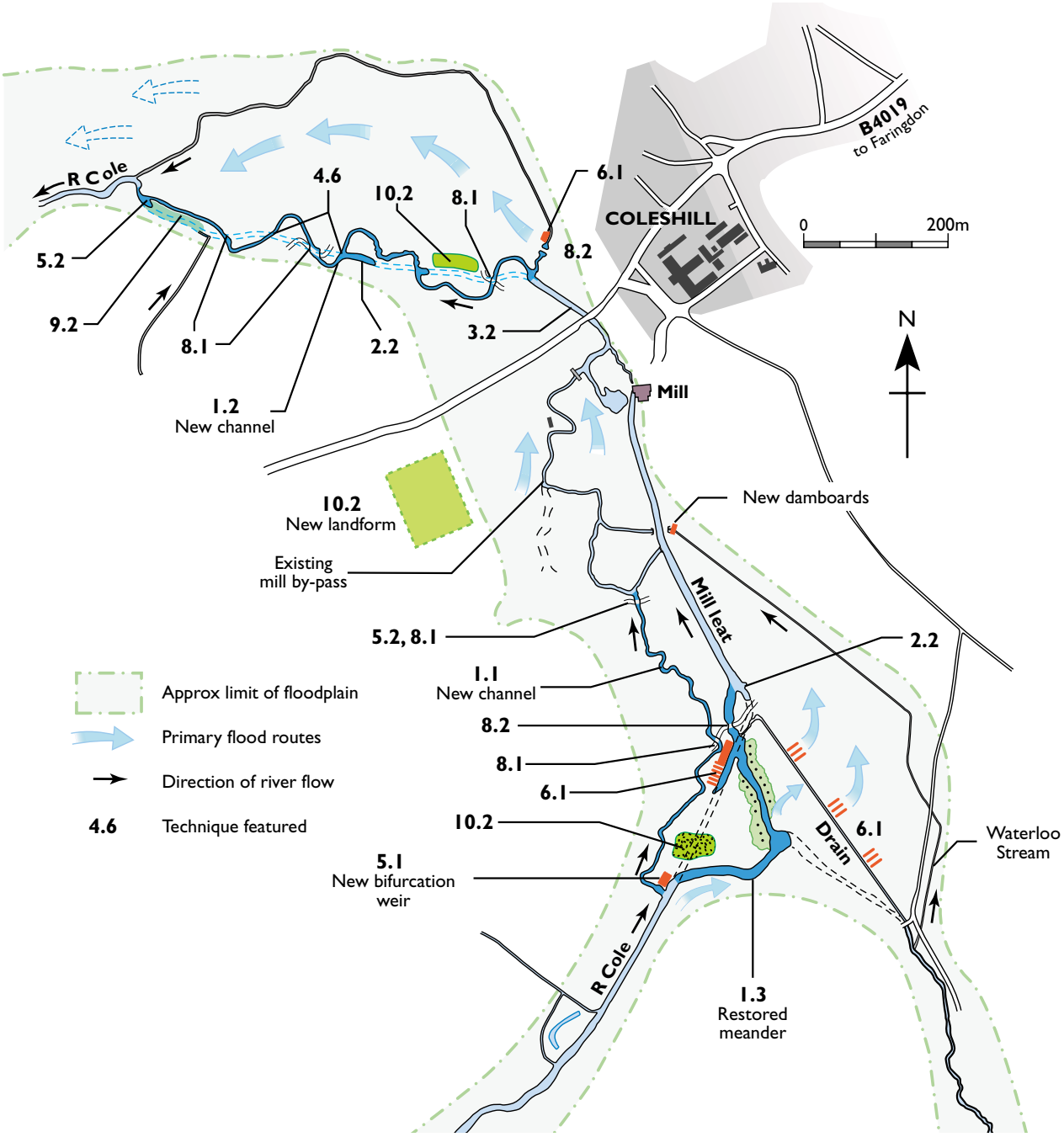
The River Cole Restoration Project

LOCATION - Coleshill, (Oxon/Wilts border) SU 234935
DATE OF CONSTRUCTION - Autumn 1995
LENGTH – 2km
FLOODPLAIN AREA – 50ha
COST – £140k



DESCRIPTION OF THE RIVER COLE AND THE COLE RESTORATION PROJECT

The river Cole is a tributary of the R.Thames located in the upper part of the catchment. Its headwaters include part of the large town of Swindon, Wiltshire. The Cole catchment is otherwise rural and is 130km^2 in area comprising clay, sand, limestone, and chalk geology. Sediments in the lower reaches, where the river is most modified, are confined to silts and muds. Land use is mixed arable and intensive grassland.

The restoration site is located within 6km of the R.Thames at the village of Coleshill where the floodplain is up to 400m wide and graded at about 1 in 1300. Here the river had been straightened for milling purposes, but more recently (1970s) further deepened and widened to reduce flooding of arable land.

Restoration works are shown on the accompanying figure. The principle achievement is the creation of a 2km long meandering river course that is much smaller in size than the previously enlarged channel. This has restored more frequent seasonal flooding to adjacent fields which are now farmed less intensively, supported by Countryside Stewardship.

Full details of the project's organisation, funding, engineering and scientific monitoring are available from RRC in a variety of formats.

List of techniques featured:

1.1 New meandering channel upstream of mill

1.2 New meandering channel downstream of mill

1.3 Single meander in Mill Leat

2.2 New backwaters in redundant river channels

3.2 New aquatic ledges

4.6 Short term bank revetments

5.1 Bifurcation weir and spillway

5.2 Drop weirs in bed

6.1 Floodplain spillways

8.1 Fords and livestock access

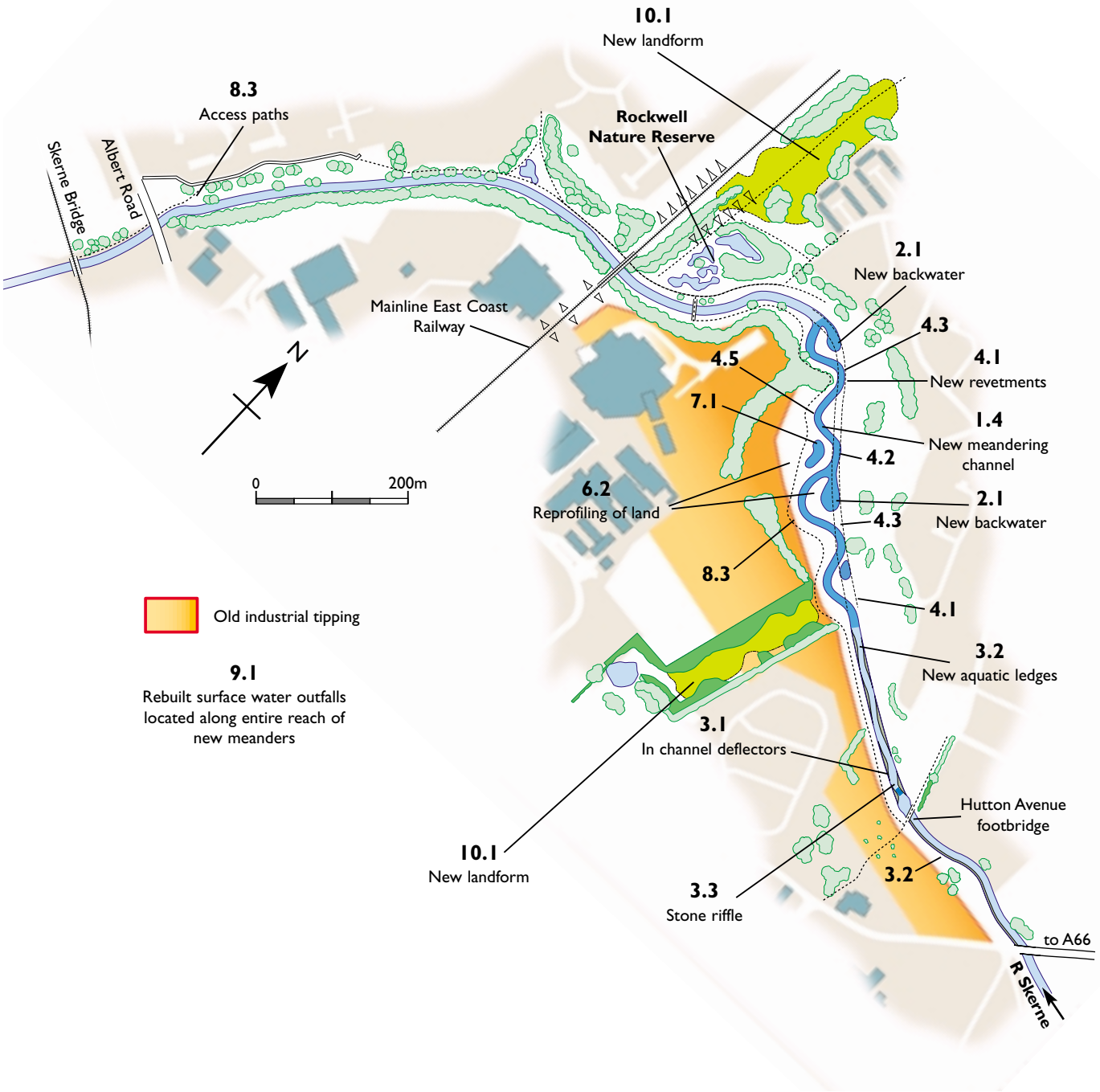
8.2 New crossings

9.2 New reedbed

10.2 New landforms

The River Skerne Restoration Project

LOCATION – Darlington, Co Durham, NZ 301160
DATE OF CONSTRUCTION – Autumn 1995 to Spring 1996
LENGTH – 500m
COST – £300k



DESCRIPTION OF THE RIVER SKERNE AND THE SKERNE RESTORATION PROJECT

The River Skerne flows into the R.Tees just south of the town of Darlington, Co. Durham. It has a clay and alluvium based catchment area of 250km^2 that includes several small towns, as well as Darlington and a number of industrial sites that historically polluted the river.

The restoration site is located within a north east suburb of Darlington, Haughton-le-Skerne, where a small length of floodplain has survived the historic tipping of industrial waste and urban development that fully occupy it elsewhere. The surviving floodplain is, however, severely disturbed by previous river straightening works and backfilling, and has many utility services routed through it. The floodplain is less than 1km long, falling at about 1 in 1300. Housing and landfill partially encroach onto the floodplain, in places leaving little more than a 100m width open to public access.

Restoration works are shown on the accompanying figure. The principle achievements are the creation of new meanders on the south side of the old, straight course, and the enhancement of the existing course, both upstream and downstream of the new meanders, where it proved impossible to re-route the river. A reach of 2 km in all was either restored or enhanced. Extensive public amenities were incorporated including new paths and landscape planting.

Full details of the project's organisation, funding, engineering and scientific monitoring are available from RRC in a variety of formats.

List of techniques featured:

1.4	New meandering channel
2.1	New backwaters
3.1	In-channel deflectors
3.2	New aquatic ledges
3.3	Stone riffle
4.1 - 4.4	New revetments
4.5	Supporting river banks
6.2	Re-profiling of land within meanders
7.1	Floodplain scrapes
8.3	Access paths
9.1	Rebuilt surface water outfalls
10.1	New landforms

Project Locations – 2002 Update

LISTING OF THE PROJECTS FEATURED IN THE 2002 UPDATE

This update of Edition 1, 'Restoring the River Cole and River Skerne', introduces fifteen further projects where rivers have been enhanced, rehabilitated or restored by a variety of organistations and partnerships. Each entry is accompanied by a contacts list should further information be required.

Project featured:	**List of techniques featured:**
R. Marden, Wilts	1.5 New meandering channel replacing concrete weirs 5.4 Simulated bedrock outcrops 8.5 Urban riverside access
R. Ravensbourne, LB Bromley	1.6 Opening up a culverted stream
R. Little Ouse, Norfolk	1.7 Reconnecting remnant meanders
R. Alt, Merseyside	3.4 Radical re-design from uniform, straight channel to a sinuous, multi-channel river
R. Avon, Wilts	3.5 Narrowing of an over-widened channel using low cost groynes
R. Dearne, S. Yorkshire	3.6 Creating a sinuous low-flow channel in an over-widened channel
Yardley Brook, Birmingham	3.7 Replacing a concrete drain with a 'natural' channel
R. Tall, Co. Armagh	3.8 Creation of on-line bays
R. Chess, Bucks	3.9 Introducing gravel to inaccessible reaches 10.3 Cost effective silt removal from an impounded channel
R. Thames, Oxon	4.7 Bank revetment using low steel sheet piling and coir rolls
R. Ogwen, Gwynedd	5.3 Restoring and stabilising over-deepened river bed levels 8.4 Restoring a ford as a stock and vehicular crossing point
R. Kennet, Wilts	5.5 Raising river bed levels
Long Eau, Lincs	6.3 Removing and setting back floodbanks
R. Thames, Oxon	7.2 Floodplain wetland mosaic
Sugar Brook, Manchester	11.1 Diversion of a river valley
R. Nith, Ayrshire	11.2 Clay lined river