor	Good by 2027	Poor
Biological status	Poor	Good by 2027	Poor
Fish	-	-	-
Invertebrates	Moderate	Good by 2027	Moderate
Macrophytes and phytobenthos	Poor	Good by 2027	Poor
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	High	Supports good by 2015	Supports good
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Moderate	Good by 2021	Poor
Dissolved oxygen	High	Good by 2015	Poor
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Wade Brook (GB112068060370)

2.1.22 The Wade Brook (GB112068060370) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and a failing chemical status (remaining the same in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.23 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 11, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 11: Wade Brook – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Poor
Ecological status	Poor	Good by 2027	Poor
Biological status	Poor	Good by 2027	Poor
Fish	-	-	-
Invertebrates	Poor	Good by 2027	Moderate
Macrophytes and phytobenthos	Poor	Good by 2027	Poor
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	Supports good	Supports good by 2015	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Moderate	Good by 2027	Bad
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	Good
Specific pollutants status	Moderate	High by 2027	Moderate
Chemical status	Fail	Good by 2027	Fail

Peover Eye (GB112068060390)

2.1.24 The Peover Eye (GB112068060390) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status. In the 2019 classification, the overall status, ecological status and biological status all changed to bad, with chemical status changing to fail. The water body is therefore currently failing its good overall status objective under the WFD.

2.1.25 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 12, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 12: Peover Eye – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Bad
Ecological status	Poor	Good by 2027	Bad
Biological status	Poor	Good by 2027	Bad
Fish	Poor	Good by 2027	Bad
Invertebrates	High	Good by 2015	Good

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Macrophytes and phytobenthos	Moderate	Good by 2027	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	Supports good	Supports good by 2015	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	High	Good by 2015	Good
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Smoker Brook (Gale Brook to Wincham Brook) (GB112068060410)

2.1.26 The Smoker Brook (Gale Brook to Wincham Brook) (GB112068060410) water body is currently assessed in 2015 as having poor overall status, poor ecological status, and good chemical status. In the 2019 classification, the overall status, ecological status and biological status all changed to bad, with chemical status changing to fail. The water body is therefore currently failing its good overall status objective under the WFD.

2.1.27 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 13, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 13: Smoker Brook (Gale Brook to Wincham Brook) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Poor	Good by 2027	Bad
Ecological status	Poor	Good by 2027	Bad
Biological status	Poor	Good by 2027	Bad
Fish	Poor	Good by 2027	Bad
Invertebrates	High	Good by 2015	High
Macrophytes and phytobenthos	High	Good by 2015	High
Hydromorphological status	Supports good	Supports good	Supports good
Hydrological regime	High	Supports good by 2015	High
Morphology	Supports good	-	Supports good

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	High	Good by 2015	Good
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2027	High
Specific pollutants status	-	-	-
Chemical status	Good	Good by 2015	Fail

Bollin (Ashley Mill to Manchester Ship Canal) (GB112069061382)

2.1.28 The Bollin (Ashley Mill to Manchester Ship Canal) (GB112069061382) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, poor biological status and good chemical status (changing to fail in 2019). The water body met its moderate by 2015 overall status objective under the WFD but fails to meet the 2027 objective.

2.1.29 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 14, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 14: Bollin (Ashley Mill to Manchester Ship Canal) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological potential	Moderate	Moderate by 2015	Moderate
Biological status	Poor	Good by 2027	Poor
Fish	Poor	Good by 2027	Poor
Invertebrates	Moderate		Good
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Good
Dissolved oxygen	High	Good by 2015	Good

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
pH	High	Good by 2015	High
Phosphate	Poor	Moderate by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Birkin Brook – Mobberley Brook to River Bollin (including Rostherne Brook) (GB112069061370)

2.1.30 The Birkin Brook – Mobberley Brook to River Bollin (including Rostherne Brook) (GB112069061370) water body is currently assessed in 2015 as having bad overall status, bad ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its moderate overall status objective under the WFD.

2.1.31 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 15, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 15: Birkin Brook – Mobberley Brook to River Bollin (including Rostherne Brook) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Bad	Moderate by 2027	Bad
Ecological status	Bad	Moderate by 2027	Bad
Biological status	Bad	Moderate by 2027	Bad
Fish	Bad	Good by 2027	Bad
Invertebrates	High	Good by 2027	High
Macrophytes and phytobenthos	Moderate	Moderate by 2015	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Moderate by 2015	Good
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	Poor	Good by 2027	High
pH	High	Good by 2015	High
Phosphate	Moderate	Moderate by 2015	Good
Temperature	High	Good by 2015	High

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Sugar Brook (GB112069061350)

2.1.32 The Sugar Brook (GB112069061350) water body is currently assessed in 2015 as having moderate overall status, moderate ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.33 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 16, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 16: Sugar Brook – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological status	Moderate	Good by 2027	Moderate
Biological status	Moderate	Good by 2027	Moderate
Fish	-	-	-
Invertebrates	Good	Good by 2015	High
Macrophytes and phytobenthos	Moderate	Good by 2027	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	High	Supports good by 2015	High
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Chemical status	Good	Good by 2015	Fail

Bollin (River Dean to Ashley Mill) (GB112069061381)

2.1.34 The Bollin (River Dean to Ashley Mill) (GB112069061381) water body is currently assessed in 2015 as having moderate overall status, moderate ecological status, and good chemical status (changing to fail in 2019). The water body has met its moderate overall status objective under the WFD.

2.1.35 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 17, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 17: Bollin (River Dean to Ashley Mill) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological status	Moderate	Moderate by 2015	Moderate
Biological status	Moderate	Good by 2027	Moderate
Fish	Moderate	Good by 2027	Moderate
Invertebrates	-	-	Moderate
Macrophytes and phytobenthos	-	-	Good
Hydromorphological status	Supports good	-	Supports good
Hydrological regime	Supports good	-	Supports good
Morphology	Supports good	-	Supports good
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	Poor	Good by 2027	Moderate
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Moderate by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	-	Not assessed	-
Chemical status	Good	Good by 2015	Fail

Timperley Brook (GB112069061260)

2.1.36 The Timperley Brook (GB112069061260) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.37 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 18, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 18: Timperley Brook – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	Moderate	Good by 2027	Moderate
Fish	-	-	-
Invertebrates	Moderate	Good by 2027	Moderate
Macrophytes and phytobenthos	Moderate	Good by 2027	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Moderate
Dissolved oxygen	Good	Good by 2015	Good
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Sinderland Brook (Fairywell Bk and Baguley Bk) (GB112069061270)

2.1.38 The Sinderland Brook (Fairywell Bk and Baguley Bk) (GB112069061270) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate

ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.39 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 19, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 19: Sinderland Brook (Fairywell Bk and Baguley Bk) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	-	Not assessed	Poor
Fish	-	-	-
Invertebrates	-	-	Poor
Macrophytes and phytobenthos	-	Not assessed	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	High	Good by 2015	High
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2015	Poor
Temperature	High	High by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Mersey (upstream of Manchester Ship Canal) (GB112069061030)

2.1.40 The Mersey (upstream of Manchester Ship Canal) (GB112069061030) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body has therefore met its moderate overall status objective under the WFD.

2.1.41 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 20, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 20: Mersey (upstream of Manchester Ship Canal) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological potential	Moderate	Moderate by 2015	Moderate
Biological status	-	Not assessed	-
Fish	-	-	-
Invertebrates	-	-	-
Macrophytes and phytobenthos	-	Not assessed	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	Good	Good by 2015	Good
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Poor by 2015	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Chorlton Brook (Princess Parkway to Mersey) (GB112069061040)

2.1.42 The Chorlton Brook (Princess Parkway to Mersey) (GB112069061040) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.43 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 21, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 21: Chorlton Brook (Princess Parkway to Mersey) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	Poor	Good by 2027	Poor
Fish	-	-	-
Invertebrates	Poor	Good by 2027	Poor
Macrophytes and phytobenthos	-	Not assessed	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	High
Dissolved oxygen	Good	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	-
Chemical status	Good	Good by 2015	Fail

Fallowfield Brook (GB112069061410)

2.1.44 The Fallowfield Brook (GB112069061410) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.45 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 22, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 22: Fallowfield Brook – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	-	Not assessed	Moderate
Fish	-	-	-
Invertebrates	-	-	Moderate
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Good	Good by 2015	High
Dissolved oxygen	Good	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Moderate	Good by 2027	Moderate
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Platt Brook (source to Fallowfield Bk) (GB112069061060)

2.1.46 The Platt Brook (source to Fallowfield Bk) (GB112069061060) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.47 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 23, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 23: Platt Brook (source to Fallowfield Bk) – 2015 Cycle 2 status classification, status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Good by 2027	Moderate
Ecological potential	Moderate	Good by 2027	Moderate
Biological status	Bad	Good by 2027	Bad
Fish	-	-	-
Invertebrates	Bad	Good by 2027	Bad
Macrophytes and phytobenthos	Good	Good by 2015	Good
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Good by 2027	Moderate
Ammonia (phys-chem)	Moderate	Good by 2027	Good
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Good by 2027	Poor
Temperature	High	Good by 2015	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) (GB112069061452)

2.1.48 The Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) (GB112069061452) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.49 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 24, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 24: Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological potential	Moderate	Moderate by 2015	Moderate
Biological status	-	Not assessed	-
Fish	-	-	-
Invertebrates	-	-	-
Macrophytes and phytobenthos	-	-	-
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	Poor	Poor by 2021	Moderate
Dissolved oxygen	Poor	Moderate by 2021	Bad
pH	High	Good by 2015	High
Phosphate	Poor	Poor by 2015	Poor
Temperature	High	Good by 2027	High
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Medlock (Lumb Brook to Irwell) (GB112069061152)

2.1.50 The Medlock (Lumb Brook to Irwell) (GB112069061152) water body is a HMWB and so is assessed according to ecological potential rather than ecological status. The water body is currently assessed in 2015 as having moderate overall status, moderate ecological potential, and good chemical status (changing to fail in 2019). The water body has therefore met its moderate overall status objective under the WFD.

2.1.51 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 25, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 25: Medlock (Lumb Brook to Irwell) – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Moderate	Moderate by 2015	Moderate
Ecological potential	Moderate	Moderate by 2015	Moderate
Biological status	Poor	Moderate by 2027	Poor
Fish	Poor	Moderate by 2027	Poor
Invertebrates	Moderate	Good by 2021	Moderate
Macrophytes and phytobenthos	Moderate	-	Moderate
Hydromorphological status	Supports good	Supports good by 2015	Supports good
Hydrological regime	Supports good	Supports good by 2015	Supports good
Morphology	-	-	-
Physicochemical status	Moderate	Moderate by 2015	Moderate
Ammonia (phys-chem)	Moderate	Good by 2027	High
Dissolved oxygen	High	Good by 2015	High
pH	High	Good by 2015	High
Phosphate	Poor	Poor by 2015	Poor
Temperature	High	Good by 2015	Good
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

Rostherne Mere (GB31232650)

2.1.52 The Rostherne Mere (GB31232650) water body is a lake water body and is currently assessed in 2015 as having bad overall status, bad ecological status, and good chemical status (changing to fail in 2019). The water body is therefore currently failing its good overall status objective under the WFD.

2.1.53 The 2015 Cycle 2 status classification data and objectives data for the water body are shown in Table 26, along with the 2019 status data, which shows those status elements that are currently failing to achieve good status.

Table 26: Rostherne Mere – 2015 Cycle 2 status classification and status objectives and 2019 status data

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Overall status	Bad	Good by 2027	Bad
Ecological status	Bad	Good by 2027	Bad
Biological status	Bad	Good by 2027	Bad
Macrophytes and phytobenthos	Bad	Good by 2027	Bad

Status element	Status (2015)	RBMP Cycle 2 status objective	Status (2019)
Phytoplankton	Moderate	Good by 2027	Poor
Benthic invertebrates	-	-	-
Fish	-	-	-
Hydromorphological status			
Morphology	High	Supports good by 2015	High
Hydrological regime	Supports good	Supports good by 2015	High
Physicochemical status	Moderate	Good by 2027	Moderate
Transparency	-	-	-
Thermal conditions	-	-	-
Dissolved oxygen	Poor	Good by 2027	Poor
Salinity	High	Good by 2015	High
Acidification status	High	Good by 2015	High
Total phosphorus	Bad	Good by 2027	Bad
Specific pollutants status	High	High by 2015	High
Chemical status	Good	Good by 2015	Fail

2.2 Watercourses

2.2.1 Table 27 presents the baseline information for all the watercourses potentially affected by the AP2 revised scheme and indicates whether they have been screened in for WFD preliminary assessment based on their baseline condition.

2.2.2 The locations of the watercourses are shown in Figure 4 to Figure 15.

2.2.3 A summary of the baseline condition of each watercourse is then provided in the sections below. Where a reconnaissance field survey of the watercourse has been undertaken, photographic evidence and a short description are provided in a table for that watercourse. No such table is provided for those watercourses that have only been assessed via desk study at this stage.

Table 27: Summary of all WFD watercourses potentially affected by the AP2 revised scheme

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
Wistaston Brook GB112068055280	Tributary of Swill Brook 1	Ordinary watercourse	SJ7173352578/SJ 6988952507	1.9	0.56	<0.002	No	Moderate	Yes
	Tributary of Gresty Brook 1	Ordinary watercourse	SJ7168752668/SJ 7044352890	1.7	0.77	<0.002	No	Moderate	Yes
	Gresty Brook	Main river	SJ7208653620/SJ 6997353887	2.4	24.7	0.0598	No	High	Yes
	Basford Brook	Main river	SJ7269251728/SJ 7208753619	2.9	19.6	0.052	No	High	Yes
Valley Brook (Englesea Brook to Weaver) GB112068055310	Valley Brook	Main river	SJ7236155084/SJ 6867255508	4.3	48.2	0.0981	Yes	High	Yes
Fowle Brook GB112068055400	Tributary of Fowle Brook 1	Ordinary watercourse	SJ6972158317/SJ 7154258298	3.1	4.4	<0.002	Yes	Low	No
Weaver (Marbury Brook to Dane) GB112068060460	Tributary of River Weaver 2	Ordinary watercourse	SJ6873561830/SJ 6759262677	2.0	1.3	<0.002	Yes	Moderate	Yes
	Tributary of River Weaver 4	Ordinary watercourse	SJ6804764938/SJ 6732565410	1.3	0.33	<0.002	Yes	Low	No
Shropshire Union Canal, Market Drayton to Ellesmere Port GB71210133	Shropshire Union Canal	Canal	SJ6733461270/SJ 6957365786	6.2	N/A	N/A	Yes	Very high	Yes

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
Wheelock (Fowle Brook to Dane) GB112068055380	Hoggins Brook	Ordinary watercourse	SJ6977560072/SJ6265070452	4.1	5.6	0.0028	Yes	Low	No
	Tributary of River Wheelock 5	Ordinary watercourse	SJ6871066073/SJ6952865423	1.2	1.1	<0.002	Yes	Low	No
Dane (Wheelock to Weaver) GB112068060470	River Dane	Main river	SJ6935066991/SJ6717670159	2.3	395.2	0.839	Yes	Very high	Yes
	Tributary of River Dane 3	Ordinary watercourse	SJ6850567400/SJ6880667548	0.4	0.2	<0.002	Yes	Low	No
Trent and Mersey Canal, summit to Preston Brook Tunnel GB71210247	Trent and Mersey Canal	Canal	SJ7063565714/SJ6850574774	11.9	N/A	N/A	Yes	Very high	Yes
Puddinglake Brook GB112068060220	Tributary of Trent and Mersey Canal	Ordinary watercourse	SJ6882468911/SJ6805269349	1.1	0.3	<0.002	No	Low	No
	Puddinglake Brook	Main river	SJ6994970019/SJ6740370848	8.3	10.9	0.0084	Yes	High	Yes
Wade Brook GB112068060370	Gad Brook	Ordinary watercourse	SJ6976571265/SJ6723572515	3.5	9.7	0.00396	Yes	Moderate	Yes
	Tributary of Gad Brook 3	Ordinary watercourse	SJ7004271760/SJ6861471909	1.9	2.0	<0.002	No	Moderate	Yes
	Broken Cross Drains	Ordinary watercourse	SJ6946172909/SJ6867774198	3.5	1.0	<0.002	No	Low	No

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
	Wade Brook	Main river	SJ7035773356/SJ 6780874058	4.1	41.3	0.075	Yes	High	Yes
Peover Eye (Wincham Brook) GB112068060390	Tributary of Peover Eye	Ordinary watercourse	SJ7008574773/SJ 7009675711	2.3	0.9	<0.002	Yes	Moderate	Yes
	Peover Eye	Main river	SJ7142775425/SJ 7006075781	1.9	78.3	0.188	Yes	High	Yes
Smoker Brook (Gale Brook to Wincham Brook) GB112068060410	Smoker Brook	Main river	SJ7105776204/SJ 7006075781	1.5	69.7	0.0685	Yes	High	Yes
	Tributary of Smoker Brook 2	Ordinary watercourse	SJ7087077137/SJ 7106376206	1.6	0.7	<0.002	Yes	Low	No
	Waterless Brook	Main river	SJ6909480314/SJ 7105776204	8.4	62.0	0.0397	Yes	High	Yes
	Tabley Brook	Ordinary watercourse	SJ7183680441/SJ 7081578604	3.7	8.8	0.0126	No	Moderate	Yes
	Tributary of Tabley Brook 2	Ordinary watercourse	SJ7060879793/SJ 7137379138	1.6	4.0	<0.002	Yes	Low	No
	Tributary of Tabley Brook 3	Ordinary watercourse	SJ7098279990/SJ 7110979980	0.4	0.3	<0.002	Yes	Low	No
	Tributary of Tabley Brook 4	Ordinary watercourse	SJ7100880534/SJ 7110979980	0.9	2.4	<0.002	Yes	Low	No
	Tributary of Tabley Brook 6	Ordinary watercourse	SJ7112780772/SJ 7115780520	0.3	0.1	<0.002	Yes	Low	No
	Tributary of Tabley Brook 7	Ordinary watercourse	SJ7121882949/SJ 7098881459	3.0	1.5	<0.002	Yes	Low	No

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
	Tributary of Tabley Brook 8	Ordinary watercourse	SJ7138981817/SJ 7107381608	2.2	2.1	<0.002	Yes	Low	No
	Tributary of Tabley Brook 9	Ordinary watercourse	SJ7155682477/SJ 7183780441	6.3	3.2	N/A	Yes	Moderate	Yes
Bollin (Ashley Mill to Manchester Ship Canal) GB112069061382	Tributary of Millington Clough 1	Ordinary watercourse	SJ7143483472/SJ 7229684139	2.1	2.6	<0.002	Yes	Low	No
	Tributary of Millington Clough 2	Ordinary watercourse	SJ7158983894/SJ 7211584234	0.7	1.1	<0.002	Yes	Low	No
	Tributary of Millington Clough 3	Ordinary watercourse	SJ7099784568/SJ 7189283998	1.3	0.4	<0.002	Yes	Low	No
	Millington Clough	Main river	SJ7211584234/SJ 7263084306	0.7	3.4	0.00432	Yes	High	Yes
	Tributary of Millington Clough 4	Ordinary watercourse	SJ7167284667/SJ 7211584234	0.7	0.3	0.00232	Yes	Low	No
	Agden Brook	Main river	SJ7263084306/SJ 7173787920	5.2	7.5	0.01	Yes	Moderate	Yes
	Tributary of River Bollin 10	Ordinary watercourse	SJ7325585387/SJ 7354085599	0.6	0.07	<0.002	No	Moderate	Yes
	Tributary of River Bollin 11	Main river	SJ7380585154/ SJ7344786079	1.2	2.19	0.00285	No	Moderate	Yes

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
Birkin Brook - Mobberley Brook to River Bollin (including Rostherne Brook) GB112069061370	Blackburn's Brook	Main river	SJ7481283929/SJ 7542084696	1.5	10.7	0.0231	Yes	Moderate	Yes
	Birkin Brook	Main river	SJ7643583044/SJ 7467286002	3.2	96.1	0.123	Yes	High	Yes
	Tributary of Birkin Brook 4	Ordinary watercourse	SJ7676084040/SJ 7654683890	0.3	0.3	<0.002	Yes	Low	No
	Tributary of Birkin Brook 3	Ordinary watercourse	SJ7800084058/SJ 7752383786	1.2	0.9	<0.002	Yes	Low	No
	Tributary of Birkin Brook 2	Ordinary watercourse	SJ7826383712/SJ 7747283685	0.9	0.2	<0.002	No	Low	No
	Tributary of Birkin Brook 1 (Middle House Brook)	Main river	SJ7985282427/SJ 7686483736	4.5	3.3	<0.002	Yes	Moderate	Yes
Sugar Brook GB112069061350	Tributary of Sugar Brook	Main river	SJ7866282670/SJ 7761082726	1.8	0.8	<0.002	No	Moderate	Yes
Bollin (River Dean to Ashley Mill) GB112069061381	River Bollin	Main river	SJ8024283338/SJ 7480485706	10.3	153.1	0.302	Yes	Very high	Yes
	Tributary of River Bollin 3	Ordinary watercourse	SJ7965484731/SJ 7929084367	0.8	0.3	<0.002	Yes	Moderate	Yes
	Tributary of River Bollin 2	Ordinary watercourse	SJ8022984672/SJ 7968984089	1.7	0.5	<0.002	Yes	Moderate	Yes
	Tributary of River Bollin 4	Ordinary watercourse	SJ7903884439/SJ 7919684553	0.2	0.08	<0.002	Yes	Low	No

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
	Tributary of River Bollin 5	Ordinary watercourse	SJ79402384690/SJ89202384550	0.3	0.09	<0.002	No	Moderate	No
	Tributary of River Bollin 6	Ordinary watercourse	SJ7868684220/SJ7862184645	0.5	0.17	<0.002	No	Moderate	Yes
	Tributary of River Bollin 7	Ordinary watercourse	SJ7845584333/SJ7858584638	0.4	0.07	<0.002	Yes	Low	No
	Drain to M56 1	Ordinary watercourse	SJ7981784533/SJ7980684623	0.1	0.01	<0.002	No	Low	No
	Drain to M56 2	Ordinary watercourse	SJ7992884733/SJ7976084668	0.2	0.04	<0.002	No	Low	No
Timperley Brook GB112069061260	Tributary of Timperley Brook 1	Ordinary watercourse	SJ8031185440/SJ8001185967	0.6	1.1	<0.002	Yes	Moderate	Yes
	Timperley Brook	Main river	SJ8087685655/SJ7962887149	3.9	5.1	0.00293	Yes	Moderate	Yes
	Tributary of Timperley Brook 3	Ordinary watercourse	SJ8041786576/SJ7974586915	0.9	0.4	<0.002	No	Moderate	Yes
Sinderland Brook (Fairywell Bk and Baguley Bk) GB112069061270	Fairywell Brook	Main river	SJ8136486024/SJ7984588916	3.9	2.6	0.0037	Yes	Low	No
	Mill Brook	Ordinary watercourse	SJ8123687346/SJ7984488918	2.5	1.5	<0.002	Yes	Moderate	Yes
	Baguley Brook	Main river	SJ8192386154/SJ7817290322	8.2	8.1	0.0111	Yes	Moderate	Yes

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
	Tributary of Baguley Brook	Ordinary watercourse	SJ8299088526/SJ 8205489201	1.2	2.8	<0.002	No	Low	No
Mersey (upstream of Manchester Ship Canal) GB112069061030	River Mersey	Main river	SJ8407589374/SJ 8243591340	6.5	614.6	1.471	Yes	Very high	Yes
	Tributary of River Mersey 2	Main river	SJ8403990787/SJ 8340390974	1.1	0.1	<0.002	Yes	Moderate	Yes
Chorlton Brook (Princess Parkway to Mersey) GB112069061040	No watercourses within study area	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
Fallowfield Brook GB112069061410	Cringle Brook	Main river	SJ8748293413/SJ 8425293853	3.8	4.1	0.00689	Yes	Moderate	Yes
Platt Brook (Source to Fallowfield Bk) GB112069061060	Fallowfield Brook	Ordinary watercourse	SJ8856493819/SJ 8425293853	4.4	9.2	0.0034	Yes	Moderate	Yes
	Tributary of Platt Brook 1	Ordinary watercourse	SJ8934595238/SJ 8576994726	3.7	2.8	<0.002	No	Low	No
	Gore Brook	Main river	SJ8858695875/SJ 8576994726	3.3	11.9	0.0139	Yes	Moderate	Yes
Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) GB112069061452	Corn Brook	Ordinary watercourse	SJ8868197976/SJ 8221596954	10.5	14.3	0.006	No	Low	No
Medlock (Lumb Brook to Irwell)	River Medlock	Main river	SJ8642598795/SJ 8327197513	5.2	64.5	0.187	Yes	High	Yes

WFD water body name and ID	Watercourse name	Watercourse designation	Watercourse upstream/down stream National Grid Reference (NGR)	Approx. watercourse length within water body extent (km)	Estimated catchment area of watercourse (km^2)	Estimated Q95 (m^3/s) at AP2 revised scheme location	Watercourse surveyed?	Watercourse receptor value at AP2 revised scheme location	Watercourse screened in for WFD preliminary assessment?
GB112069061152									
Rostherne Mere GB31232650	Rostherne Mere	Lake	N/A	N/A	N/A	N/A	N/A	High	Yes

Figure 4: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 1)

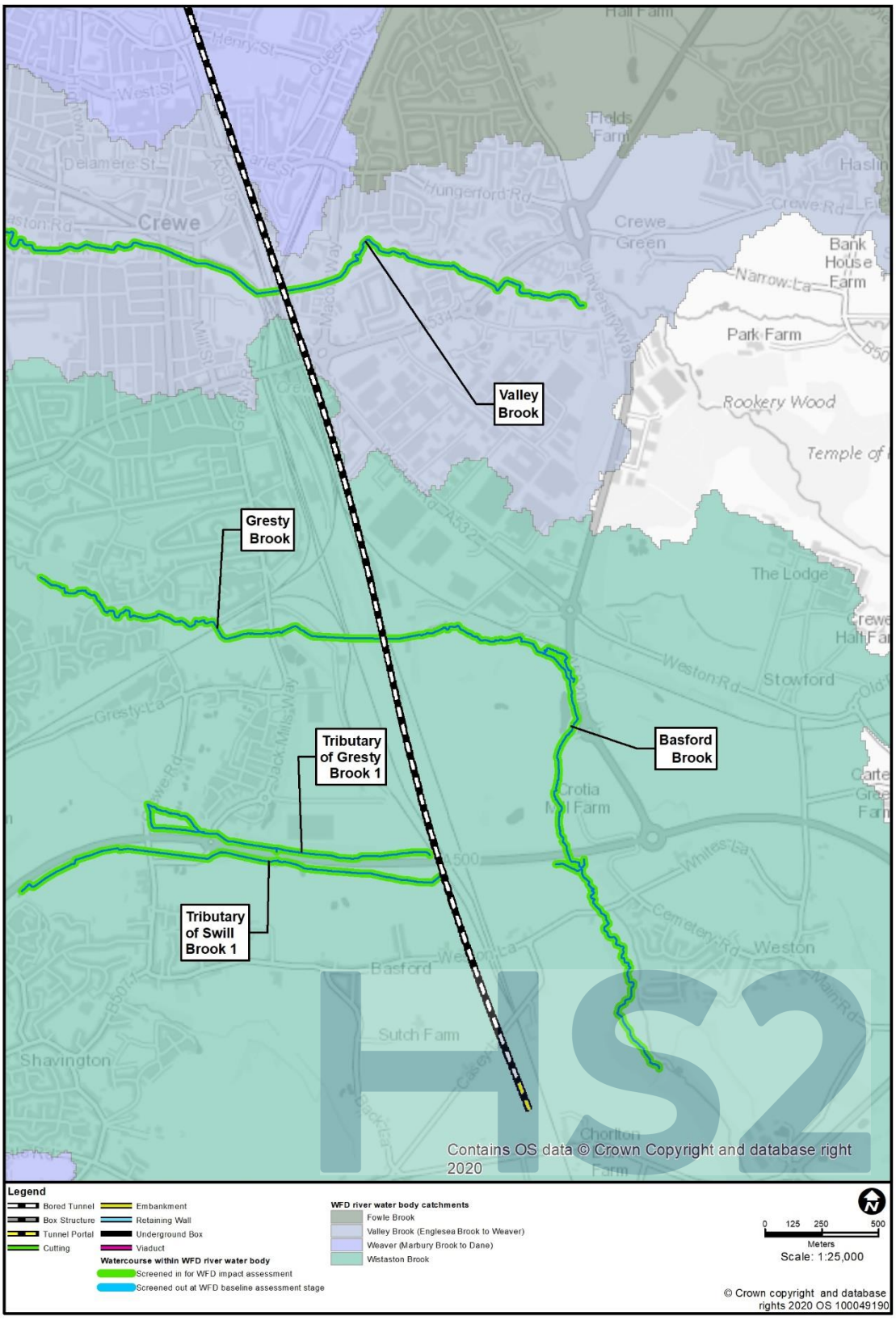


Figure 5: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 2)

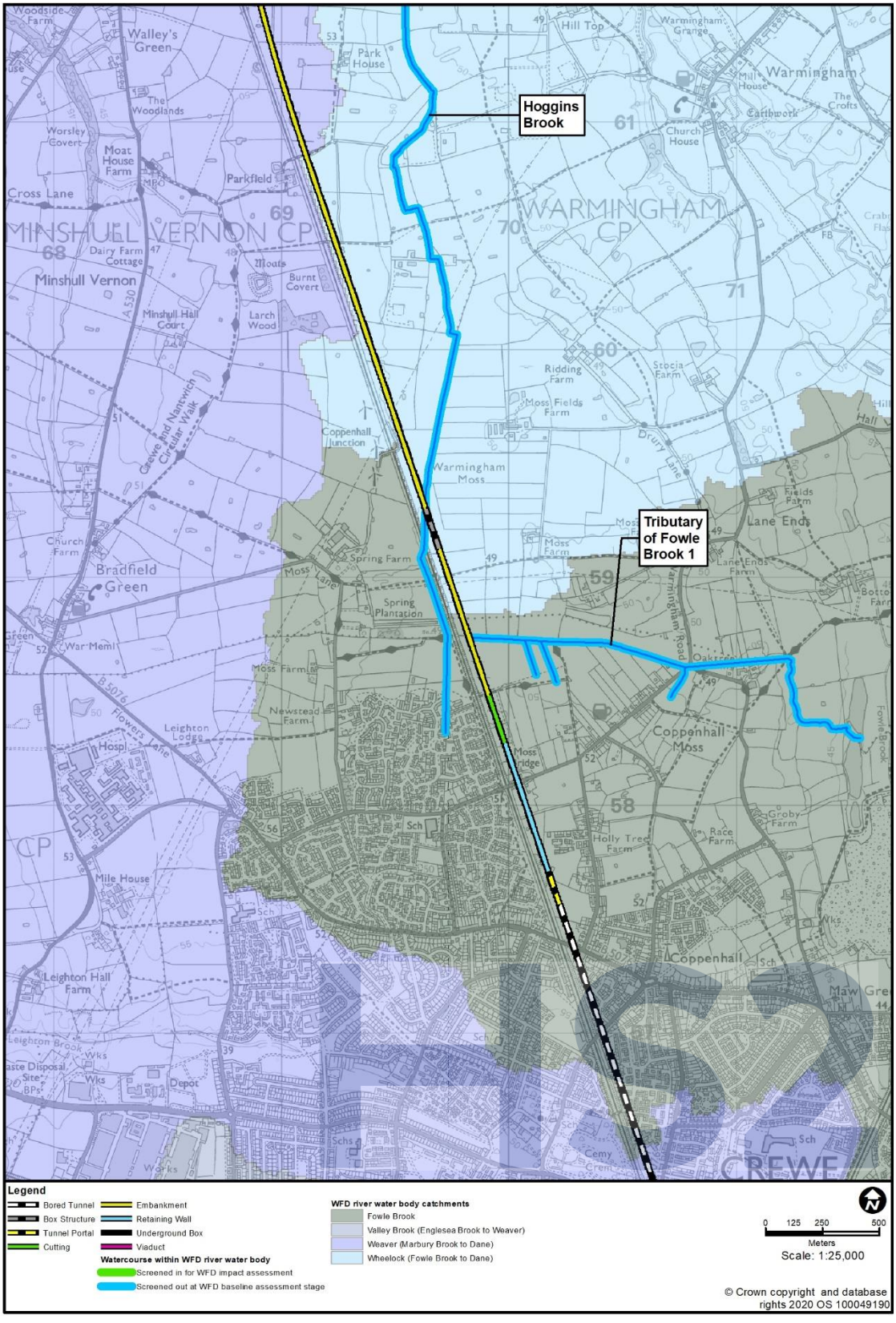


Figure 6: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 3)

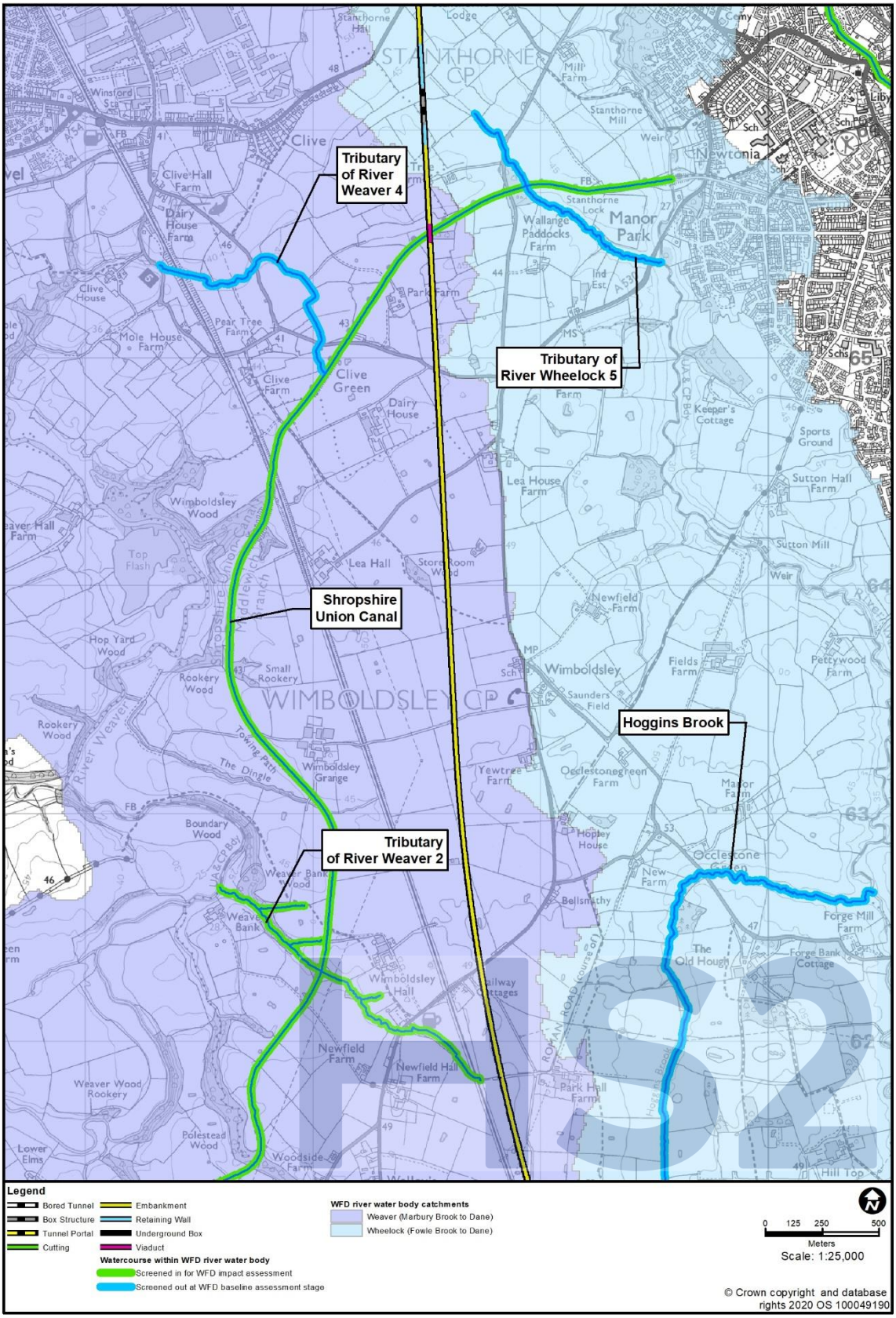


Figure 7: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 4)

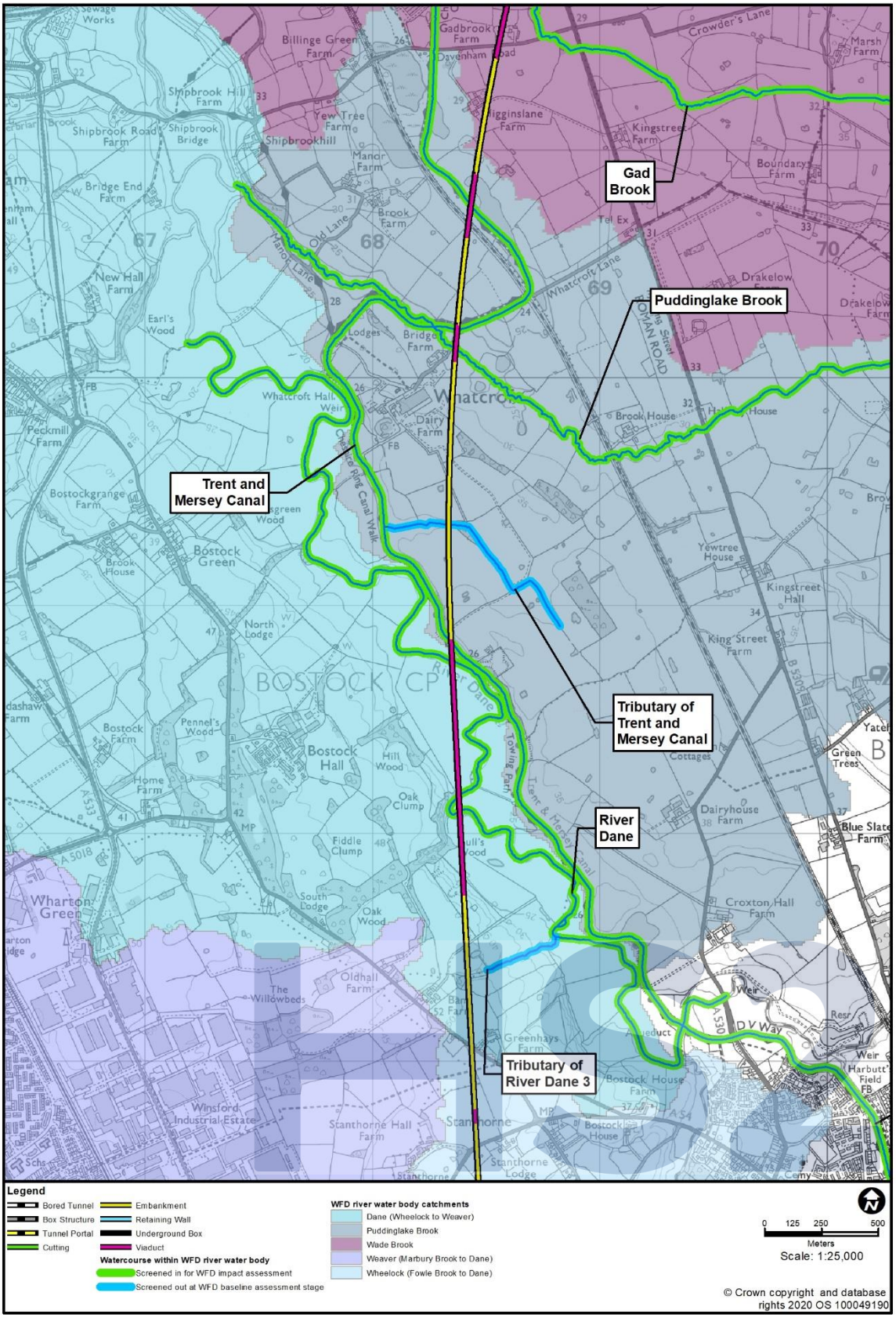


Figure 8: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 5)

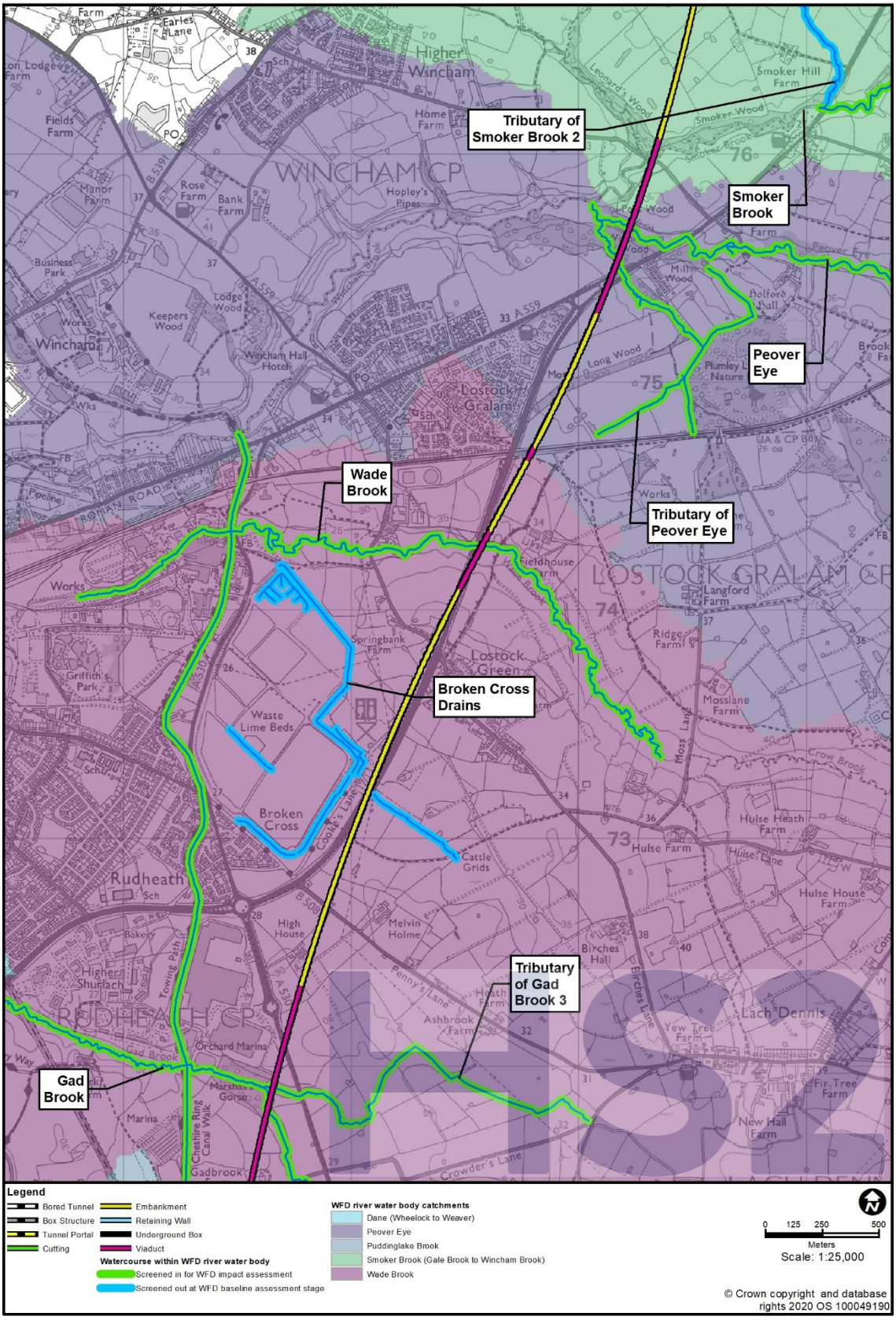


Figure 9: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 6)

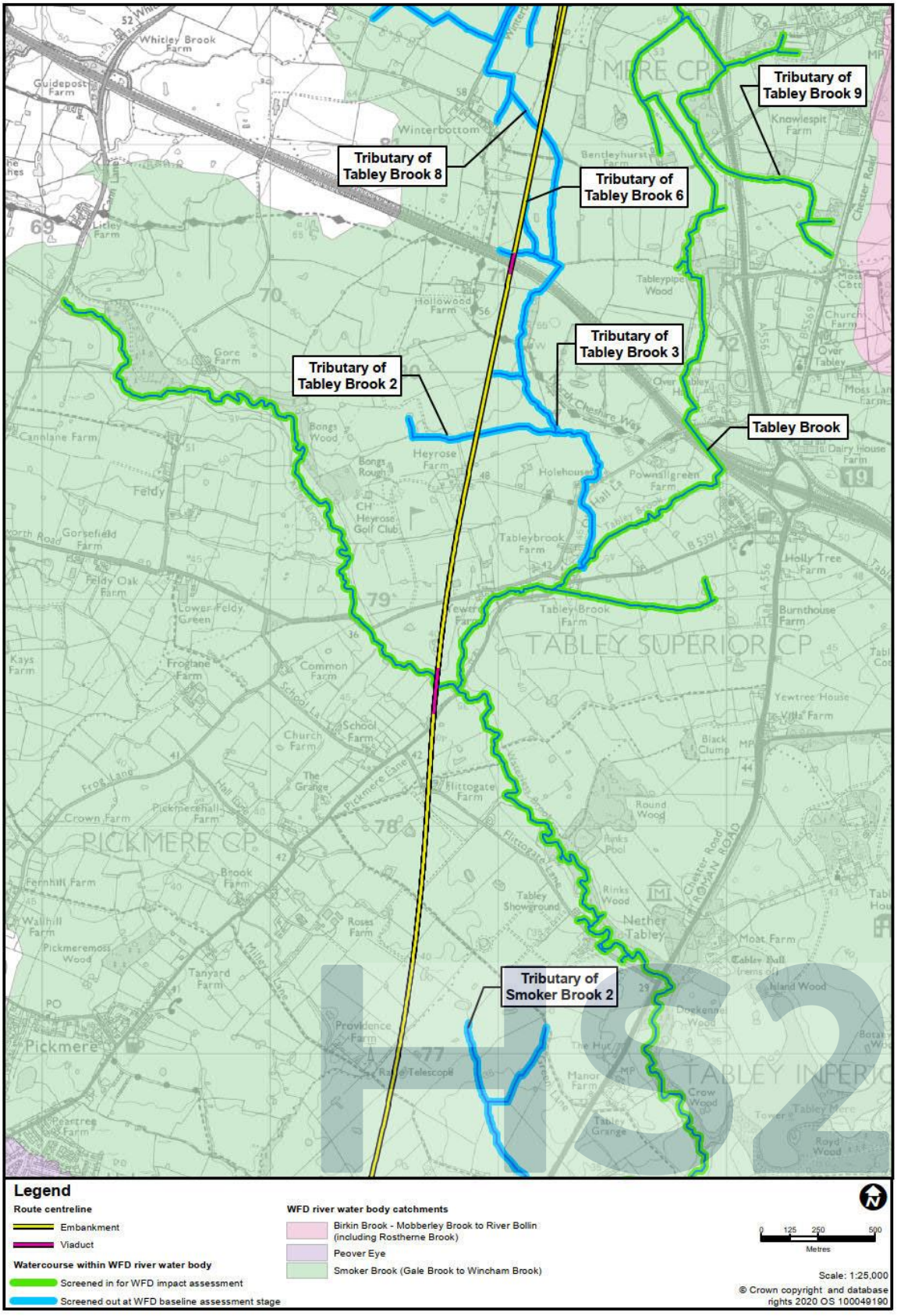


Figure 10: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 7)

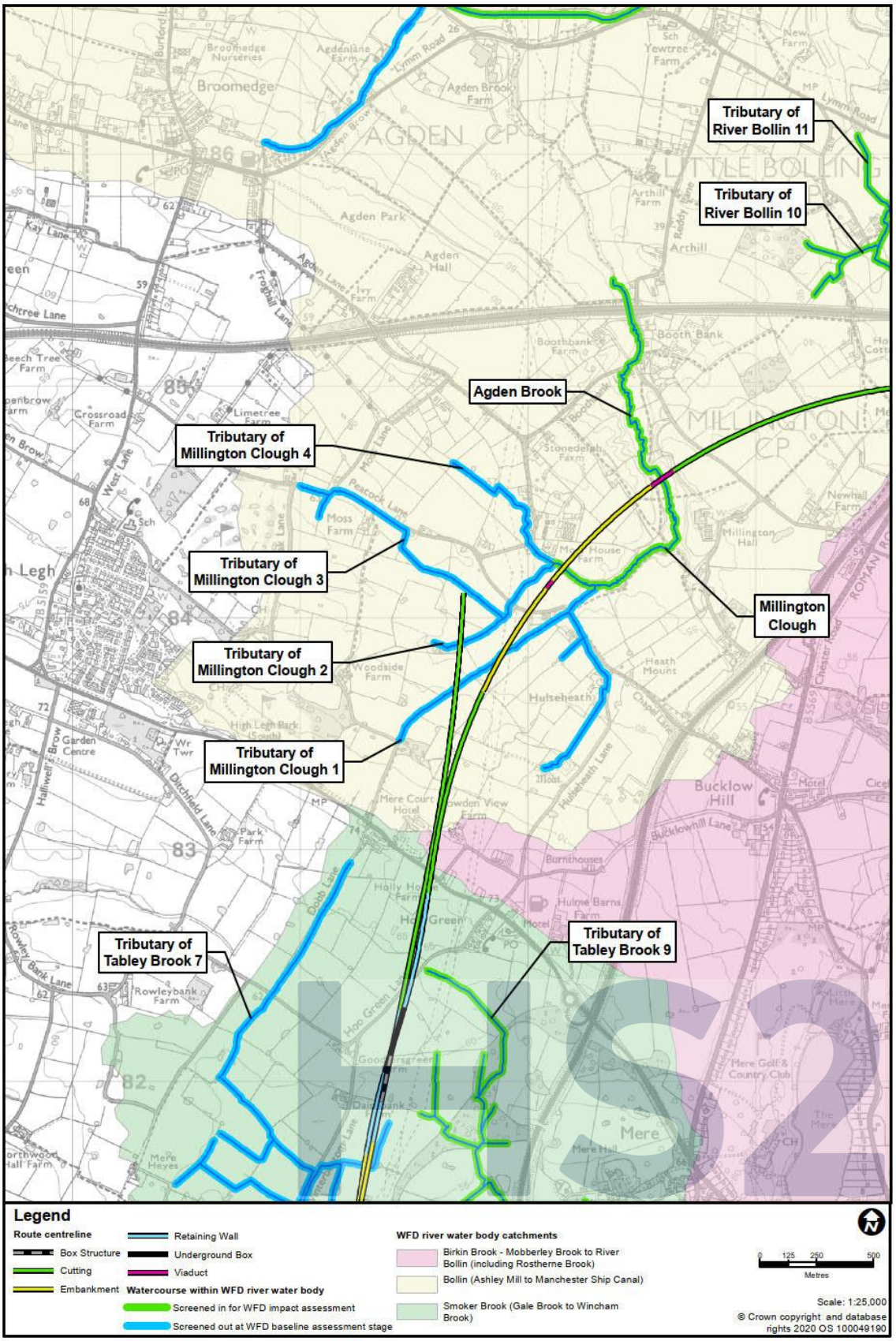


Figure 11: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 8)

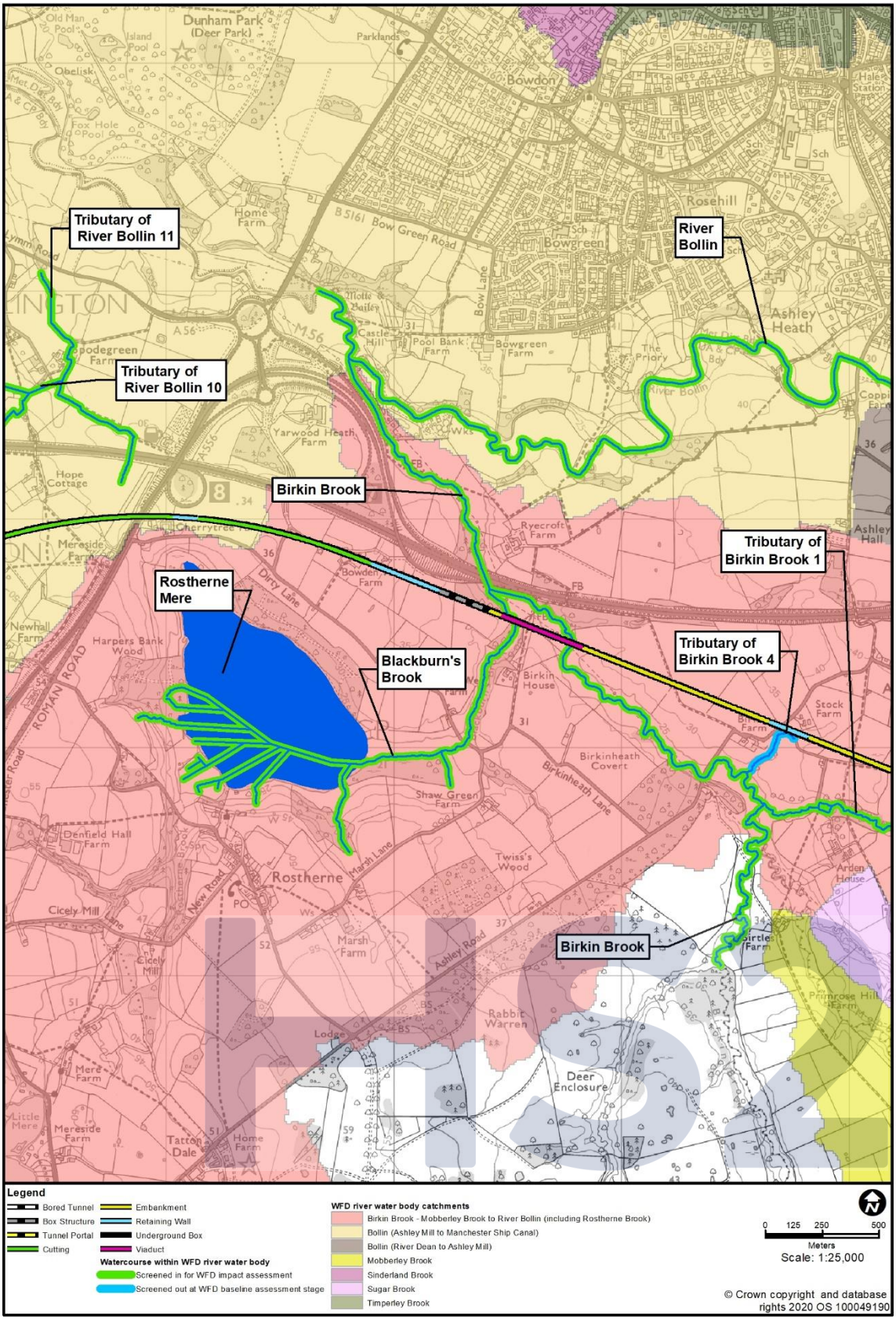


Figure 12: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 9)

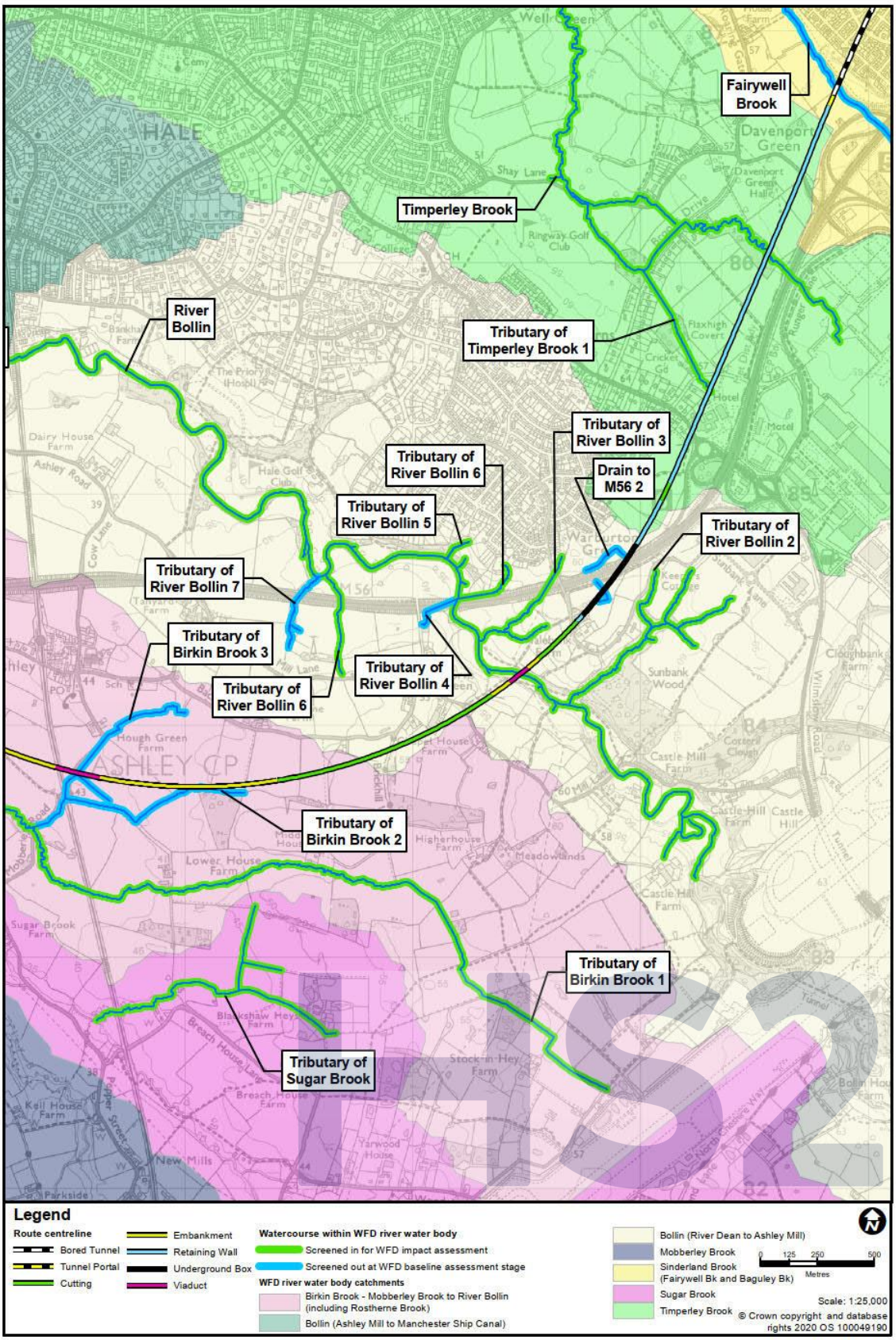


Figure 13: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 10)

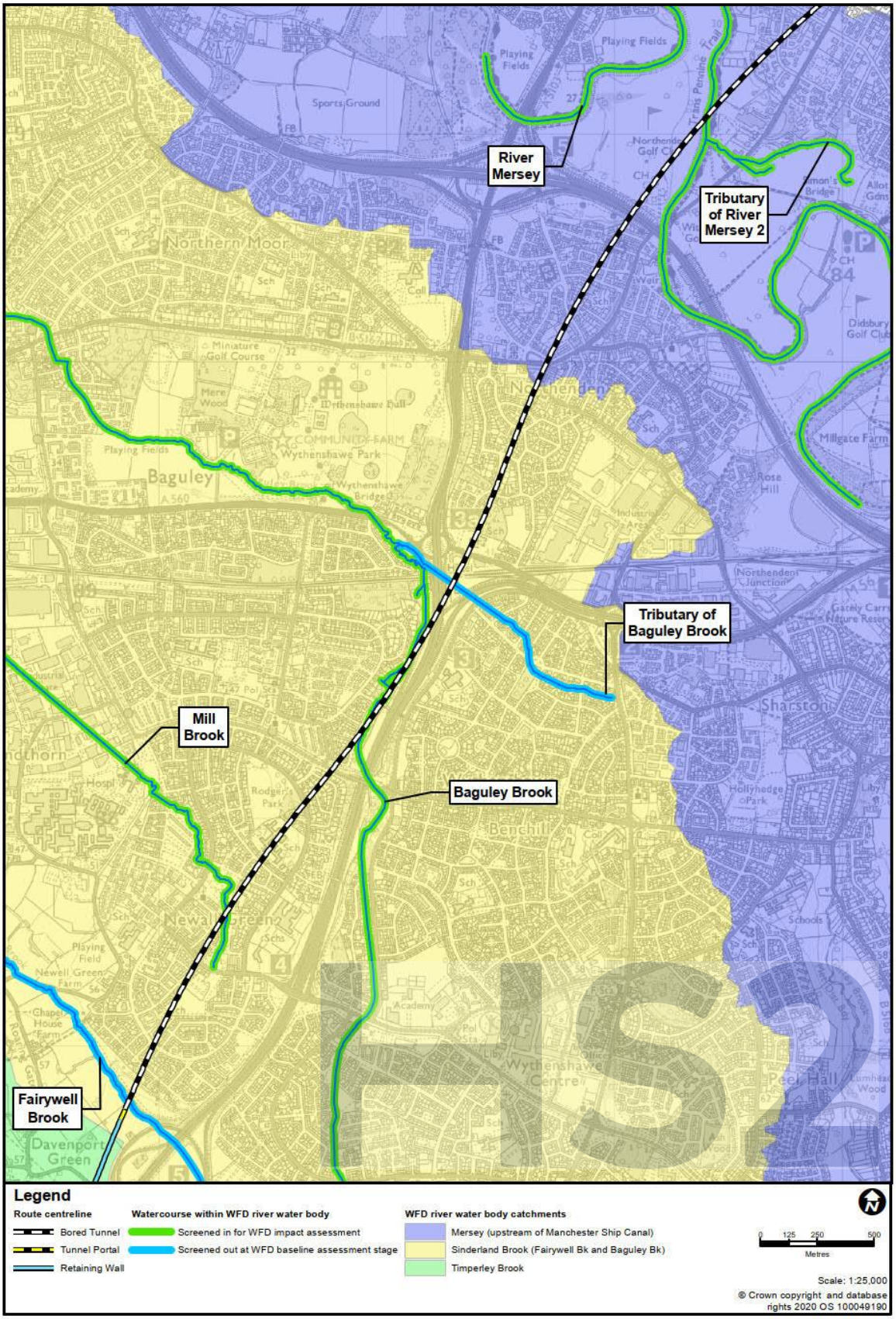


Figure 14: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 11)

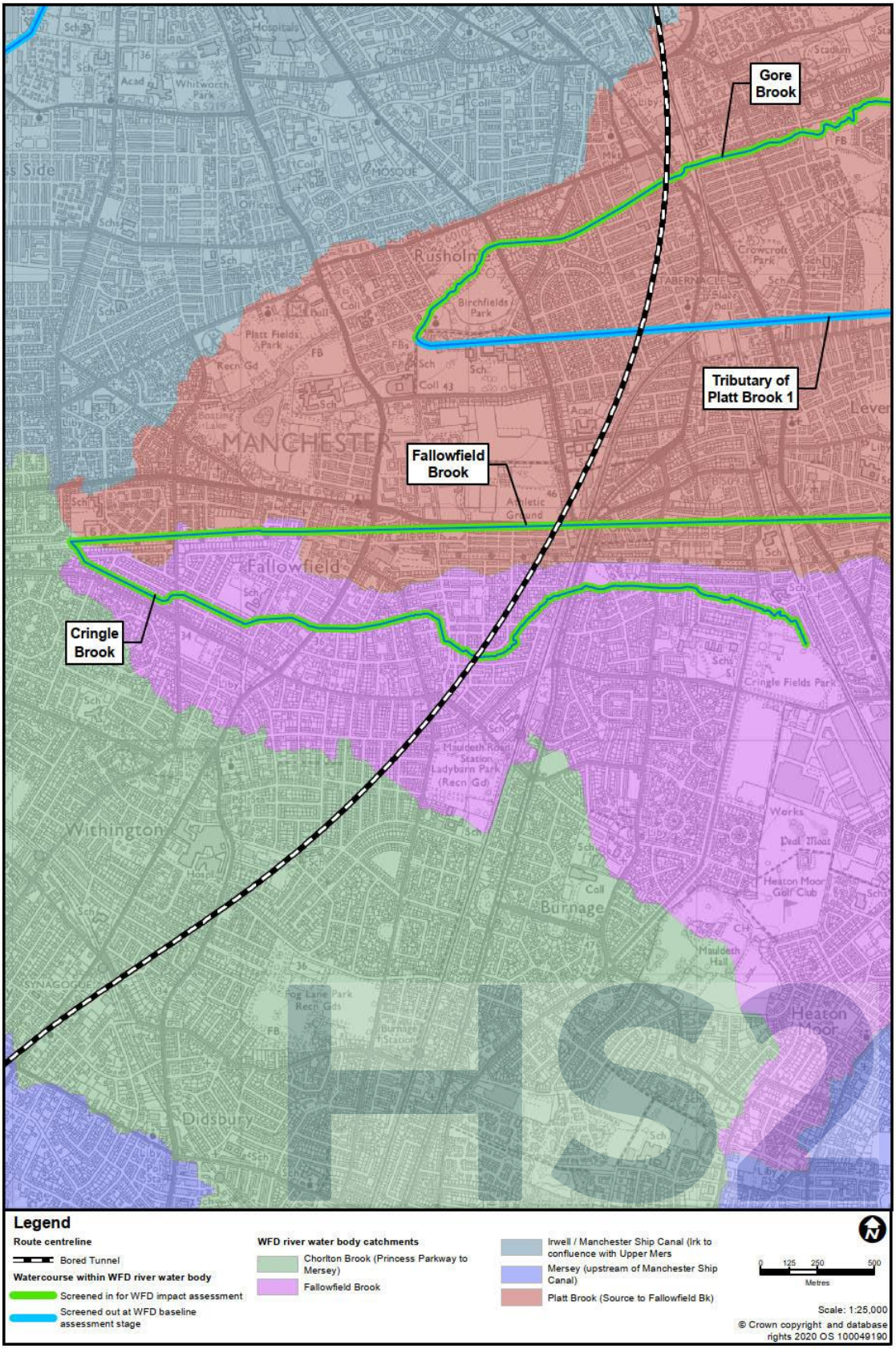
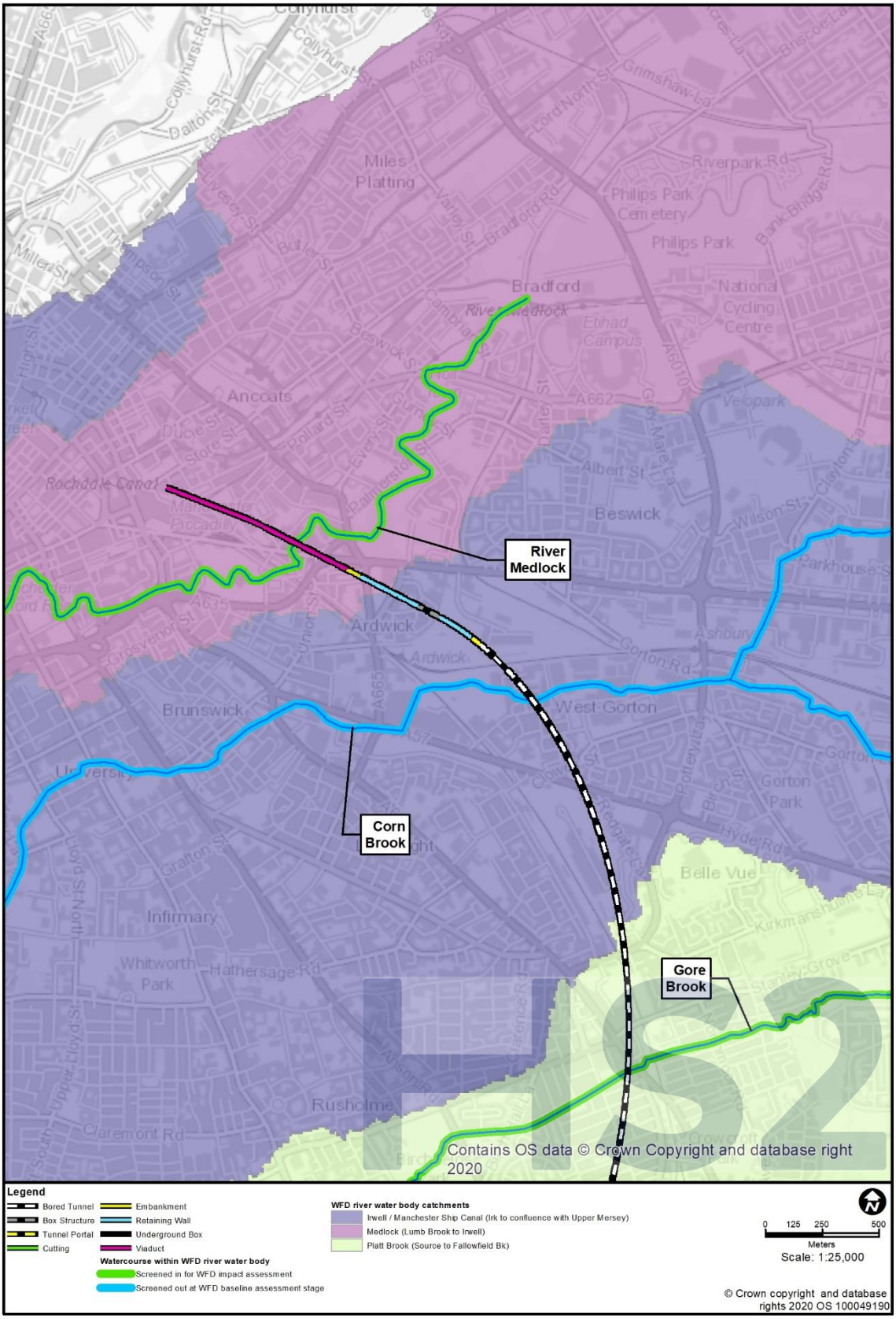


Figure 15: Watercourses potentially affected by AP2 revised scheme within WFD surface water body catchments (Part 12)



Wistaston Brook (GB112068055280)

Tributary of Swill Brook 1

2.2.4 Tributary of Swill Brook 1 flows from the West Coast Main Line (WCML) north of Basford, south of Crewe (at NGR SJ7173352578), along the southern edge of the A500 to its confluence with Swill Brook north of Shavington (at NGR SJ6988952507). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse carrying railway and road drainage. However, as no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.5 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Tributary of Gresty Brook 1

2.2.6 Tributary of Gresty Brook 1 flows from the WCML close to Basford Hall, south of Crewe (at NGR SJ7168752668), along the northern edge of the A500 to Crewe Road (at NGR SJ7044352890). Beyond Crewe Road the watercourse flows north-west to join Gresty Brook south of Crewe. A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse carrying railway and road drainage. However, as no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.7 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Gresty Brook

2.2.8 Gresty Brook begins at the confluence of Basford Brook with a small tributary that rises to the south of Crewe Hall Hotel and Enterprise Park. Gresty Brook flows westwards and joins Wistaston Brook at the A534 Nantwich Road. This reach of Gresty Brook flows from the south-eastern edge of Crewe (at NGR SJ7208653620) and west underneath the existing West Coast Main Line to the downstream extent (at NGR SJ6997353887). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a High value watercourse.

2.2.9 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Basford Brook

2.2.10 Basford Brook begins in Burrow Coppice (at SJ7269251728). Basford Brook flows north-west and joins Gresty Brook adjacent to David Whitby road (at SJ7208753619). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a High value watercourse.

2.2.11 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Valley Brook (Englesea Brook to Weaver) (GB112068055310)

Valley Brook

2.2.12 Valley Brook rises west of Alsager and flows west into and through the centre of Crewe, joining the River Weaver west of Crewe, close to Worleston. This reach of Valley Brook flows from the eastern edge of Crewe (at NGR SJ7236155084), west through Crewe to Queen's Park where it enters a culvert (at NGR SJ6867255508). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. This reach of Valley Brook is a straight, highly modified low gradient channel between culverted sections.

2.2.13 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 28.

2.2.14 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 28: Summary of baseline condition of Valley Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Glide, run Substrate: Sand Riparian vegetation: Scrub and broadleaf vegetation on both banks, some overhanging vegetation, slight channel shading Morphological pressures/modifications: Straight channel between culverts up and downstream. Low gradient and highly modified in centre of Crewe. Very low habitat value. No macrophytes, silty, limited fish habitat Land use: Urban (with park areas)	 Photograph taken from NGR SJ7122255178

Fowle Brook (GB112068055400)

Tributary of Fowle Brook 1

2.2.15 Tributary of Fowle Brook 1 is a drain that flows from a residential area north of Crewe (at NGR SJ6972158317) in a north-easterly direction. The drain flows into a culvert approximately 150m upstream of the confluence with Fowle Brook (at NGR SJ7154258298). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.16 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 29.

2.2.17 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 29: Summary of baseline condition of Tributary of Fowle Brook 1 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small watercourse/field ditch	 Photograph taken from NGR SJ6972058730

Weaver (Marbury Brook to Dane) (GB112068060460)

Tributary of River Weaver 2

2.2.18 Tributary of River Weaver 2 rises approximately 1.5km south of Wimboldsley, close to Park Hall (at NGR SJ6873561830) and flows north-west, under the Shropshire Union Canal, to Weaver Bank where it joins the River Weaver (at NGR SJ6759262677). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Tributary of River Weaver 2 is a small, sinuous, incised channel flowing through grassland.

2.2.19 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 30.

2.2.20 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 30: Summary of baseline condition of Tributary of River Weaver 2 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: Run, glide, with some riffles Substrate: Obscured, banks cohesive earth Riparian vegetation: Scrub and broadleaf vegetation on both banks, some overhanging vegetation, high channel shading Morphological pressures/modifications: Incised channel Land use: Rough pasture grassland	 Photograph taken from NGR SJ6829062080

Tributary of River Weaver 4

2.2.21 Tributary of River Weaver 4 is located south of Winsford, and flows from Clive Green, west of the Shropshire Union canal (at NGR SJ6804764938) to Clive Lane (at NGR SJ6732565410). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The watercourse is a small low gradient field ditch.

2.2.22 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 31.

2.2.23 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 31: Summary of baseline condition of Tributary of River Weaver 4 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Small channel, low gradient field ditch, ponded and high sediment load culverted under Shropshire Union Canal	 Photograph taken from NGR SJ6800065000

Shropshire Union Canal, Market Drayton to Ellesmere Port (GB71210133)

Shropshire Union Canal

2.2.24 The Shropshire Union Canal is a navigable canal starting from Ellesmere Port (SJ4061577250), flowing in a southerly direction towards Wolverhampton (at NGR SJ9018002029). This reach of the canal is close to the village of Church Minshull (at NGR SJ6733461270) to Middlewich (at NGR SJ6957365786). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The canal is impounded, with reinforced banks.

2.2.25 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 32.

2.2.26 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 32: Summary of baseline condition of Shropshire Union Canal within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Impounded by canal locks Substrate: Not visible but expected to be a mixture of silt, sand and clay Riparian vegetation: Grasses on both banks, no low overhanging vegetation, occasional shading from isolate trees Morphological pressures/modifications: Canal - reinforced banks Land use: Improved and rough pasture, arable and scrub	 Photograph taken from NGR SJ6820065100

Wheelock (Fowle Brook to Dane) (GB112068055380)

Hoggins Brook

2.2.27 Hoggins Brook flows in a northerly direction from Warmingham Moss (at NGR SJ6977560072) to its confluence with the River Wheelock close to Occlestone Green (at NGR SJ6265070452). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.28 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 33.

2.2.29 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 33: Summary of baseline condition of Hoggins Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Small watercourse/field ditch	 Photograph taken from NGR SJ6953061740

Tributary of River Wheelock 5

2.2.30 Tributary of River Wheelock 5 is a field drain that flows in a south-easterly direction from close to Yew Tree Farm (at NGR SJ6871066073) to Manor Park on the western edge of Middlewich (at NGR SJ6952865423). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.31 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 34.

2.2.32 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 34: Summary of baseline condition of Tributary of River Wheelock 5 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Small, incised stream flowing through agricultural land	 Photograph taken from NGR SJ6891065810

Dane (Wheelock to Weaver) (GB112068060470)

River Dane

2.2.33 The River Dane rises in the south-west of the Peak District, south of Macclesfield, and flows through Congleton, Holmes Chapel and along the northern edge of Middlewich before joining the River Weaver in Northwich. This reach of the River Dane flows between Middlewich (at NGR SJ6935066991) to Davenham (at NGR SJ6717670159), past Bostock Green and Whatcroft. A baseline desk study and reconnaissance survey of the watercourse have been undertaken. An additional detailed hydromorphology survey was undertaken in November 2022. The receptor value of the watercourse is Very high. The River Dane is a large river within a wide floodplain.

2.2.34 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 35.

2.2.35 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

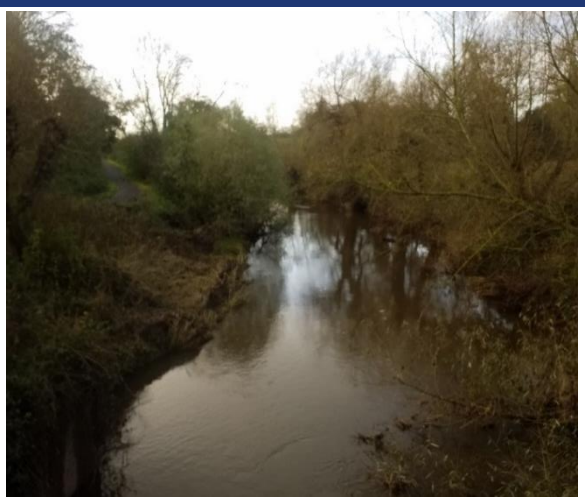
Table 35: Summary of baseline condition of River Dane within the vicinity of the AP2 revised scheme

Baseline description	Example photographs
Upstream of AP2 revised scheme Flow: Glides and runs, with pools Substrate: Clay, coarse and fine gravel, sand and silt Riparian vegetation: Scrub and shrub, little overhanging vegetation and slight channel shading from isolated trees Morphological pressures/modifications: Land use - grazing to bank top and lack of tree-line contributing to erosion processes Land use: Improved pasture and scrub, with occasional pockets of broadleaf woodland	 Photograph taken from NGR SJ6860067900
At location of AP2 revised scheme Flow: Glides and runs, with pools Substrate: Clay, coarse and fine gravel, sand and silt Riparian vegetation: Scrub and shrub, little overhanging vegetation, and slight channel shading Morphological pressures/modifications: Land use - grazing to bank top and lack of tree-line contributing to erosion processes Land use: Broadleaf woodland, improved pasture and scrub	 Photograph taken from NGR SJ6830068200
Downstream of AP2 revised scheme Flow: Glides and runs, with pools Substrate: Clay, coarse and fine gravel, sand and silt Riparian vegetation: Scrub and shrub, little overhanging vegetation and slight channel shading Morphological pressures/modifications: Land use - grazing to bank top and lack of tree-line contributing to erosion processes Land use: Improved and rough pasture and scrub, occasional pockets of woodland	

Baseline description	Example photographs
	 Photographs taken from NGR SJ6850068400

2.2.36 A detailed hydromorphology survey of the River Dane was undertaken in November 2022, due to the active bank erosion observed during the reconnaissance surveys. At the time of the survey the weather was mostly dry and the flow conditions were normal. The river flow varied between glide and run flow characteristics. The river typology can be classed as active meandering as lateral migration was evident on all meander bends. Erosion was identified on the outside of bends with some undercutting causing bank slumping. Localised sand and silt deposits were identified on the inside of some meander bends, otherwise depositional features were infrequent. Riparian tree cover was present along both banks for the majority of the survey area, except at one of the proposed crossing locations where there was little tree cover and more evidence of active bank erosion and slumping. Overall, the channel was largely incised with limited evidence of floodplain connectivity except during very high flows. Large woody material was regularly present, increasing flow diversity. Example photographs from the survey are provided in Table 36.

Table 36: Photographs from the detailed hydromorphology survey

Survey description	Example photographs
Glide and run flow characteristics typical of the survey reach Photograph taken upstream of AP2 revised scheme	

Survey description	Example photographs
	Photograph taken from NGR SJ6936067159
Erosion on outside of a meander bend Photograph taken at location of AP2 revised scheme	 Photograph taken from NGR SJ6835368103
Sand/clay sediment bar on inside of a meander bend Photograph taken at location of AP2 revised scheme	 Photograph taken from NGR SJ6835368103
Limited riparian tree cover and active bank erosion Photograph taken downstream of AP2 revised scheme	 Photograph taken from NGR SJ6847168285

Survey description	Example photographs
Large woody material causing flow diversity Photograph taken downstream of AP2 revised scheme	 Photograph taken from NGR SJ6922367025

Tributary of River Dane 3

2.2.37 Tributary of River Dane 3 flows from behind Bank Farm (at NGR SJ6850567400) in an easterly direction, forming a confluence with the River Dane (at NGR SJ6880667548). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The tributary is a very small stream which flows from a spring through a wooded valley.

2.2.38 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 37.

2.2.39 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 37: Summary of baseline condition of Tributary of River Dane 3 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small undefined channel, stream source from spring near farm	 Photograph taken from NGR SJ6840067300

Trent and Mersey Canal, summit to Preston Brook Tunnel (GB71210247)

Trent and Mersey Canal

2.2.40 The Trent and Mersey Canal is a navigable canal starting close to the village of Great Wilne, south-west of Nottingham. It flows in a south-westerly direction through Burton upon Trent to Lichfield, then changes direction to flow north-west through Stoke-on-Trent and continues to join the Bridgewater Canal in the Preston Brook tunnel north-west of Northwich. This reach of the canal passes through Middlewich (at NGR SJ7063565714), and to the north of Northwich (at NGR SJ6850574774). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.41 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 38.

2.2.42 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 38: Summary of baseline condition of Trent and Mersey Canal within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme – Crossing 1 Flow: Impounded by canal locks Substrate: Not visible but expected to be silt, sand and clay Riparian vegetation: Broadleaf vegetation on right bank, grasses on left bank, some low overhanging vegetation and moderate channel shading Morphological pressures/modifications: Canal - reinforced banks Land use: Improved pasture, broadleaf woodland, urban/suburban, amenity grassland, scrub	 Photograph taken from NGR SJ6840070800

Baseline description	Example photograph
At location of AP2 revised scheme – Crossing 2 Flow: Impounded by canal locks Substrate: Not visible but expected to be silt, sand and clay Riparian vegetation: Broadleaf vegetation on right bank, grasses on left bank, no low overhanging vegetation and slight channel shading Morphological pressures/modifications: Canal - reinforced banks Land use: Improved pasture, broadleaf woodland, arable and scrub	 Photograph taken from NGR SJ6830070300
At location of AP2 revised scheme – Crossing 3 Flow: Impounded by canal locks. Large backwaters formed from subsidence Substrate: Not visible but expected to be silt, sand and clay Riparian vegetation: Grasses on both banks, reedbed margin on right bank and slight channel shading Morphological pressures/modifications: Canal - reinforced banks Land use: Improved pasture, arable, woodland, scrub and wetland	 Photograph taken from NGR SJ6850068700

Puddinglake Brook (GB112068060220)

Puddinglake Brook

2.2.43 Puddinglake Brook flows from Byley, close to Holly Bank (at NGR SJ6994970019). The watercourse flows in a westerly direction, with its confluence with the River Dane east of Davenham (at NGR SJ6740370848). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.44 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 39.

2.2.45 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 39: Summary of baseline condition of Puddinglake Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Run, glide, riffle and pool Substrate: Coarse gravel, cobbles, fine gravel, sand, silt and clay Riparian vegetation: Broadleaf trees on both banks, some overhanging vegetation and high channel shading Morphological pressures/modifications: Culvert under canal (possible siphon). Planform constrained by canal embankment. Disconnected from floodplain due to steep high banks - possibly historically modified as well as local topography. Localised bank undercutting. Small culverts for farm tracks Land use: Improved pasture and broadleaf woodland, some arable and scrub	 Photograph taken from NGR SJ6842870075

Tributary of Trent and Mersey Canal

2.2.46 Tributary of Trent and Mersey Canal flows from approximately 700m south of Whatcroft (at NGR SJ6882468911), in a north-westerly direction to the Trent and Mersey Canal (at NGR SJ6805269349). A baseline desk study has been undertaken. The watercourse was observed from the opposite side of the canal. Although no reconnaissance survey has been carried out desk study and the field evidence indicate that this is a small Low value watercourse, and it is labelled as a Drain on Ordnance Survey mapping.

2.2.47 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 40.

2.2.48 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 40: Summary of baseline condition of Tributary of Trent and Mersey Canal within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small watercourse/field ditch (note: watercourse enters Trent and Mersey Canal on opposite bank from photo location)	 Photograph taken from NGR SJ6805269349

Wade Brook (GB112068060370)

Gad Brook

2.2.49 Gad Brook flows approximately 2km east of Rudheath (at NGR SJ6976571265) and flows west around the southern edge of the village (at NGR SJ6723572515). A baseline desk study and reconnaissance survey of the watercourse (upstream of the proposed crossing, due to accessibility) have been undertaken.

2.2.50 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 41.

2.2.51 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 41: Summary of baseline condition of Gad Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Glide, run Substrate: Silt, fine gravel and clay Riparian vegetation: Scrub vegetation on both banks, some overhanging vegetation and moderate channel shading Morphological pressures/modifications: Culverted and realigned under existing road crossings Land use: Improved pasture, urban/suburban, woodland	 Photograph taken from NGR SJ6870071500

Tributary of Gad Brook 3

2.2.52 Tributary of Gad Brook 3 flows from Crowder's Lane (at NGR SJ7004271760) to its confluence with Gad Brook at Marshall's Gorse (at NGR SJ6861471909). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse, however, as no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.53 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Broken Cross Drains

2.2.54 Broken Cross Drains flow between land south of Lostock Green (at NGR SJ6946172909) and an industrial area north of Rudheath (at NGR SJ6867774198). A baseline desk study of the watercourse has been undertaken. The direction of flow is not clear but anecdotal evidence from discussions with the Environment Agency suggest it is from the south-east to the northwest. Although no reconnaissance survey of the watercourse has been undertaken, desk study evidence indicates that this is a small Low value watercourse, which is not connected to other watercourses and named as a drain on Ordnance Survey (OS) mapping.

2.2.55 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Wade Brook

2.2.56 Wade Brook flows close to Lostock Green east of Northwich, around the north-east of Northwich into Witton Brook on the edge of Carey Park. This reach of Wade Brook is north-east of Lostock Green (at NGR SJ7035773356), under the A556 Shurlach Road to the chemical works (at NGR SJ6780874058). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.57 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 42.

2.2.58 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 42: Summary of baseline condition of Wade Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme: Flow: Glide, run, riffles Substrate: Partly artificial under bridge, also cobbles, coarse and fine gravel, sand and silt Riparian vegetation: Bare on right bank, broadleaf trees on left bank, some overhanging vegetation and slight-moderate channel shading Morphological pressures/modifications: Existing substantial bridge structure with associated hard bank protection and straightening Land use: Scrub, improved pasture, urban/suburban, woodland	 Photograph taken from NGR SJ6954874294

Peover Eye (Wincham Brook) (GB112068060390)

Tributary of Peover Eye

2.2.59 Tributary of Peover Eye flows from Plumley Lime Beds (at NGR SJ7008574773) to its confluence with Peover Eye at Winnington Wood (at NGR SJ7009675711). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Tributary of Peover Eye is a small sinuous, incised channel flowing through woodland.

2.2.60 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 43.

2.2.61 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been scoped in for WFD preliminary assessment.

Table 43: Summary of baseline condition of Tributary of Peover Eye within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Run, glide, riffles, pools Substrate: Silt, with some coarse gravel, fine gravel, sand and clay. Some exposed bedrock in places Riparian vegetation: Broadleaf trees on both banks, some overhanging vegetation, moderate channel shading Morphological pressures/modifications: None in survey location, flows under A559 upstream of survey location Land use: Broadleaf woodland	 Photograph taken from NGR SJ7018075530

Peover Eye

2.2.62 Peover Eye flows from a lake north near Chelford (at NGR SJ8129673995). The watercourse flows in a westerly direction past Over Peover and through Lower Peover, underneath the M6 to Plumley, forming a confluence with Smoker Brook at Peas Wood (at NGR SJ7006075781). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.63 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 44.

2.2.64 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 44: Summary of baseline condition of Peover Eye within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Glide, run, pools Substrate: Sand, coarse and fine gravel, silt and clay Riparian vegetation: Broadleaf trees on both banks, some overhanging vegetation and high channel shading Morphological pressures/modifications: None in survey location, straightened further upstream alongside A559 Land use: Broadleaf woodland and some arable	 Photograph taken from NGR SJ7022075680

Smoker Brook (Gale Brook to Wincham Brook) (GB112068060410)

Smoker Brook

2.2.65 Smoker Brook flows from close to Smoker Hill Farm, between the villages of Plumley and Higher Wincham (at NGR SJ7105776204), alongside Smoker Wood to its confluence with Peover Eye in Peas Wood (at NGR SJ7006075781). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Smoker Brook is a natural watercourse in a confined wooded valley.

2.2.66 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 45.

2.2.67 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 45: Summary of baseline condition of Smoker Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: Run, glide, riffles, pools Substrate: Coarse and fine gravel, sand, silt, clay and cobbles Riparian vegetation: Broadleaf vegetation on both banks, grasses and shrubs, some low overhanging vegetation and moderate channel shading Morphological pressures/modifications: Existing road bridge at Leonard's Bridge/Linnards Lane - does not appear to affect morphology Land use: Broadleaf woodland, improved pasture	 Photograph taken from NGR SJ7029375965

Tributary of Smoker Brook 2

2.2.68 Tributary of Smoker Brook 2 flows from north of Smoker Hill Farm (at NGR SJ7095976810) to its confluence with Smoker Brook at Allens Bridge at the east end of Smoker Wood (at NGR SJ7107976199). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.69 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 46.

2.2.70 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 46: Summary of baseline condition of Tributary of Smoker Brook 2 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Very small incised watercourse/field ditch flowing through agricultural land with riparian trees/shrubs	 Photograph taken from NGR SJ7114076380

Waterless Brook

2.2.71 Waterless Brook is formed at the confluence of Arley Brook and Tabley Brook, at Pickmere Lane (at NGR SJ7081178608), and then becomes named Smoker Brook in Smoker Wood, between Plumley and Higher Wincham (at NGR SJ7105776204). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.72 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 47.

2.2.73 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 47: Summary of baseline condition of Waterless Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Run, glide, riffles, pools Substrate: Coarse and fine gravel and cobbles Riparian vegetation: Grasses on right bank, broadleaf trees on left bank, some low overhanging vegetation and high channel shading Morphological pressures/modifications: Existing bridge crossing at Budworth Road/Waterless Bridge - no clear impact on morphology Land use: Improved pasture, scrub, woodland and arable	 Photograph taken from NGR SJ7069778672

Tabley Brook

2.2.74 Tabley Brook flows from Tableypipe Wood (at NGR SJ7183780442) southwards, through Over Tabley and beneath the M6. The brook subsequently flows south-westerly past Tabley Brook Farm and Yewtree Farm, to its confluence with Waterless Brook/Arley Brook (at NGR SJ7081978607). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken, therefore it has been assessed as Moderate value on a precautionary basis.

2.2.75 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Tributary of Tabley Brook 2

2.2.76 Tributary of Tabley Brook 2 flows from land close to Neild's Rough north of Heyrose Farm (at NGR SJ7060879793) to its confluence with Tabley Brook close to Tableybrook Farm (at NGR SJ7137379138). A baseline desk study has been undertaken, and further information provided by the Environment Agency.

2.2.77 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 48.

2.2.78 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 48: Summary of baseline condition of Tributary of Tabley Brook 2 within the vicinity of the AP2 revised scheme

At location of AP2 revised scheme Small field ditch with steep banks Artificial/over-deep channel Low flow velocity and energy Intermittently dry	

Tributary of Tabley Brook 3

2.2.79 Tributary of Tabley Brook 3 flows from north of Heyrose Farm (at NGR SJ7098279990) to its confluence with Tributary of Tabley Brook 2 (at NGR SJ7110979980). A baseline desk study of the watercourse has been undertaken and a reconnaissance survey of the watercourse has been undertaken.

2.2.80 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph are provided in Table 49.

2.2.81 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 49: Summary of baseline condition of Tributary of Tabley Brook 3 within the vicinity of the AP2 revised scheme

Baseline Description	Example Photograph
At location of AP2 revised scheme Small field ditch through agricultural land with steep banks Bare bank toes, silt margins and woody debris present intermittently Sand and silt dominate the channel substrate Low flow velocity and energy	 Photograph taken from NGR SJ7112379945

Tributary of Tabley Brook 4

2.2.82 Tributary of Tabley Brook 4 flows from the northern edge of the M6 close to Hollowood Farm (at NGR SJ7100880534) to its confluence with Tributary of Tabley Brook 3 (at NGR SJ7110979980). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.83 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 50.

2.2.84 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 50: Summary of baseline condition of Tributary of Tabley Brook 4 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small field ditch through agricultural land, overgrown with trees and scrub	 Photograph taken from NGR SJ7108080520

Tributary of Tabley Brook 6

2.2.85 Tributary of Tabley Brook 6 flows from north of the M6 (at NGR SJ7112780772) to its confluence with Tributary of Tabley Brook 4 (at NGR SJ7115780520). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.86 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 51.

2.2.87 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 51: Summary of baseline condition of Tributary of Tabley Brook 6 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small field ditch through agricultural land, overgrown with trees and scrub	 Photograph taken from NGR SJ7111580665

Tributary of Tabley Brook 7

2.2.88 Tributary of Tabley Brook 7 flows from close to Mere Court Hotel, approximately 1km south-east of High Legh (at NGR SJ7121882949) and flows south to join Tributary of Tabley Brook 8 at Winterbottom Lane (at NGR SJ7098881459). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.89 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 52.

2.2.90 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 52: Summary of baseline condition of Tributary of Tabley Brook 7 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Straight, field drainage ditch Over-deep Several short culverts beneath field access tracks Bare, exposed earth banks and intermittent tree cover Some fine gravels on bed but predominantly silts Low flow velocities and shallow Bare earth at base of banks suggests recent channel excavation Shallow field ditch shaded by tall ruderal vegetation. Low habitat potential	 Photograph taken from NGR SJ7108582707

Tributary of Tabley Brook 8

2.2.91 Tributary of Tabley Brook 8 flows from close to Daisybank Farm (at NGR SJ7138981817) to its confluence with Tributary of Tabley Brook 4 just north of the M6 (at NGR SJ7107381608). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.92 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 53.

2.2.93 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 53: Summary of baseline condition of Tributary of Tabley Brook 8 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small silty field ditch, with partial tree-lining	 Photograph taken from NGR SJ7126380939

Tributary of Tabley Brook 9

2.2.94 Tributary of Tabley Brook 9 rises just south of Hoo Green (at NGR SJ7155682477), flowing in a southerly direction to Tabley Brook at Tableypipe Wood (at NGR SJ7183780441). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.95 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 54.

2.2.96 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 54: Summary of baseline condition of Tributary of Tabley Brook 9 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme: upstream section through woodland Typically, field drainage ditch with some sinuosity in woodland Watercourse in woodland is heavily shaded, with substantial leaf litter and silty substrate Roots and undercut banks Very turbid and bed choked with fine sediment – likely to be dry in summer	 Photograph taken from NGR SJ7179181768
Downstream of AP2 revised scheme: downstream surveyed section through farmland Becomes more of a straight, field ditch downstream Some sections with very scarce riparian vegetation Several culverts and small pond area Some submerged and emergent plant species and limited flow variation	 Photography taken from NGR SJ7176581109

Bollin (Ashley Mill to Manchester Ship Canal) (GB112069061382)

Tributary of Millington Clough 1

2.2.97 Tributary of Millington Clough 1 flows from close to Hulseheath Lane (at NGR SJ7143483472) to its confluence with Millington Clough close to Moss House Farm (at NGR SJ7229684139). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The watercourse is a small agricultural field ditch.

2.2.98 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 55.

2.2.99 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 55: Summary of baseline condition of Tributary of Millington Clough 1 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Steep-sided field ditch, limited flow	 Photograph taken from NGR SJ7190083800

Tributary of Millington Clough 2

2.2.100 Tributary of Millington Clough 2 flows from close to Woodside Farm (at NGR SJ7158983894) to its confluence with Millington Clough close to Moss House Farm (at NGR SJ7211584234). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The watercourse is a small agricultural field ditch.

2.2.101 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 56.

2.2.102 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 56: Summary of baseline condition of Tributary of Millington Clough 2 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Agricultural field ditch. Banks poached in places, heavily grazed adjacent fields, potential high sediment input. Marginal vegetation present	 Photograph taken from NGR SJ7170083900

Tributary of Millington Clough 3

2.2.103 Tributary of Millington Clough 3 flows from close to Broad Oak Farm (at NGR SJ7099784568) to its confluence with Tributary of Millington Clough 2 close to Broom Manor (at NGR SJ7189283998). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The watercourse is a small agricultural field ditch.

2.2.104 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 57.

2.2.105 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 57: Summary of baseline condition of Tributary of Millington Clough 3 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Field ditch following boundary hedgerow heavily overgrown with terrestrial vegetation	 Photograph taken from NGR SJ7170084200

Millington Clough

2.2.106 Millington Clough flows from Moss House Farm (at NGR SJ7211584234) east to the confluence with Agden Brook close to Millington Hall (at NGR SJ7263084306). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Millington Clough is a small stream in a confined valley with woodland.

2.2.107 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 58.

2.2.108 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 58: Summary of baseline condition of Millington Clough within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Riffles, glide, run Substrate: Coarse and fine gravel, and cobbles Riparian vegetation: Broadleaf trees on both banks, some overhanging vegetation and moderate channel shading Morphological pressures/modifications: No clear pressures within area surveyed Land use: Improved and rough pasture, broadleaf woodland	 Photograph taken from NGR SJ7230084200

Tributary of Millington Clough 4

2.2.109 Tributary of Millington Clough 4 flows from land south of Middlemoss Farm (at NGR SJ7167284667) to its confluence with Millington Clough close to Moss House Farm (at NGR SJ7211584234). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The watercourse is a small agricultural field ditch.

2.2.110 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 59.

2.2.111 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 59: Summary of baseline condition of Tributary of Millington Clough 4 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Field ditch with existing road culverts	 Photograph taken from NGR SJ7200084400

Agden Brook

2.2.112 Agden Brook flows in a northerly direction from close to Millington Hall (at NGR SJ7263084306) under the M56 close to Booth Bank, and under the Bridgwater Canal to the confluence with the River Bollin to the west of Little Bollington (at NGR SJ7173787920). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.113 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 60.

2.2.114 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 60: Summary of baseline condition of Agden Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: Glide, run, riffles, pools Substrate: Coarse and fine gravel, silt and clay Riparian vegetation: Broadleaf trees on right bank and herbaceous on left bank, some overhanging vegetation and high channel shading Morphological pressures/modifications: Substantial pipe culvert, and road bridge at end of reach Land use: Mixed woodland, scrub and improved pasture	 Photograph taken from NGR SJ7190086300
At location of AP2 revised scheme Flow: Glide, run, riffles Substrate: Silt, sand, clay and fine gravel Riparian vegetation: Herbaceous on both banks, some overhanging vegetation and slight channel shading Morphological pressures/modifications: Road bridges and culverts at downstream end, some straightened sections upstream Land use: Improved and rough pasture, with scrub and woodland and urban/suburban	 Photograph taken from NGR SJ7245384840

Tributary of River Bollin 10

2.2.115 Tributary of River Bollin 10 flows from Grey's Gorse and Coe Lane at NGR SJ7337885549, meeting Tributary of River Bollin 11 near Spodegreen Farm (at NGR SJ7354085599). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse. However, as no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.116 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Tributary of River Bollin 11

2.2.117 Tributary of River Bollin 11 flows from south of the M56 at NGR SJ7378485170 in a northerly direction joining the River Bollin at Little Bollington Mill (at NGR SJ7305687015). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse. However, as no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.118 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

River Bollin (Ashley Mill to Manchester Ship Canal)

2.2.119 The River Bollin rises south-east of Macclesfield, flowing through Macclesfield, Wilmslow, underneath Manchester Airport, south of Hale and joins the Manchester Ship Canal north of Lymm. This reach of the River Bollin flows south of Dunham Woodhouses (at NGR SJ7232087656) to its confluence at the Manchester Ship Canal (at NGR SJ6960988559). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.120 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 61.

2.2.121 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 61: Summary of baseline condition of River Bollin within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Glide, run Substrate: Sand, coarse and fine gravel, silt and clay Riparian vegetation: Herbaceous on both banks, little overhanging vegetation and slight channel shading Morphological pressures/modifications: Embankments and over-deepening mean watercourse is not active and is relatively uniform despite meandering planform Land use: Arable with some scrub	 Photograph taken from NGR SJ7126888131

Birkin Brook - Mobberley Brook to River Bollin (including Rostherne Brook) (GB112069061370)

Blackburn's Brook

2.2.122 Blackburn's Brook flows from Rostherne Mere (at NGR SJ7481283929) in a north-easterly direction, forming a confluence with Birkin Brook at the M56 (at NGR SJ7542084696). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.123 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 62.

2.2.124 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 62: Summary of baseline condition of Blackburn's Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Glide, run Substrate: Sand, fine gravel and silt Riparian vegetation: Herbaceous on both banks, some overhanging vegetation and moderate channel shading Morphological pressures/modifications: Culvert under road at Rostherne Lane Land use: Rough and improved pasture, patches of woodland and wetland	 Photograph taken from NGR SJ7531784030

Birkin Brook

2.2.125 Birkin Brook flows northwards from Knutsford to join the River Bollin. This reach of Birkin Brook flows from the south-west of Ashley (at NGR SJ7643583044), under the M56 to its confluence at the River Bollin close to the A56 Dunham Road (at NGR SJ7467286002). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.126 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 63.

2.2.127 Based on the evidence from the baseline assessment the watercourse has been defined as High value and has been screened in for WFD preliminary assessment.

Table 63: Summary of baseline condition of Birkin Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Glide, run, pools, riffles Substrate: Coarse and fine gravel, sand, silt and clay Riparian vegetation: Broadleaf vegetation on both banks, some overhanging vegetation and high channel shading Morphological pressures/modifications: Bridge crossings under roads and the channel has been straightened adjacent to the M56 Land use: Improved and rough pasture, broadleaf woodland and scrub	 Photograph taken from NGR SJ7635083871

Tributary of Birkin Brook 4

2.2.128 Tributary of Birkin Brook 4 flows in a south-westerly direction from close to Stock Farm (at NGR SJ7676084040) to its confluence with Birkin Brook (at NGR SJ7654683890). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.129 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 64.

2.2.130 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 64: Summary of baseline condition of Tributary of Birkin Brook 4 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Field ditch	 Photograph taken from NGR SJ7674484045

Tributary of Birkin Brook 3

2.2.131 Tributary of Birkin Brook 3 flows in a south-westerly direction close to the village of Ashley (at NGR SJ7800084058) to its confluence with Tributary of Birkin Brook 1 (at NGR SJ7752383786). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.132 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 65.

2.2.133 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 65: Summary of baseline condition of Tributary of Birkin Brook 3 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Very small channel, field drain/ditch	 Photograph taken from NGR SJ7735083550

Tributary of Birkin Brook 2

2.2.134 Tributary of Birkin Brook 2 flows from close to the village of Ashley (at NGR SJ7826383712), to its confluence with Tributary of Birkin Brook 3 (at NGR SJ7747283685). A baseline desk study of the watercourse has been undertaken. A baseline desk study of the watercourse has been undertaken. Although no reconnaissance survey of the watercourse has been undertaken, desk study evidence and reconnaissance surveys of nearby watercourses indicate that this is a small Low value watercourse.

2.2.135 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Tributary of Birkin Brook 1 (also known as Middle House Brook)

2.2.136 Tributary of Birkin Brook 1 (also known as Middle House Brook) flows in a north-westerly direction from the southern edge of Manchester Airport runway (at NGR SJ7985282427) to its confluence with Birkin Brook (at NGR SJ7686483736). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.137 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 66.

2.2.138 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 66: Summary of baseline condition of Tributary of Birkin Brook 1 (Middle House Brook) within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Glide, run, pools, riffles, ponds Substrate: Fine gravel, sand, silt and clay Riparian vegetation: Tree-lined, some overhanging vegetation and moderate to high channel shading Morphological pressures/modifications: Various existing bridges, short culverts under roads and railway, and sluices at Arden House	 Photograph taken from NGR SJ7713083678
Downstream of AP2 revised scheme Flow: Glide, run, pools, riffles, ponded areas – low flow during survey Substrate: Coarse and fine gravel, sand, silt and clay Riparian vegetation: Grass on both banks, clumps of trees and moderate channel shading Morphological pressures/modifications: More natural than upstream	 Photograph taken from NGR SJ7691683728

Sugar Brook (GB112069061350)

Tributary of Sugar Brook 1

2.2.139 Tributary of Sugar Brook 1 is located to the west of Manchester Airport and flows in a westerly direction from Blackshaw Heys Farm (at NGR SJ7866782671) to the confluence with Sugar Brook (at NGR SJ7760882726). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. As no

reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.140 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Bollin (River Dean to Ashley Mill) (GB112069061381)

River Bollin (River Dean to Ashley Mill)

2.2.141 The River Bollin rises south-east of Macclesfield, flowing through Macclesfield, Wilmslow, underneath Manchester Airport, south of Hale and joins the Manchester Ship Canal north of Lymm. This reach of the River Bollin flows from Manchester Airport (at NGR SJ8024283338) to close to junction 7 of the M56, where it is joined by Birkin Brook (at NGR SJ7480485706). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.142 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 67.

2.2.143 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 67: Summary of baseline condition of River Bollin within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Run, glide, pools, riffles Substrate: Sand, bedrock, cobbles, coarse and fine gravel, silt and clay Riparian vegetation: Broadleaf trees on both banks, some overhanging vegetation and high channel shading Morphological pressures/modifications: Footbridge present, no other clear pressures/modifications Land use: Rough pasture and broadleaf woodland, improved pasture and scrub	 Photograph taken from NGR SJ7941684238

Tributary of River Bollin 2

2.2.144 Tributary of River Bollin 2 flows in a south-westerly direction from the north of Sunbank Wood (at NGR SJ8022984672) to its confluence with the River Bollin (at NGR SJ7968984089). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Tributary of River Bollin 2 is a small relatively high gradient stream in a deep wooded valley.

2.2.145 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 68.

2.2.146 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 68: Summary of baseline condition of Tributary of River Bollin 2 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Riffle, run, glide, pool, cascade Substrate: Coarse and fine gravel, sand, silt, clay with some exposed bedrock Riparian vegetation: Broadleaf trees on both banks, some low overhanging vegetation and high channel shading Morphological pressures/modifications: Culvert and footbridge at downstream end Land use: Broadleaf woodland	 Photograph taken from NGR SJ7974084140
	 Photograph taken from NGR SJ7995384328

Tributary of River Bollin 3

2.2.147 Tributary of River Bollin 3 flows in a south-westerly direction from the southern edge of Warburton Green (at NGR SJ7965484731) to its confluence with the River Bollin (at NGR SJ7929084367). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Tributary of River Bollin 3 is a small relatively high gradient stream in a deep wooded valley.

2.2.148 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 69.

2.2.149 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 69: Summary of baseline condition of Tributary of River Bollin 3 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: Riffle, run, glide, pool, cascade Substrate: Coarse and fine gravel, sand, silt, clay with some exposed bedrock Riparian vegetation: Broadleaf trees on both banks, some low overhanging vegetation and high channel shading Morphological pressures/modifications: Footbridge at downstream end Land use: Broadleaf woodland	 Photograph taken from NGR SJ7932084360

Baseline description	Example photograph
	 Photograph taken from NGR SJ7965484739

Tributary of River Bollin 4

2.2.150 Tributary of River Bollin 4 flows in a northerly direction, crossing the M56. The watercourse originates to the north of Lower Thornsgreen Farm (at NGR SJ7903884439) and discharges into the River Bollin approximately 220m north of its source (at NGR SJ7919684553). A baseline desk study of the watercourse has been undertaken. A WFD groundwater feature survey was completed in November 2019. The survey confirmed that the channel is a minor watercourse with limited flow, predominantly fed by land drainage.

2.2.151 A summary of the baseline conditions of the watercourse, together with example photographs taken during the November 2019 survey, are provided in Table 70.

2.2.152 Based on the evidence from the baseline assessment and groundwater feature survey, the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 70: Summary of baseline condition of Tributary of River Bollin 4 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Shallow flow. No distinct flow type due to minor watercourse Substrate: Predominantly fines/earth Riparian vegetation: Woodland Morphological pressures/modifications: Two land drainage outfalls. Turbid flow originating from outfalls. Modified, culverted section of watercourse through M56 Land use: Scrub and woodland upstream of M56 crossing	 Photograph taken from NGR SJ7955584544

Tributary of River Bollin 5

2.2.153 Tributary of River Bollin 5 flows from Rivershill Gardens (at NGR SJ7940384690), joining the River Bollin under the M56 (at NGR SJ7920384548). Approximately 155m to 160m of the watercourse is modified beneath the M56. A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse. However, as no reconnaissance survey or groundwater features survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.154 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Tributary of River Bollin 6

2.2.155 Tributary of River Bollin 6 flows from Castle Mill Lane (at NGR SJ7862184645), joining the River Bollin approximately 120m north of the M56 (at NGR SJ7862184645). Approximately 45m to 50m of the watercourse is modified beneath the M56. A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. Desk study evidence indicates that this is a small watercourse. However, as no reconnaissance survey or groundwater features survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.156 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Tributary of River Bollin 7

2.2.157 Tributary of River Bollin 7 originates approximately 110m north of Castle Mill Lane (at NGR SJ7845584333), flowing in a northerly direction joining the River Bollin (at NGR SJ7858584638). The watercourse passes beneath the M56 approximately 90m south of the River Bollin confluence. A baseline desk study of the watercourse has been undertaken, indicating the watercourse is a small field drainage ditch. Two groundwater spring feature surveys were undertaken in May and November 2019, confirming the characteristics of the channel as a drainage ditch with several piped discharges predicted to be from land drainage.

2.2.158 A summary of the baseline conditions of the watercourse, together with example photographs taken during the May 2019 survey, are provided in Table 71.

2.2.159 Based on the evidence from the baseline assessment and groundwater feature survey, the watercourse has been defined as Low value and has been screened out of the WFD preliminary assessment.

Table 71: Summary of baseline condition of Tributary of River Bollin 7 within the vicinity of the AP2 revised scheme

Baseline description	Example photographs
Downstream of AP2 revised scheme Flow: Still water with no flow evident. No distinct flow type due to artificial nature of watercourse Substrate: Predominantly fines/earth Riparian vegetation: Scrub and woodland Morphological pressures/modifications: Artificial drainage ditch. Piped discharges into ditch predicted to be land drainage outfalls Land use: Wetland area with scrub and woodland, upstream of M56 crossing	 Photographs taken from NGR SJ7862684637

Drain to M56 1

2.2.160 Drain to M56 1 flows on the southern edge of the M56, from north-east of Halebank (at NGR SJ7981784533) to the M56 (at NGR SJ7980684623). A baseline desk study of the watercourse has been undertaken. Although no reconnaissance survey of the watercourse has been undertaken, desk study evidence indicates that this is a small Low value watercourse, which is not connected to other watercourses and named as a drain on OS mapping.

2.2.161 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Drain to M56 2

2.2.162 Drain to M56 2 flows on the northern edge of the M56, from south of Warburton Green (at NGR SJ7992884733) to the M56 (at NGR SJ7976084668). A baseline desk study of the watercourse has been undertaken. Although no reconnaissance survey of the watercourse has been undertaken, desk study evidence indicates that this is a small Low value watercourse, which is not connected to other watercourses and named as a drain on OS mapping.

2.2.163 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Timperley Brook (GB112069061260)

Tributary of Timperley Brook 1

2.2.164 Tributary of Timperley Brook 1 flows from the north-eastern edge of Hale Barns (at NGR SJ8031185440) to its confluence with the Timperley Brook (at NGR SJ8001185967). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Further information has been provided by the Environment Agency.

2.2.165 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 72.

2.2.166 Based on the evidence from the baseline assessment the watercourse has been defined as moderate value and has been screened in for WFD preliminary assessment.

Table 72: Summary of baseline condition of Tributary of Timperley Brook 1 within the vicinity of the AP2 revised scheme

Baseline description	Example photographs
Downstream of AP2 revised scheme Flow: Glide flow with shallow riffles Substrate: Silt, clay, fine and coarse gravel Riparian vegetation: Broadleaf vegetation on both banks, some low overhanging vegetation Morphological pressures/modifications: Culverts Land use: Broadleaf woodland and residential	 Photograph taken from NGR SJ8001385964
	 Photograph taken from NGR SJ8001385964

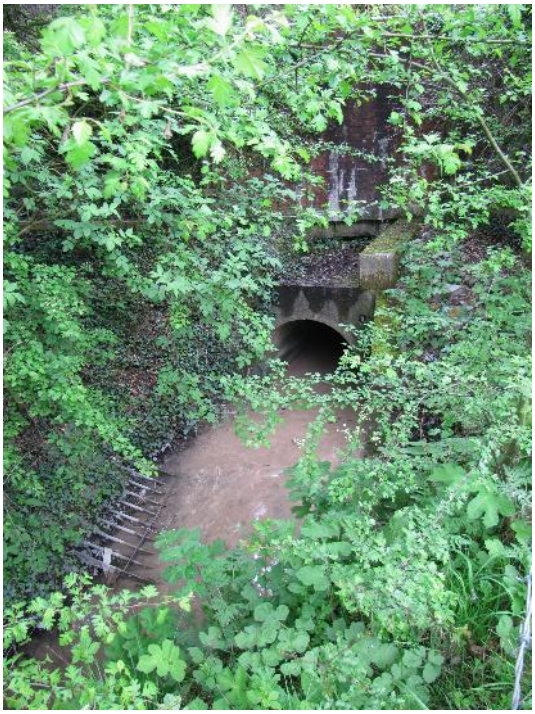
Timperley Brook

2.2.167 Timperley Brook flows from the Manchester Airport Terminal 2, around the eastern outskirts of Hale and then through Altrincham to its confluence with Sinderland Brook. This reach of Timperley Brook flows from Manchester Airport (at NGR SJ8087685655), under the M56 to Well Green on the north-eastern edge of Hale (at NGR SJ7962887149). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.168 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 73.

2.2.169 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 73: Summary of baseline condition of Timperley Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Ponded reach between culverts Substrate: Silt and clay Riparian vegetation: Broadleaf vegetation on both banks, some low overhanging vegetation and high channel shading Morphological pressures/modifications: Culverted under M56, carrying runoff from Manchester Airport in upper catchment Land use: Improved pasture, urban/suburban and woodland	 Photograph taken from NGR SJ8060086003
At location of AP2 revised scheme Flow: glide Substrate: Silt and clay Riparian vegetation: Broadleaf vegetation on both banks, some low overhanging vegetation and high channel shading Land use: Improved pasture, urban/suburban and woodland	 Photograph taken from NGR SJ8060086003

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: More free flow – shallow riffles and runs Substrate: Fine and coarse gravel Riparian vegetation: Broadleaf vegetation on both banks, some low overhanging vegetation and high channel shading Land use: Improved pasture, urban/suburban and woodland	 Photograph taken from NGR SJ8021786160

Tributary of Timperley Brook 3

2.2.170 Tributary of Timperley Brook 3 flows from north of Davenport Green (at NGR SJ8041786576) in a north-westerly direction to its confluence with Timperley Brook (at NGR SJ7974586915). A baseline desk study of the watercourse has been undertaken. As no reconnaissance survey of this watercourse has been carried out, it has been assessed as Moderate value on a precautionary basis.

2.2.171 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Sinderland Brook (Fairywell Bk and Baguley Bk) (GB112069061270)

Fairywell Brook

2.2.172 Fairywell Brook flows junction 5 of the M56 north of Manchester Airport (at NGR SJ8136486024), in a north-westerly direction past Newall Green towards Roundthorn where it is joined by Mill Brook, and then Baguley Brook close to the Cheshire Ring Canal (at NGR SJ7984588916). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.173 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 74.

2.2.174 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Table 74: Summary of baseline condition of Fairywell Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Very small headwater stream, little flow and overgrown by terrestrial vegetation	 Photograph taken from NGR SJ8072886961

Mill Brook

2.2.175 Mill Brook flows in a north-westerly direction from Newall Green (at NGR SJ8123687346) to its confluence with Fairywell Brook (at NGR SJ7984488918). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.176 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 75.

2.2.177 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 75: Summary of baseline condition of Mill Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Flow: Run Substrate: Fine and coarse gravel, silt Riparian vegetation: Broadleaf vegetation (willow, alder), grass and scrub, some low overhanging vegetation Morphological pressures/modifications: Urbanised catchment, culverted approximately 150m downstream of the AP2 revised scheme Land use: Urban/suburban, amenity grassland	 Photograph taken from NGR SJ8129087600

Baguley Brook

2.2.178 Baguley Brook flows northwards from Woodhouse Park (at NGR SJ8192386154), to junction 3 of the M56, then through urbanised and park areas of south Manchester to its confluence with Sinderland Brook (at NGR SJ7817290322). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.179 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 76.

2.2.180 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 76: Summary of baseline condition of Baguley Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photographs
Downstream of AP2 revised scheme Flow: Run, glide Substrate: Gravel, fine gravel, silt Riparian vegetation: Grass, scrub, some woodland Morphological pressures/modifications: Mostly urban catchment. Straightened and deepened in places Land use: Urban area, parkland	  Photograph taken from SJ8151789561

Tributary of Baguley Brook

2.2.181 Tributary of Baguley Brook flows in a westerly direction from Wythenshaw, underneath the M56 in a culvert (at NGR SJ8299088526), forming a confluence with Baguley Brook close to junction 3a of the M56 (at NGR SJ8205489201). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken because the watercourse is culverted.

2.2.182 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Mersey (upstream of Manchester Ship Canal) (GB112069061030)

River Mersey

2.2.183 The River Mersey flows from Stockport (where the River Gory and River Tame meet), to the south of Manchester joining the Manchester Ship Canal at Irlam. This reach of the River Mersey flows from close to junction 3/4 of the M60, east of Northenden (at NGR SJ8407589374), past Didsbury, Withington and Northenden Golf Clubs under the M60 and A5103 Princess Parkway to Chorlton Water Park, close to junction 5 of the M60 (at NGR SJ8243591340). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.184 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 77.

2.2.185 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 77: Summary of baseline condition of River Mersey within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Downstream of AP2 revised scheme Flow: Glide, run, rapid Substrate: Obscured by flow. Substrate likely to be mixed cobbles, coarse gravel, fine gravel, sand, silt and clay Riparian vegetation: Grasses on both banks, trees behind bank top Morphological pressures/modifications: Heavily engineered in a trapezoidal channel with large earth embankments and rock reinforced toe. Floodplain controlled as flood storage areas with side-spill weirs/sluices. Series of rock ramps form grade control weirs which create small rapids Land use: Amenity grassland, urban/suburban, woodland	 Photograph taken from NGR SJ8337991733

Tributary of River Mersey 2

2.2.186 Tributary of River Mersey 2 flows from Simon's Bridge, south-west of Didsbury (at NGR SJ84039390787), under Palatine Road to the confluence with the River Mersey (at NGR SJ8340390974). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.187 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 78.

2.2.188 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 78: Summary of baseline condition of Tributary of River Mersey 2 within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
At location of AP2 revised scheme Small watercourse deepened into a trapezoidal section discharging through embankment outfall structure into River Mersey	 Photograph taken from NGR SJ8344590959

Chorlton Brook (Princess Parkway to Mersey) (GB112069061040)

2.2.189 The Chorlton Brook water body is crossed by the AP2 revised scheme. However, there are no watercourses that have potential to be affected within this water body. Therefore, no baseline desk study or reconnaissance survey have been completed, and the water body has been screened out for WFD preliminary assessment.

Fallowfield Brook (GB112069061410)

Cringle Brook

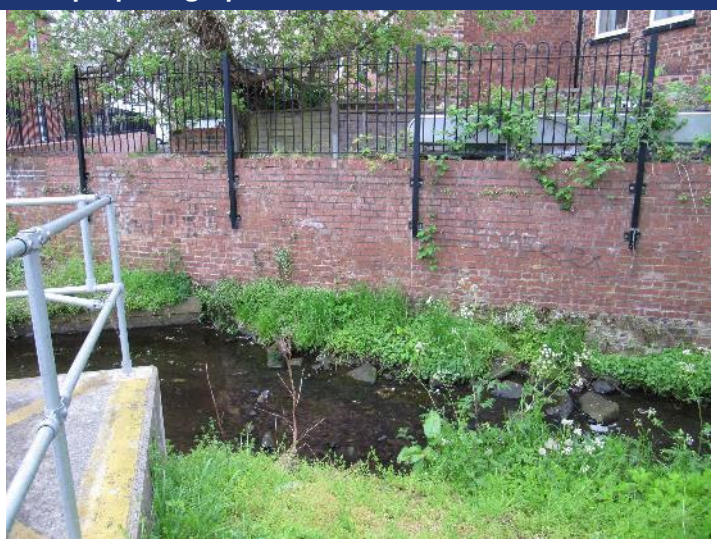
2.2.190 Cringle Brook flows from Cringle Fields Park in Levenshulme, Manchester (at NGR SJ8761693312), flowing in a north-westerly direction before forming a confluence with Platt Brook, close to Princess Road (at NGR SJ8424293853). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. Cringle Brook is an urban watercourse with only a short open section between culverts.

2.2.191 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with some example photographs, are provided in Table 79.

2.2.192 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 79: Summary of baseline condition of Cringle Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photographs
Upstream of AP2 revised scheme Flow: Run, glide, riffle Substrate: Silt, coarse gravel, pebble Riparian vegetation: Grasses, scrub Morphological pressures/modifications: Bed level retained by culverts up and downstream. Very short open section Silt trap between culverts Land use: Urban	

Baseline description	Example photographs
	 Photographs taken from NGR SJ8597893382

Platt Brook (Source to Fallowfield Bk) (GB112069061060)

Fallowfield Brook

2.2.193 Fallowfield Brook flows from North Reddish (at NGR SJ8856493819), through Levenshulme and Fallowfield (mostly in culvert) to its confluence with Platt Brook (at NGR SJ8425293853). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.194 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 80.

2.2.195 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 80: Summary of baseline condition of Fallowfield Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Run, glide Substrate: Silt, coarse gravel Riparian vegetation: Grasses, scrub, broadleaf trees Morphological pressures/modifications: Straightened channel, bed level retained by culverts up and downstream. Very short open section Land use: Urban	 Photograph taken from NGR SJ8526393894

Tributary of Platt Brook 1

2.2.196 Tributary of Platt Brook 1 flows from Debdale (at NGR SJ8934595238) and flows in culverts through Levenshulme and Rusholme, to the confluence with the Platt Brook close to Birchfields Park (at NGR SJ8576994726). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken because the watercourse is culverted.

2.2.197 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Gore Brook

2.2.198 Gore Brook flows from Gorton (at NGR SJ8858695875) to its confluence with Platt Brook close to Birchfields Park (at NGR SJ8576994726). A baseline desk study and reconnaissance survey of the watercourse have been undertaken.

2.2.199 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 81.

2.2.200 Based on the evidence from the baseline assessment the watercourse has been defined as Moderate value and has been screened in for WFD preliminary assessment.

Table 81: Summary of baseline condition of Gore Brook within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Run, glide Substrate: Artificial Riparian vegetation: Scrub, broadleaf trees, channel shading from overhanging trees Morphological pressures/modifications: Brick lined channel, culverted up and downstream but open section through parkland Land use: Urban, amenity grassland	 Photograph taken from NGR SJ8599294969

Irwell/Manchester Ship Canal (Irk to confluence with Upper Mersey) (GB112069061452)

Corn Brook

2.2.201 Corn Brook flows from Gorton/Openshaw (at NGR SJ8868197976) to the Bridgewater Canal close to Ordsall (at NGR SJ8221596954). A baseline desk study of the watercourse has been undertaken. No reconnaissance survey of the watercourse has been undertaken. The majority of the watercourse is culverted.

2.2.202 Based on the evidence from the baseline assessment the watercourse has been defined as Low value and has been screened out for WFD preliminary assessment.

Medlock (Lumb Brook to Irwell) (GB112069061152)

River Medlock

2.2.203 The River Medlock rises in Strinesdale reservoirs to the north-east of Oldham, flowing in a south-westerly direction towards central Manchester where it joins the Bridgewater Canal west of Deansgate Station. This reach of the River Medlock flows from close to the Manchester City football ground (at NGR SJ8642598795) to the confluence with the Bridgewater Canal (at NGR SJ8327197513). A baseline desk study and reconnaissance survey of the watercourse have been undertaken. The River Medlock is a highly modified urban river.

2.2.204 A summary of the baseline habitat potential and hydromorphological condition of the watercourse at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 82.

2.2.205 Based on the evidence from the baseline assessment the watercourse has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 82: Summary of baseline condition of River Medlock within the vicinity of the AP2 revised scheme

Baseline description	Example photograph
Upstream of AP2 revised scheme Flow: Run, glide, pools, riffles Substrate: Artificial with cobbles, coarse gravel and silt Riparian vegetation: Broadleaf vegetation on both banks where not industrial buildings, occasional overhanging vegetation. Channel shading from trees and walls Morphological pressures/modifications: Highly modified channel with extensive bank reinforcement (possibly also to the bed) Land use: Urban/suburban, with industrial, amenity grassland and woodland	 Photograph taken from NGR SJ8550297830

2.3 Lakes

2.3.1 Lakes are WFD water bodies in their own right and have been screened in for WFD preliminary assessment.

2.3.2 A summary of the baseline condition of each lake potentially affected by the AP2 revised scheme is provided in the sections below.

Rostherne Mere (GB31232650)

2.3.3 Rostherne Mere is located to the south of the M56, junction 7/8 south of Hale (at NGR SJ7445084320). A baseline desk study of the watercourse has been undertaken. A reconnaissance survey of the water body has been undertaken for the groundwater assessment, and information from this survey has been used to inform the baseline condition.

2.3.4 A summary of the baseline condition of the lake at the location of the AP2 revised scheme, together with an example photograph, are provided in Table 83.

2.3.5 Based on the evidence from the baseline assessment, the water body has been defined as Very high value and has been screened in for WFD preliminary assessment.

Table 83: Summary of baseline condition of Rostherne Mere

Description of feature	Example photograph
Rostherne Mere has a surface area of approximately 48ha and a mean depth of 13.6m The Mere is fringed in places by a band of reedbed swamp There are also areas of willow carr[7] Rostherne Mere is supported by watercourses feeding in from the catchment. Rostherne Brook provides approximately 80% of the inflow into Rostherne Mere These streams are determined to be fed by spring, hence Rostherne Mere is at least partly a groundwater dependent habitat	 Photograph taken from NGR SJ7430483802

[7] Natural England (1981), *Rostherne Mere SSSI Citation.* Available online at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003353.pdf.

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