Mossley

River Flood Defence Inspection

Final September 2010

Prepared for

Tameside

Revision Schedule

River Flood Defence Inspection
July 2010

Rev	Date	Details	Prepared by	Reviewed by	Approved by
D01	August 2009	Draft	**Michael Gartside** Engineer	**Alpha Robinson** Principal Flood Risk Engineer	**Annette Lardeur** Associate
F02	July 2010	Final Draft	**Michael Gartside** Engineer	**Alpha Robinson** Principal Flood Risk Engineer	**Annette Lardeur** Associate
F03	September 2010	Final	**Michael Gartside** Engineer	**Alpha Robinson** Principal Flood Risk Engineer	**Annette Lardeur** Associate

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1 Introduction

1.1 Commission

Scott Wilson Ltd has been commissioned to undertake the Level 1 update and Level 2 Strategic Flood Risk Assessment (SFRA) for the combined administrative areas of Stockport Metropolitan Borough Council (SMBC) and Tameside Metropolitan Borough Council (TMBC).

This report constitutes the Defence Inspection Report for the Mossley area, the aims of which are outlined below.

1.2 Aims and Objectives

The primary aims of the Stockport and Tameside Level 2 SFRA are to:

- Ensure that sufficient information is provided to enable Stockport MBC and Tameside MBC to carry out the Sequential Test, in line with PPS25, in relation to their proposed spatial strategies including, as necessary, filling in data gaps identified in the Greater Manchester Sub-Regional / Level 1 SFRA.
- Ensure that sufficient information is provided to enable the Exception Test to be applied for those sites that have been identified as being at risk of flooding.

The specific aims of this River Flood Defence Inspection Report are to:

- Inspect and schedule the current condition of flood defence infrastructure.
- Present mitigation options and potential delivery mechanisms.

2 Previous Information

2.1 Level 1 SFRA

Figures compiled during the Level 1 SFRA (See Figure 5-1 in Appendix A) showing the flood zones and defence types were consulted before and during the inspection.

2.2 NFCDD Data

Environment Agency NFCDD data (See Figure 6-1 H in Appendix A) giving lengths and types of defence were obtained and consulted before the flood defence inspection work started.

3 Previous Defence Classification

3.1 Level 1 SFRA Classification

3.1.1 Section A – North of Roaches Bridge

Existing Classification

Left	Maintained channel / natural channel / maintained channel
Right	Raised defence / natural channel

Land Use

Left	Employment and housing
Right	Open fields, access road, railway embankment and housing

3.1.2 Section B – Roaches Bridge to Winterford Lane

Existing Classification

Left	Natural channel / maintained channel / raised defence
Right	Natural channel / maintained channel

Land Use

Left	Open fields between River Tame and canal
Right	Industrial units and old mill

3.1.3 Section C – Winterford Lane to Waggon Road

Existing Classification

Left	Maintained channel / natural channel / maintained channel
Right	Maintained channel / natural channel / maintained channel / natural channel

Land Use

Left	New housing development then open land between River Tame and canal
Right	Steeply sloping hillside towards Mossley centre

3.1.4 Section D – Waggon Road to Egmont Street

Existing Classification

Left	Maintained channel / natural channel / maintained channel
Right	Raised defence / natural channel

Land Use

Left	Employment sites
Right	Mostly derelict land or waste ground with private parking area off Egmont Street

3.1.5 Section E – South of Egmont Street

Existing Classification

N.B. The identified development area only extends further south on the left (East) bank

Left	Raised defence / natural channel
Right	Maintained channel / natural channel

Land Use

Left	Mixture of derelict land, parking area on reclaimed site, yard and sheds with informal recreation land beyond
Right	Playing fields

3.1.6 Section F – Carr Brook

Existing Classification

Left	Not classified
Right	Not classified

Land Use

Left	Footpath / natural woodland
Right	Recently constructed housing

4 Inspection

4.1 Inspection Conditions

Date of inspection	9th July 2009
Inspected by	Michael Gartside
Weather	Warm and sunny
Method of inspection	On foot

4.2 Classifications

The following classifications have been used to define the river defences:

Natural channel – lightly vegetated	Natural channel with grassed slopes, interspersed with light vegetation and occasional trees.
Natural channel – heavily vegetated	Natural channel with dense covering of bushes and trees.
Masonry-lined channel	Channel sides formed of a mixture of natural channel and vertical masonry walling, the height of the masonry ranging from less than 1m to full height. Note, the masonry does not extend above the bank and therefore does not constitute any form of defence.
Raised defence	Either earth embankment or masonry walling projecting above bank level.
Culvert	Underground channel, no access possible

4.3 Inspection schedule

4.3.1 Section A – North of Roaches Bridge (0m – 420m)

Chainage	Classification	Notes	Plate Number
General Notes *Approximately 80% of section inspected from Roaches Bridges and Tame Street with the aid of binoculars.*			
Right Channel			
0 - 420	Natural channel (lightly vegetated)	Naturally grassed with occasional trees, the right channel is approximately 1m lower than the left channel. At Roaches Bridge, road level is at least 5m higher than the normal river level. No sign of instability due to erosion at base of bank or oversteep banks	1 - 3
Left Channel			
0 - 420	Natural channel (lightly vegetated)	As right channel	1 - 3

4.3.2 Section B – Roaches Bridge to Winterfold Lane (420m – 1340m)

Chainage	Classification	Notes	Plate Number
General Notes *Approximately 95% of section inspected from Roaches Bridge and footpath on left bank*			
Right Channel			
420 – 560	Natural channel (lightly vegetated)	Grassed channel No sign of instability due to erosion at base of bank or oversteep banks	4 - 5
560 – 1060	Masonry lined channel	Intermittent stone walls of varying height, but never extending above bank level Reasonable condition with vegetation growth	8 - 10
1060 – 1340	Raised defence	Stone walling extending of varying height above bank level bank level, tying into footbridge at Winterfold Lane at downstream end but open at upstream end.	11 - 13

		Reasonable condition with some vegetation growth, but no signs of instability Due to height differences and some gaps, would not function as a flood defence structure	
Left Channel			
420 – 475	Masonry lined channel	Masonry lined channel and steps from adjacent car park to the river. Excellent condition, no vegetation and approximately 1m high	4 - 7
475 – 1075	Natural channel (lightly vegetated)	Grassed channel, typically lower than right channel with large plateau area between river and canal. No sign of instability due to erosion at base of bank or oversteep banks	8 - 10
1075 - 1340	Raised defence	Stone walling extending approximately 1m above bank level, tying into footbridge at Winterfold Lane at downstream end but open at upstream end. Good condition with some vegetation growth, but no signs of instability	11 - 13

4.3.3 Section C – Winterfold Lane to Waggon Road (1340m – 2160m)

Chainage	**Classification**	**Notes**	**Plate Number**
General Notes *Approximately 80% of section inspected from Waggon Road bridge, Dark Lane bridge and Three Counties Road with the aid of binoculars.*			
Right Channel			
1340 - 1400	Masonry lined channel	Short section of relatively new stone walled vertical channel immediately south of Winterfold Lane footbridge	14 - 16
1400 - 1830	Natural channel (lightly vegetated)	Tree-lined channel No sign of instability due to erosion at base of bank or oversteep banks	16, 18
1830 - 2160	Masonry lined channel	Stone / brick vertical channel, varying height and	19 – 21, 28

		condition but no signs of instability	
Left Channel			
1340 - 1405	Masonry lined channel	Short section of relatively new stone walled vertical channel immediately south of Winterfold Lane footbridge	14 - 16
1405 - 1795	Natural channel (lightly vegetated)	Tree-lined channel No sign of instability due to erosion at base of bank or oversteep banks	16, 18
1795 - 2160	Raised defence	Stone walling approximately 1m high above bank crest Excellent condition, tying into buildings at downstream end, however, no tie in at upstream end	19 – 21, 28

4.3.4 Section D – Waggon Road to Egmont Street (2160m – 2500m)

Chainage	**Classification**	**Notes**	**Plate Number**
General Notes *Approximately 95% of section inspected from Waggon Roadbridge, Egmont Street bridge and footpath on right hand bank.*			
Right Channel			
2160 - 2305	Masonry lined channel	Inspection difficult due to dense vegetation and lack of access Stone / brick vertical channel, varying height and condition but no signs of instability	29
2305 - 2500	Natural channel (heavily vegetated)	Inspection difficult due to dense vegetation and lack of access No sign of instability due to erosion at base of bank or oversteep banks	30
Left Channel			
2160 - 2500	Masonry lined channel	Inspection difficult due to dense vegetation and lack of access Stone / brick vertical channel, varying height and condition but no signs of instability	29 - 30

4.3.5 Section E – South of Egmont Street (2500m – 2780m)

Chainage	Classification	Notes	Plate Number
General Notes *Approximately 70% of section inspected from Egmont Street bridge with the aid of binoculars.*			
Right Channel			
2500 - 2580	Natural channel (lightly vegetated)	Naturally grassed with occasional trees No sign of instability due to erosion at base of bank or oversteep banks	31
2580 - 2780	Masonry lined channel	Stone / brick vertical channel, varying height and condition but no signs of instability	31
Left Channel			
2500 - 2615	Masonry lined channel	Stone / brick vertical channel, varying height and condition but no signs of instability	31
2615 - 2780	Natural channel (lightly vegetated)	Naturally grassed with occasional trees No sign of instability due to erosion at base of bank or oversteep banks	31

4.3.6 Section F – Carr Brook (0m – 440m)

Chainage	Classification	Notes	Plate Number
General Notes *No-culverted lengths inspected from Micklehurst Road.*			
Right Channel			
0 - 140	Natural channel (lightly vegetated)	Natural, grassed channel approximately 1.5m deep and a maximum of 3m wide.	32 - 34
140 - 190	Raised defence	Stone lined channel, with back of footpath stone wall, approximately 1m high, providing a defence structure and tying into houses at downstream end	35 - 38
190 - 440	Culvert	No inspection, outlow at River Tame adjacent to Waggon Road bridge	39 - 40
Left Channel			

0 - 140	Natural channel (lightly vegetated)	Natural, grassed channel approximately 1.5m deep and a maximum of 3m wide.	32 - 34
140 - 190	Masonry lined channel	Stone lined channel, good condition	35 - 38
190 - 440	Culvert	No inspection, outflow at River Tame adjacent to Waggon Road bridge	39 - 40

Figures

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES

KEY

- NATURAL CHANNEL - LIGHT VEGETATION
- NATURAL CHANNEL - HEAVY VEGETATION
- MASONRY - LINED CHANNEL
- RAISED DEFENCE
- CULVERT

Revision Details	By / Check	Date	Suffix

Drawing Number: FIGURE 1

Revision:

Project Title:

STOCKPORT & TAMESIDE LEVEL 2 SFRA

Drawing Title:

MOSSLEY PHOTOGRAPH LOCATIONS SHEET 1 OF 1

Scale at A3: 1:2500

Drawn	Detailed		Approved
MG			AR
Check	Tech Check	Det Check	Date
AHL			

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Plot Date :
AutoCAD File Name :
DB1V

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NOTES

KEY

- NATURAL CHANNEL - LIGHT VEGETATION
- NATURAL CHANNEL - HEAVY VEGETATION
- MASONRY - LINED CHANNEL
- RAISED DEFENCE
- CULVERT

Revision Details	By / Check	Date	Suffix

Drawing Number: FIGURE 2 — Revision:

Project Title: STOCKPORT & TAMESIDE LEVEL 2 SFRA

Drawing Title: MOSSLEY DEFENCE CLASSIFICATION SHEET 1 OF 1

Scale at A3: 1:2500

Drawn	Detailed		Approved
MG			AR
Check	**Tech Check**	**Det Check**	**Date**
AHL			

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Plot Date :
AutoCAD File Name :
DB1V

Photographs

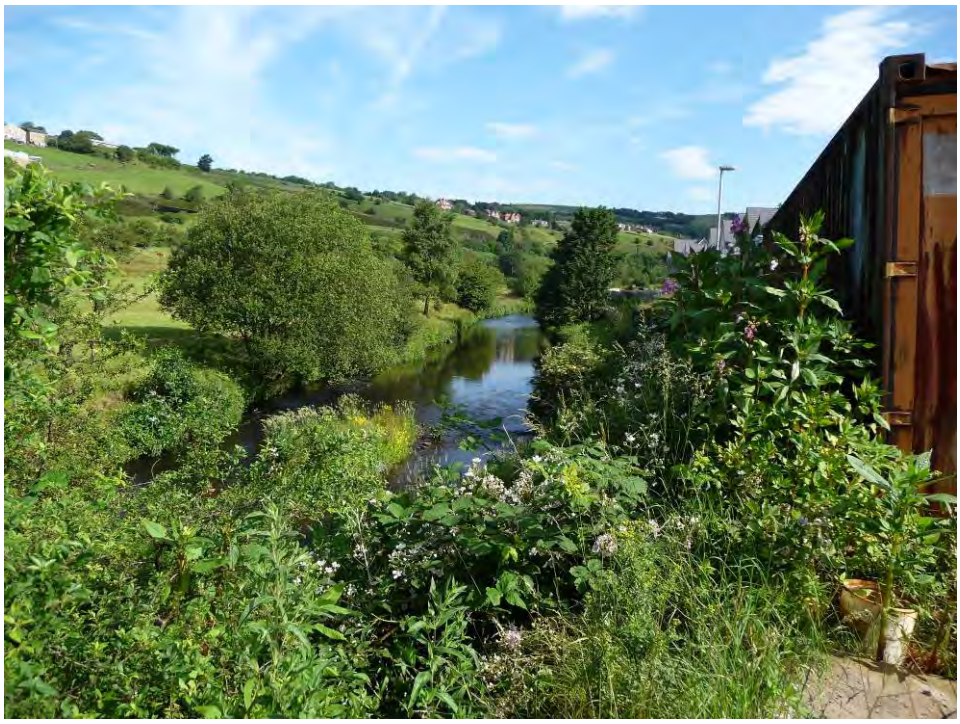

Plate 1 – View upstream from Tame Street

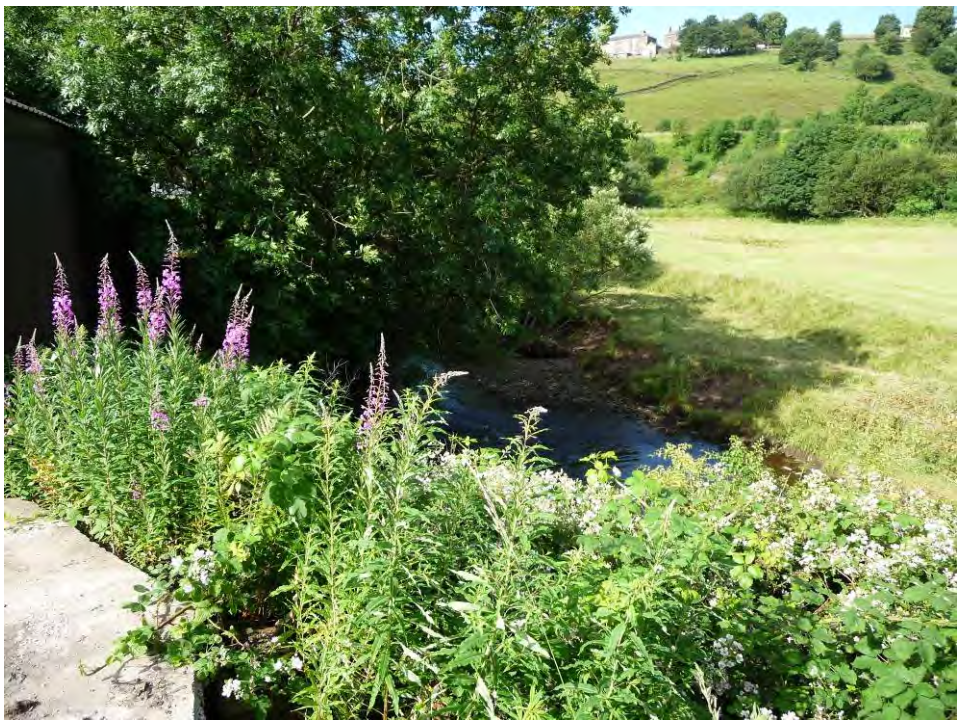

Plate 2 – View downstream from Tame Street

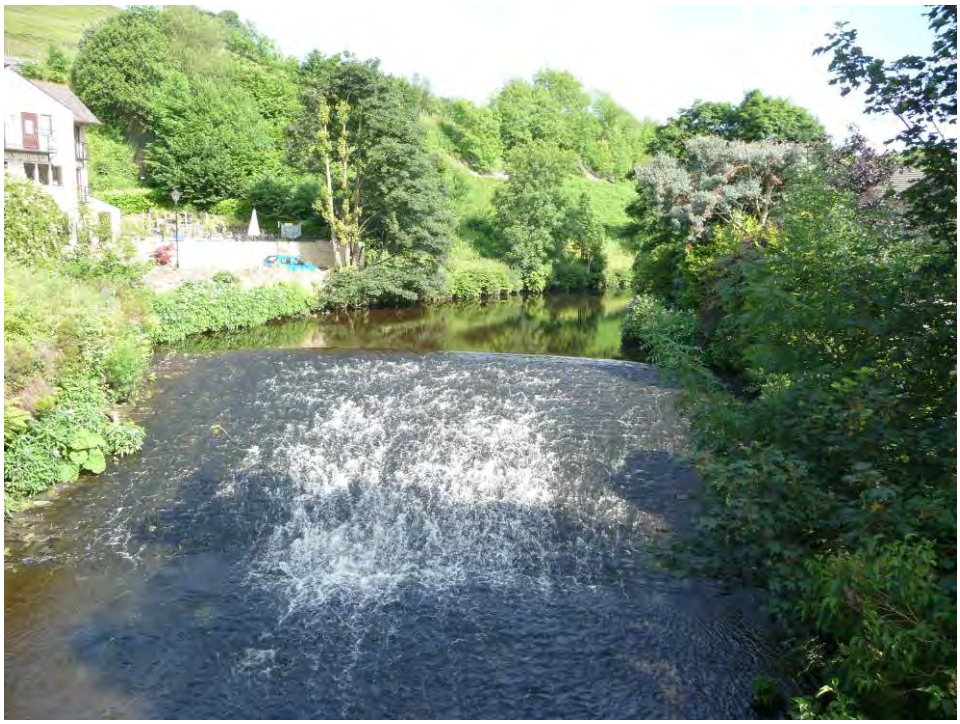

Plate 3 - View upstream from Roaches Bridge

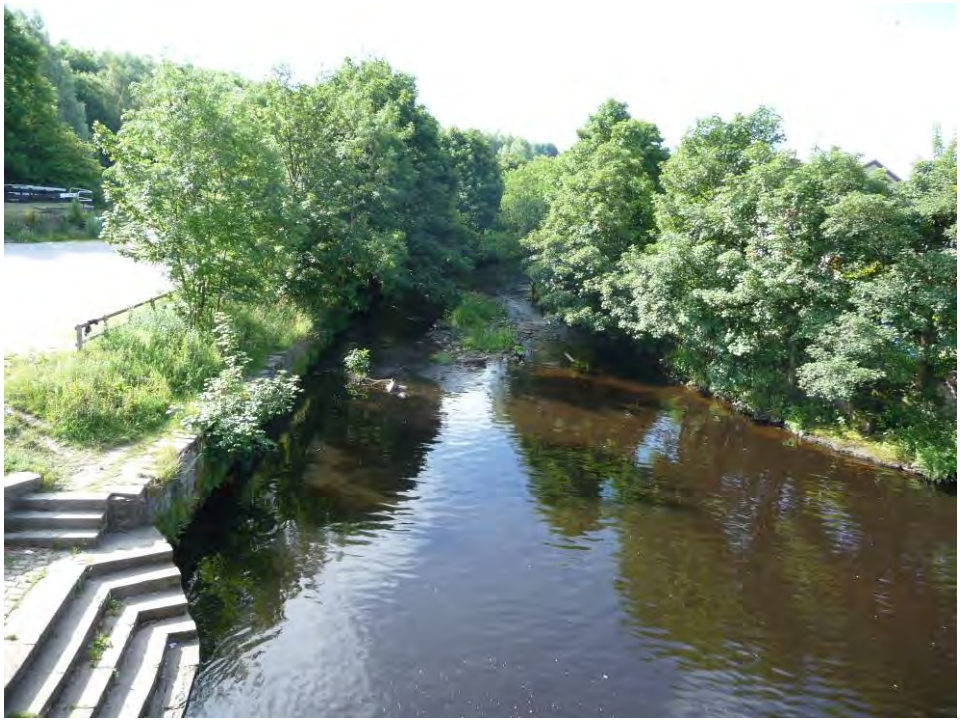

Plate 4 – View downstream from Roaches Bridge

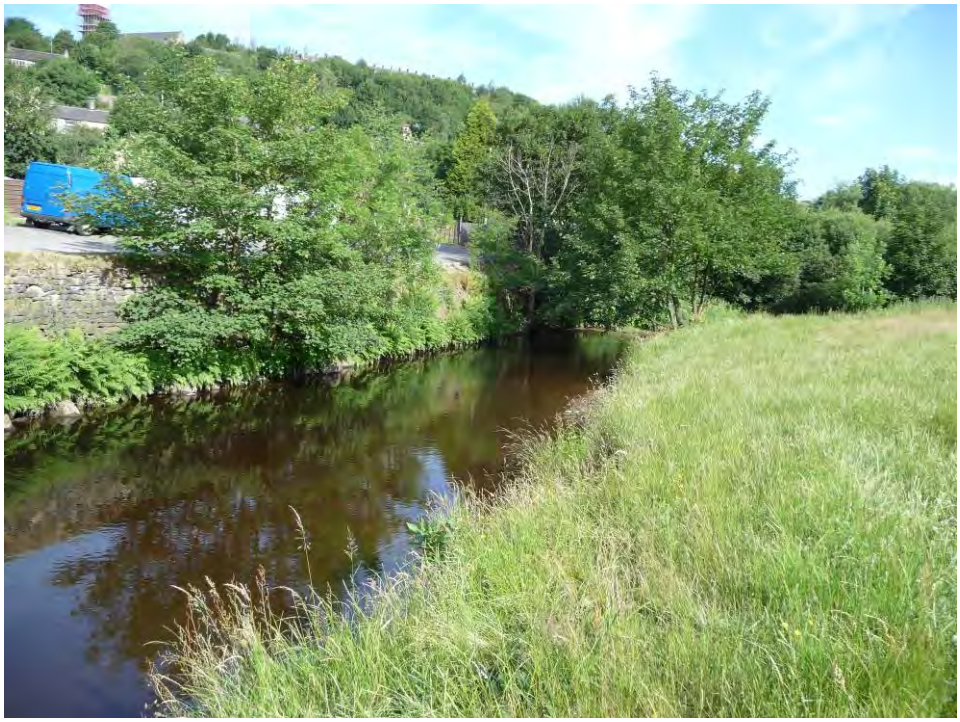

Plate 5 – View upstream alongside northern end of Woodend Industrial Estate

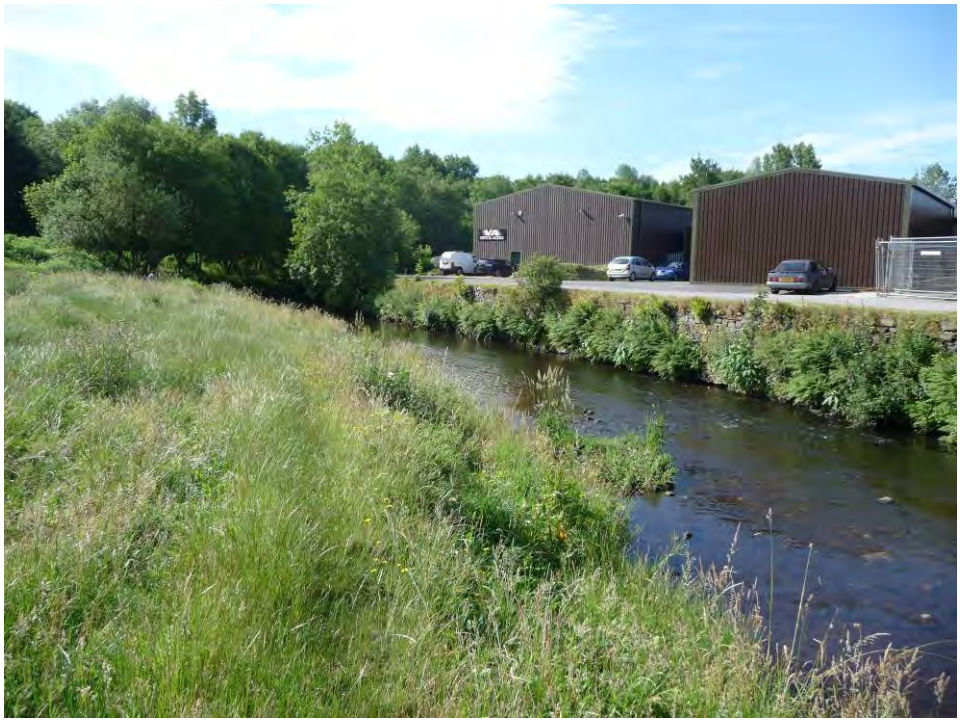

Plate 6 - View downstream alongside southern end of Woodend Industrial Estate

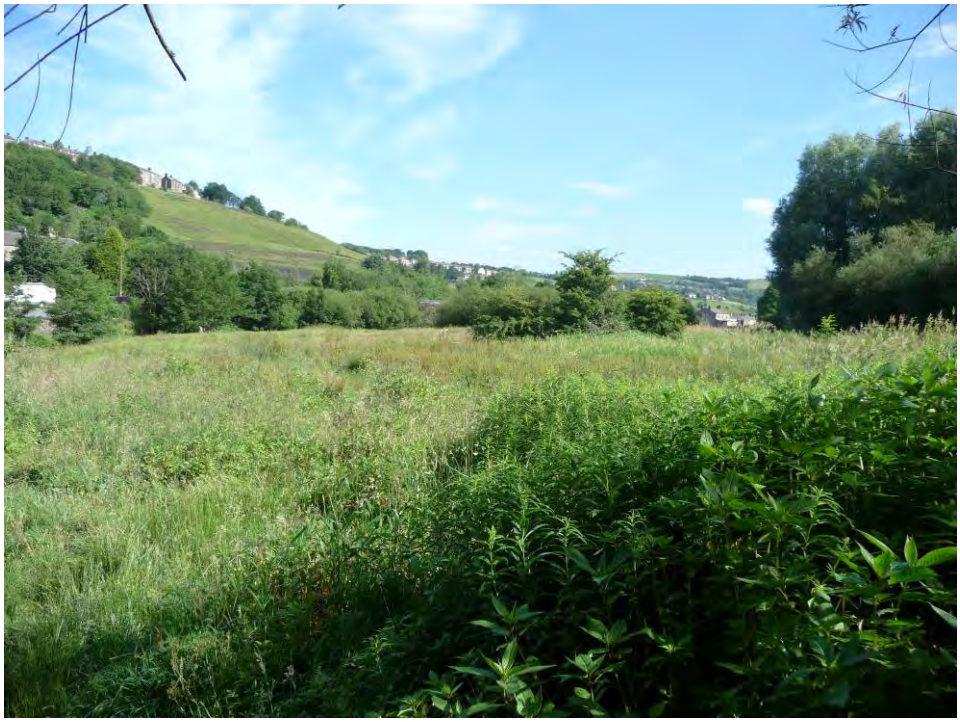

Plate 7 – Plateau on left bank adjacent to Woodend Industrial Estate

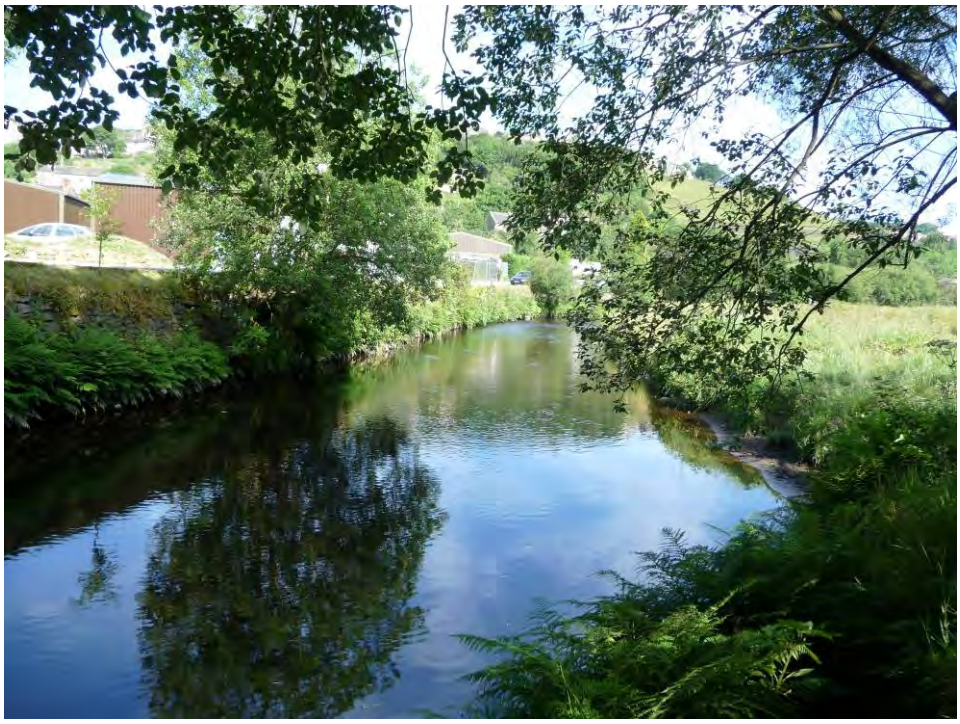

Plate 8 – View upstream alongside southern end of Woodend Industrial Estate

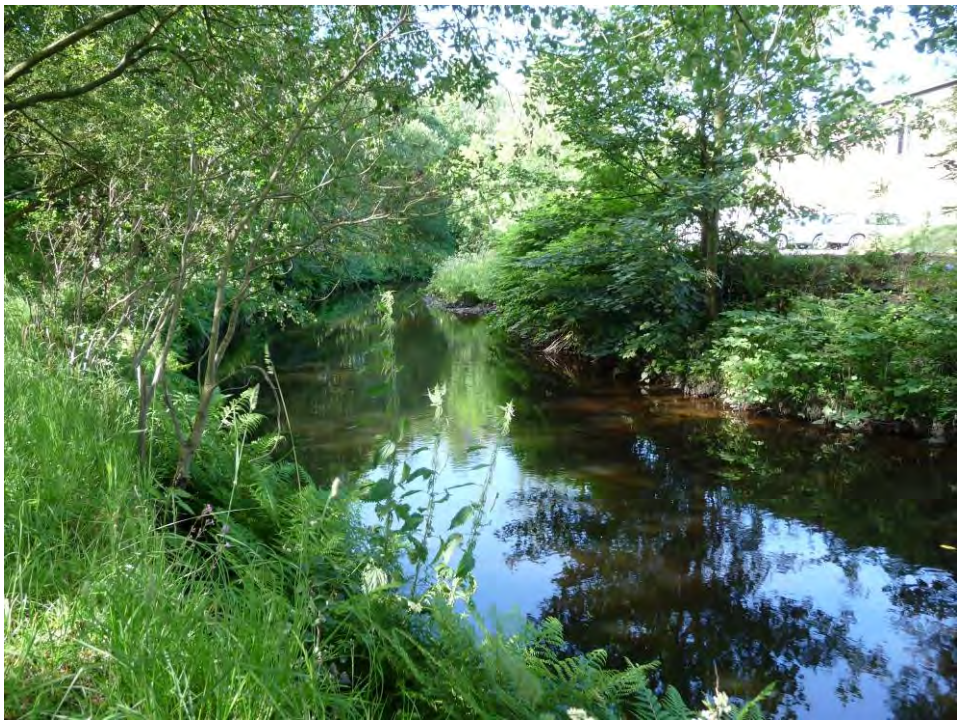

Plate 9 - View downstream alongside southern end of Woodend Industrial Estate

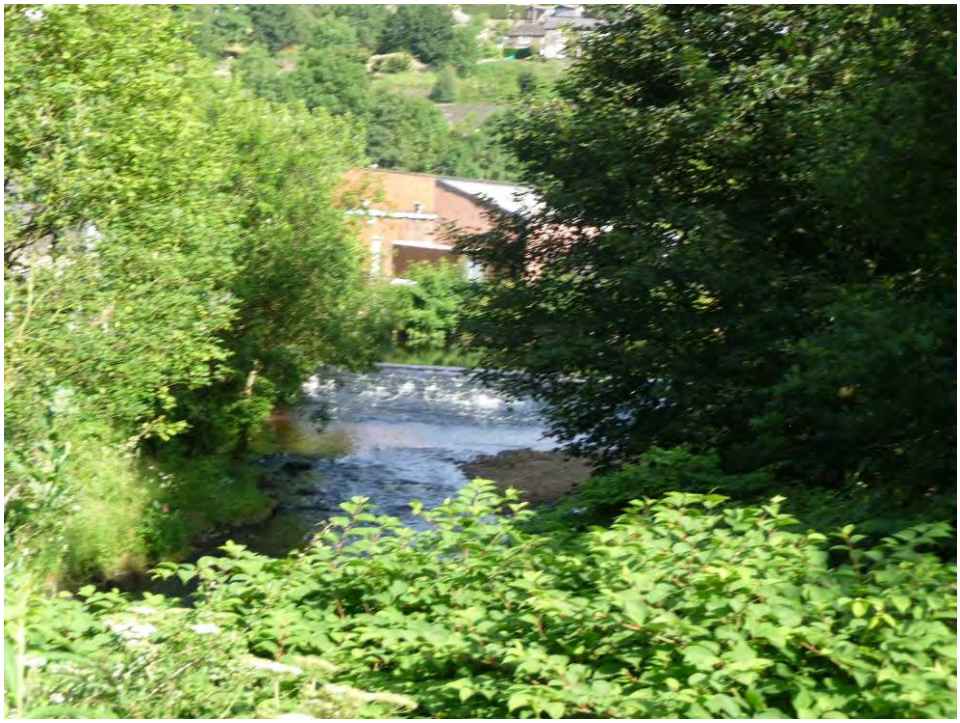

Plate 10 – View upstream at weir north of Winterfold Lane

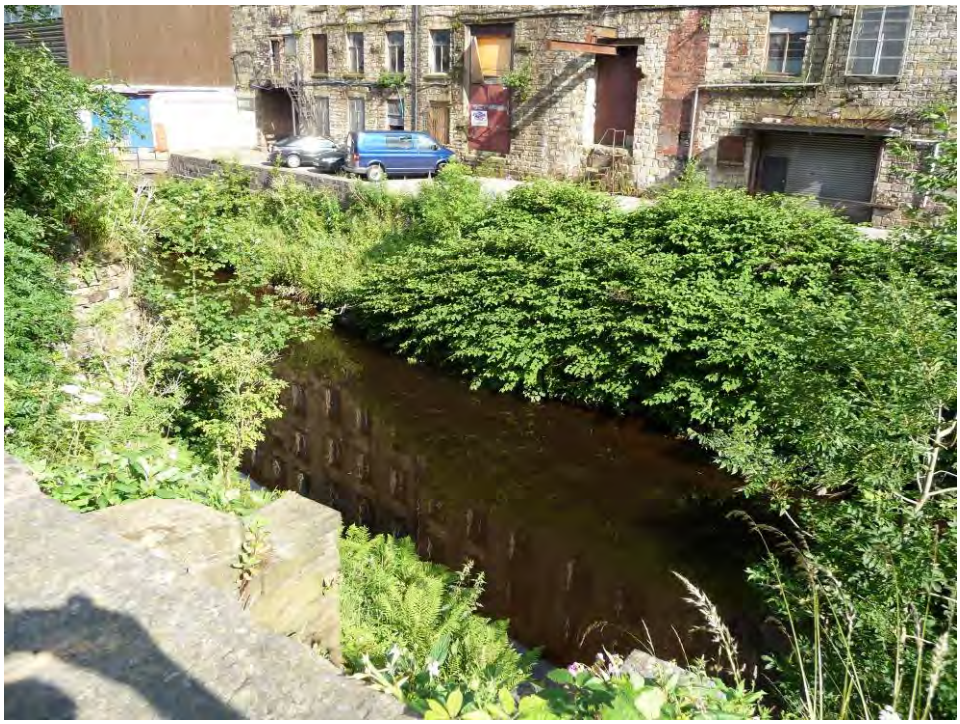

Plate 11 – Typical right channel alongside mill

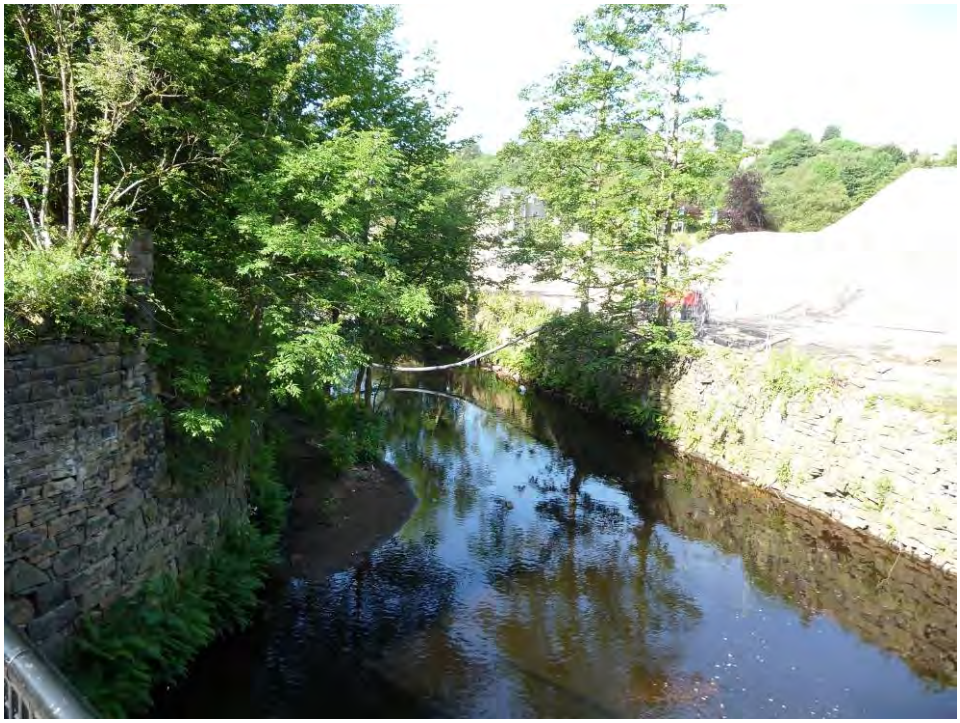

Plate 12 – View upstream alongside mill adjacent to Winterfold Lane

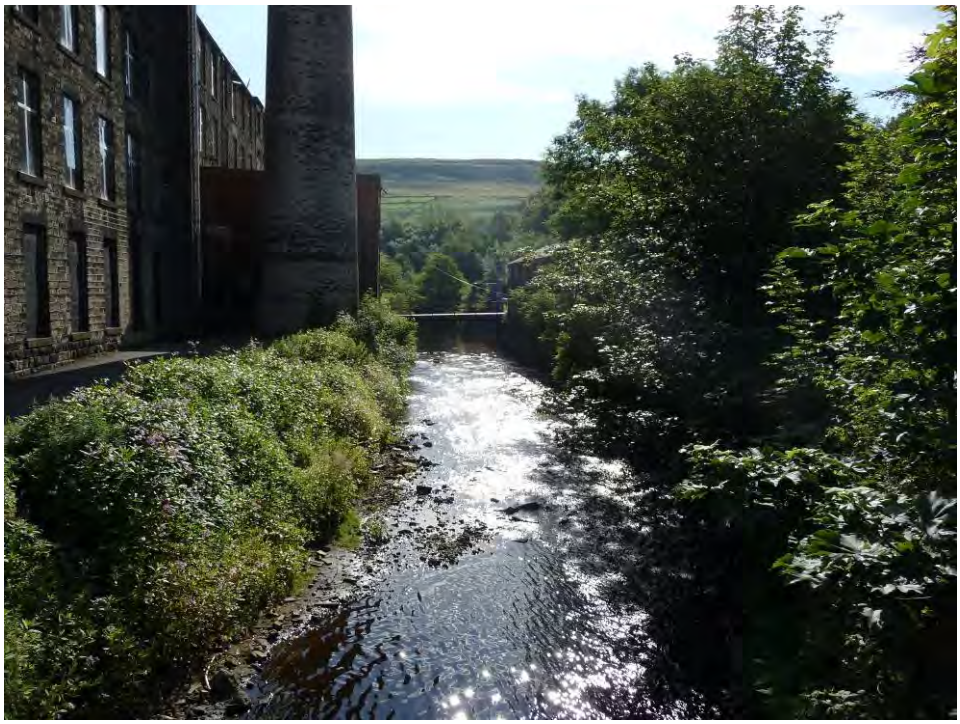

Plate 13 - View upstream alongside mill adjacent to Winterfold Lane

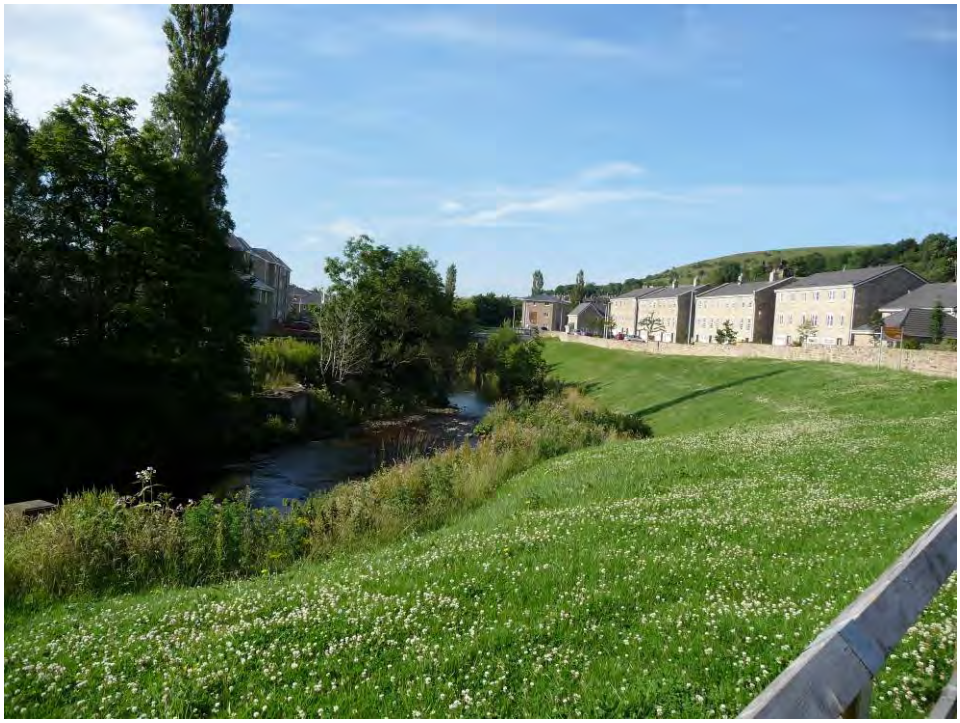

Plate 14 - View downstream from Winterfold Lane footbridge

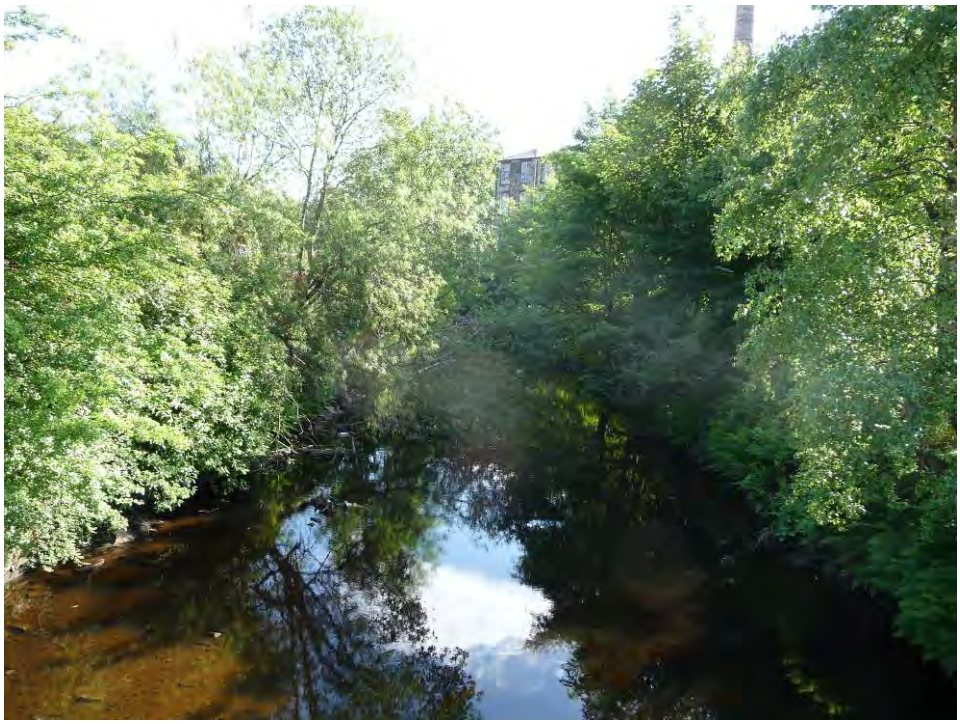

Plate 15 – View upstream from Winterfold Lane footbridge

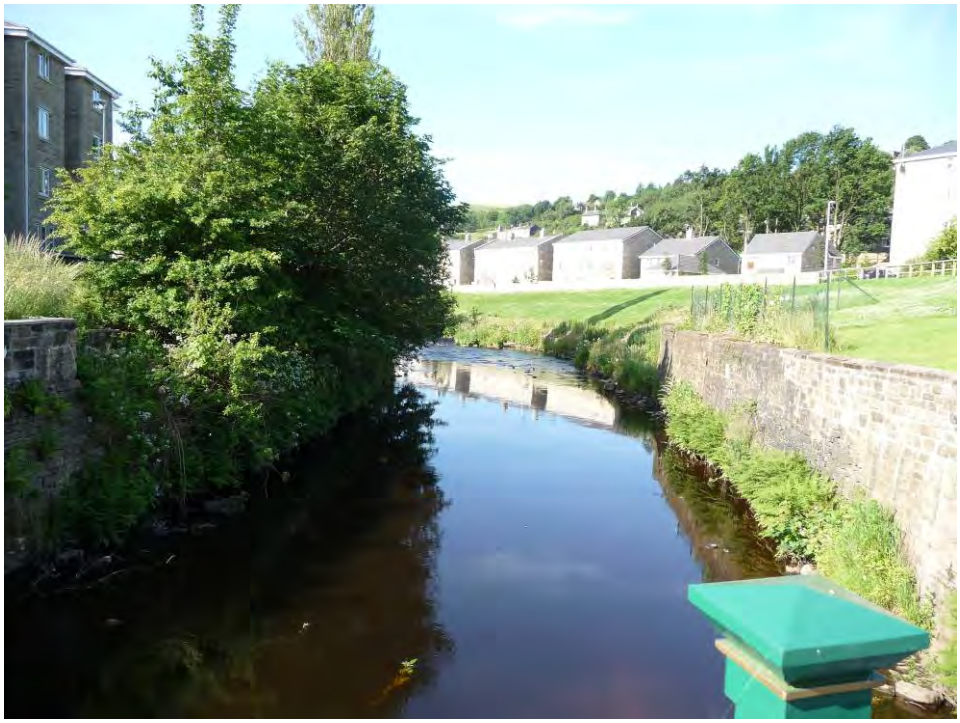

Plate 16 – View downstream from Winterfold Lane footbridge

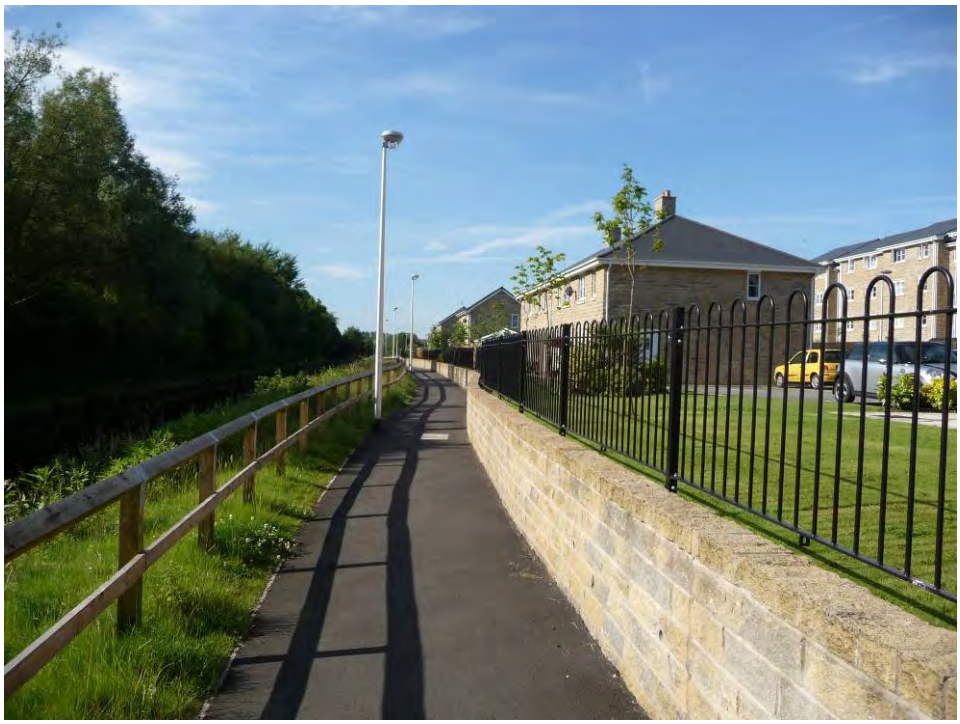

Plate 17 – View south along canal adjacent to new housing estate

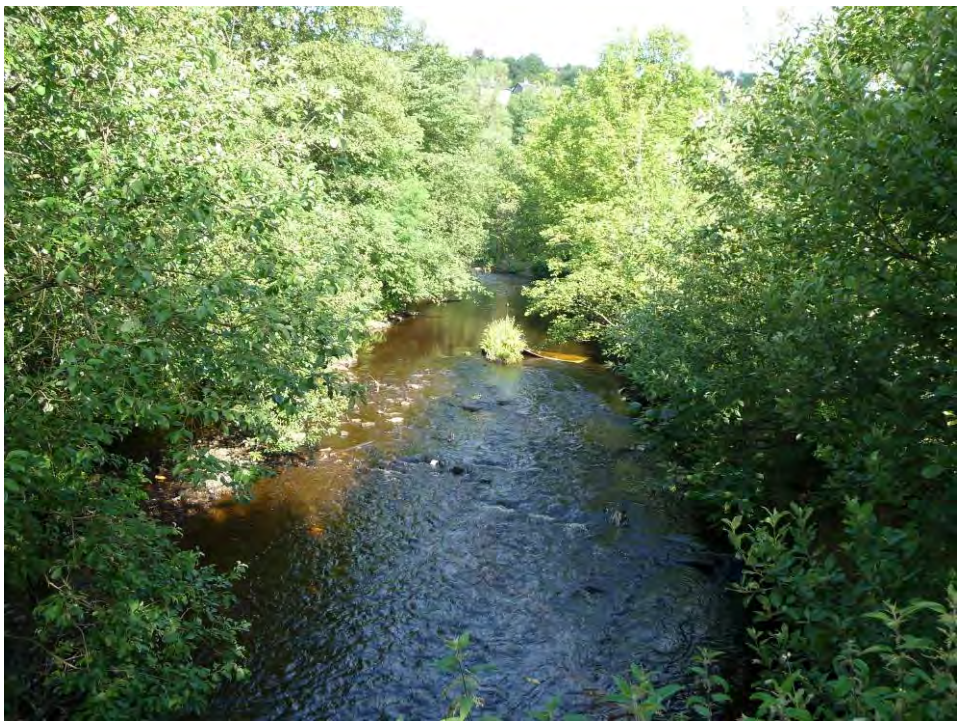

Plate 18 - View upstream from footbridge at old disused mill adjacent to Queen Street

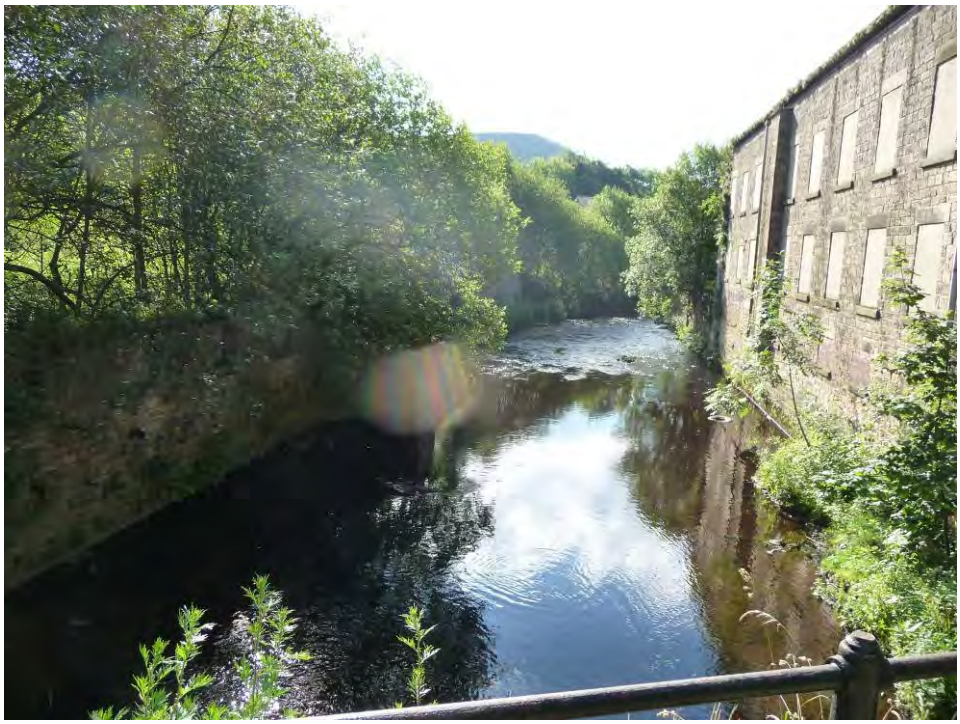

Plate 19 – View downstream from footbridge at old disused mill adjacent to Queen Street

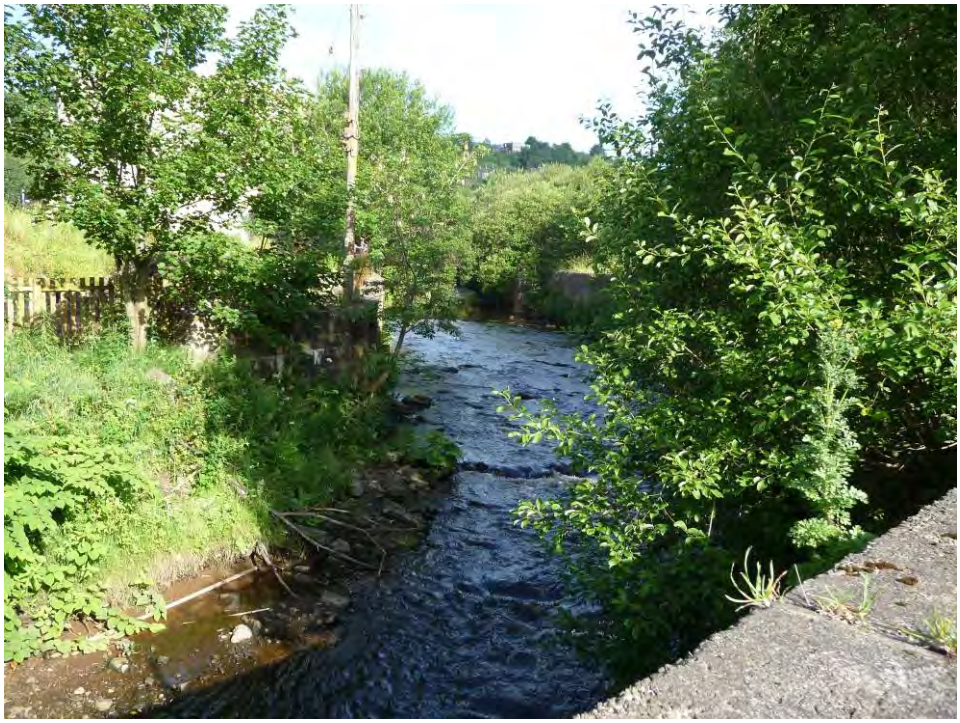

Plate 20 – View upstream at bend in river adjacent to canal

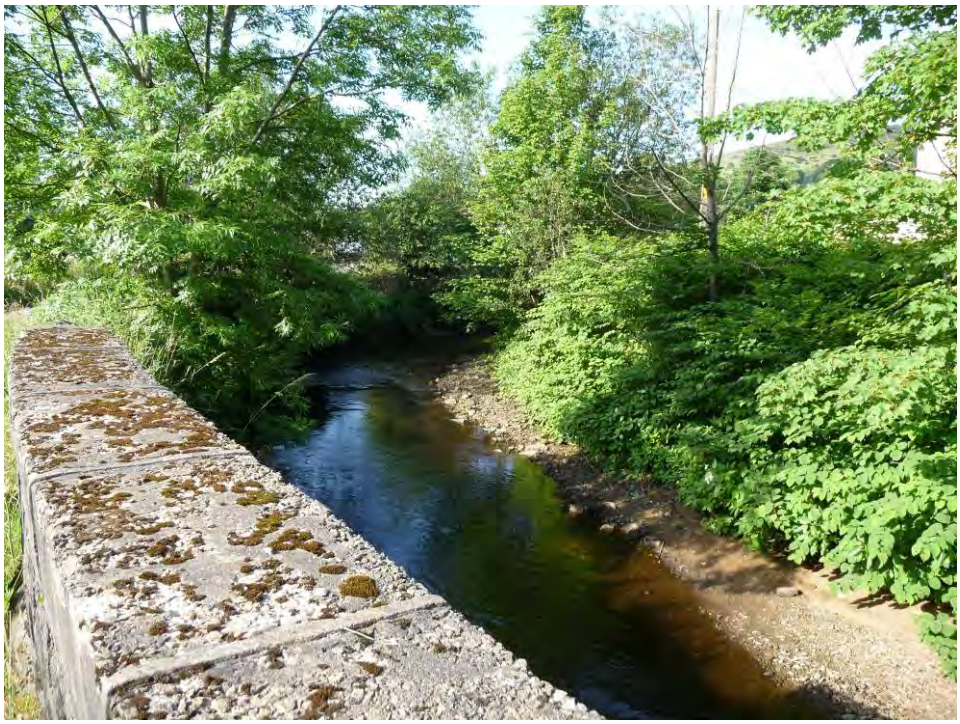

Plate 21 – View downstream at bend in river adjacent to canal

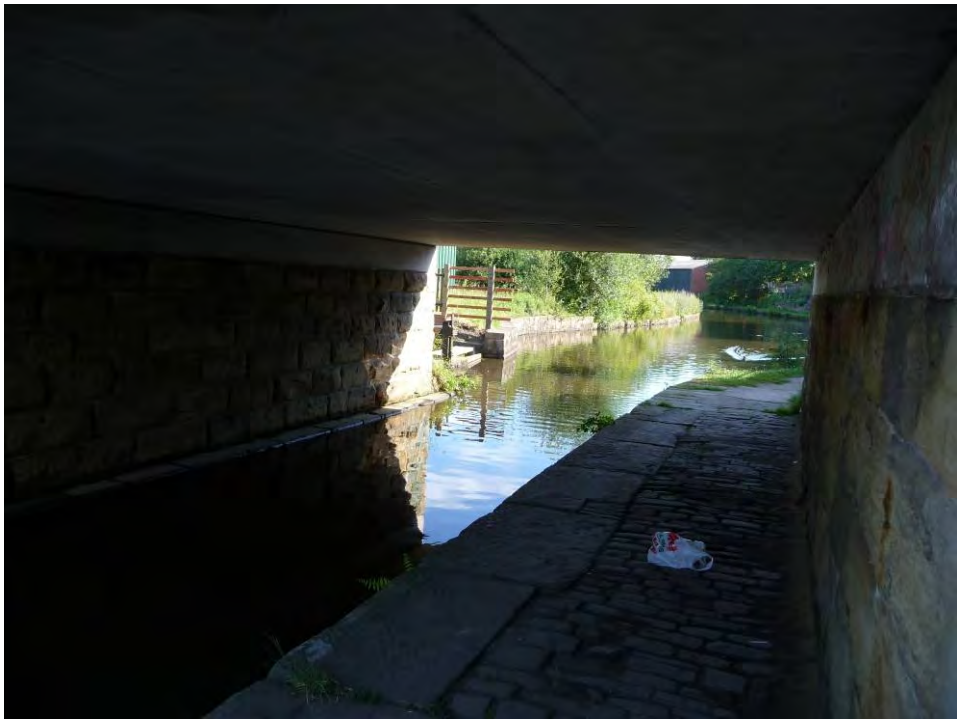

Plate 22 – View north along canal under Waggon Road

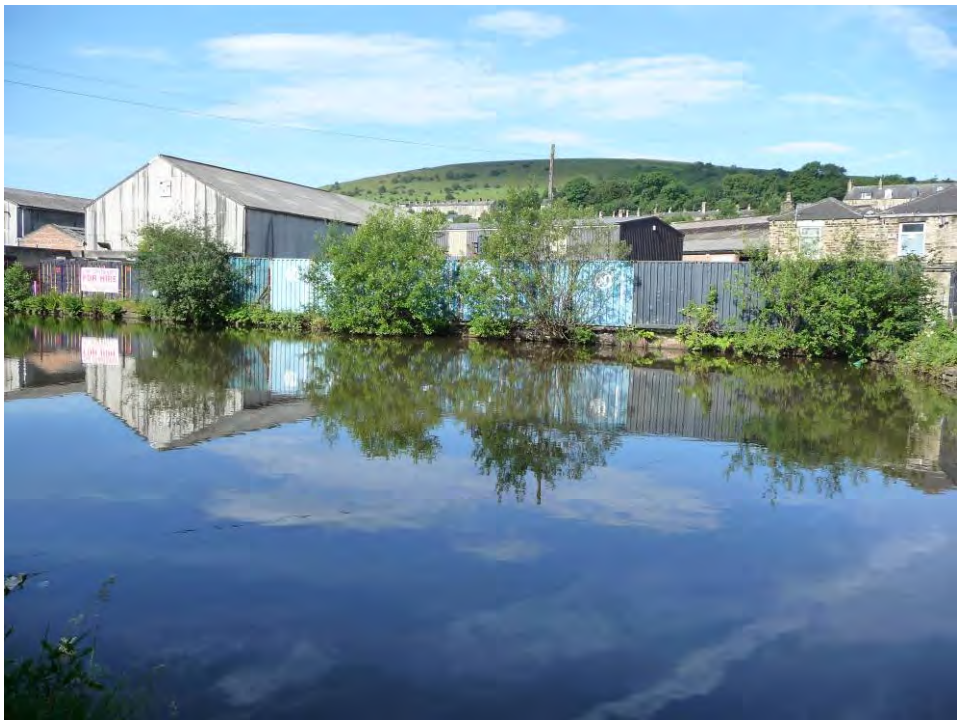

Plate 23 – Canal basin adjacent to Waggon Road

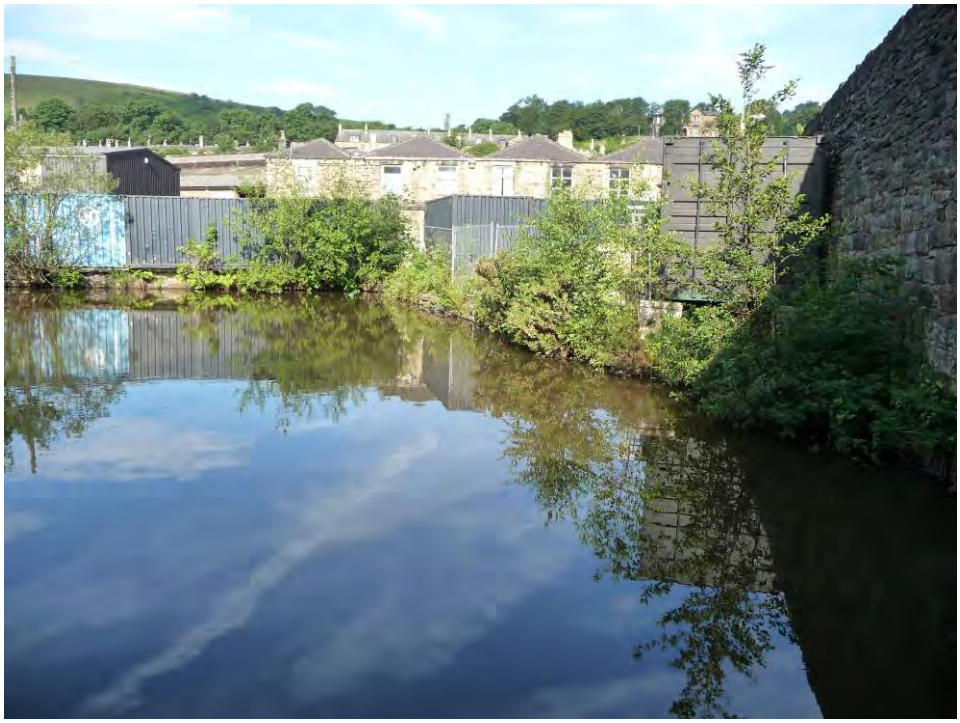

Plate 24 - Canal basin adjacent to Waggon Road

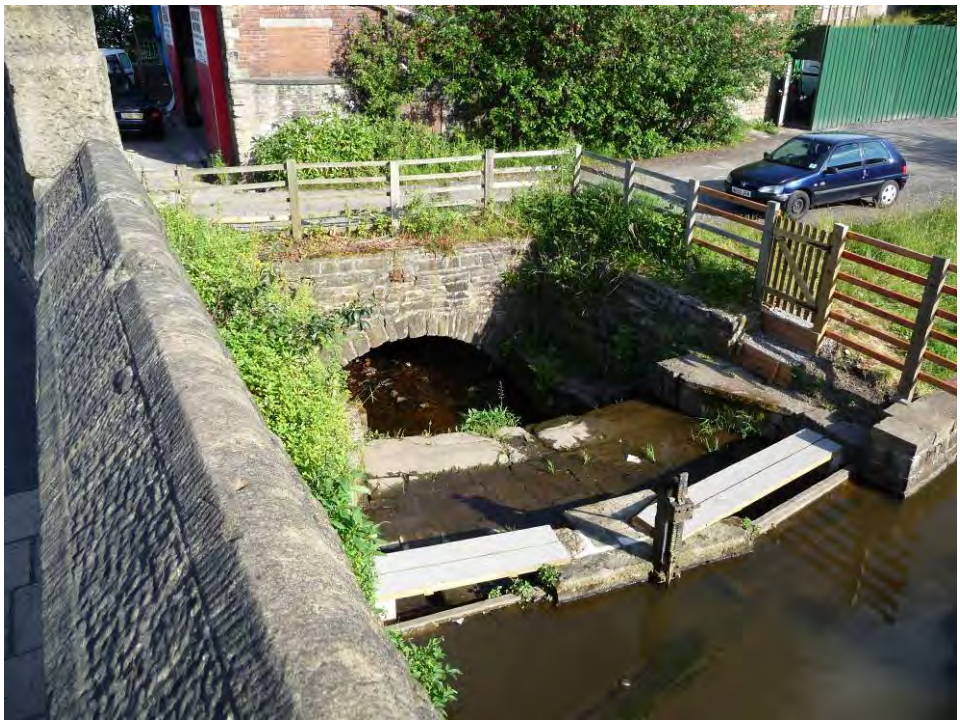

Plate 25 – Canal overflow adjacent to Waggon road

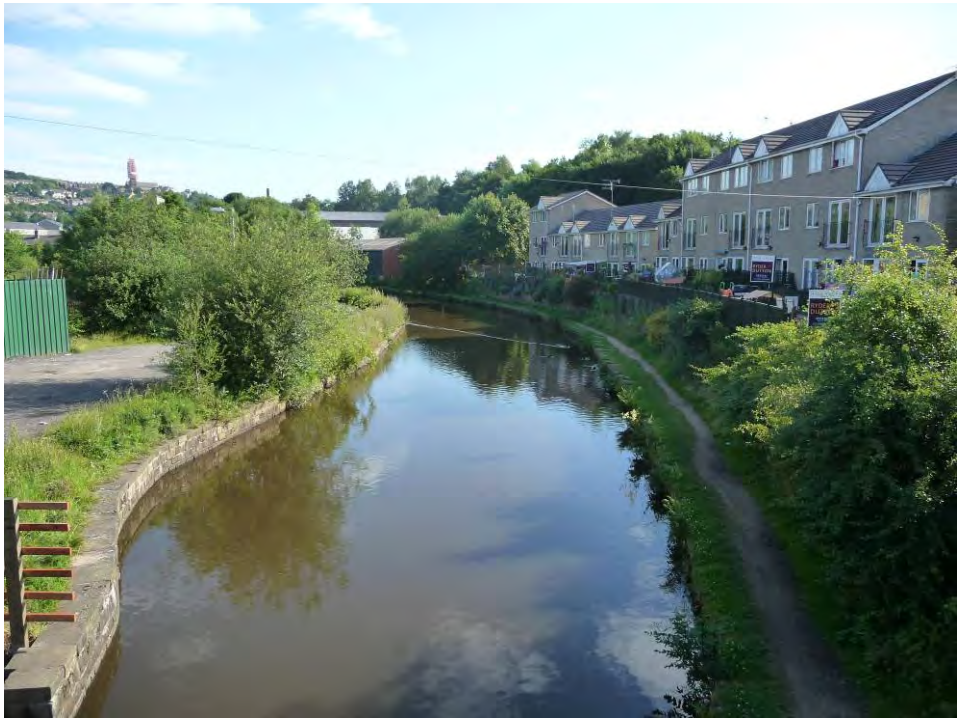

Plate 26 – View north along canal from Waggon Road

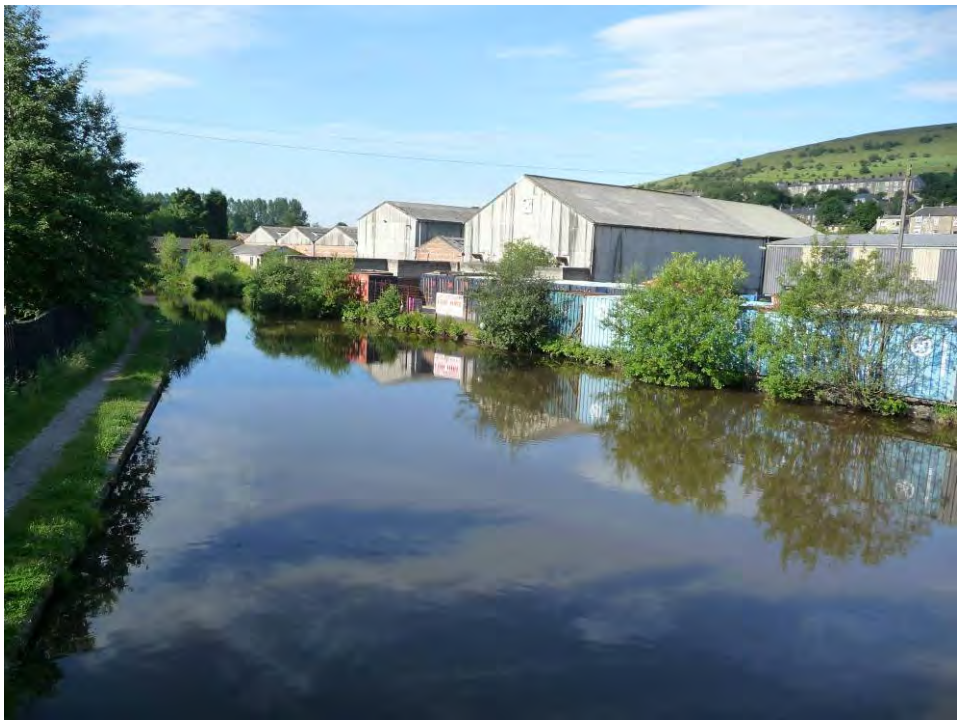

Plate 27 - View south along canal from Waggon Road

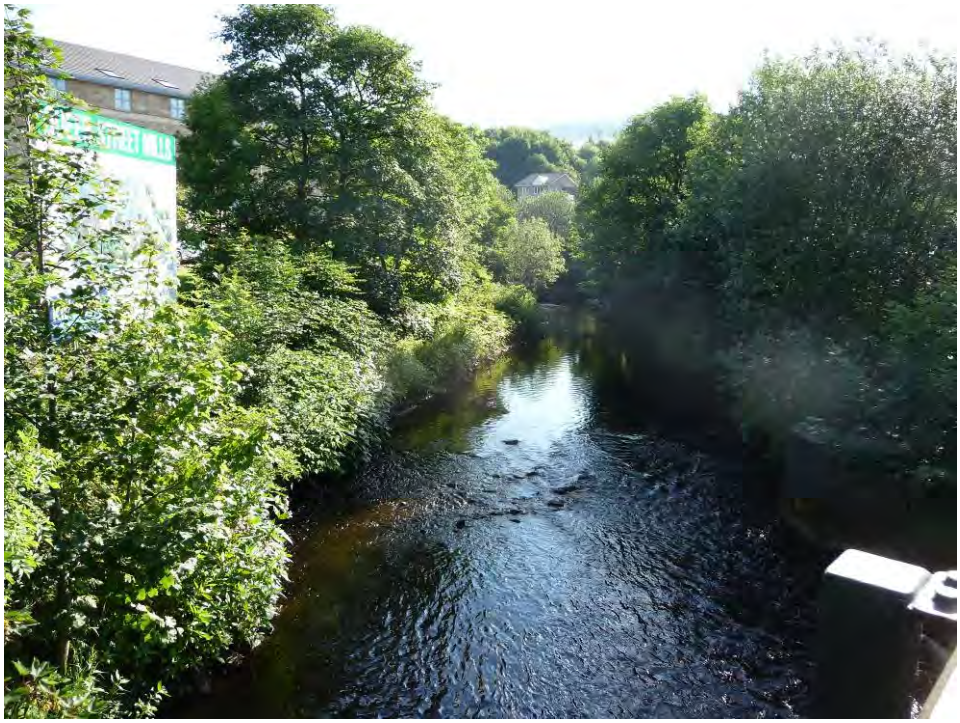

Plate 28 – View upstream from Waggon Road bridge

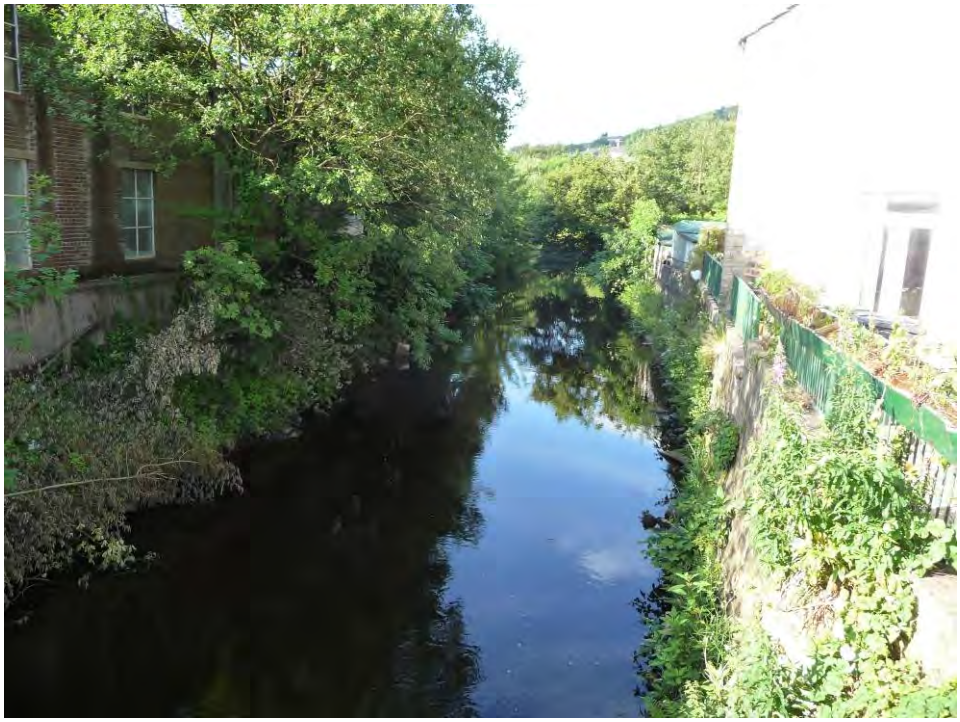

Plate 29 - View downstream from Waggon Road bridge

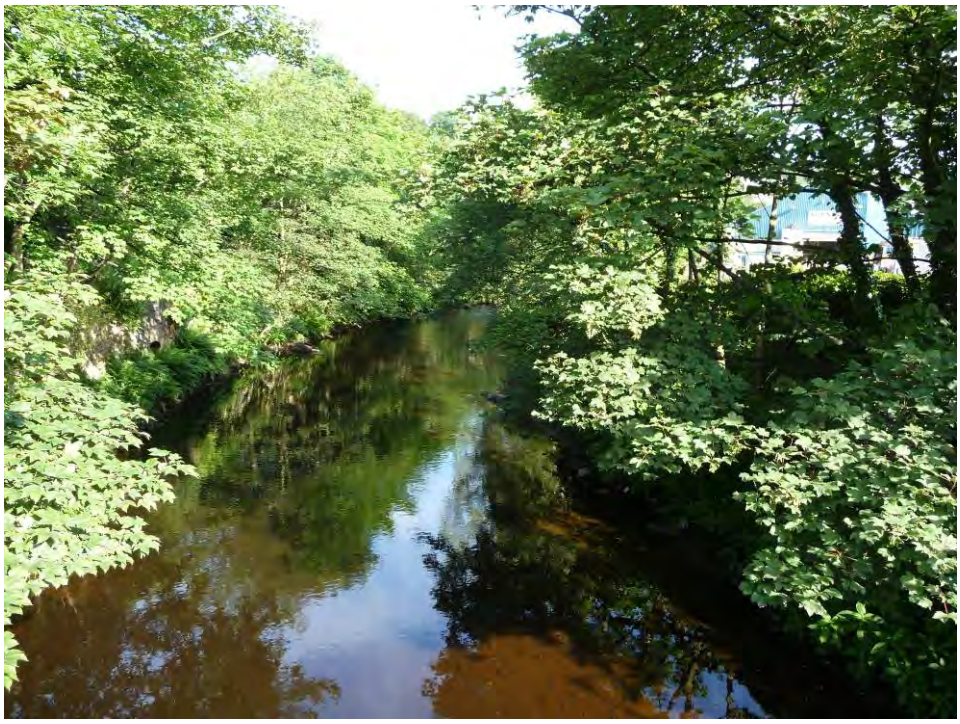

Plate 30 – View upstream from Egmont Street bridge

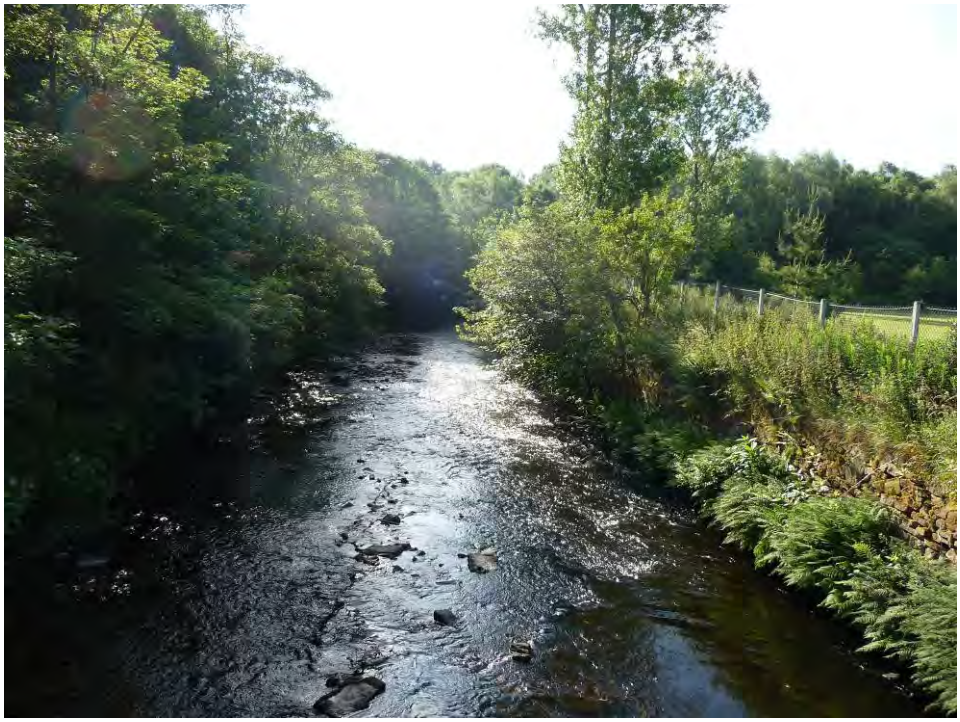

Plate 31 - View downstream from Egmont Street bridge

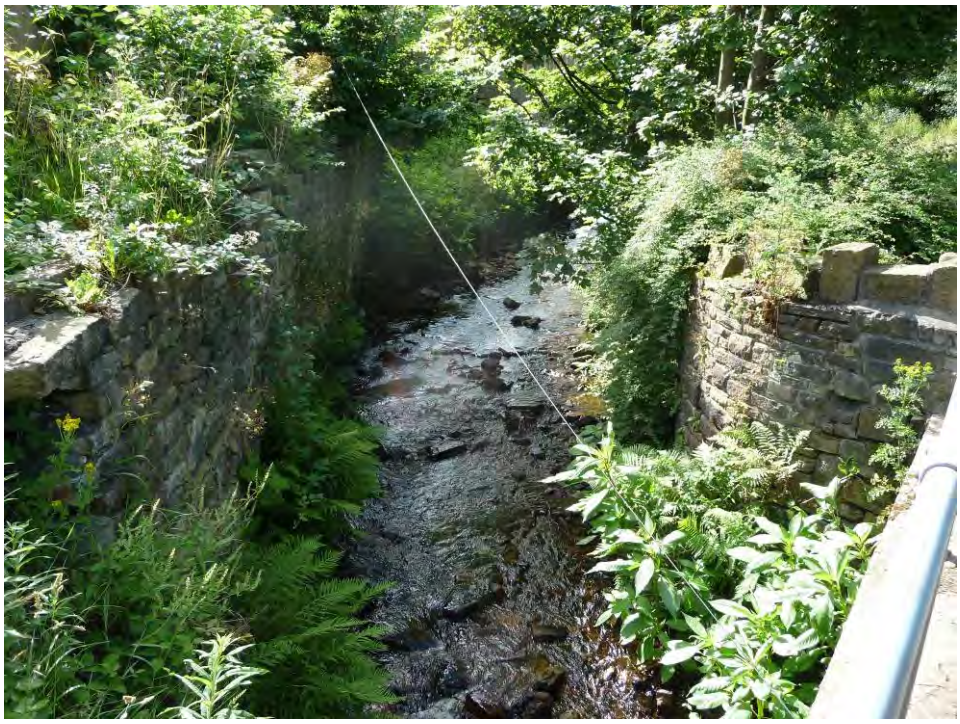

Plate 32 – View upstream along Carr Brook from Micklehurst Road

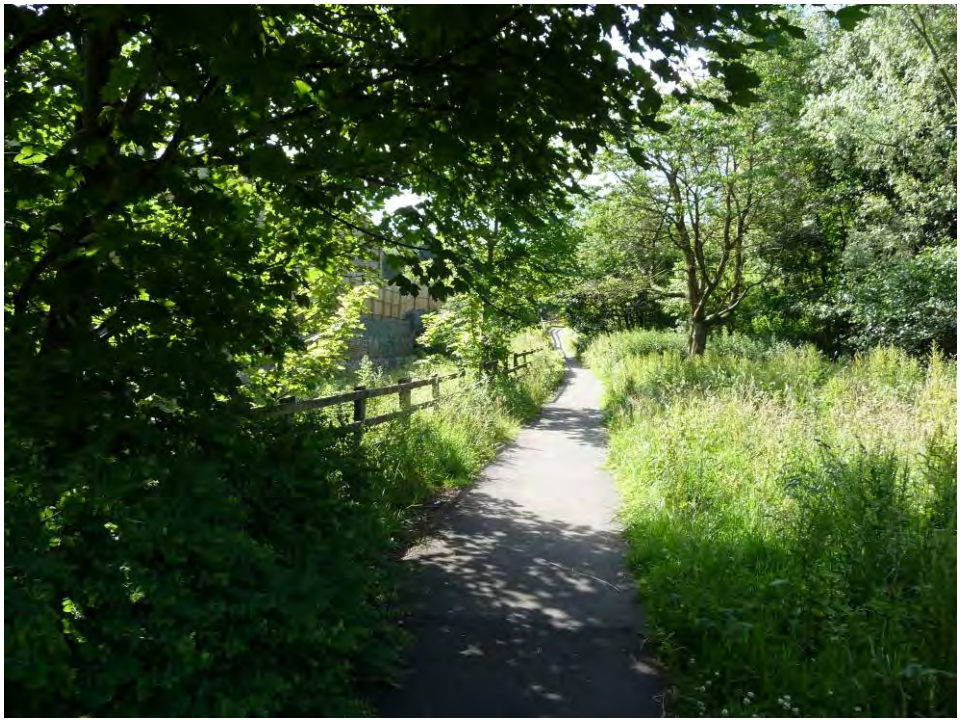

Plate 33 – Footpath alongside Carr Brook south of Micklehurst Road

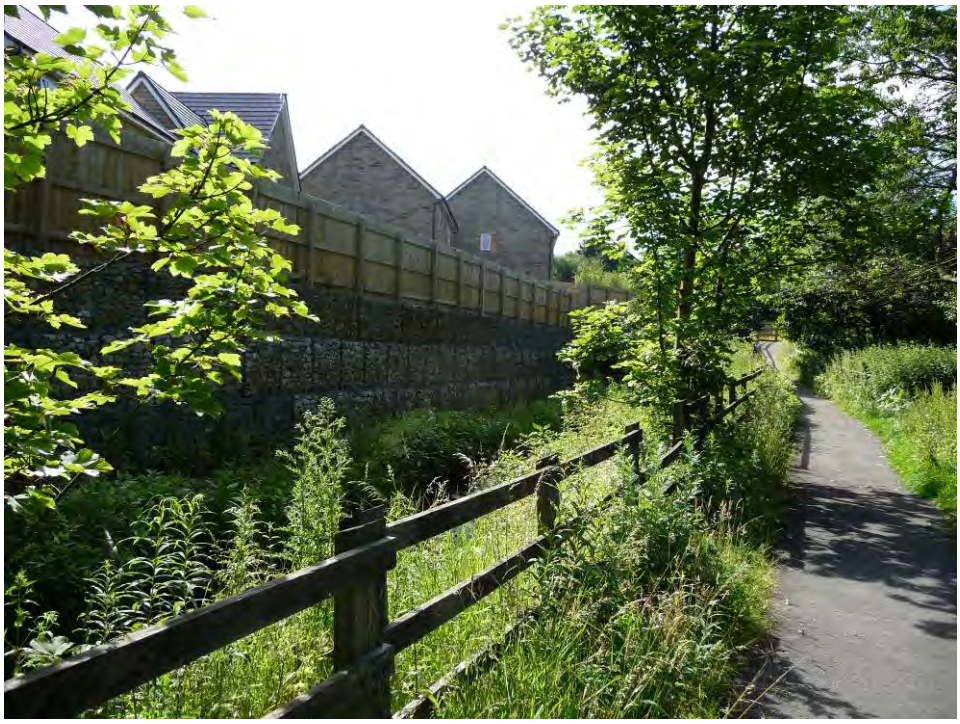

Plate 34 – New housing estate adjacent to right bank of Carr Brook

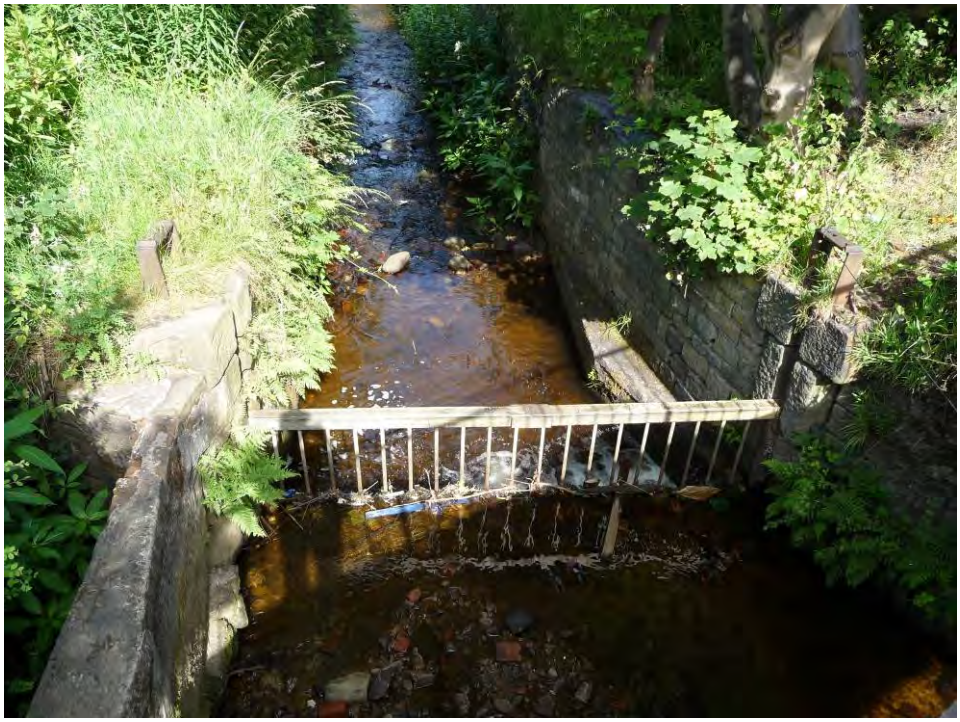

Plate 35 – Trash screen downstream of footbridge at Micklehurst Road

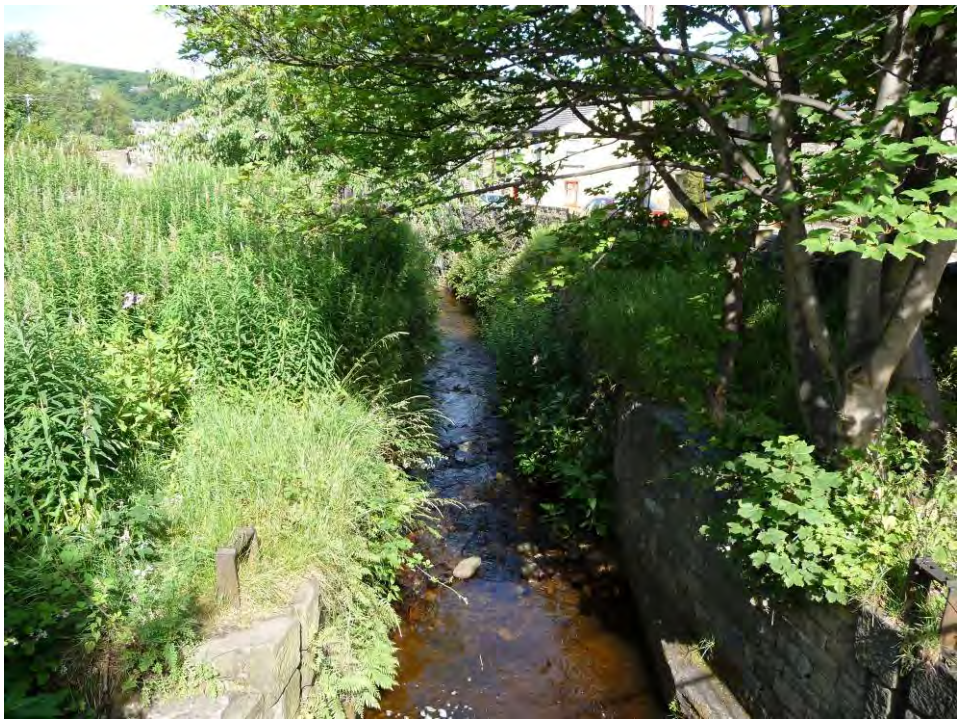

Plate 36 – View downstream along Carr Brook from footbridge adjacent to Micklehurst Road

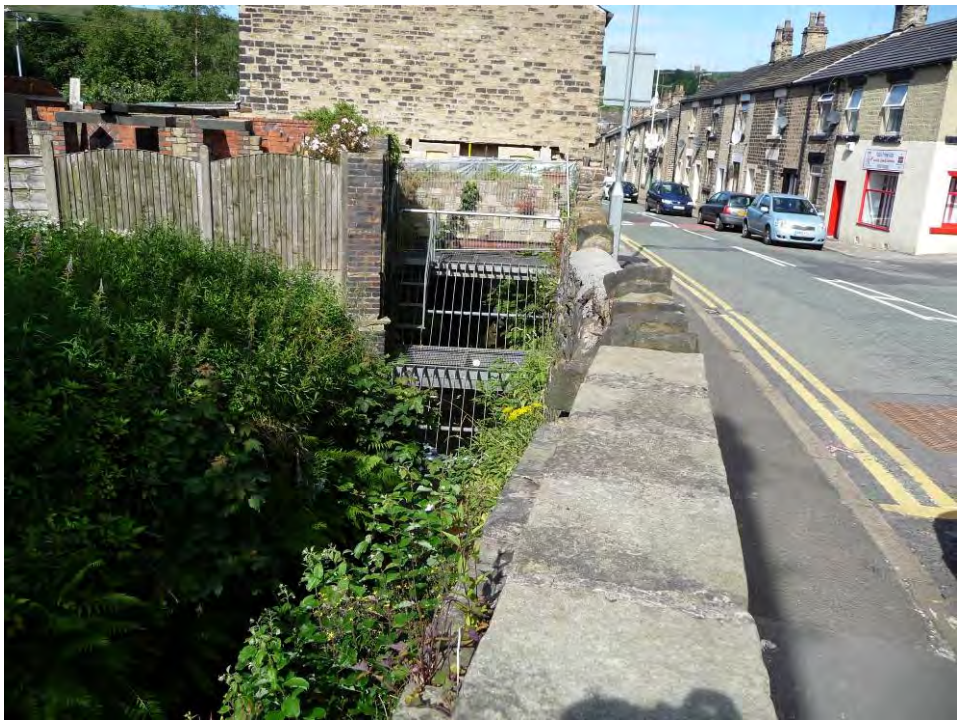

Plate 37 – Trash screen at Carr Brook culvet inlet

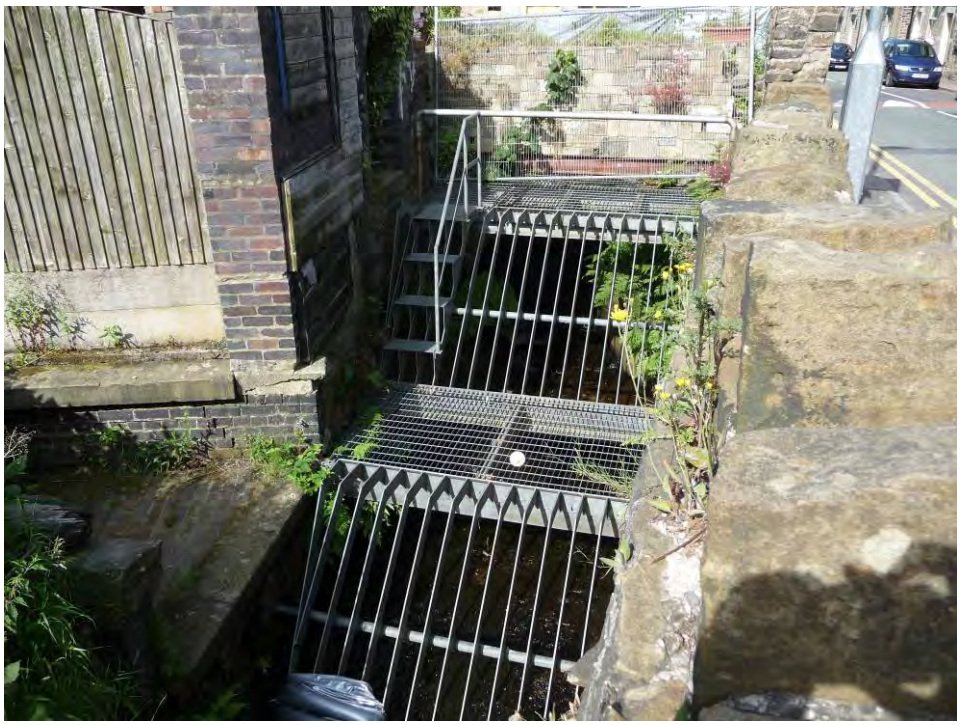

Plate 38 – Trash screen at Carr Brook culvet inlet

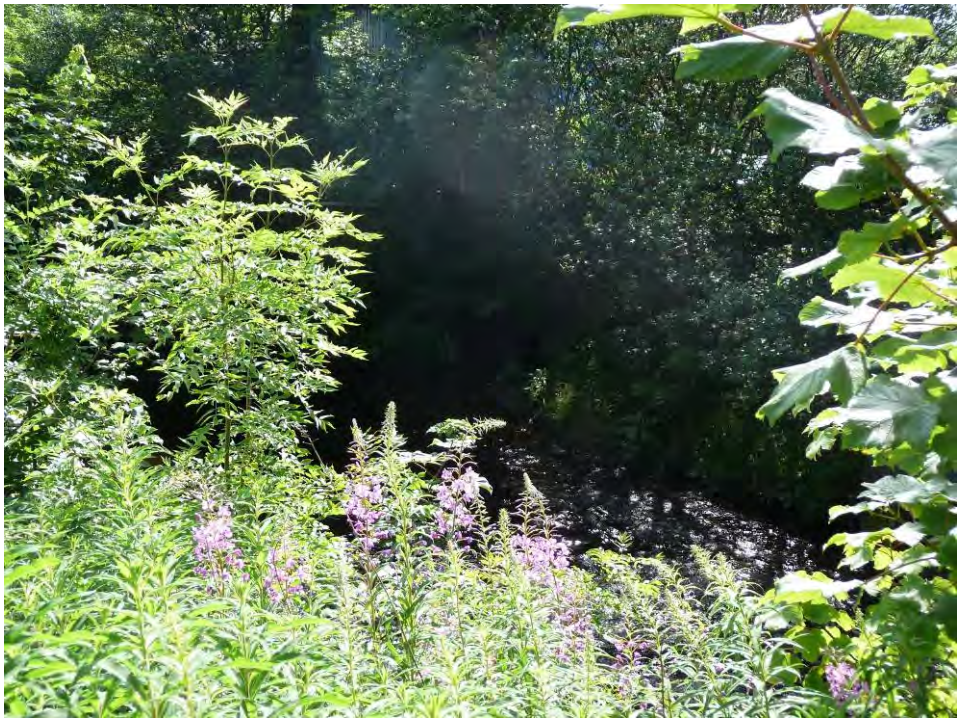

Plate 39 – Carr Brook culvert outlet at River Tame

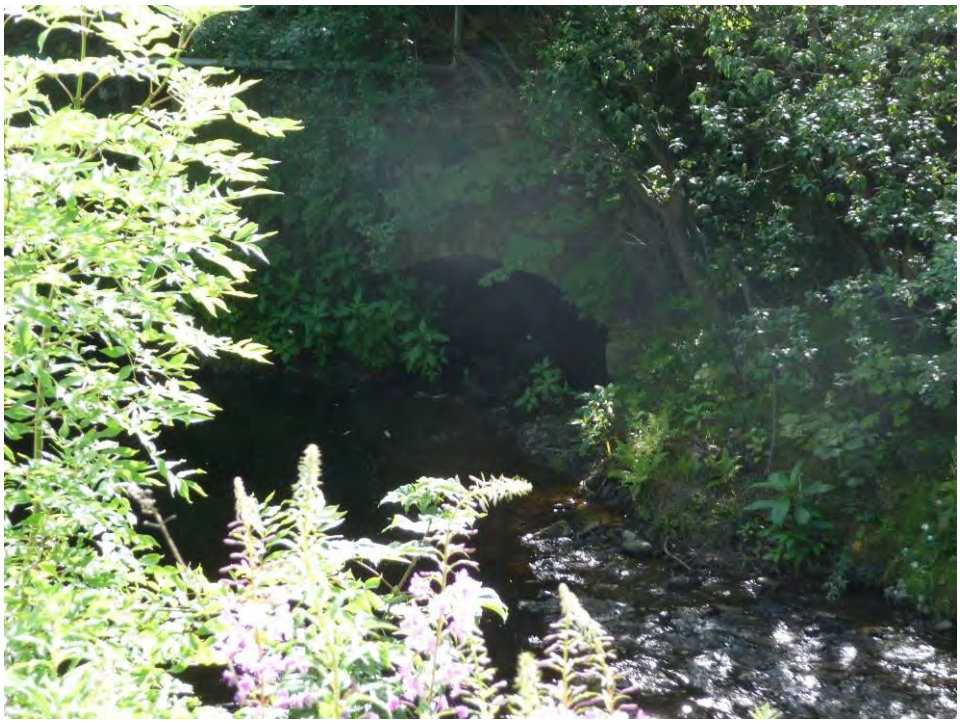

Plate 40 – Carr Brook culvert outlet at River Tame