"THE NON-TIDAL, NAVIGABLE THAMES: A BANK EROSION MANAGEMENT STRATEGY"

by Sue Reed BSc, MSc, MCIWEM

Vol. 3

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Thesis submitted to the University of Nottingham
for the degree of Doctor of Philosophy, October 1998

The non-tidal, navigable Thames – A Bank Erosion Management Strategy

Volume 1 to 3.

S. Reed 1998

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SECTION I : STATE OF THE ENVIRONMENT

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- Channel sinuosity
- Wash impact potential
- Flow deflection potential
- River bank characteristics
- Susceptibility to bank erosion
- River bank erosion and stability along each reach
- River bank characteristics for the whole Thames
- River bank characteristics along each reach of the River Thames (Graphs 1 - 43)

SECTION II : PRESSURES ON THE ENVIRONMENT

- Factors contributing to river bank erosion
- Bank erosion along each reach of the River Thames (Maps 1 - 43)

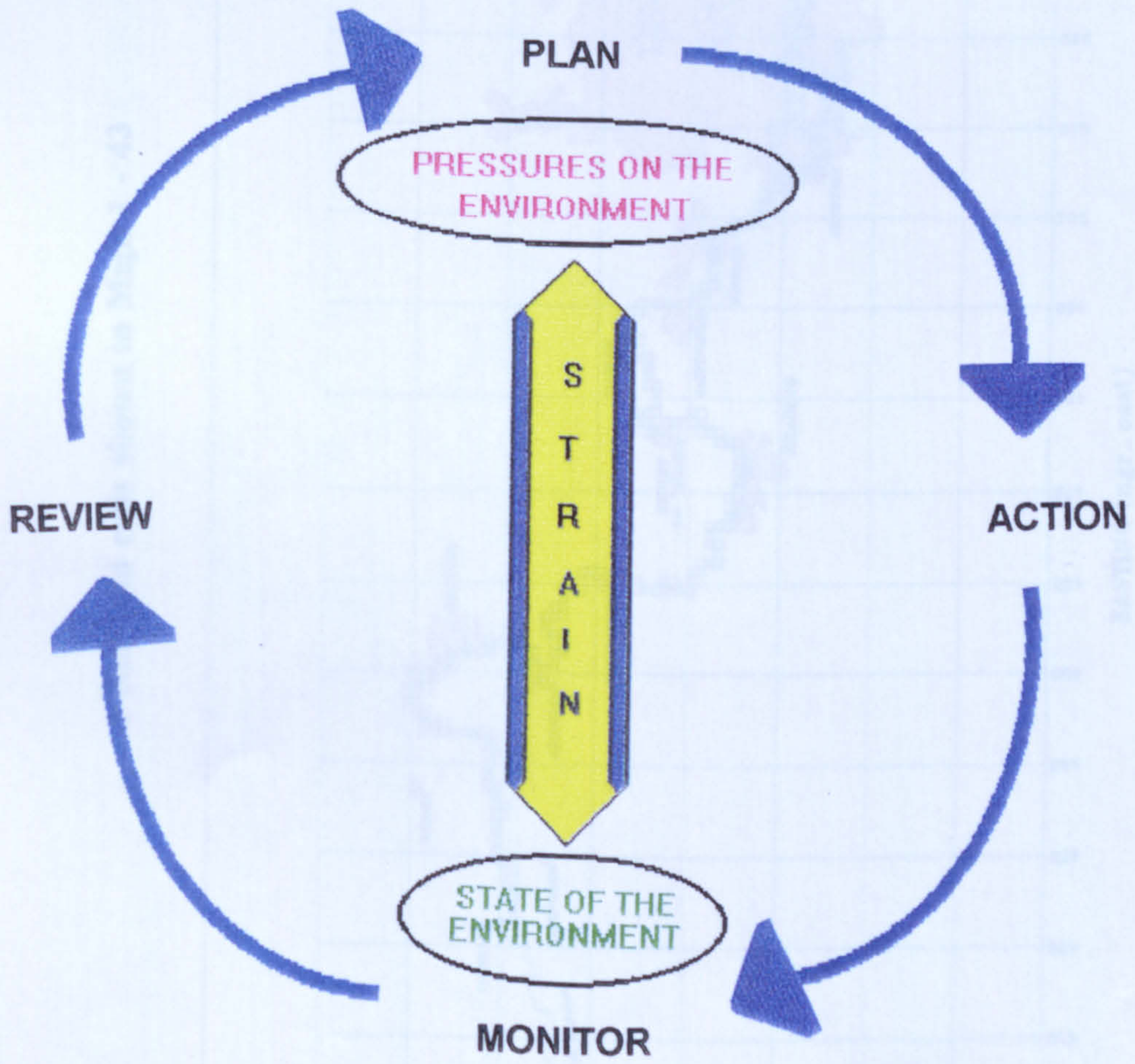
SECTION III : RESPONSE TO ENVIRONMENTAL STRAIN

- Structure of the Thames bank erosion management strategy
- Risk matrix describing the causes and consequences of bank erosion
- Bank erosion management hierarchy for the River Thames
- Mitigation and enhancement criteria for alternative erosion control techniques

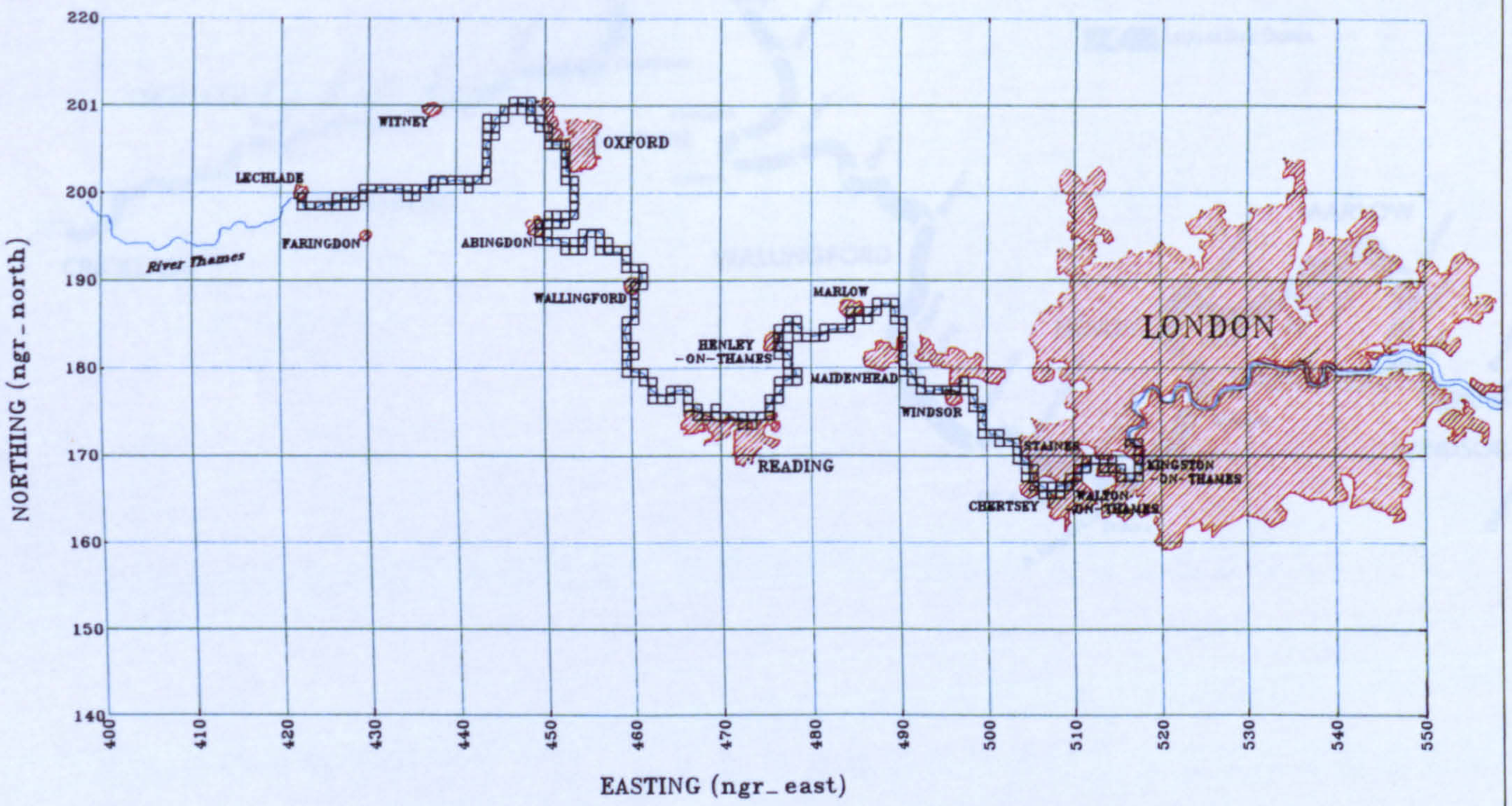
INTRODUCTION

Introduction

The River Thames Reach Assessment collates relevant information to assist in the sustainable management of the river banks. This document adopts the 'pressure-state-response' framework for environmental management, whereby management actions are designed to reduce the strain on the environment (see below). Information relating to the state of the environment is presented first, then information relating to the pressures on the environment, i.e. the causes of bank erosion. Lastly, key stages of the management strategy are presented to assist in responding to the various pressures identified, namely, the consideration of risks, alternative erosion control strategies and mitigation measures.



1 Km^2 grid cells shown in Maps 1 - 43



KEY:

- 1Km grid cells included in database
- River courses
- Urban areas

N

Scale (Km)

0 20

(Grid annotation represents kilometres from the OS National Grid Datum)

Schematic plan of the reaches of the non-tidal, navigable Thames



List of graph and map numbers according to river reach

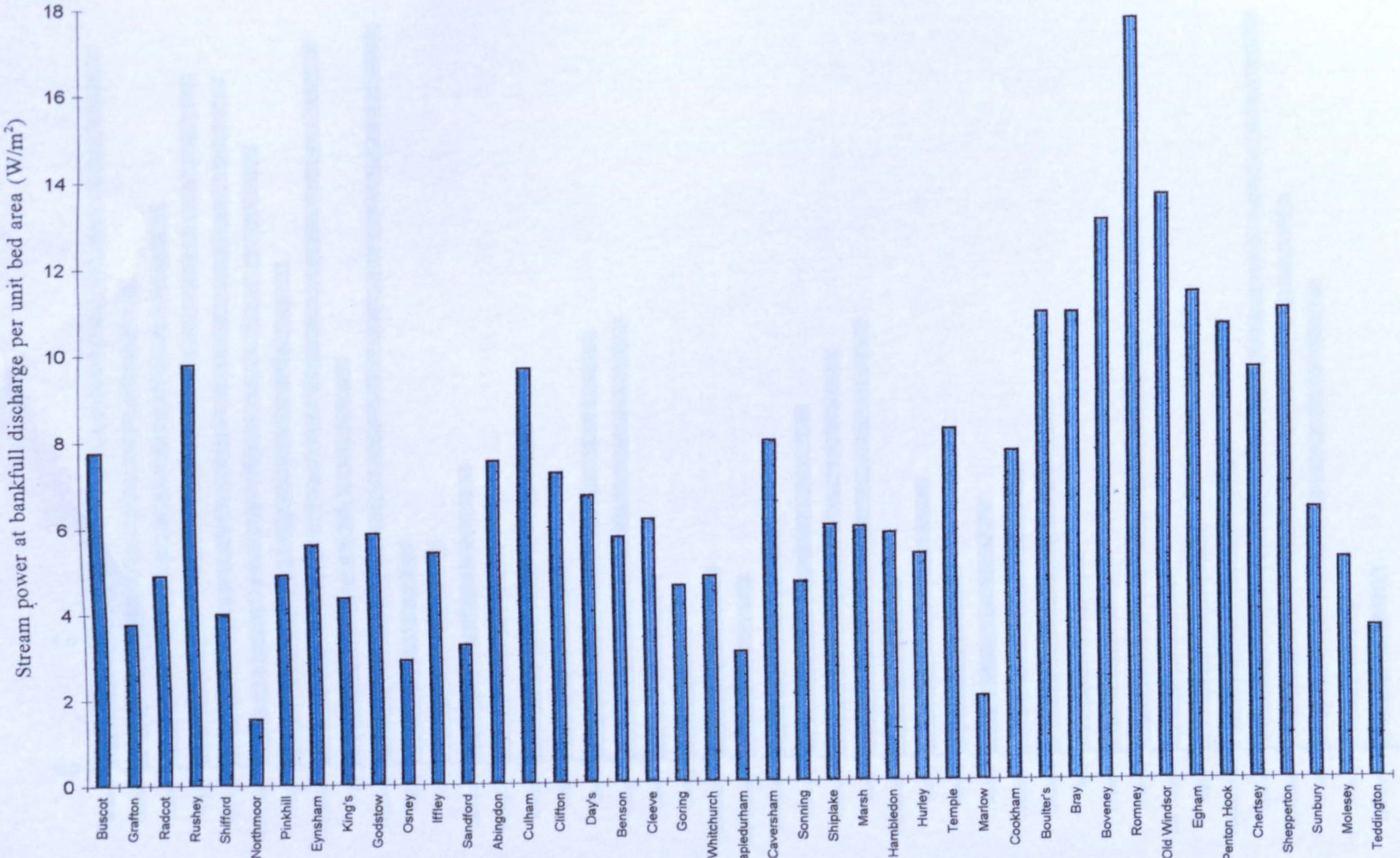
Thames Reach:	reach limits	Graph No.	Map No.
Buscot:	St. John's to Buscot	1	1
Grafton:	Buscot to Grafton	2	2
Radcot:	Grafton to Radcot	3	3
Rushey:	Radcot to Rushey	4	4
Shifford:	Rushey to Shifford	5	5
Northmoor:	Shifford to Northmoor	6	6
Pinkhill:	Northmoor to Pinkhill	7	7
Eynsham:	Pinkhill to Eynsham	8	8
King's:	Eynsham to King's	9	9
Godstow:	King's to Godstow	10	10
Osney:	Godstow to Osney	11	11
Iffley:	Osney to Iffley	12	12
Sandford:	Iffley to Sandford	13	13
Abingdon:	Sandford to Abingdon	14	14
Culham:	Abingdon to Culham	15	15
Clifton:	Culam to Clifton	16	16
Day's:	Clifton to Day's	17	17
Benson:	Day's to Benson	18	18
Cleeve:	Benson to Cleeve	19	19a & b
Goring:	Cleeve to Goring	20	20
Whitchurch:	Goring to Whitchurch	21	21
Mapledurham:	Whitchurch to Mapledurham	22	22
Caversham:	Mapledurham to Caversham	23	23
Sonning:	Caversham to Sonning	24	24
Shiplake:	Sonning to Shiplake	25	25
Marsh:	Shiplake to Marsh	26	26
Hambledon:	Marsh to Hambledon	27	27
Hurley:	Hambledon to Hurley	28	28
Temple:	Hurley to Temple	29	29
Marlow:	Temple to Marlow	30	30
Cookham:	Marlow to Cookham	31	31
Boulter's:	Cookham to Boulter's	32	32
Bray:	Boulter's to Bray	33	33
Boveney:	Bray to Boveney	34	34
Romeny:	Boveney to Romney	35	35
Old Windsor:	Romney to Old Windsor	36	36
Egham:	Old Windsor to Egham	37	37
Penton Hook:	Egham to Penton Hook	38	38
Chertsey:	Penton Hook to Chertsey	39	39
Sheppeton:	Chertsey to Shepperton	40	40
Sunbury:	Shepperton to Sunbury	41	41
Molesey:	Sunbury to Molesey	42	42
Teddington:	Molesey to Teddington	43	43

SECTION I

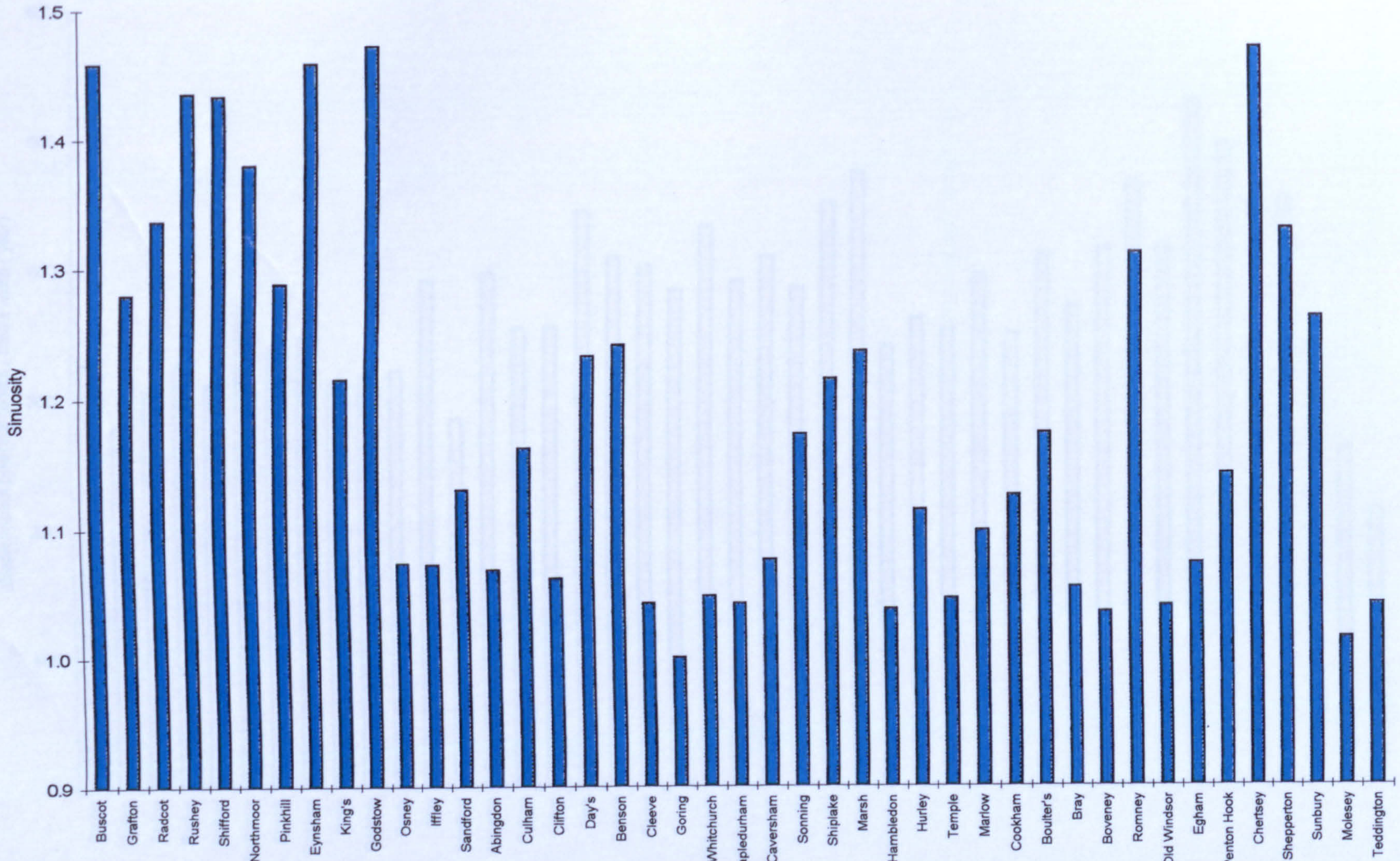
STATE OF THE ENVIRONMENT

- Stream power
- Channel sinuosity
- Wash impact potential
- Flow deflection potential
- River bank characteristics
- Susceptibility to bank erosion
- River bank erosion and stability along each reach
- River bank characteristics for the whole Thames
- River bank characteristics along each reach of the River Thames (Graphs 1 - 43)

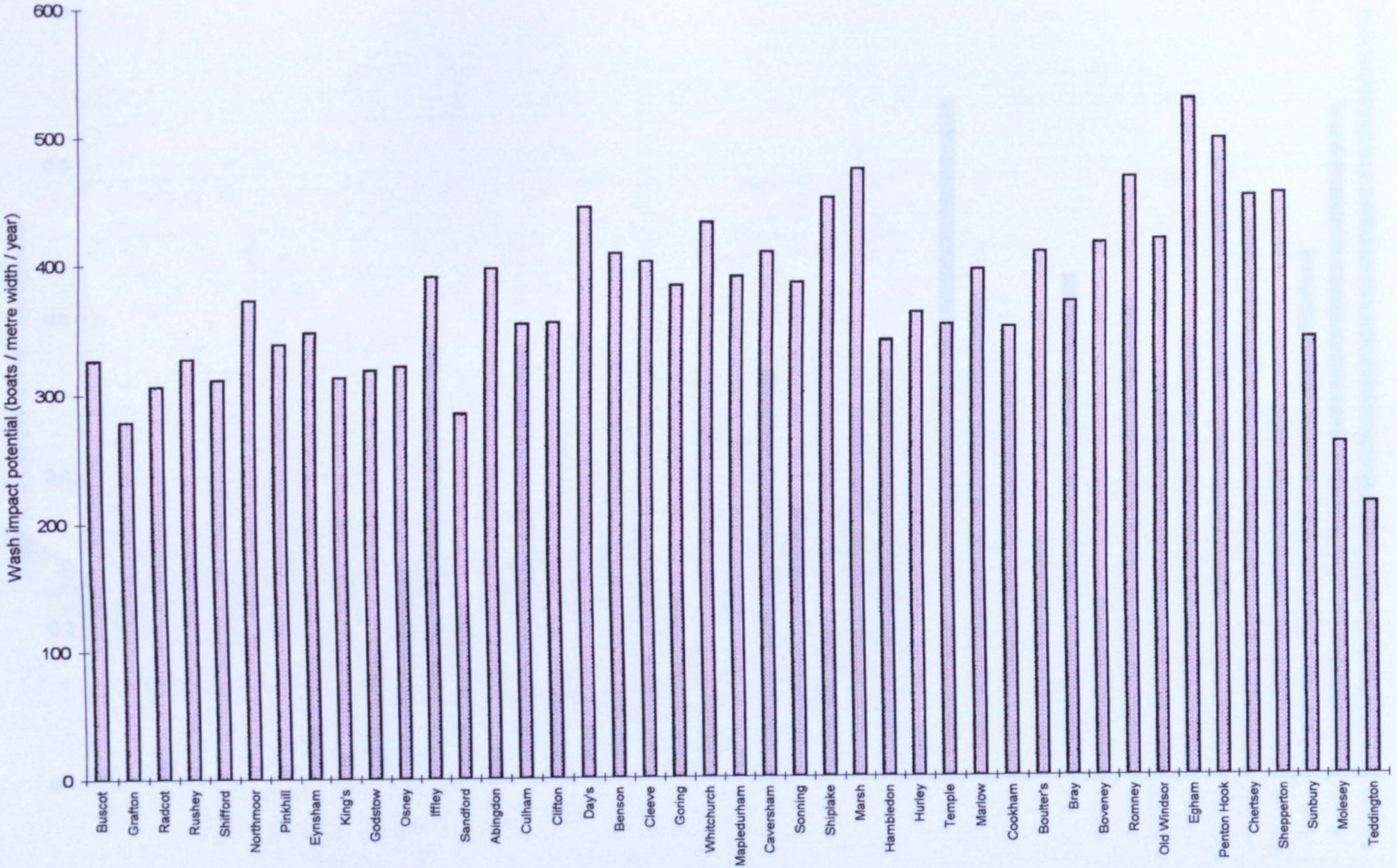
State of the Environment:
Stream power



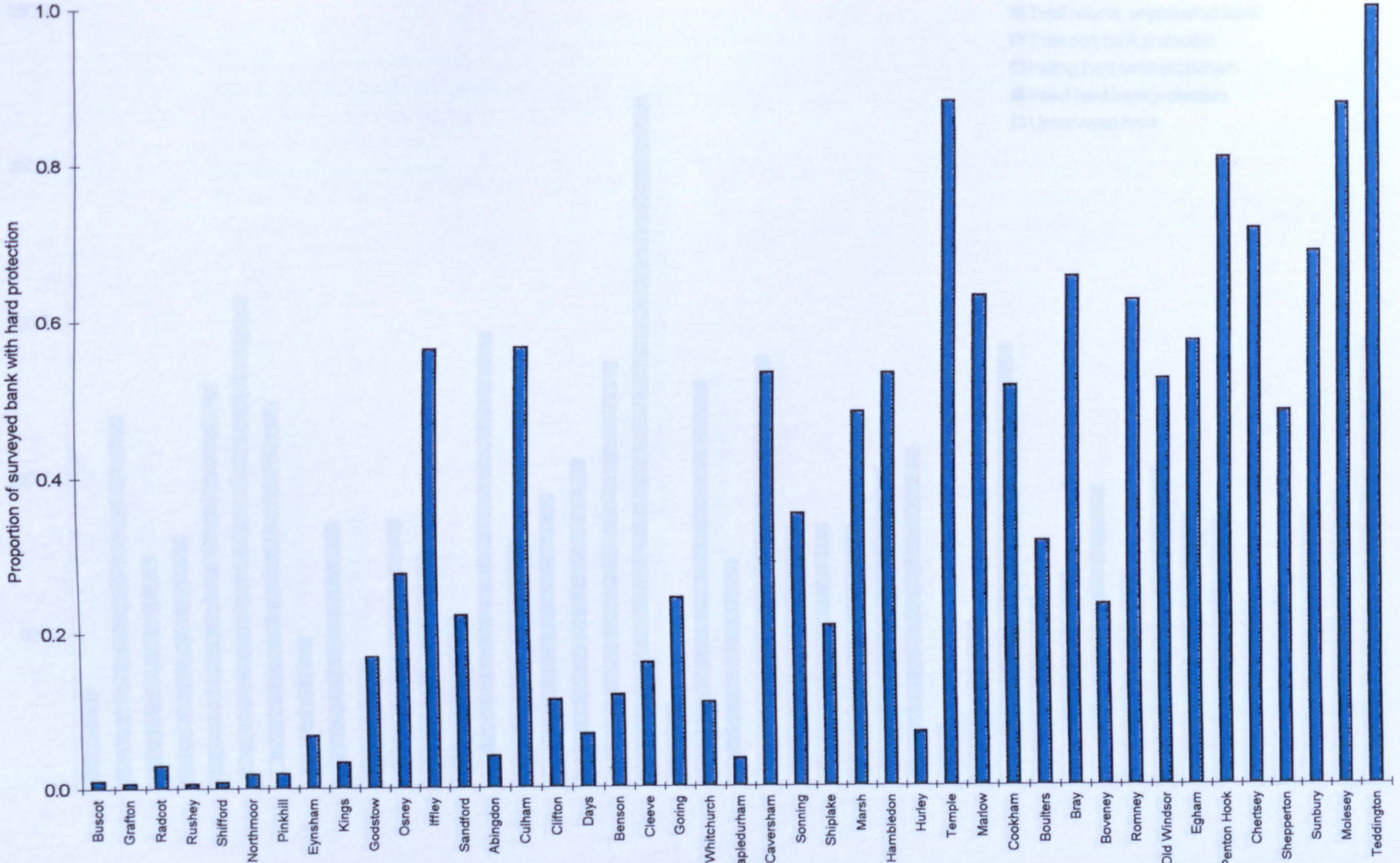
State of the Environment:
Channel sinuosity



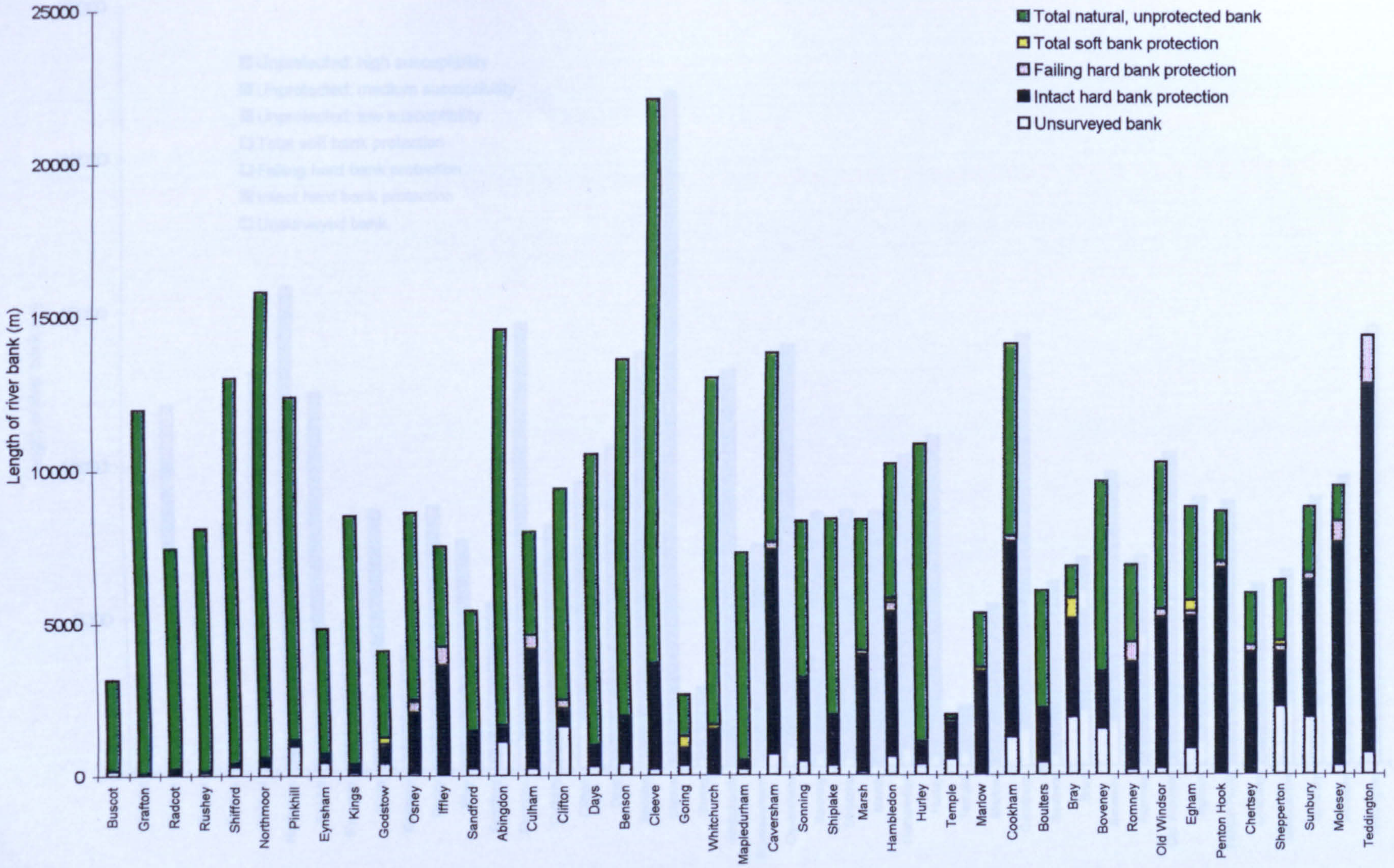
State of the Environment:
Wash impact potential



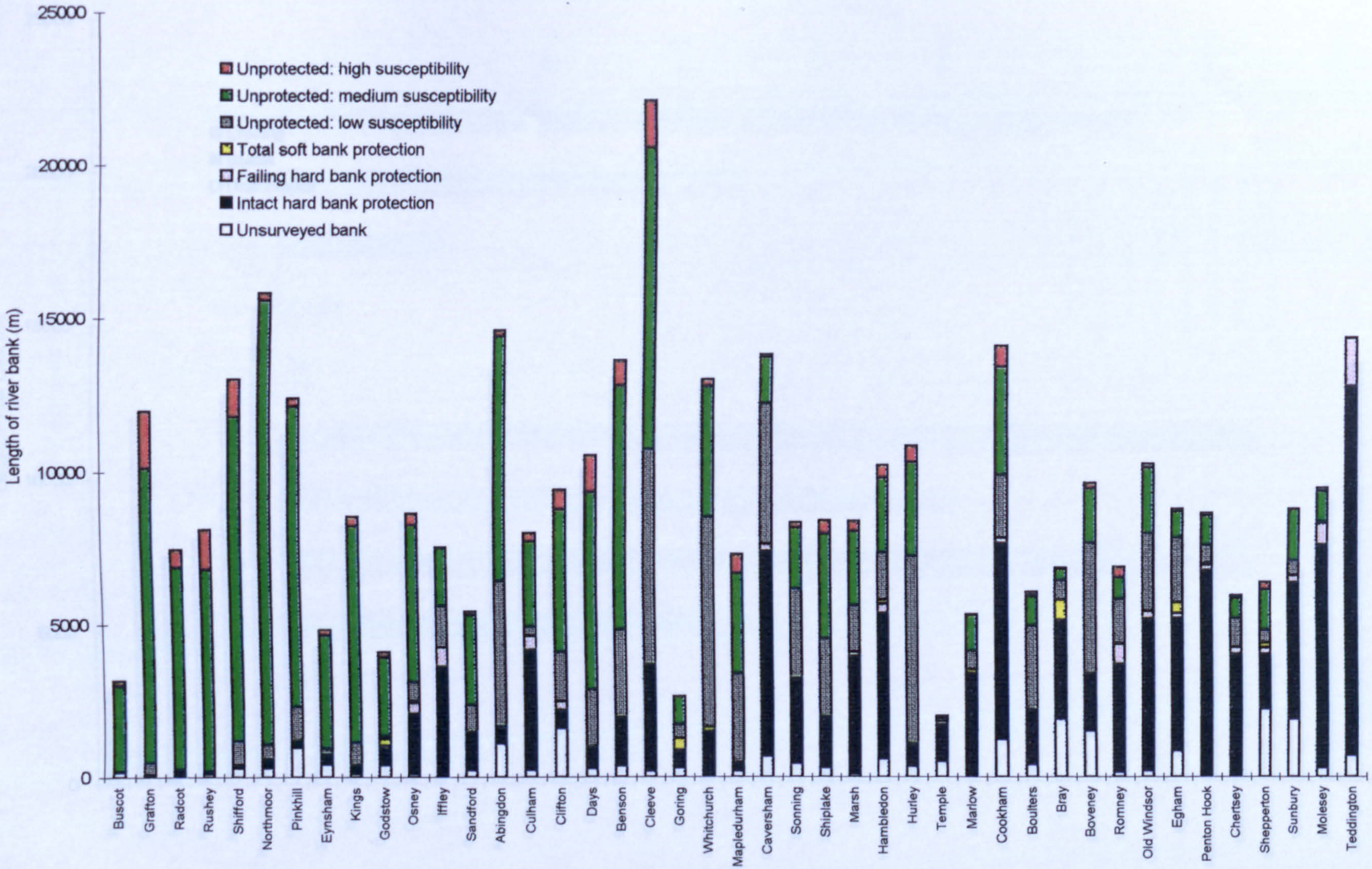
State of the Environment:
Flow deflection potential



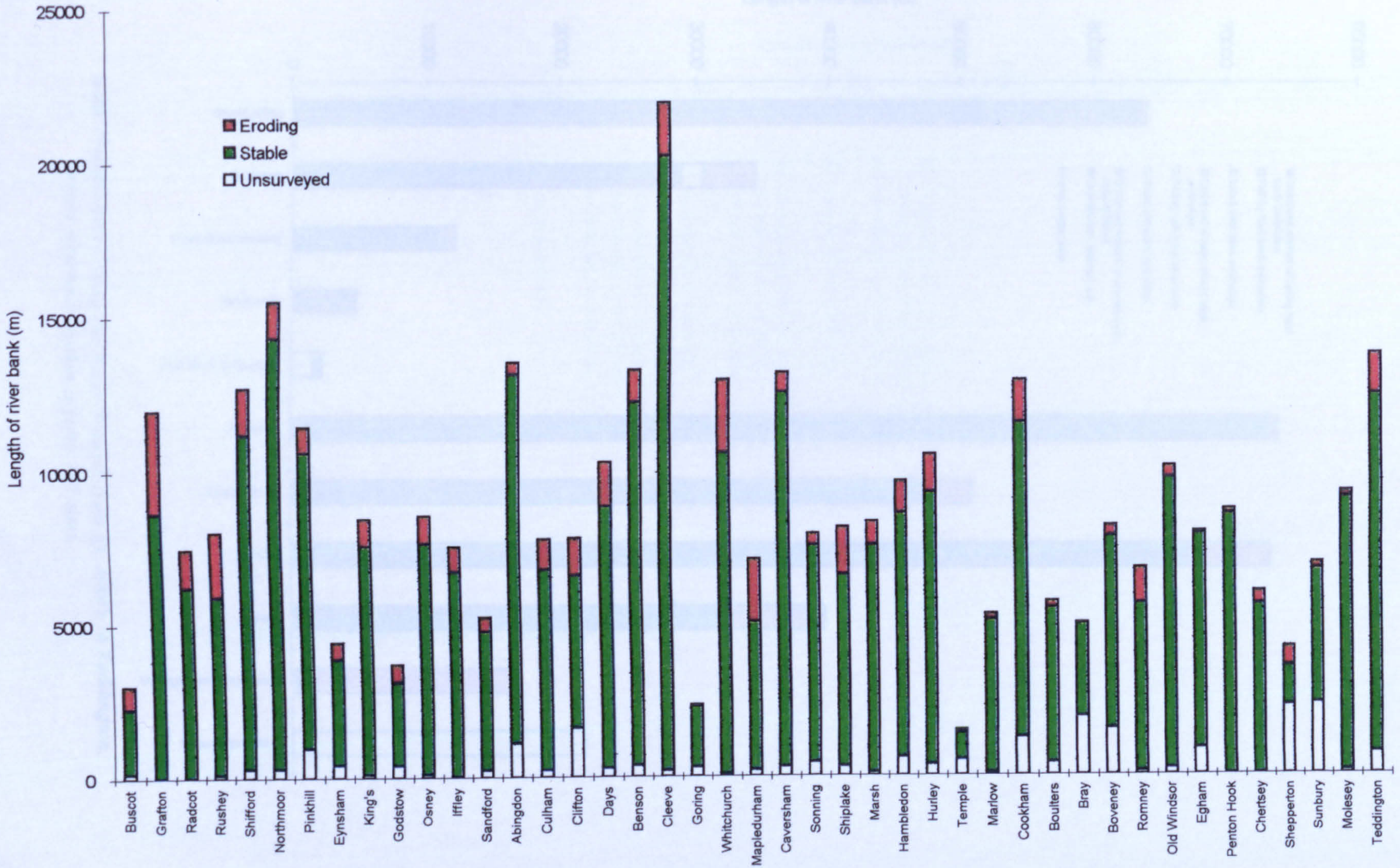
State of the Environment:
River bank characteristics

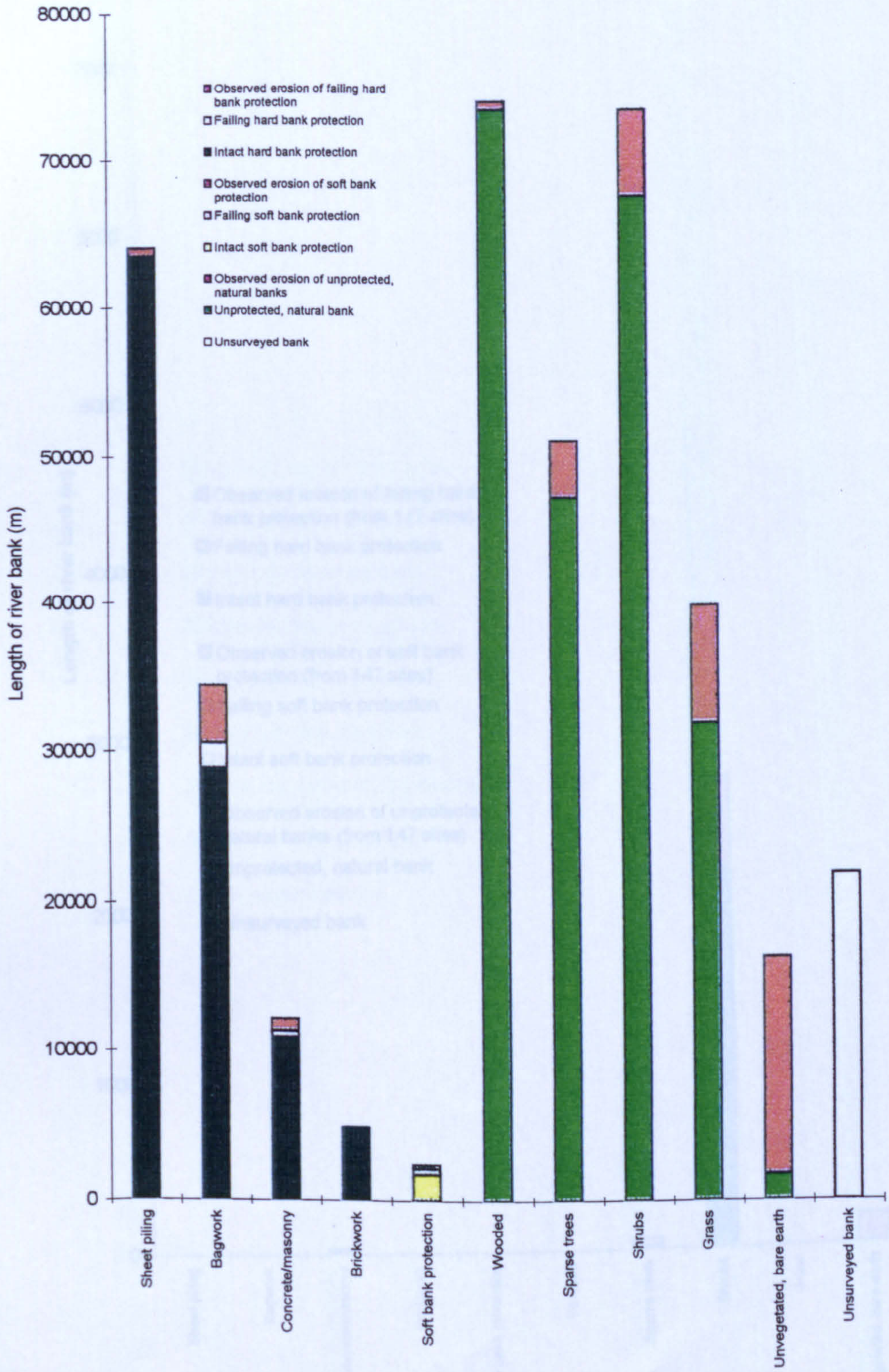


State of the Environment:
Susceptibility to bank erosion along each reach of the River Thames

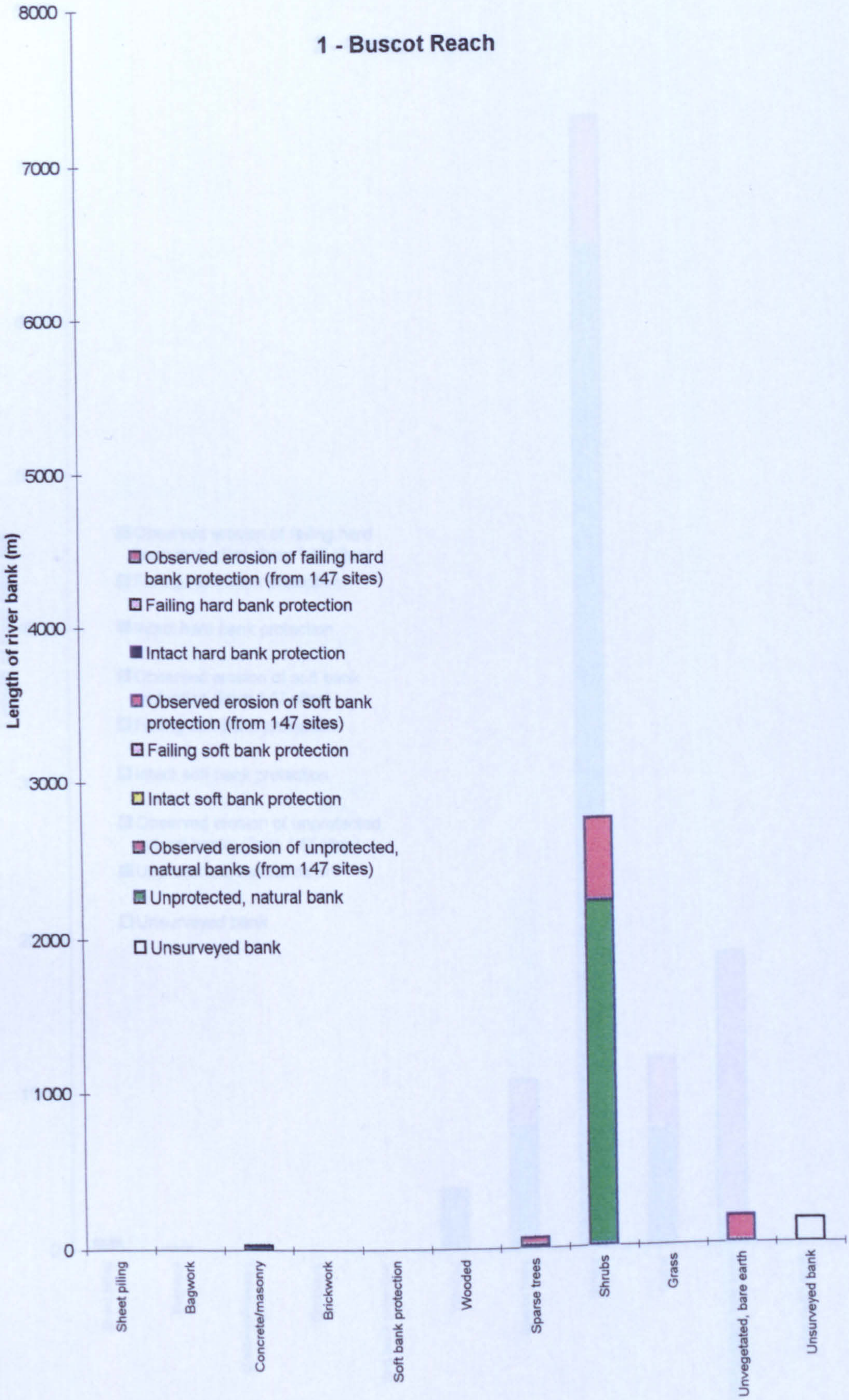


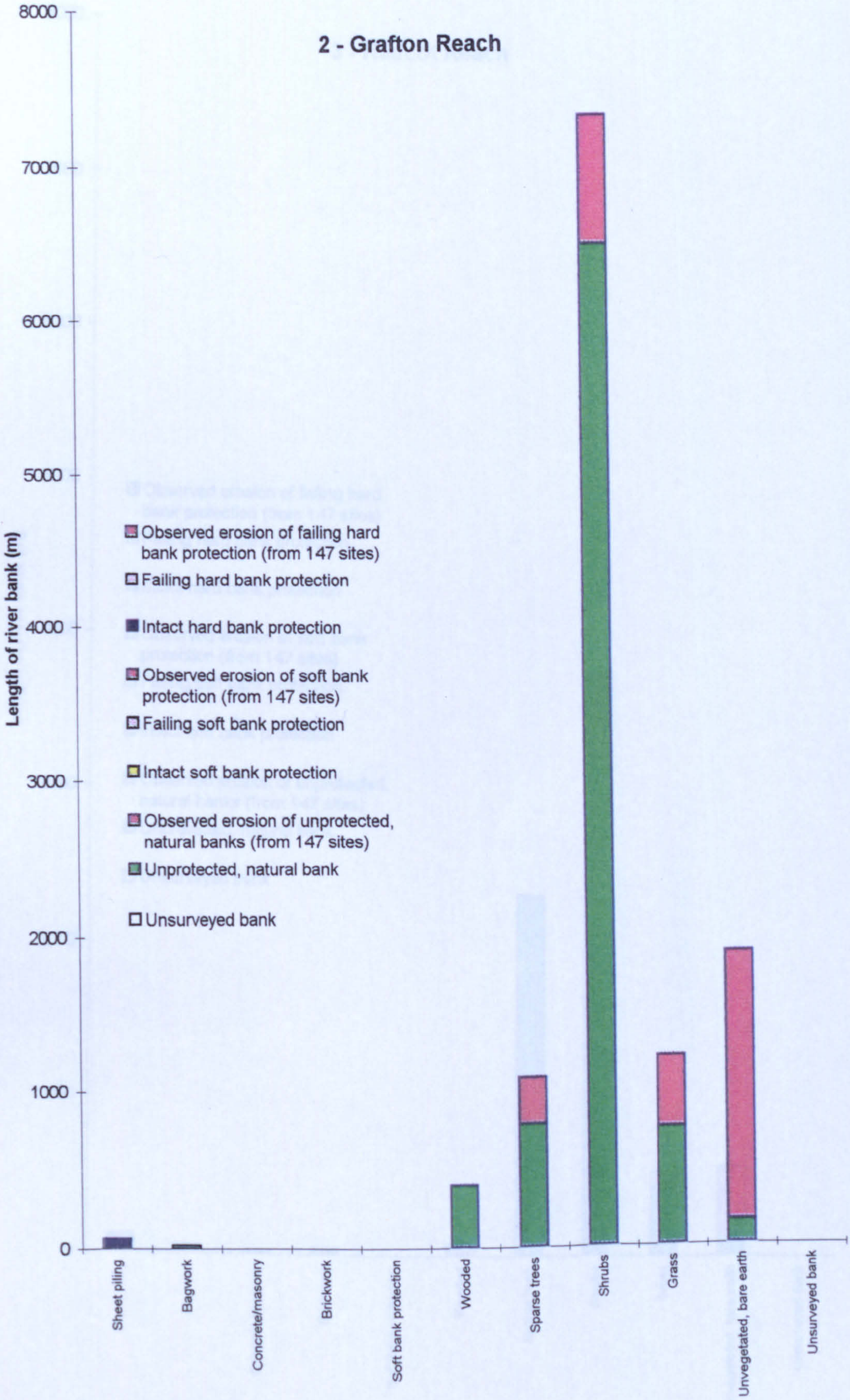
State of the Environment:
River bank erosion and stability

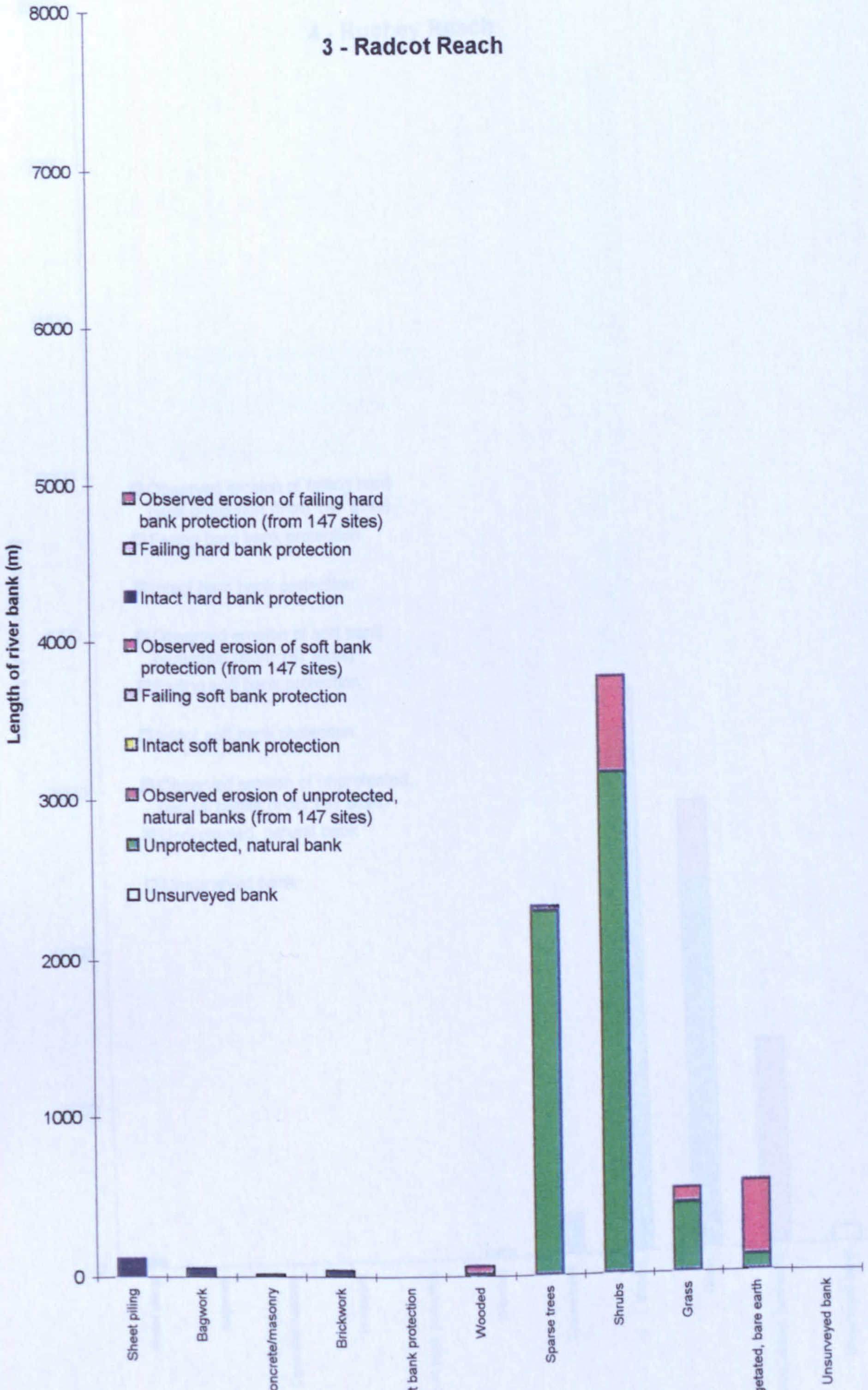


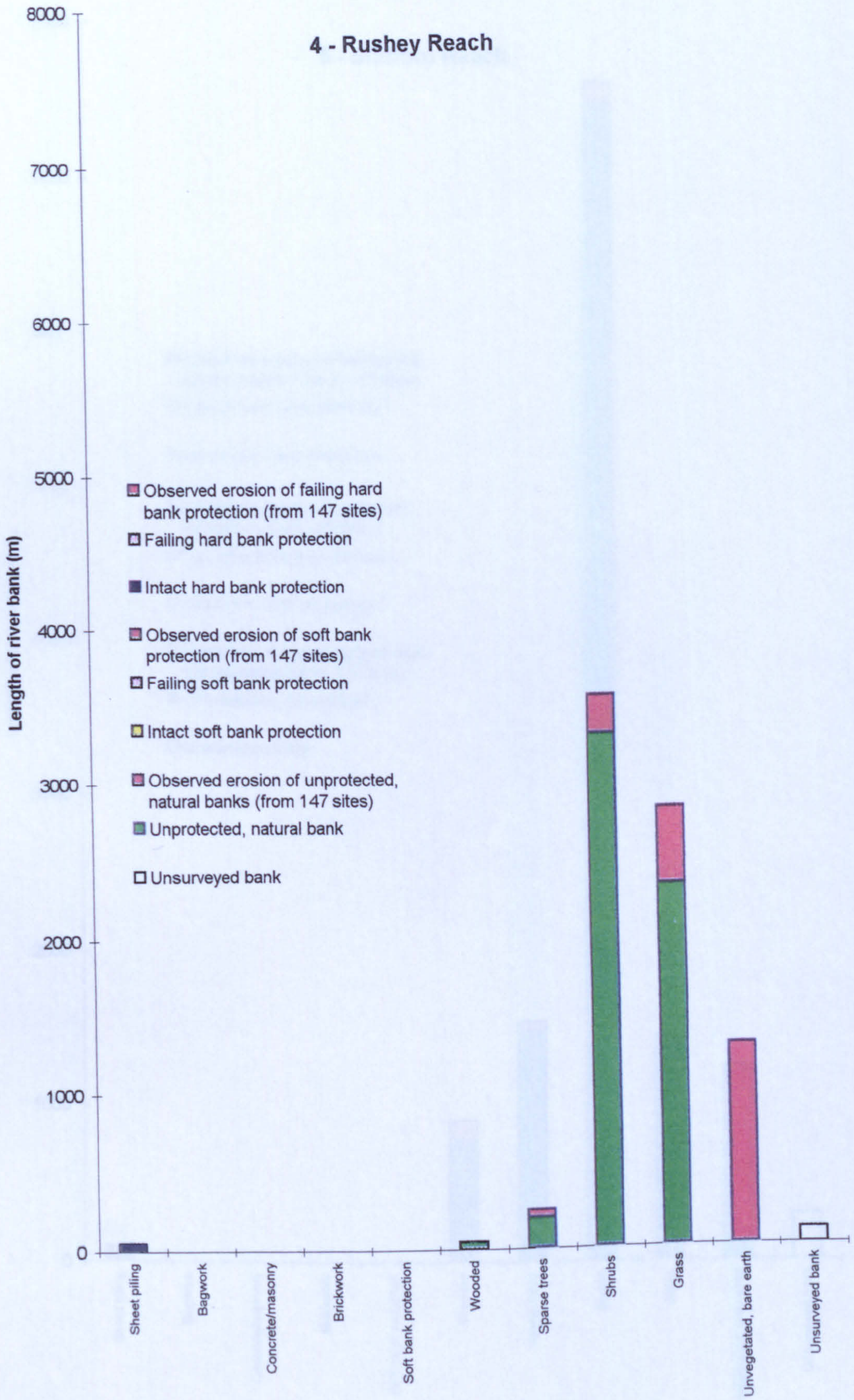


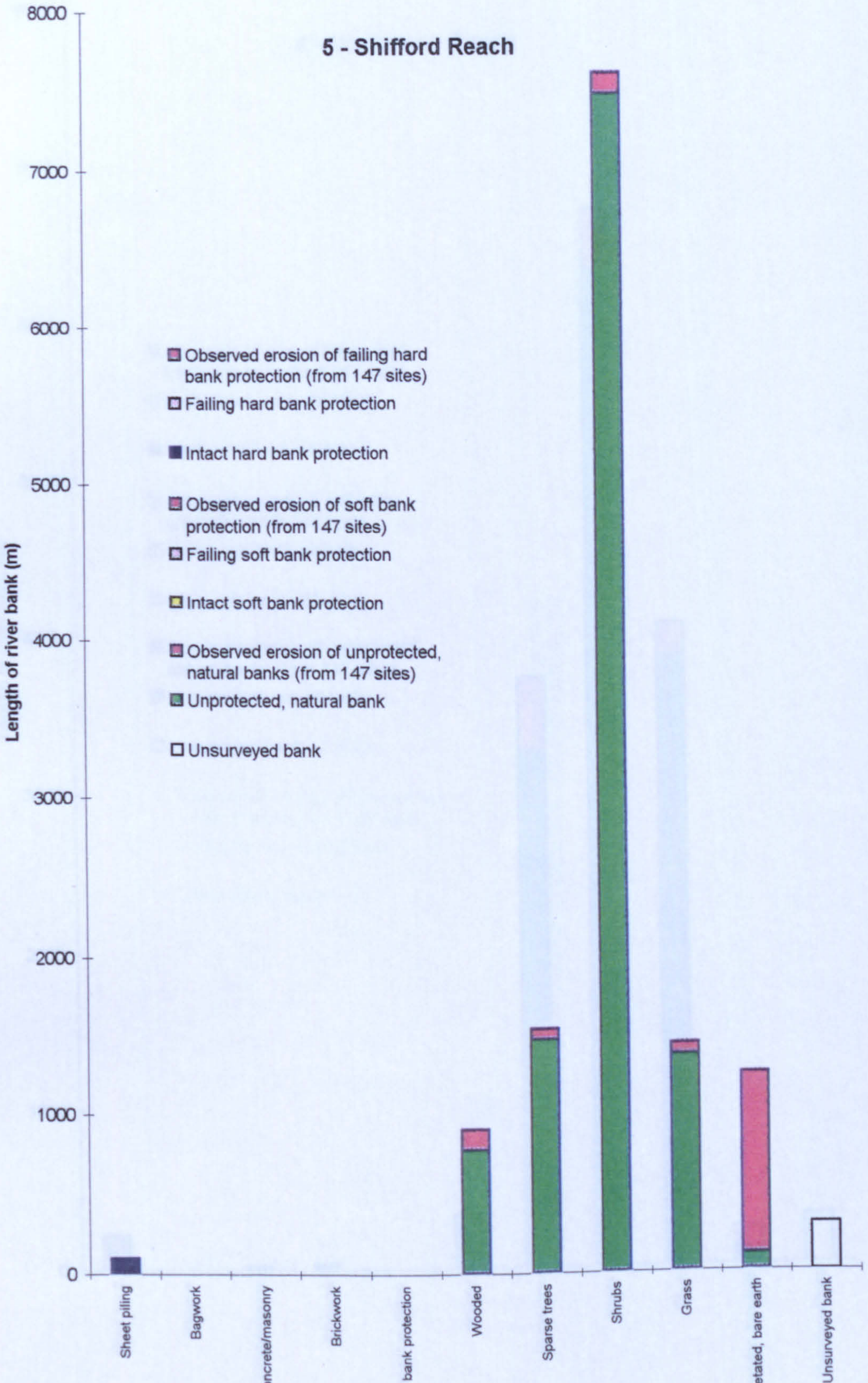
Bank characteristics along the River Thames from St. John's to Teddington, where observed erosion is from 147 sites.

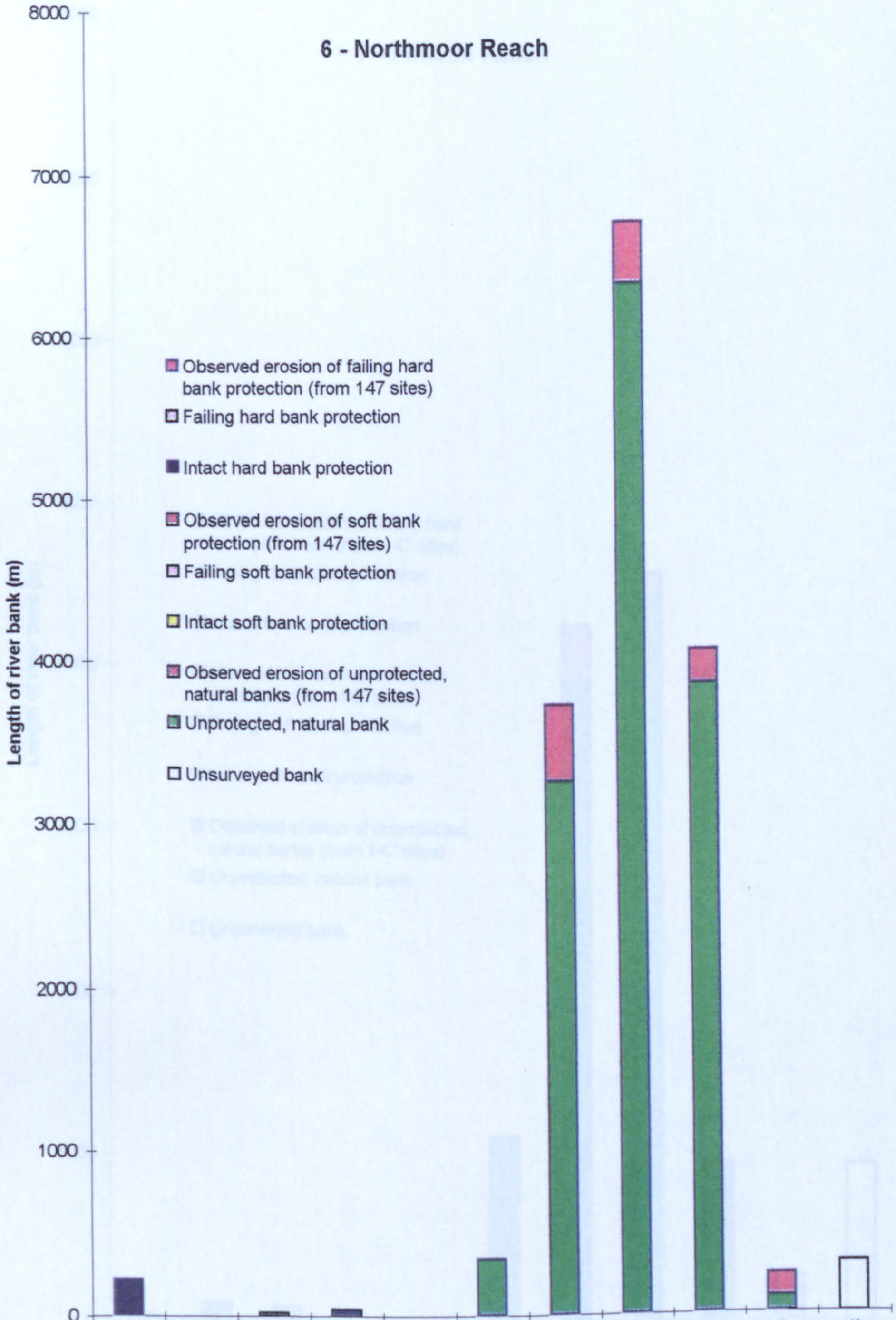

1 - Buscot Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


2 - Grafton Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

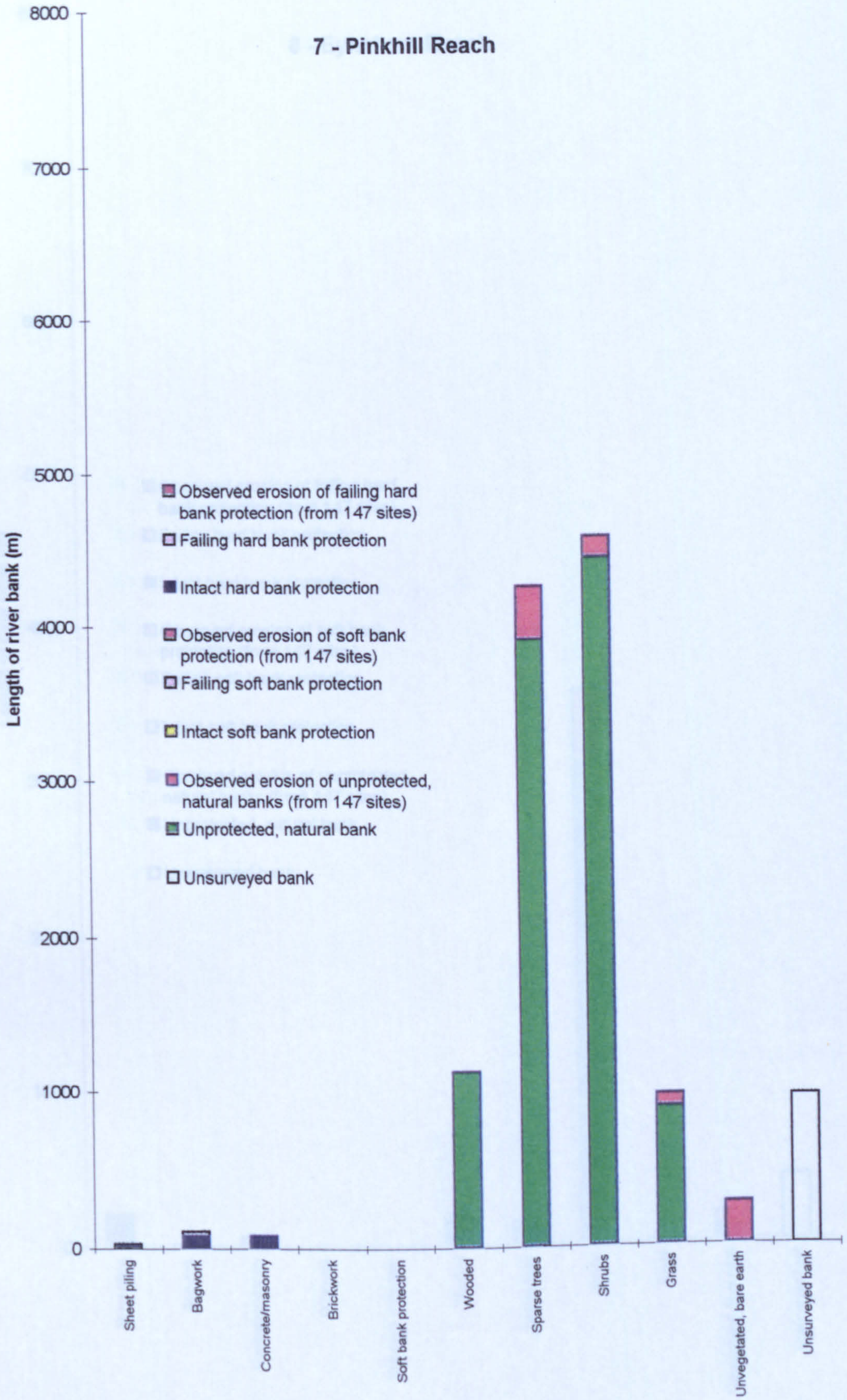

3 - Radcot Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

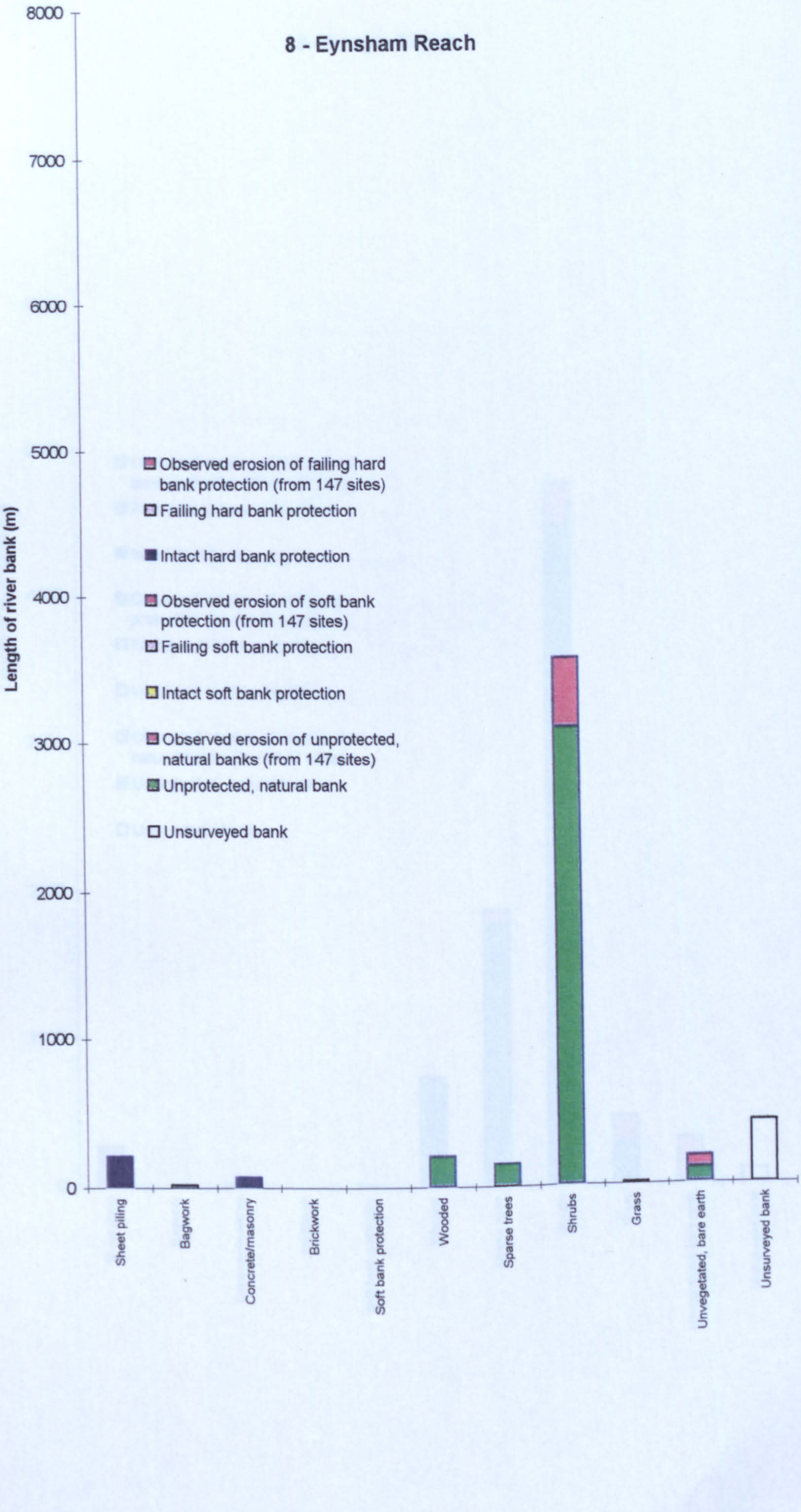

4 - Rushey Reach
8000
7000
6000
5000
4000
3000
2000
1000
0
Length of river bank (m)
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


5 - Shifford Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

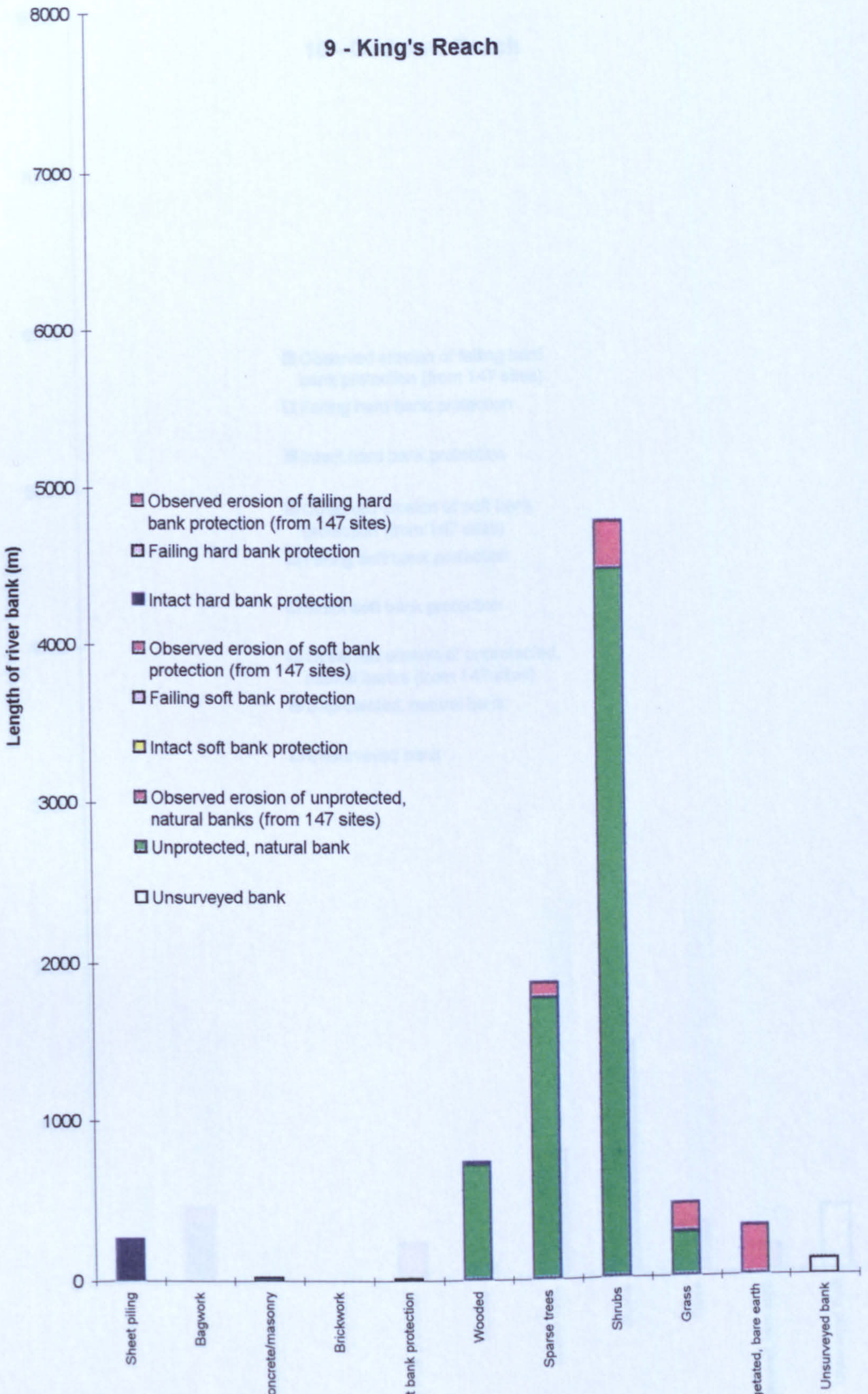

6 - Northmoor Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

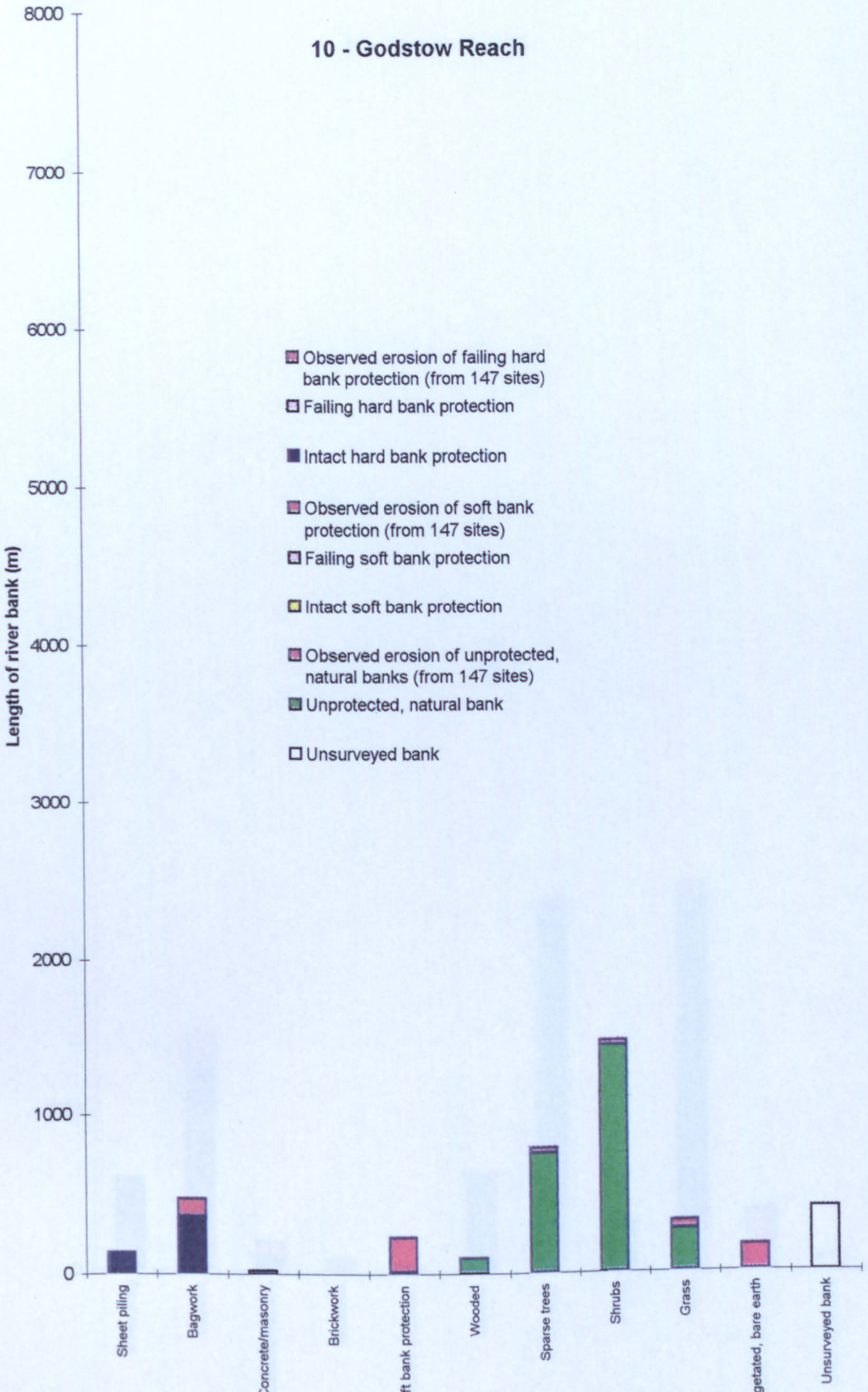
7 - Pinkhill Reach

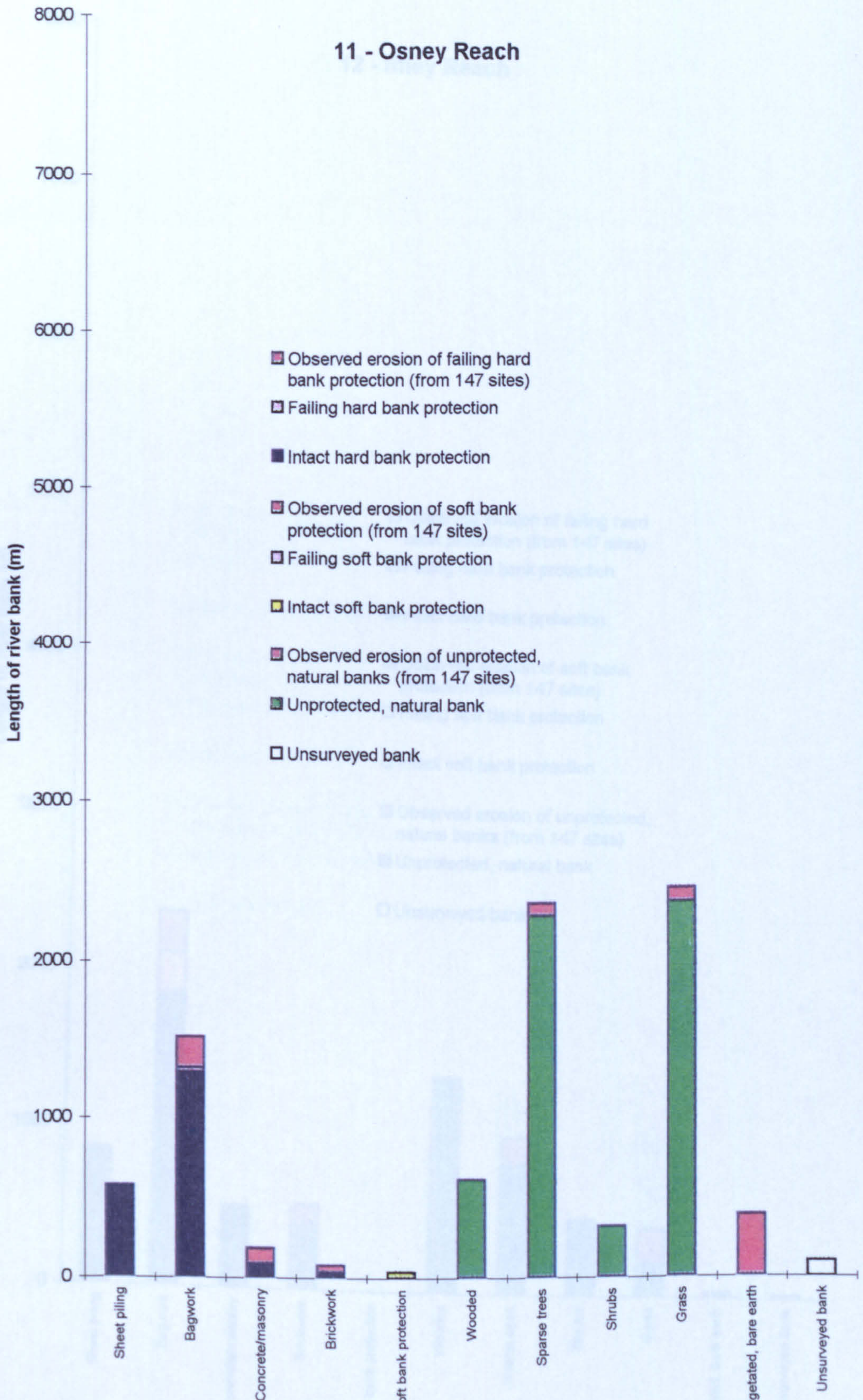


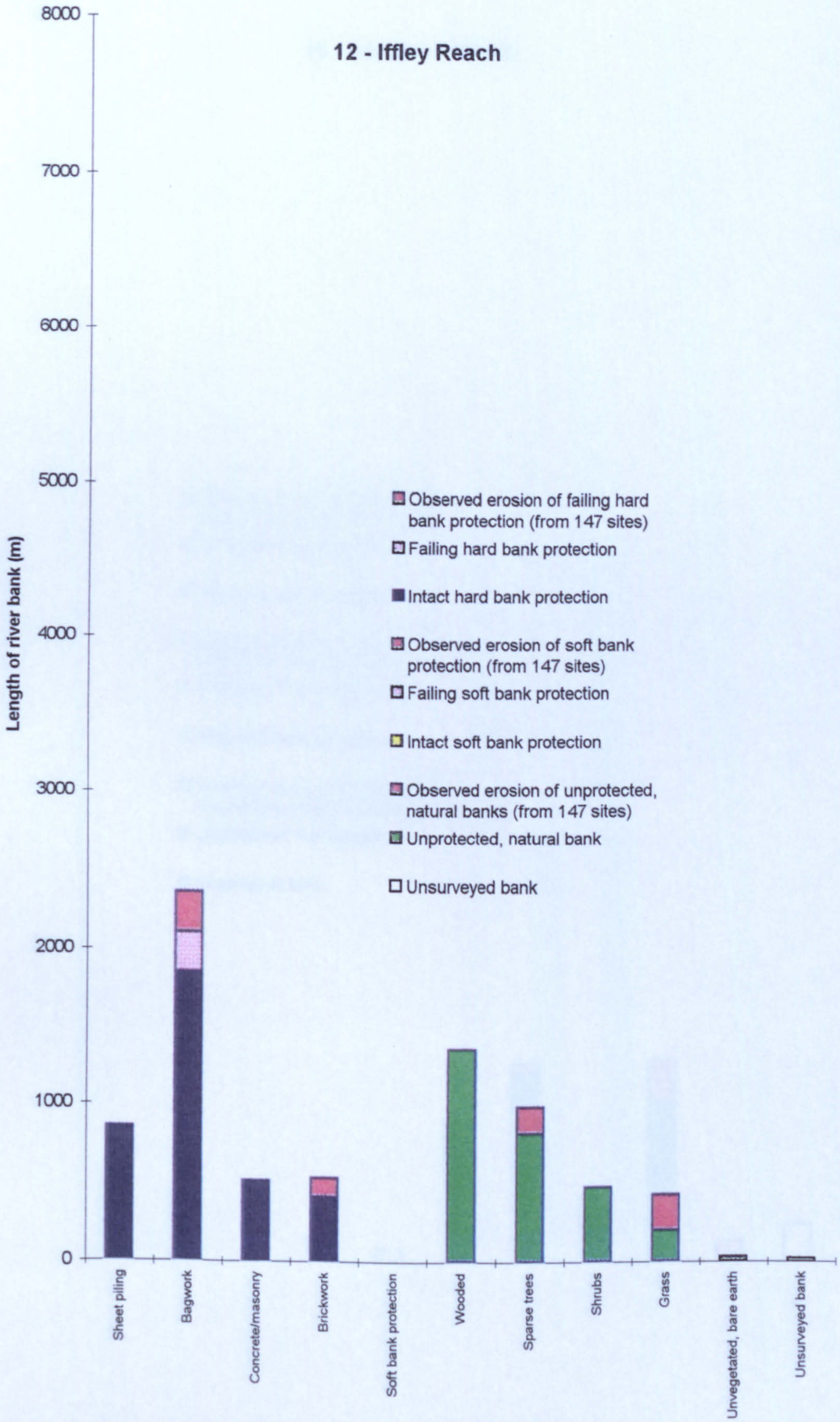

8 - Eynsham Reach
8000
7000
6000
5000
4000
3000
2000
1000
0
Length of river bank (m)
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

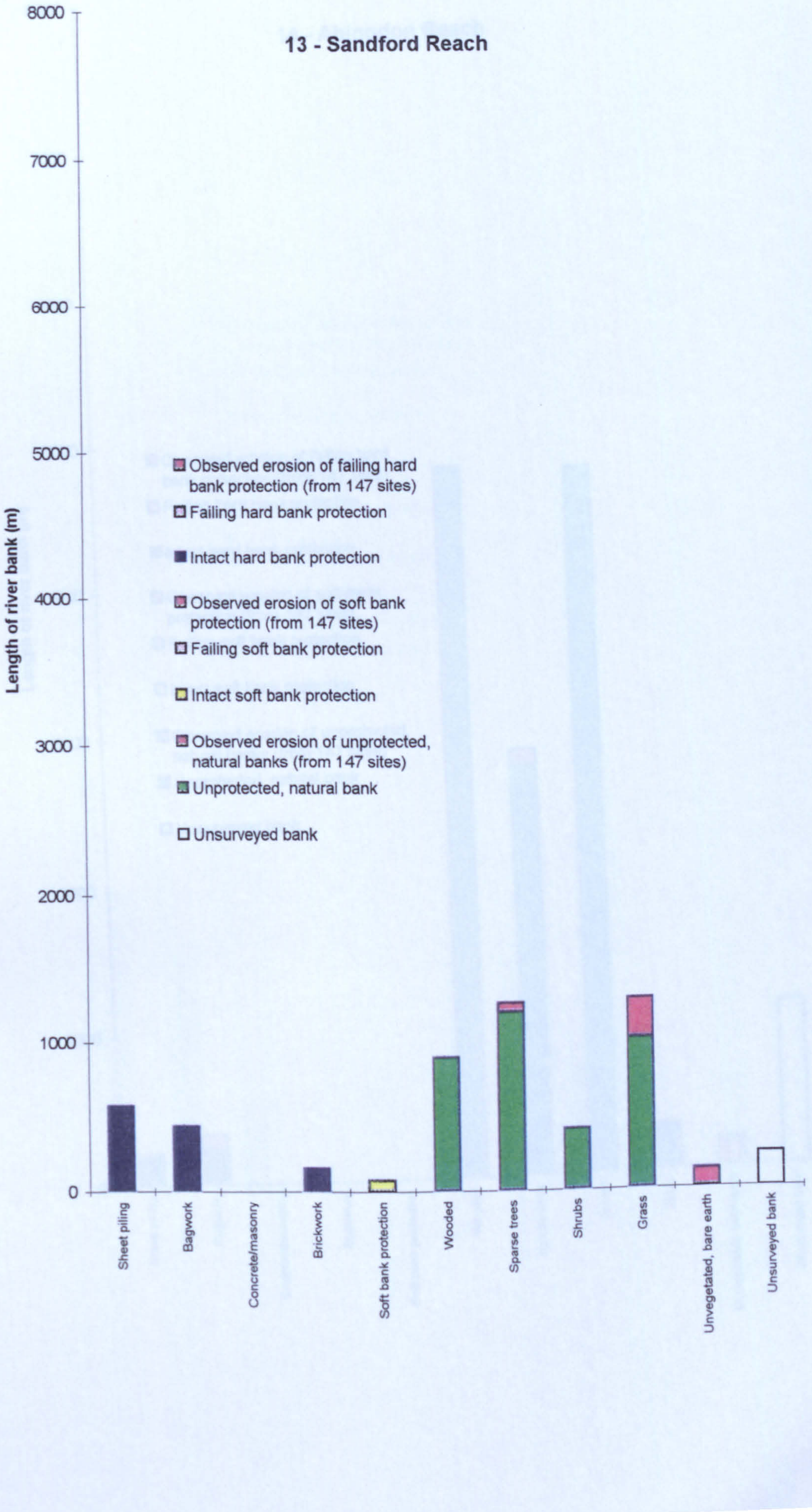
9 - King's Reach



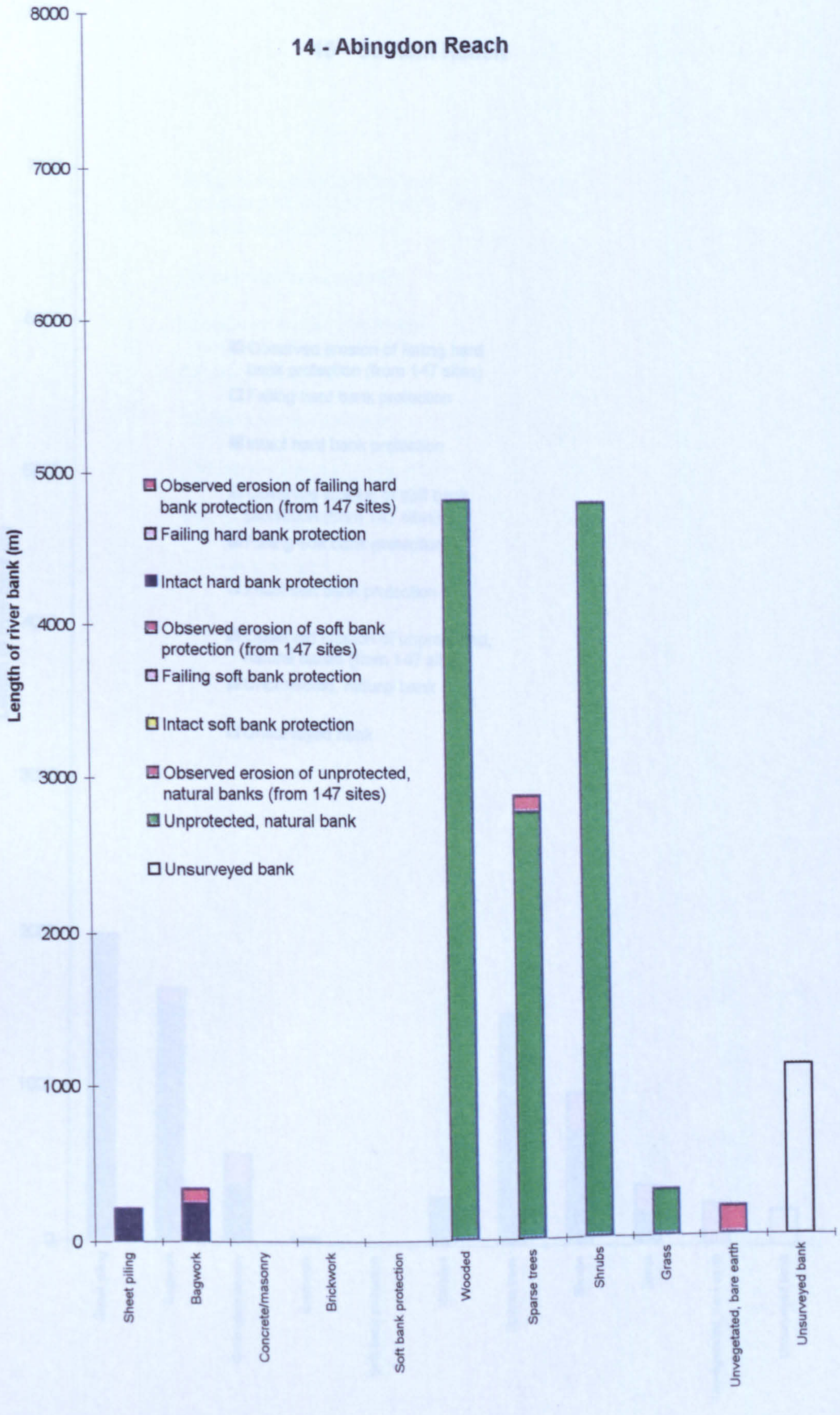

10 - Godstow Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


11 - Osney Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

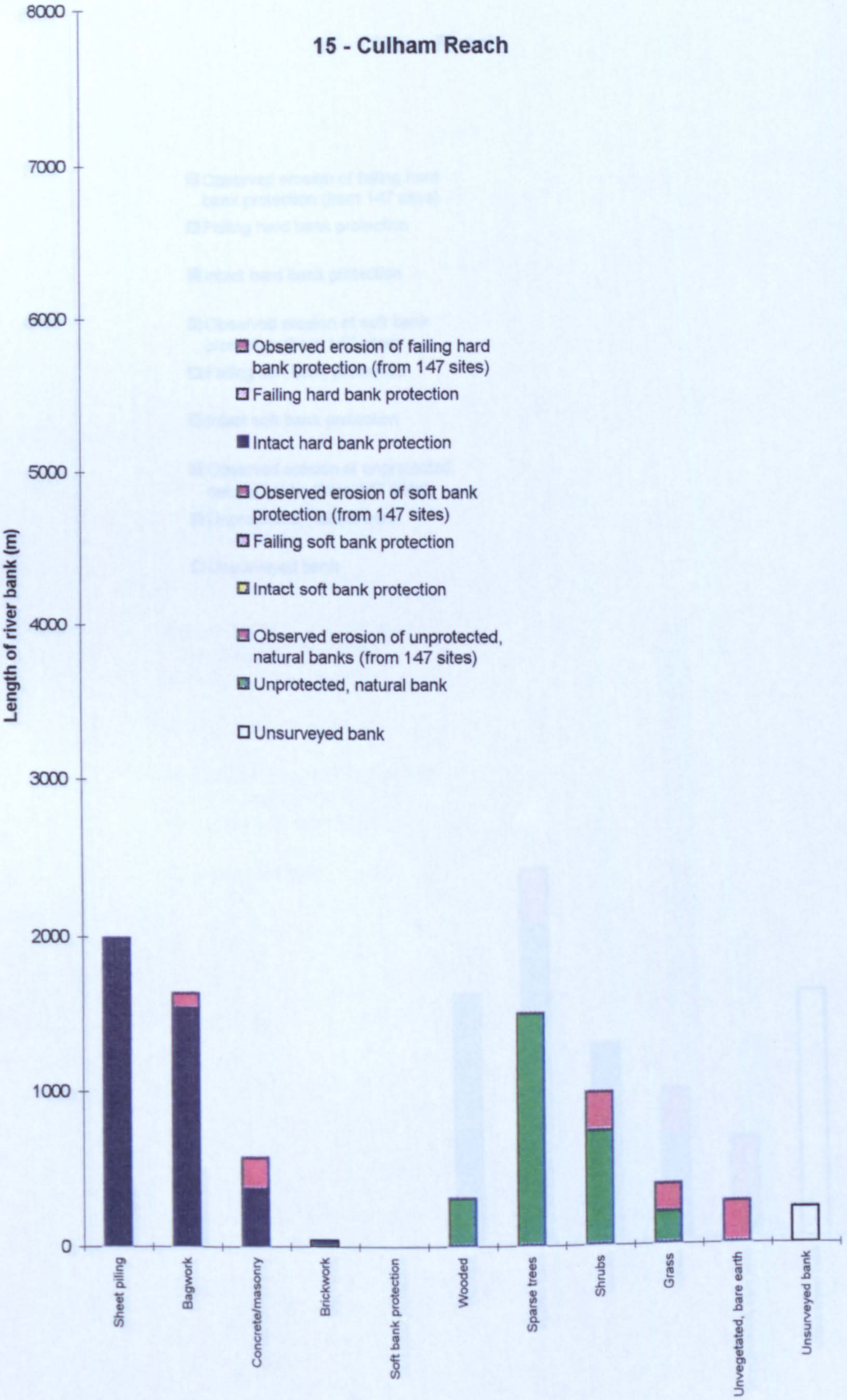

12 - Iffley Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

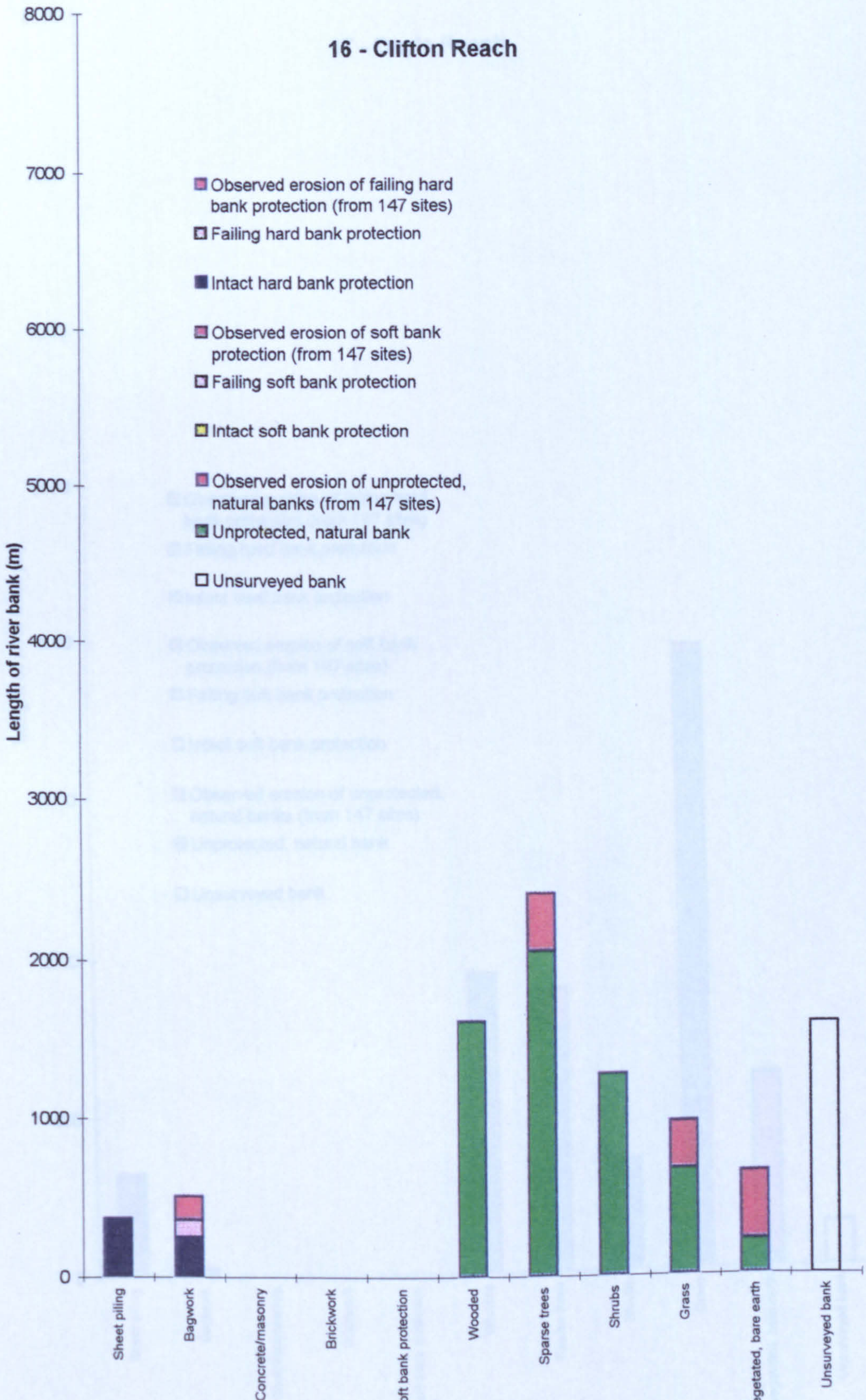

13 - Sandford Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

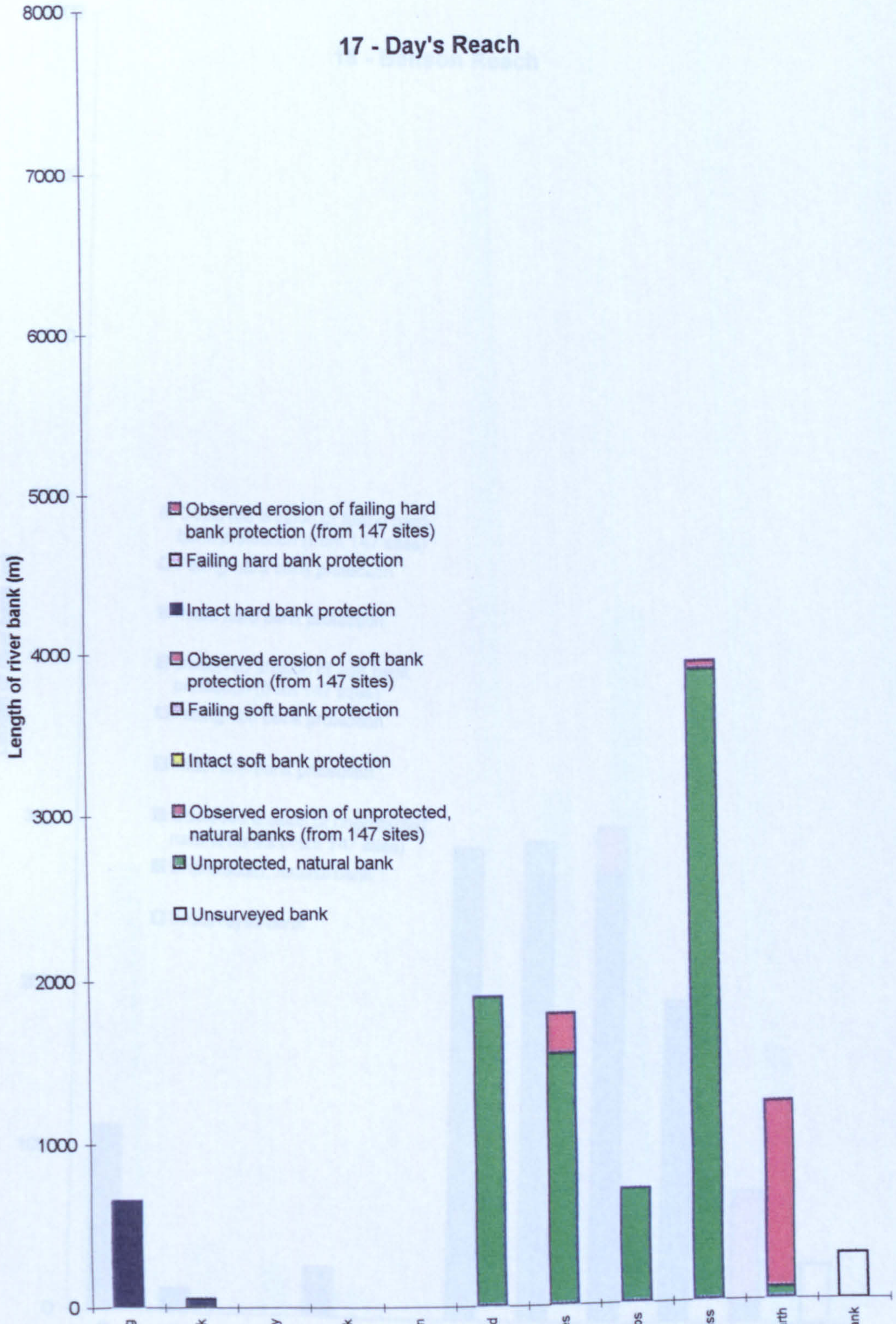
14 - Abingdon Reach



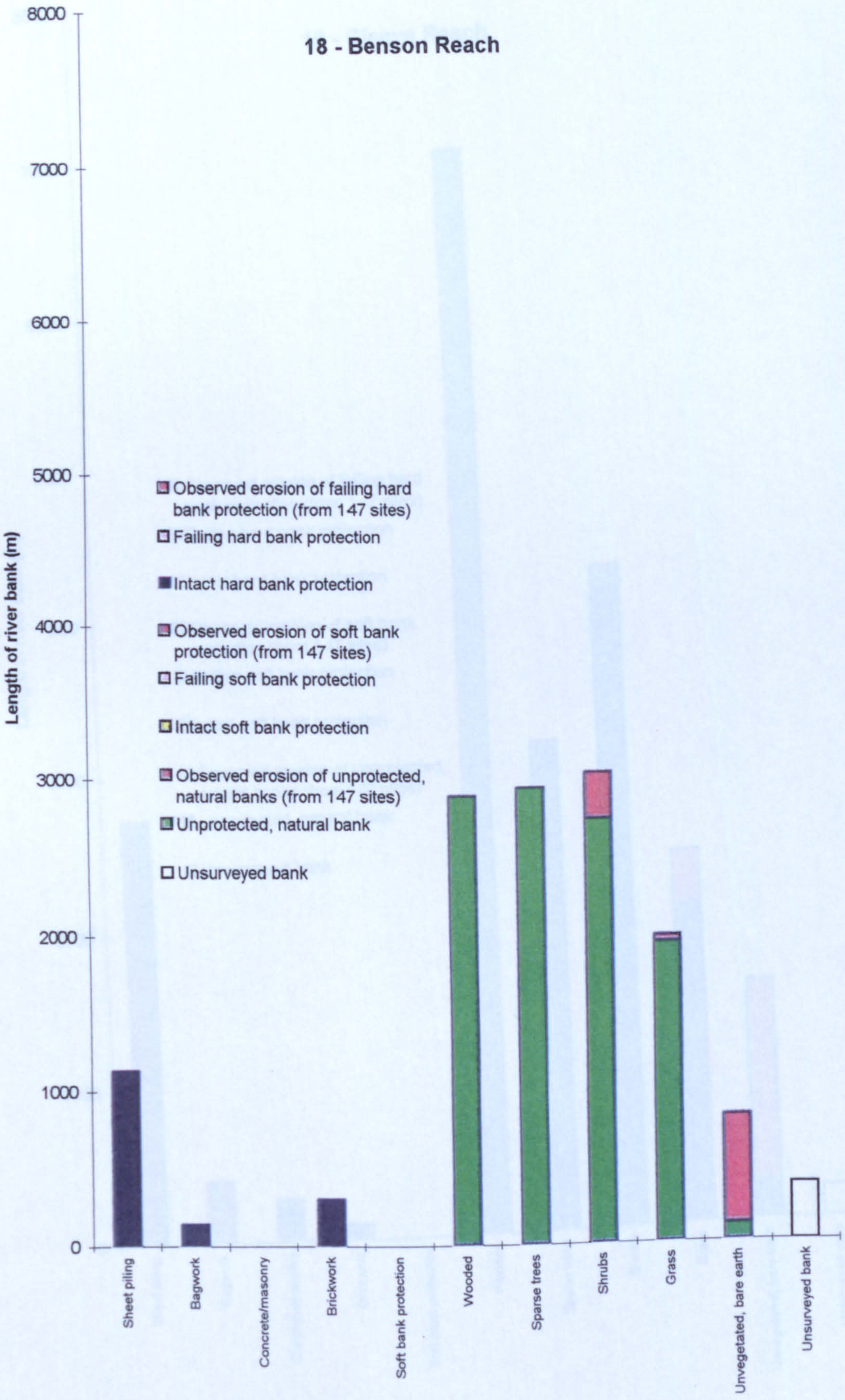
15 - Culham Reach

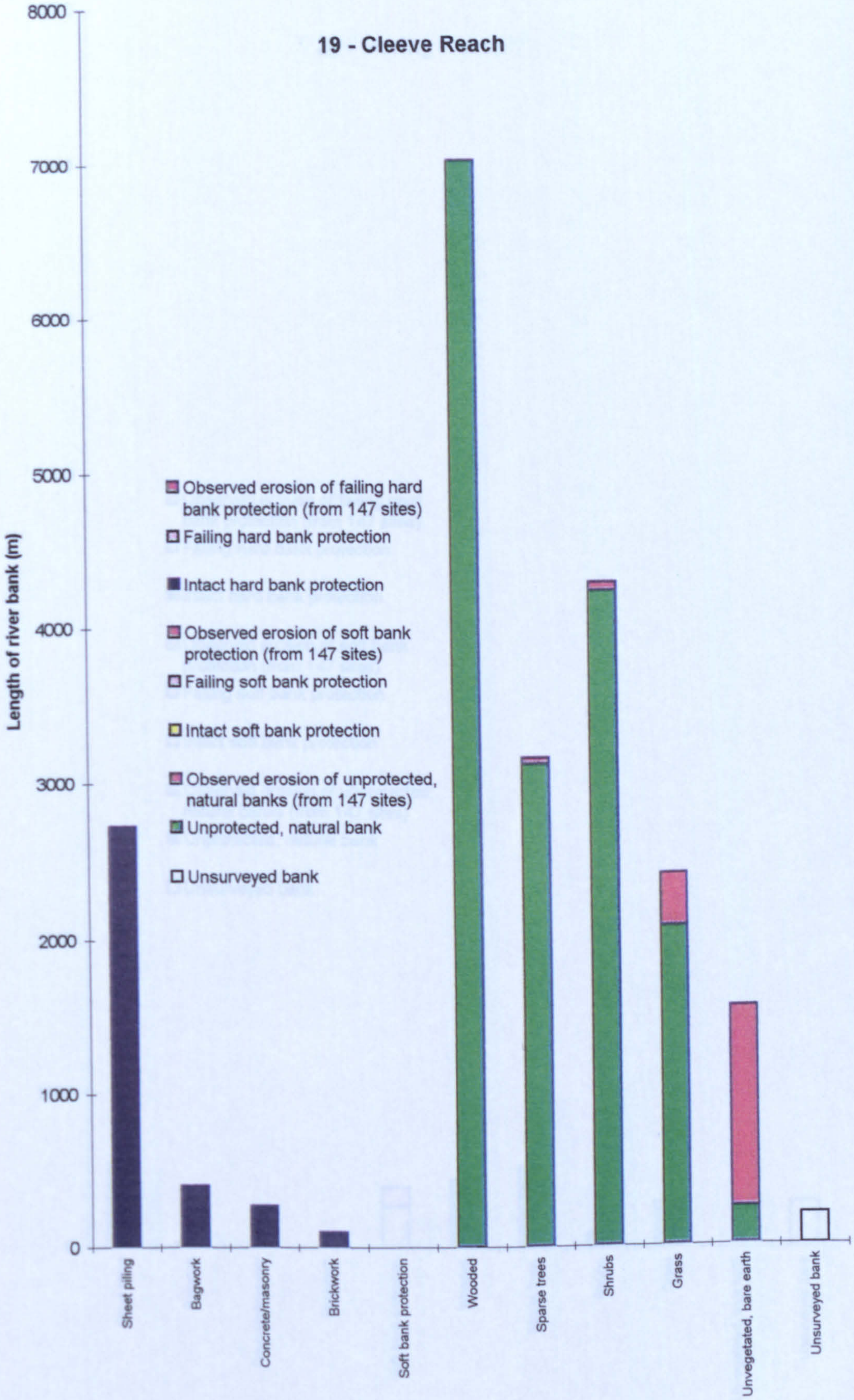


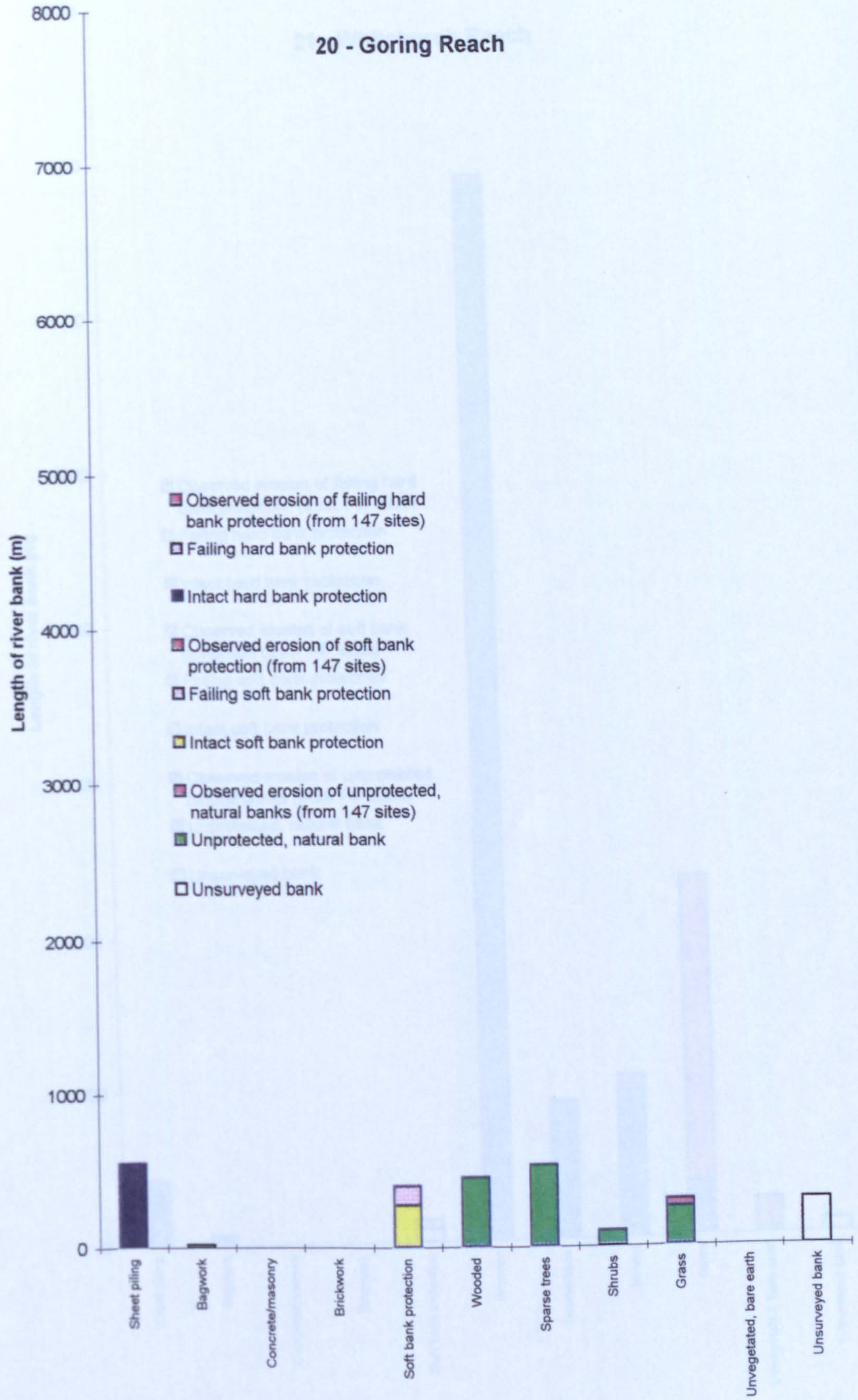

16 - Clifton Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


17 - Day's Reach
8000
7000
6000
5000
4000
3000
2000
1000
0
Length of river bank (m)
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

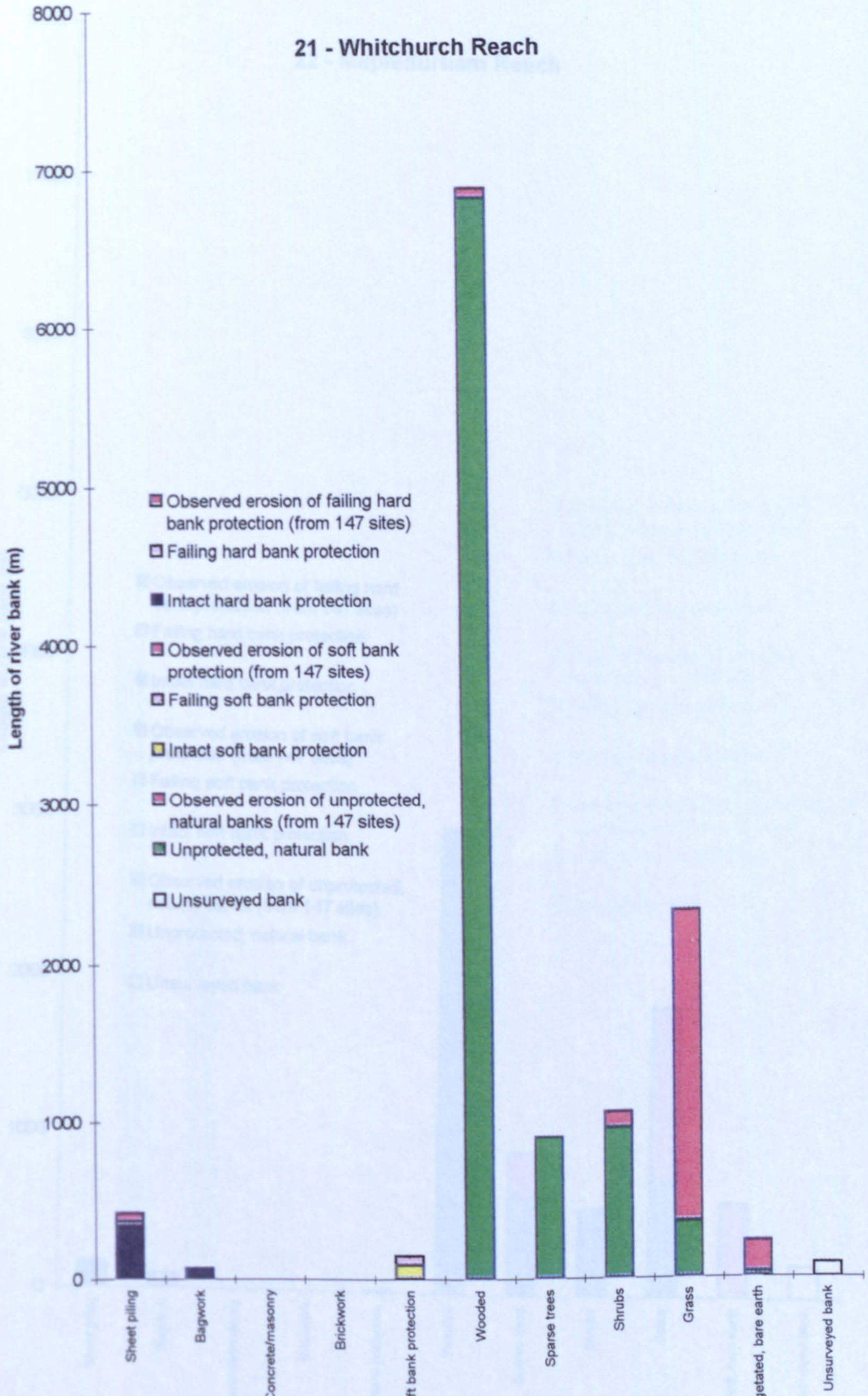
18 - Benson Reach



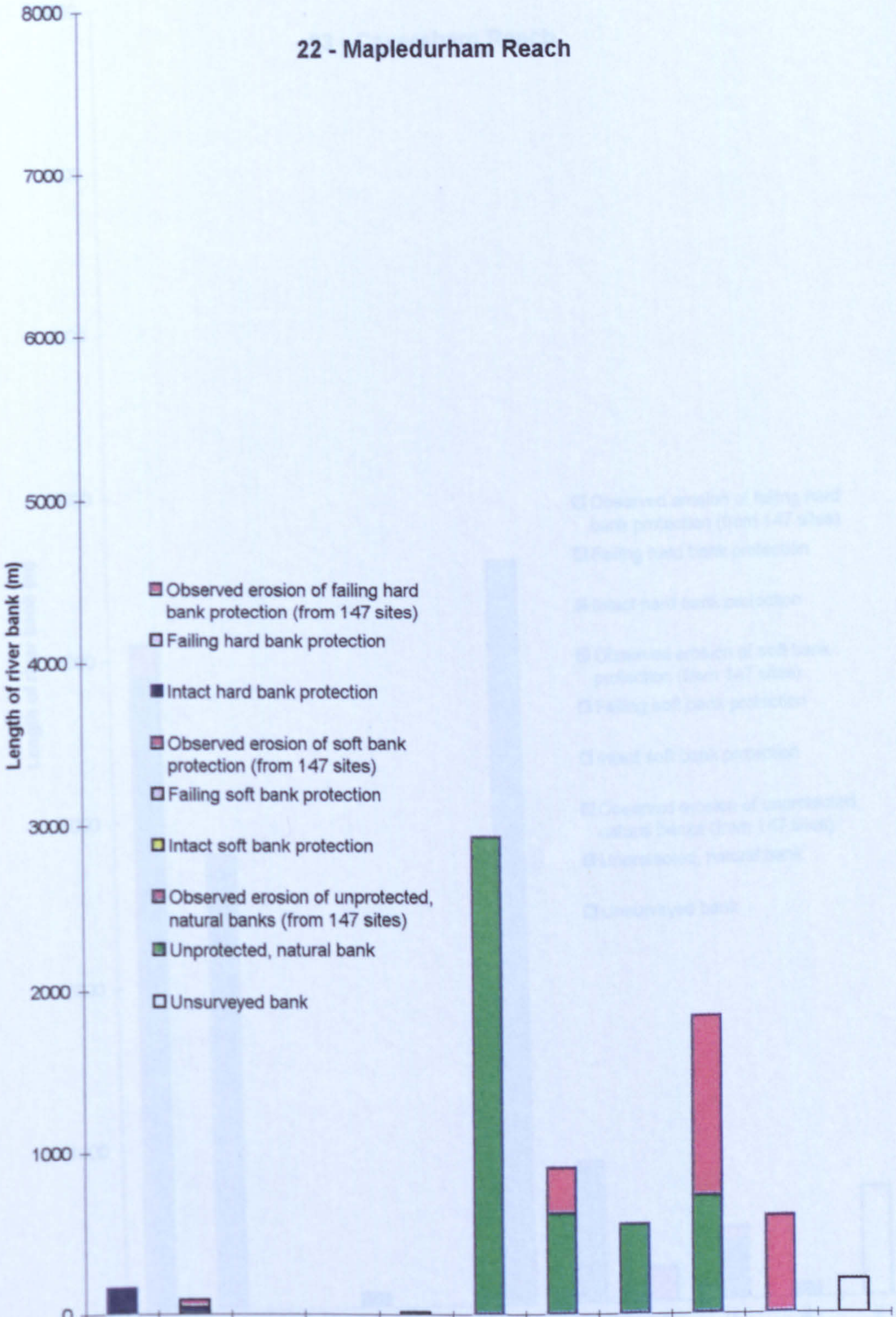

19 - Cleeve Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


20 - Goring Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

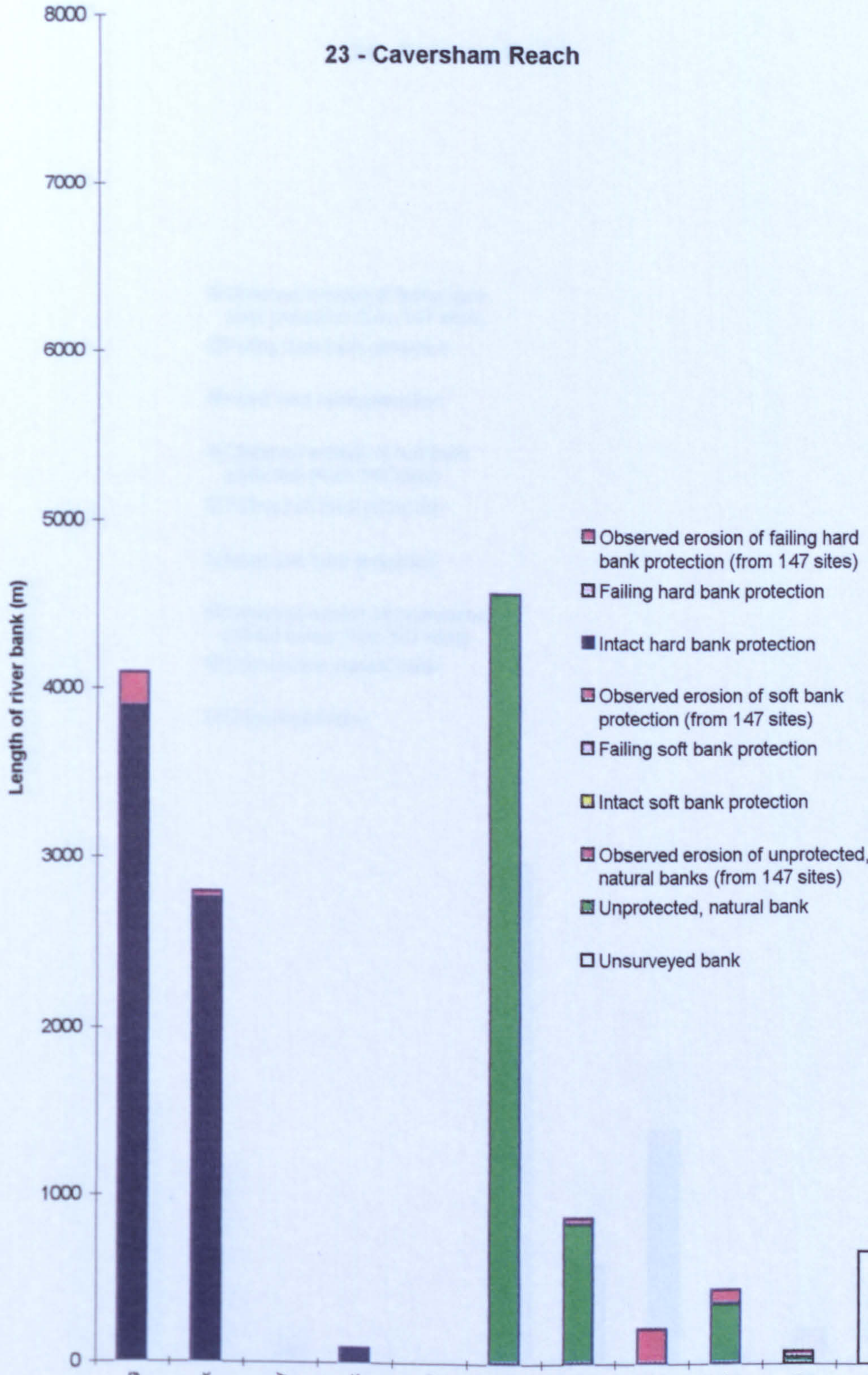
21 - Whitchurch Reach

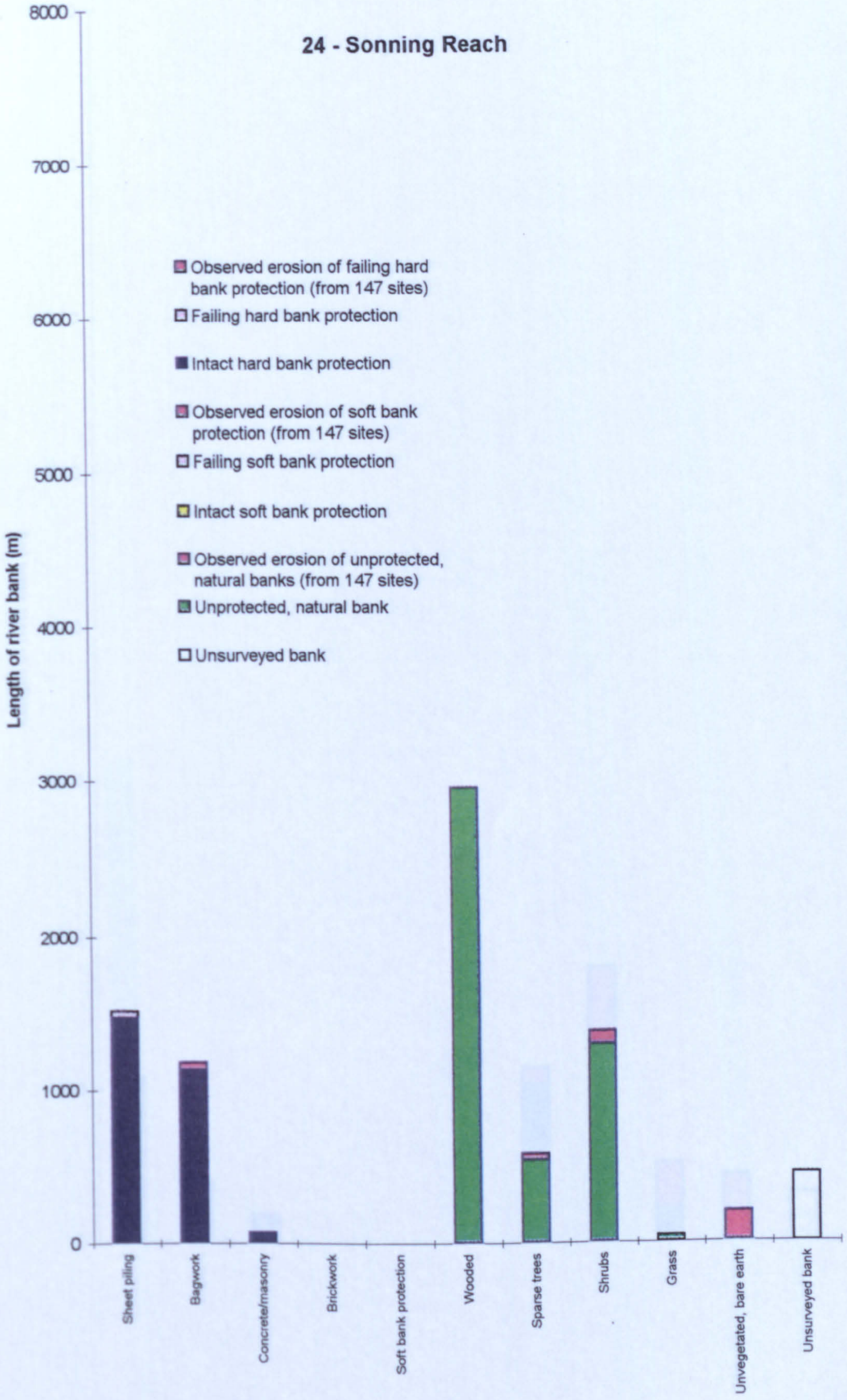


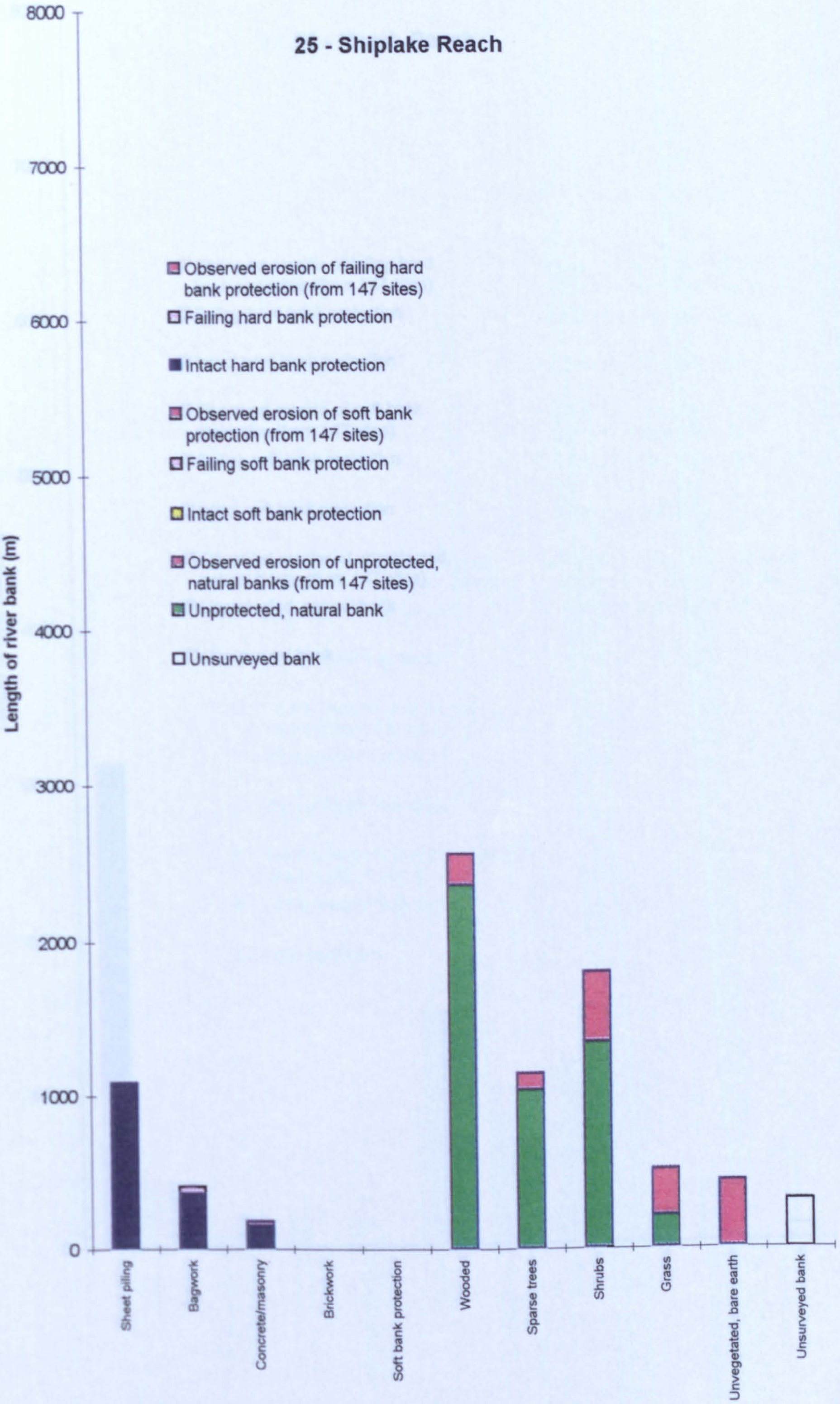
22 - Mapledurham Reach

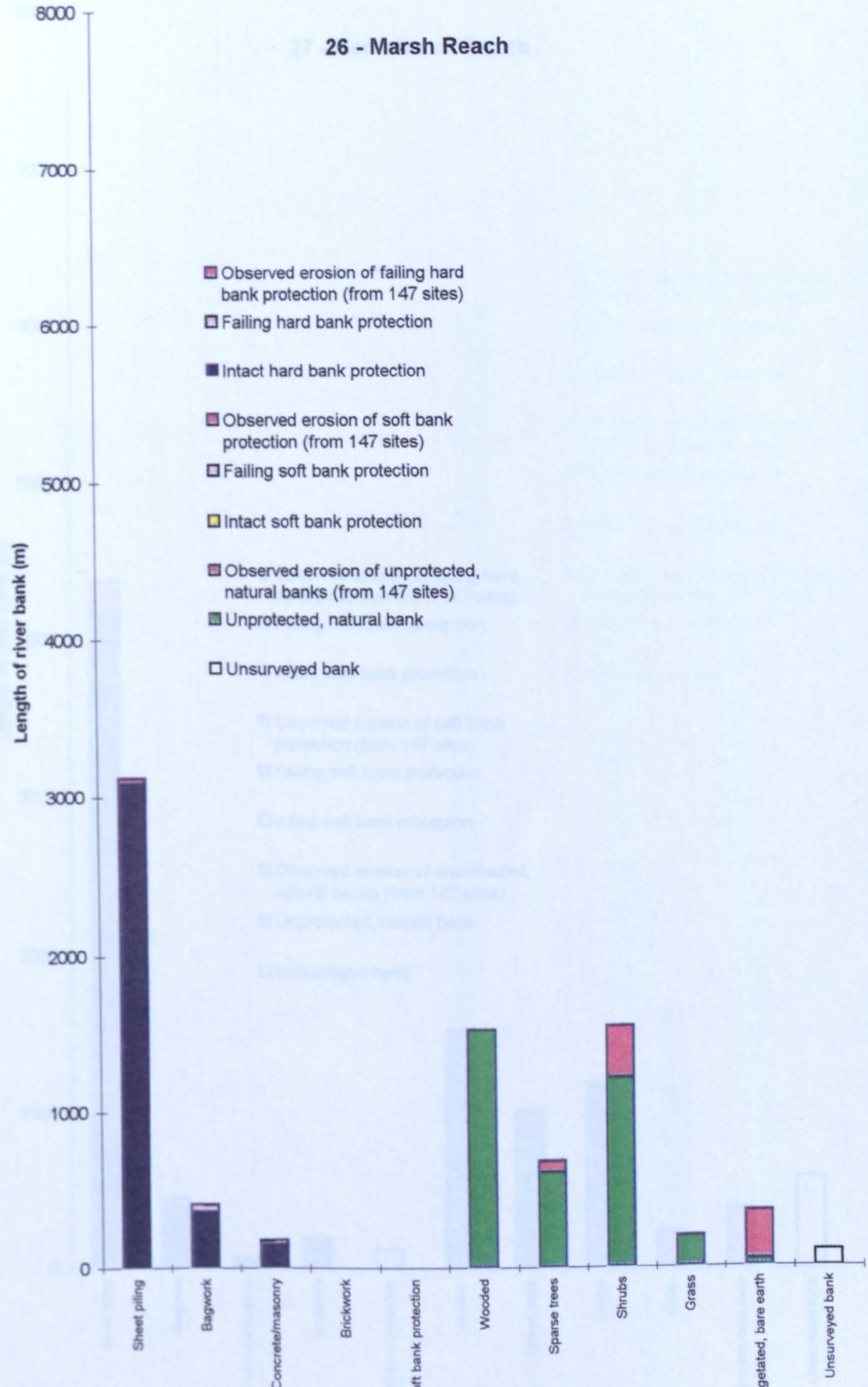


23 - Caversham Reach

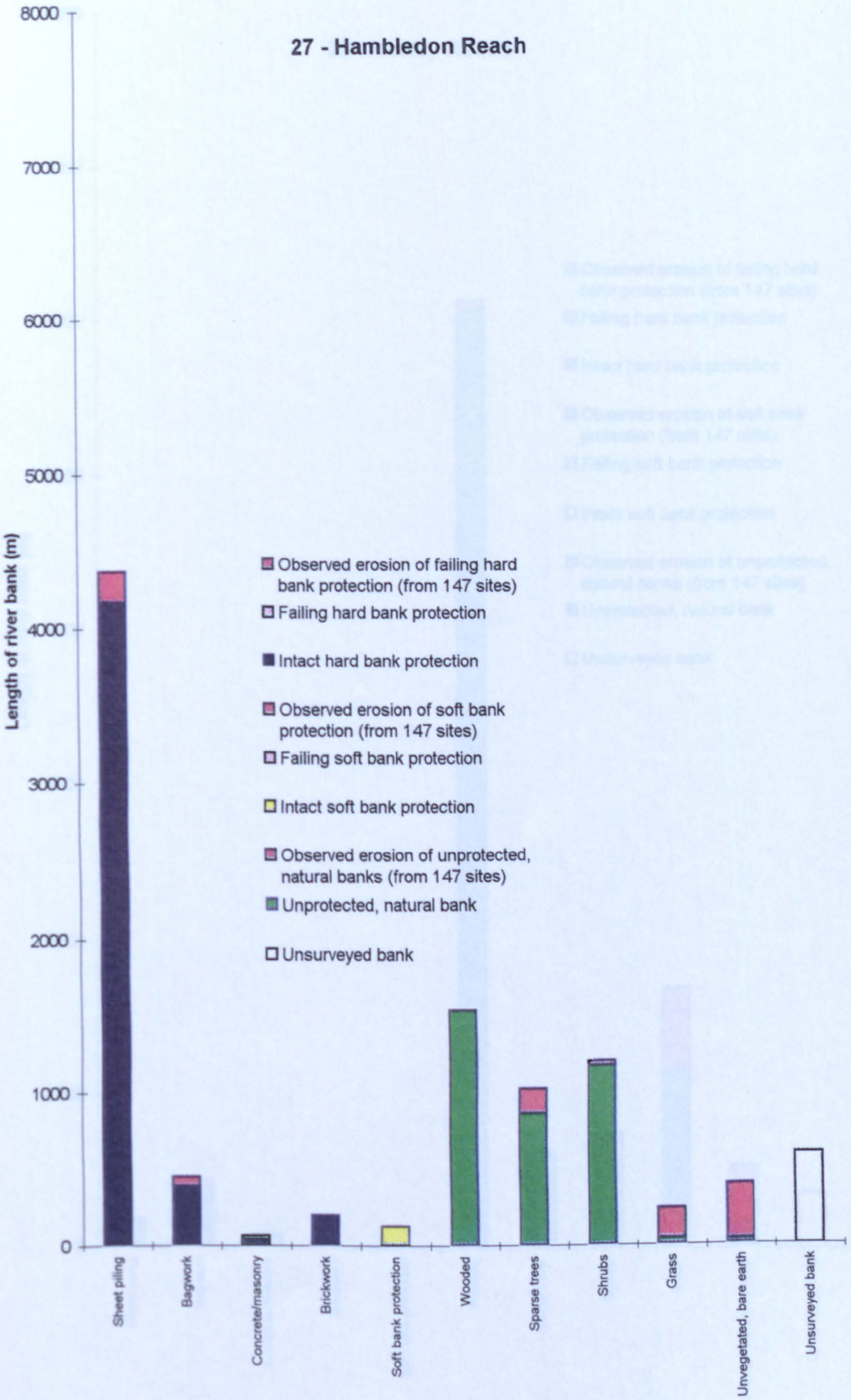


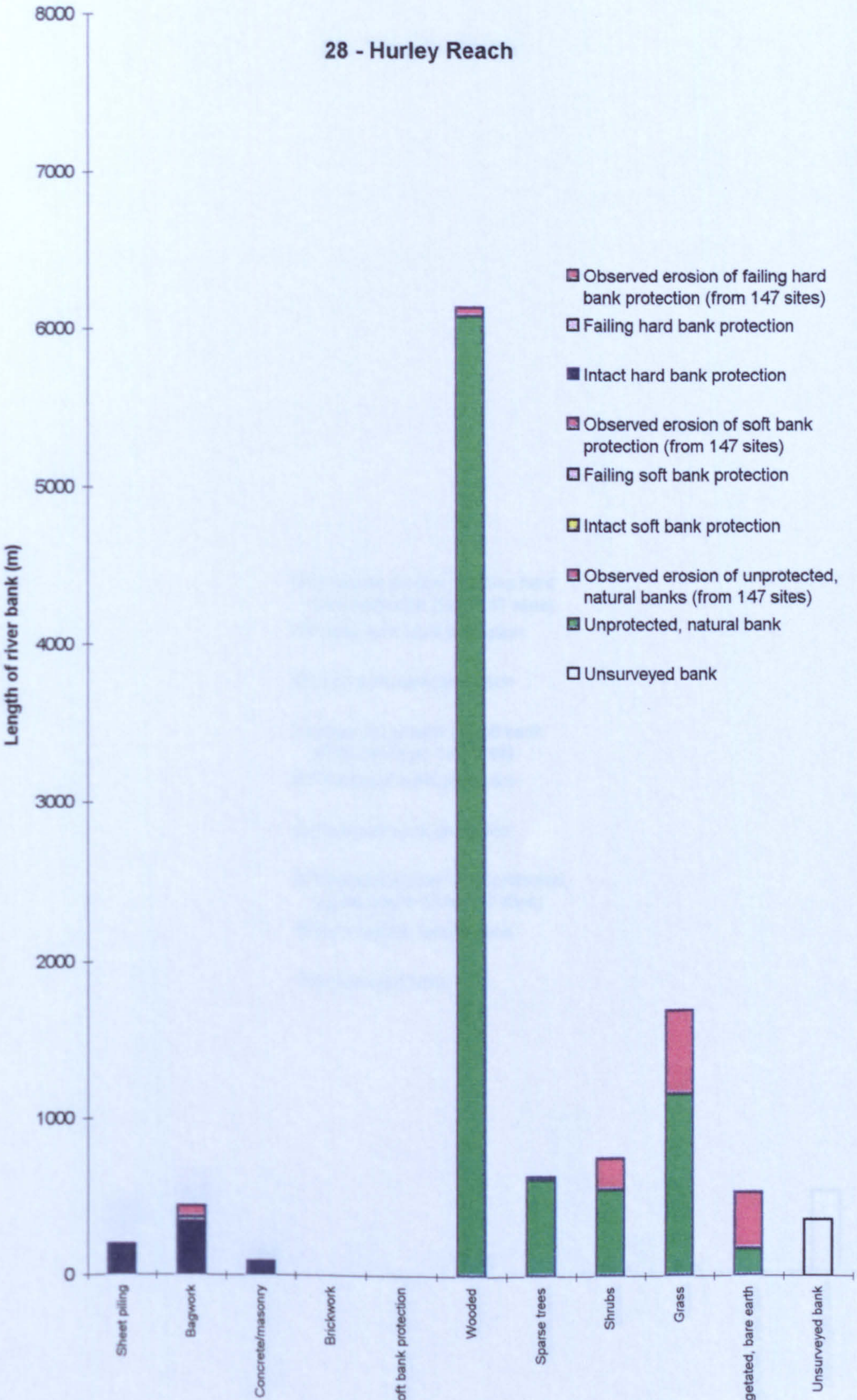

24 - Sonning Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank


25 - Shiplake Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

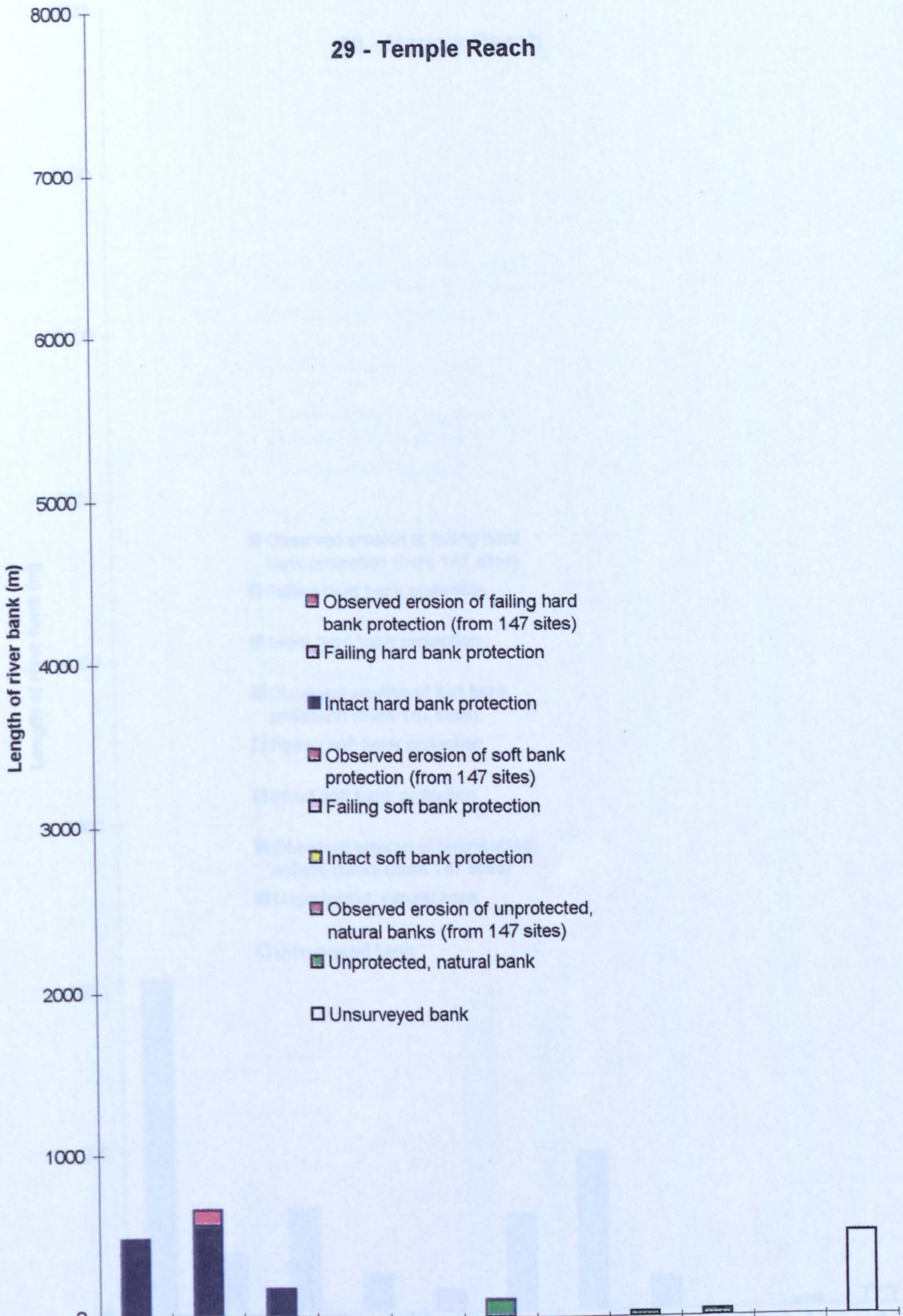

26 - Marsh Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

27 - Hambledon Reach

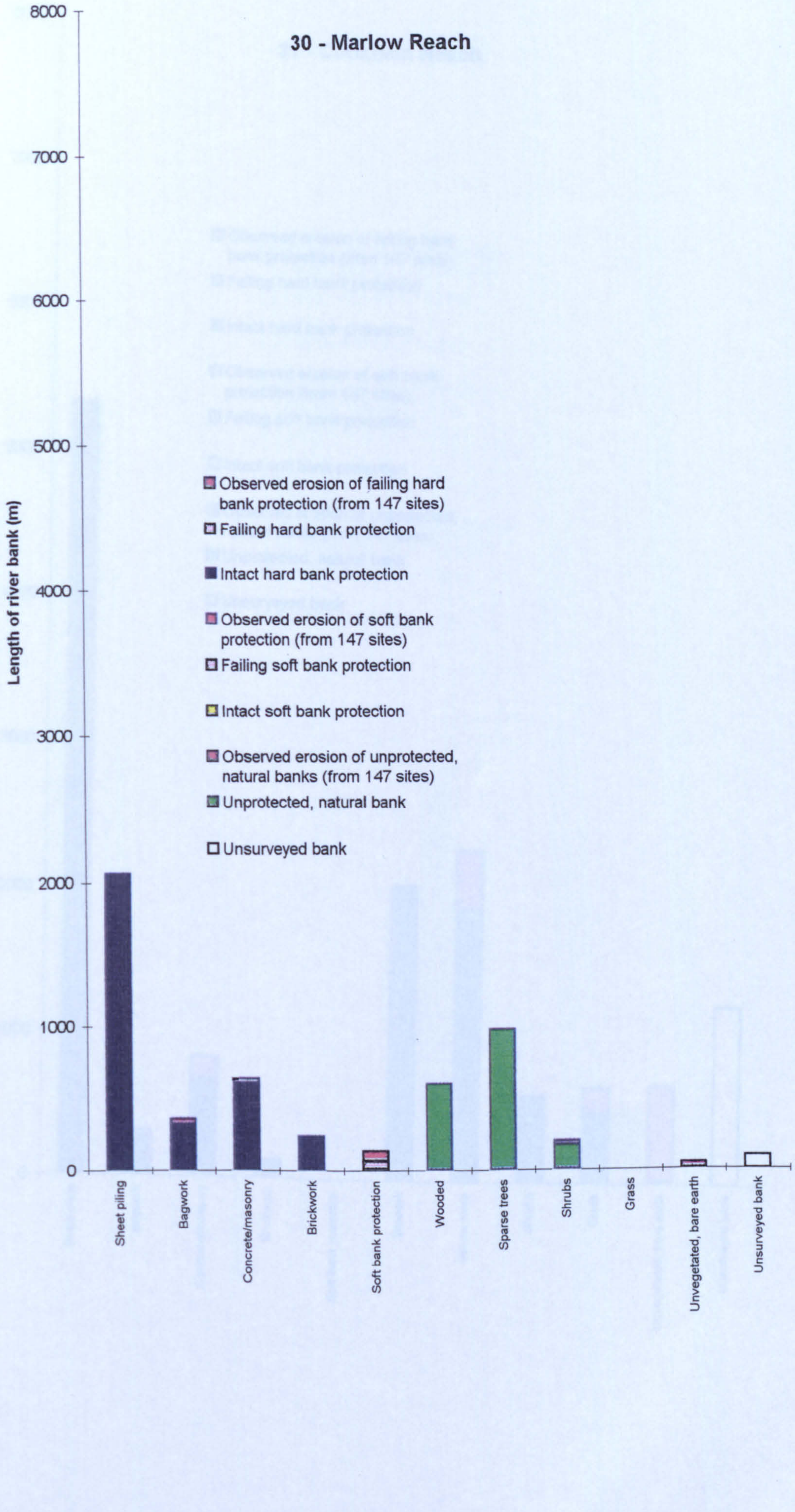


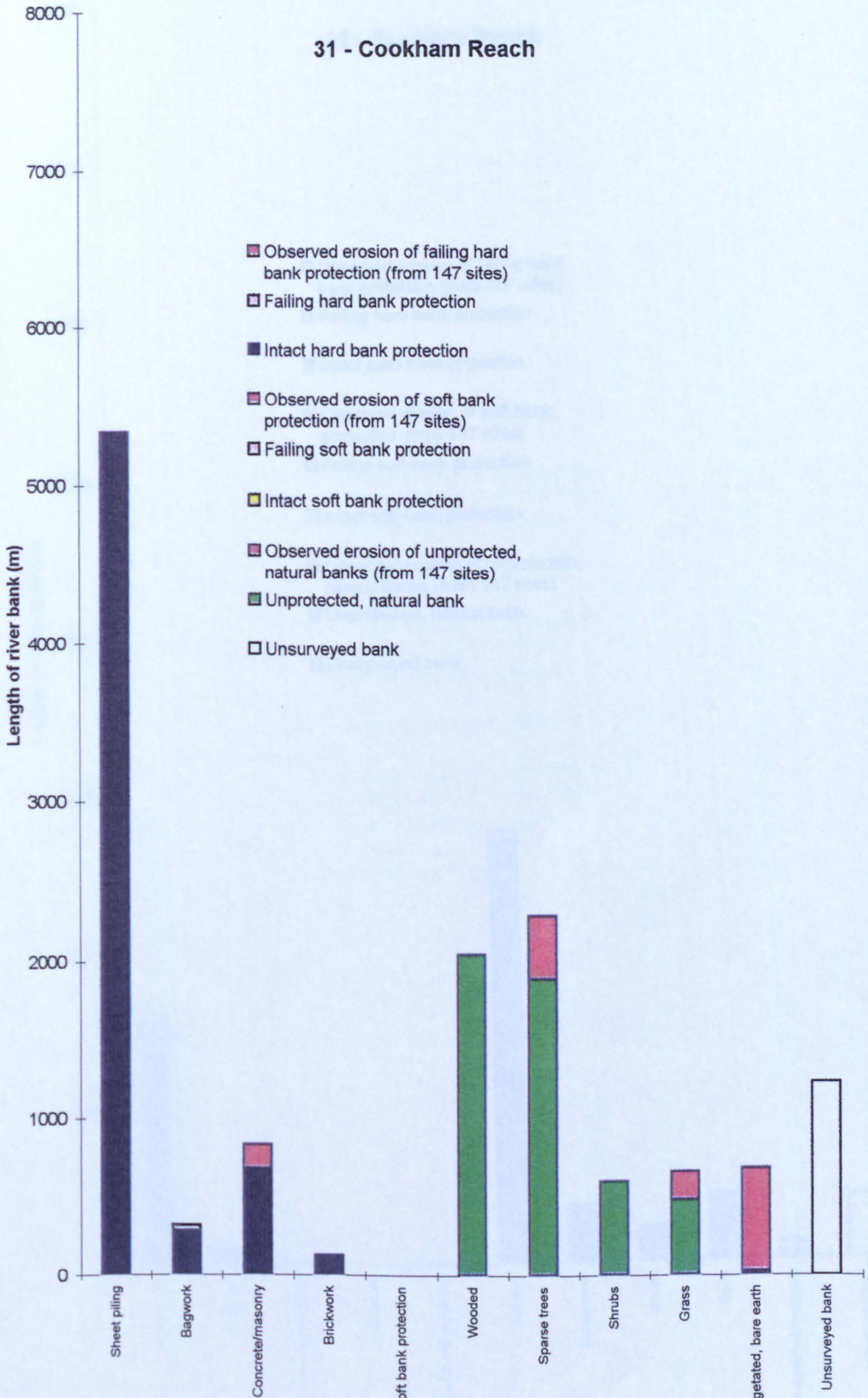

28 - Hurley Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

29 - Temple Reach

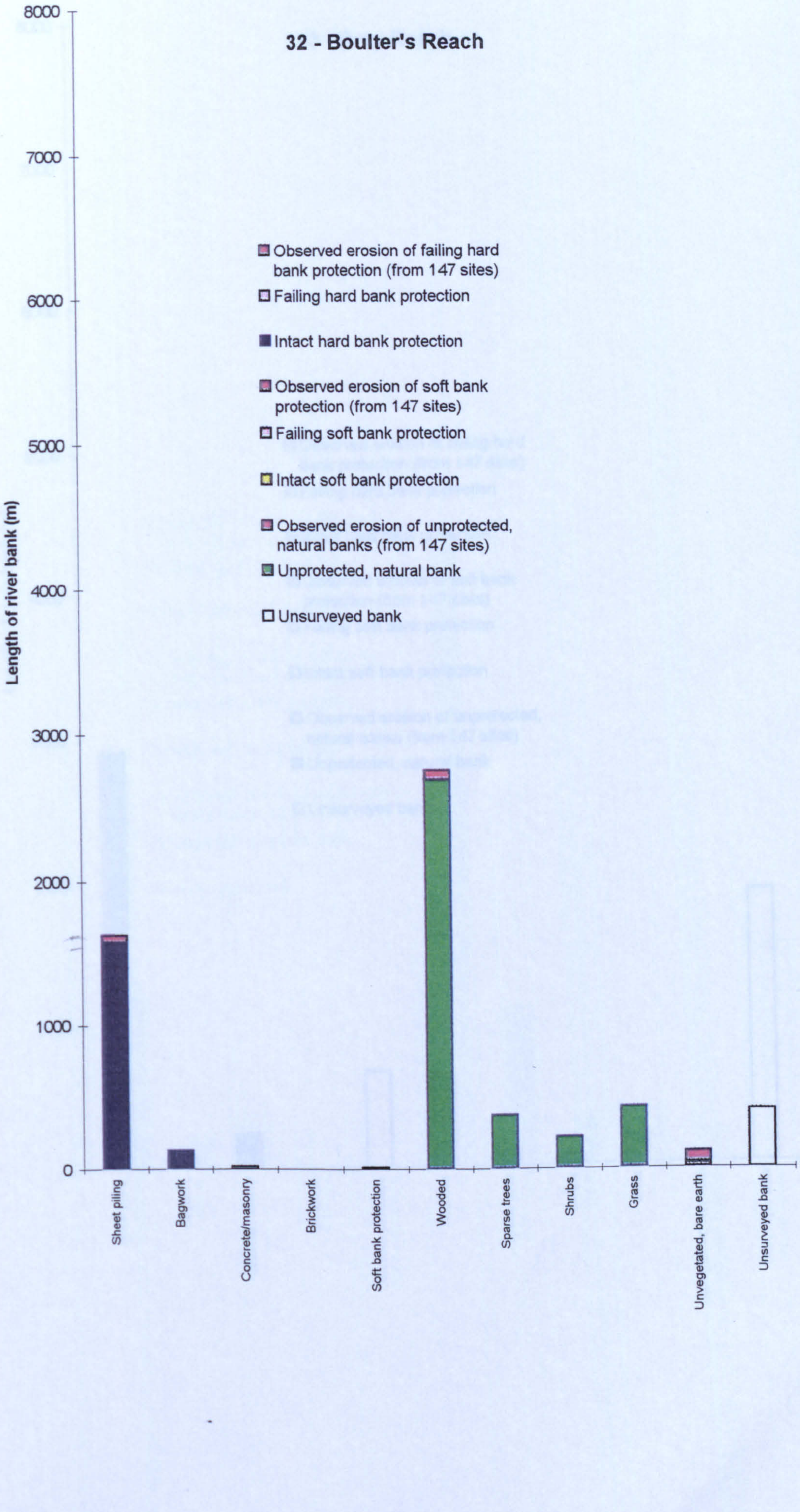


30 - Marlow Reach

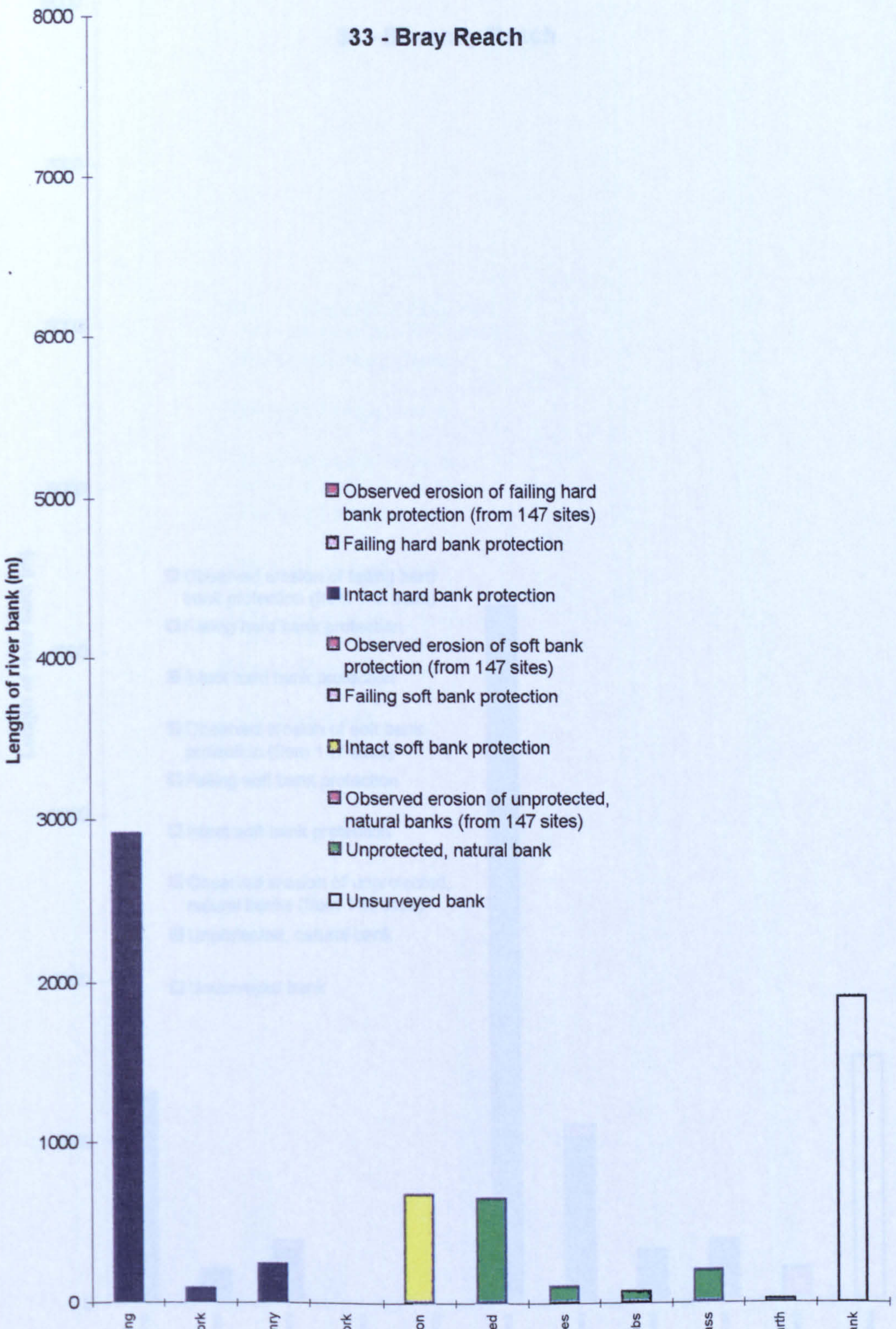



31 - Cookham Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

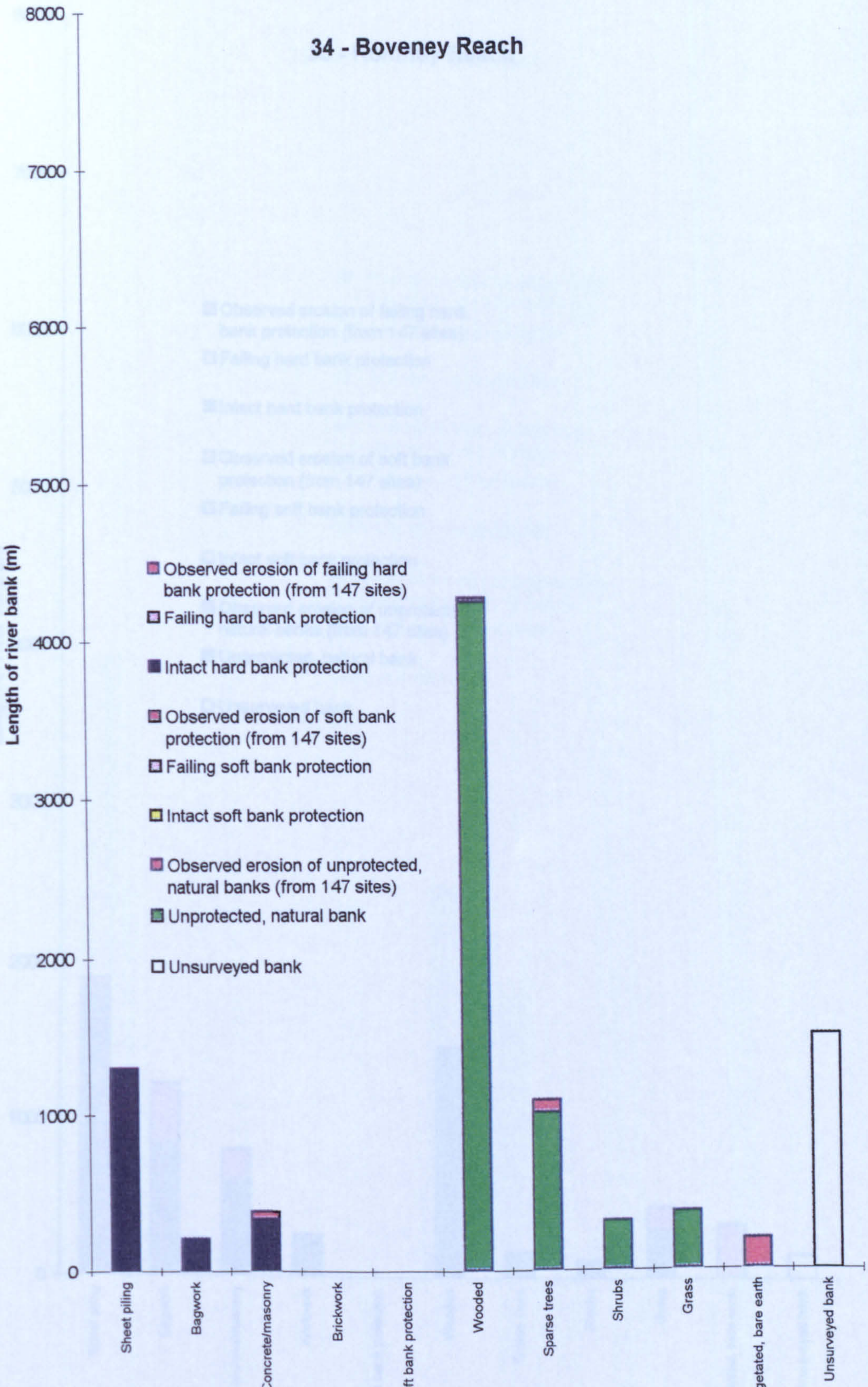
32 - Boulter's Reach



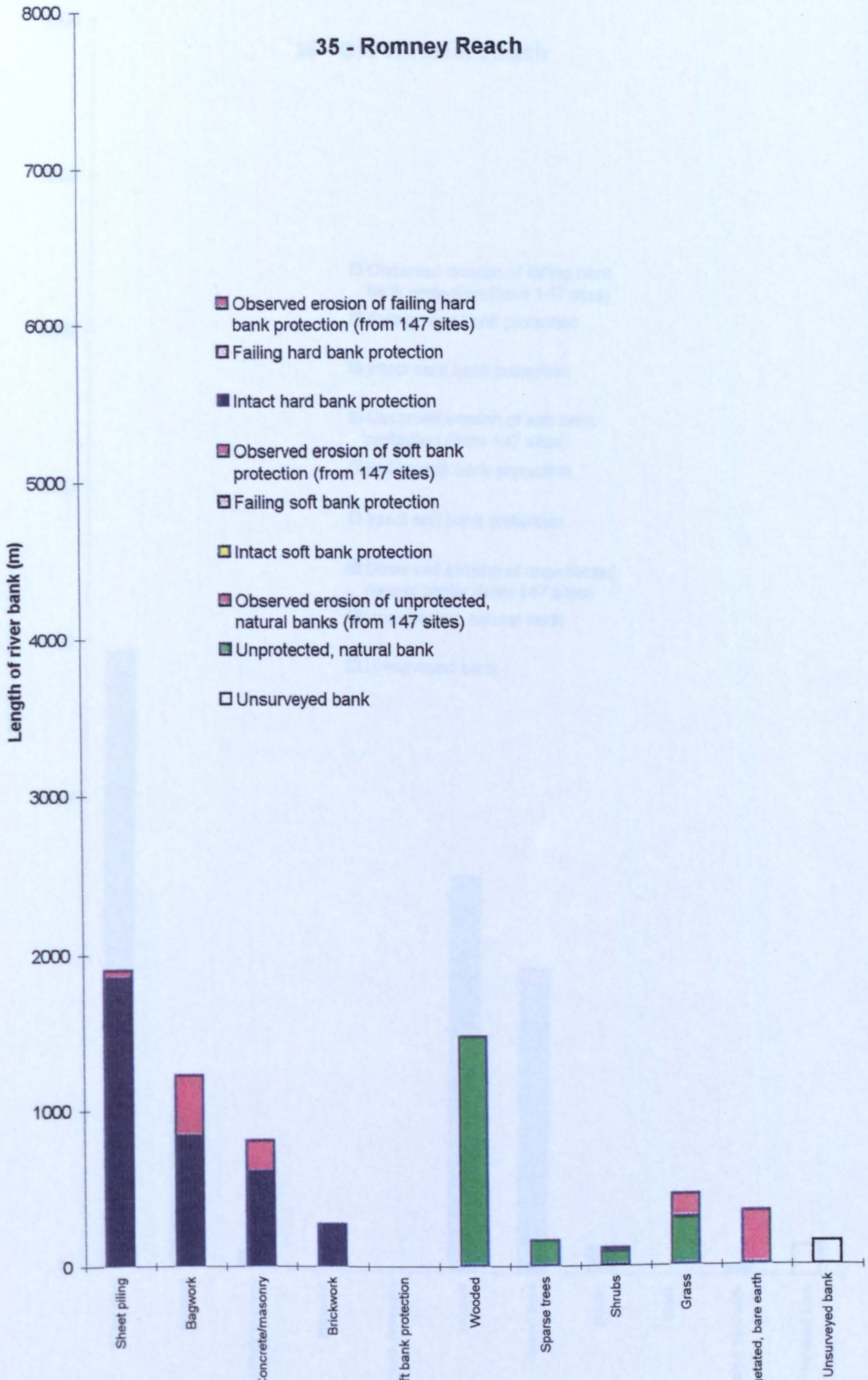
33 - Bray Reach



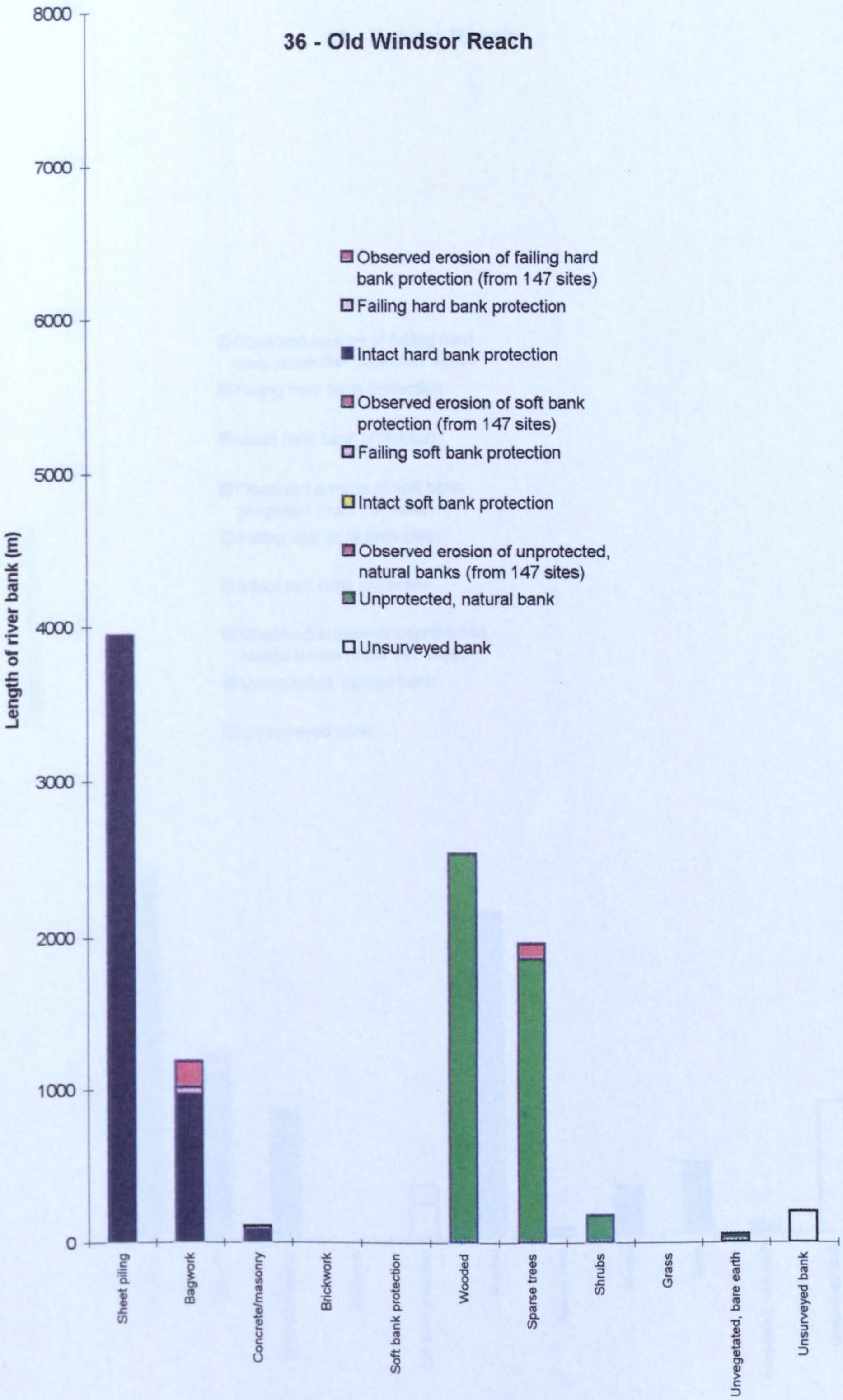
34 - Boveney Reach



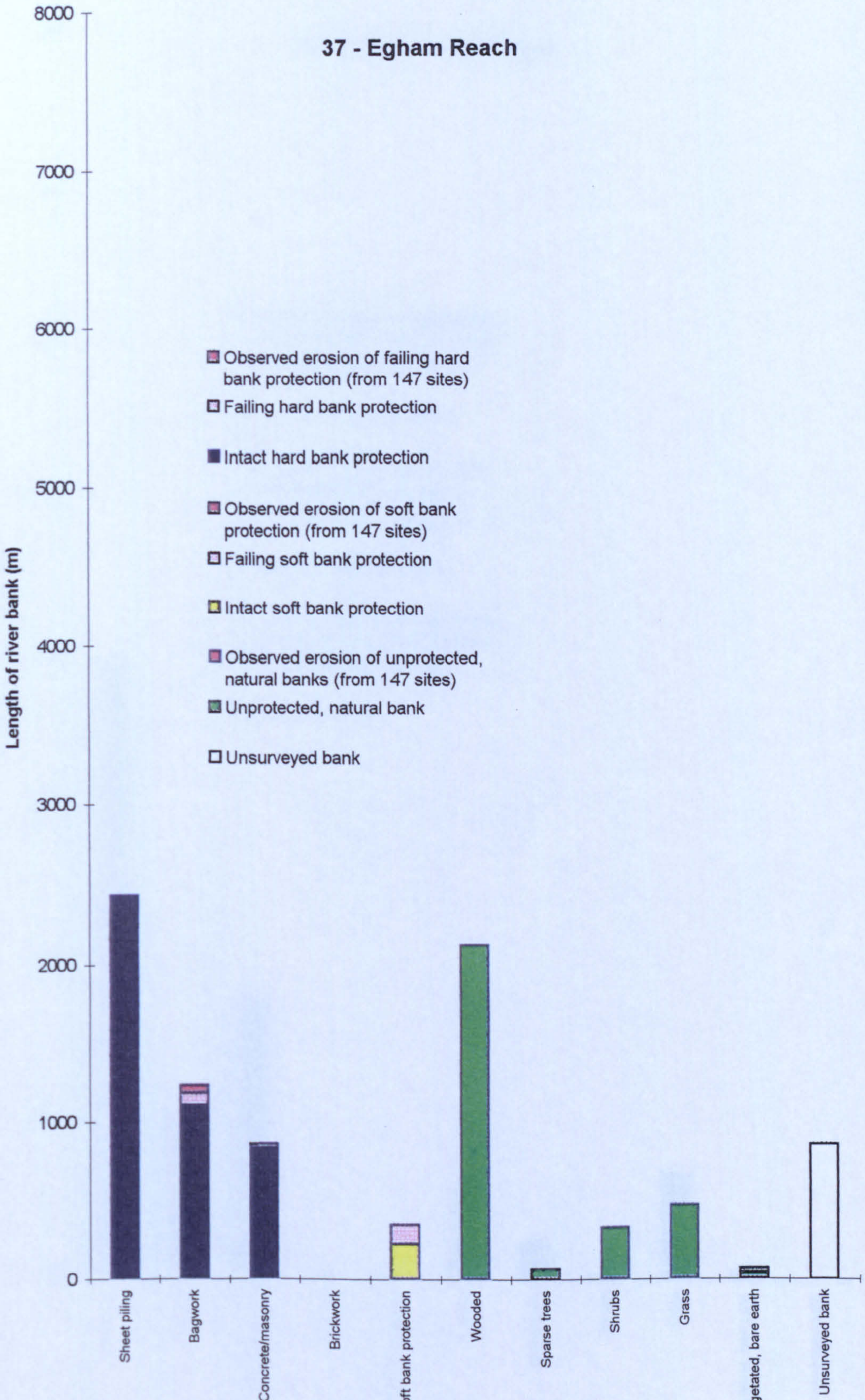
35 - Romney Reach



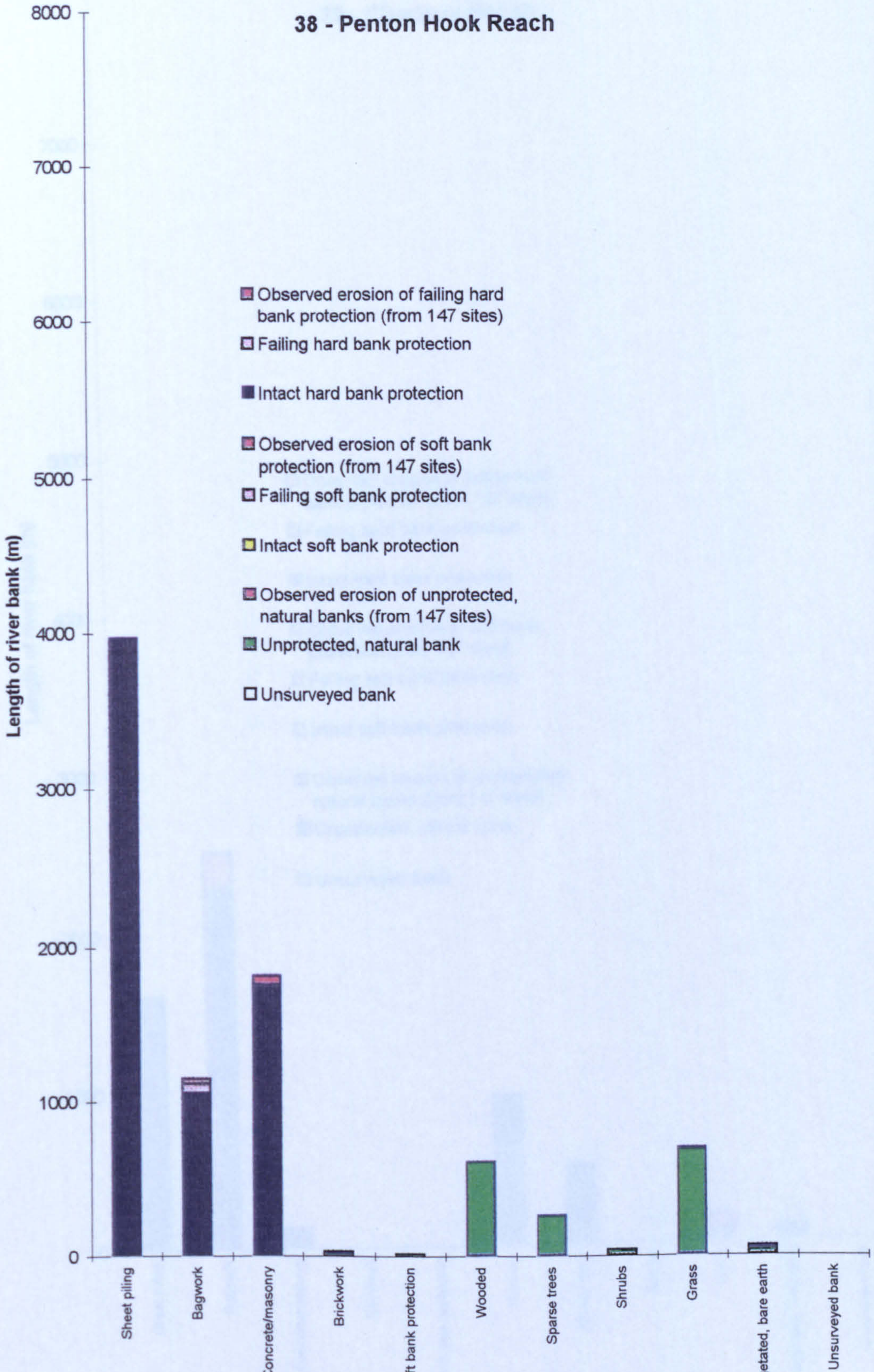
36 - Old Windsor Reach

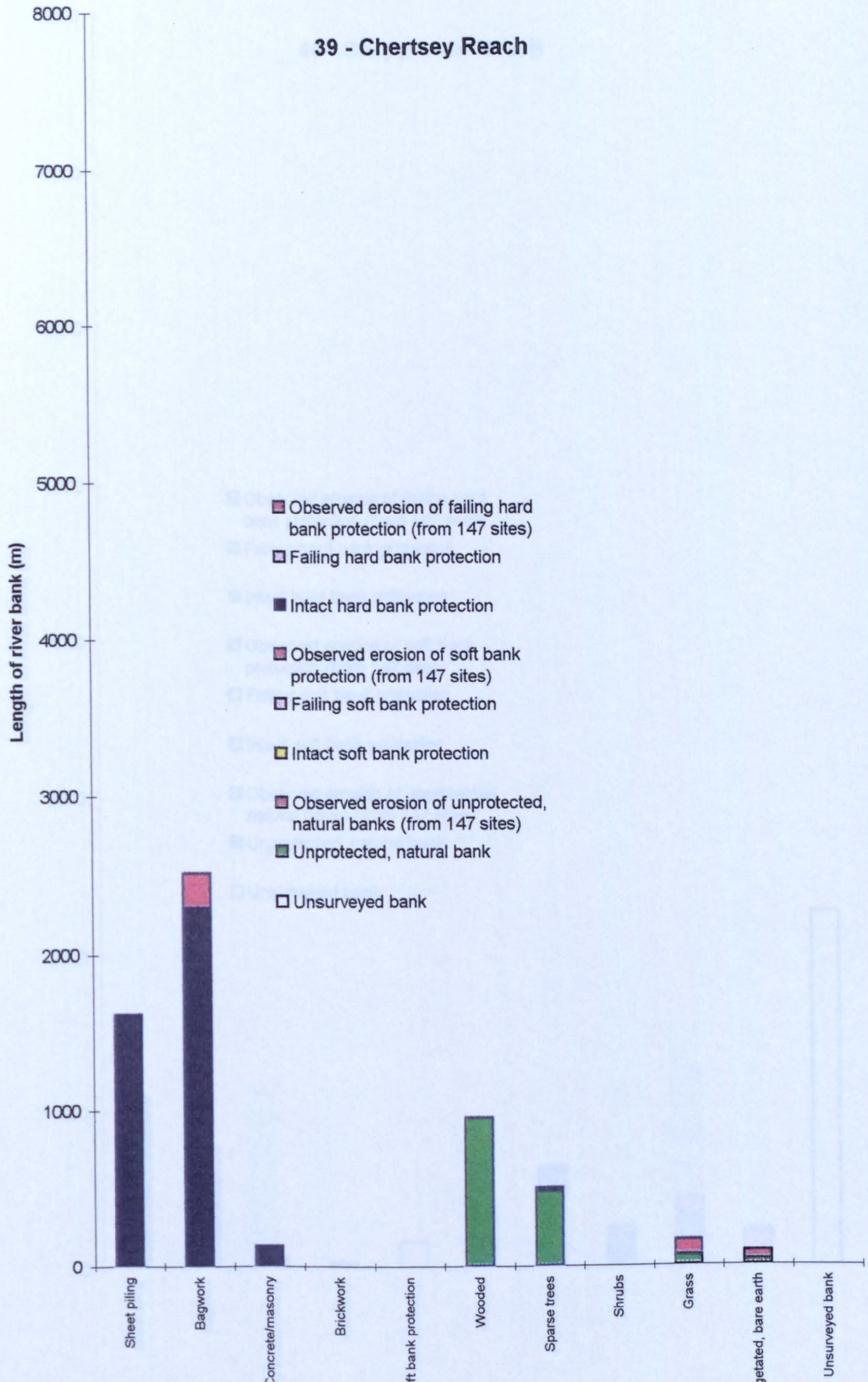


37 - Egham Reach

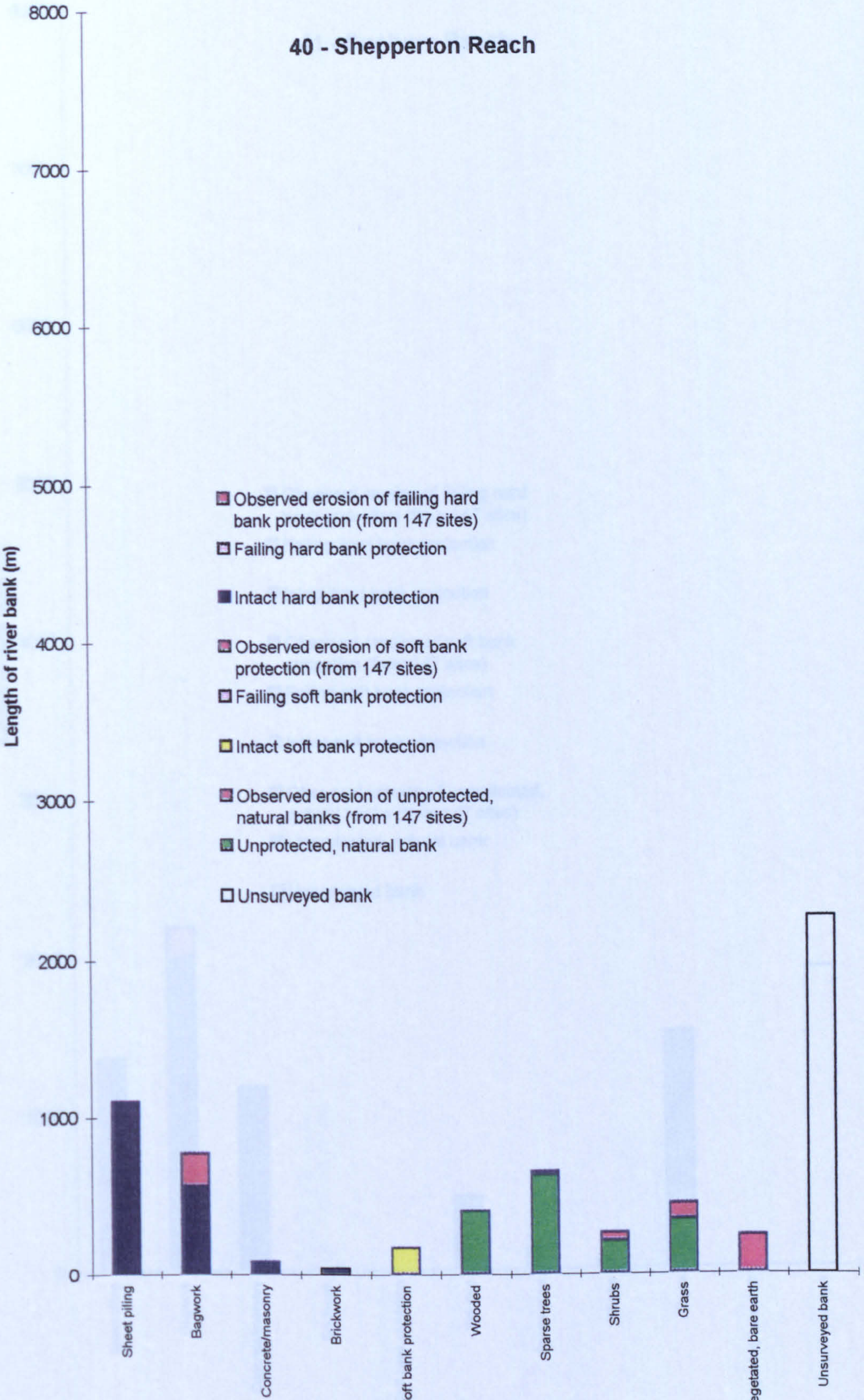


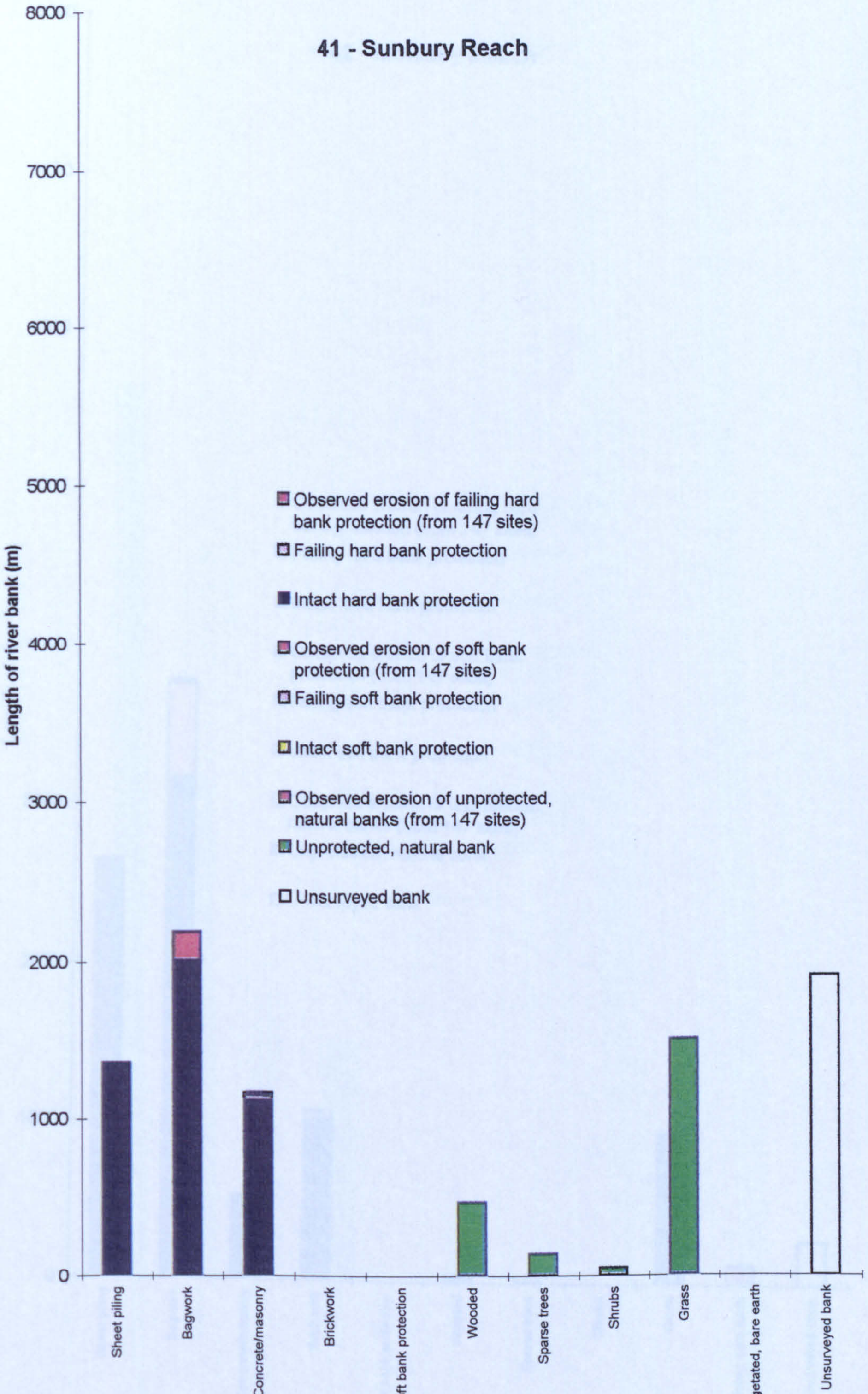
38 - Penton Hook Reach



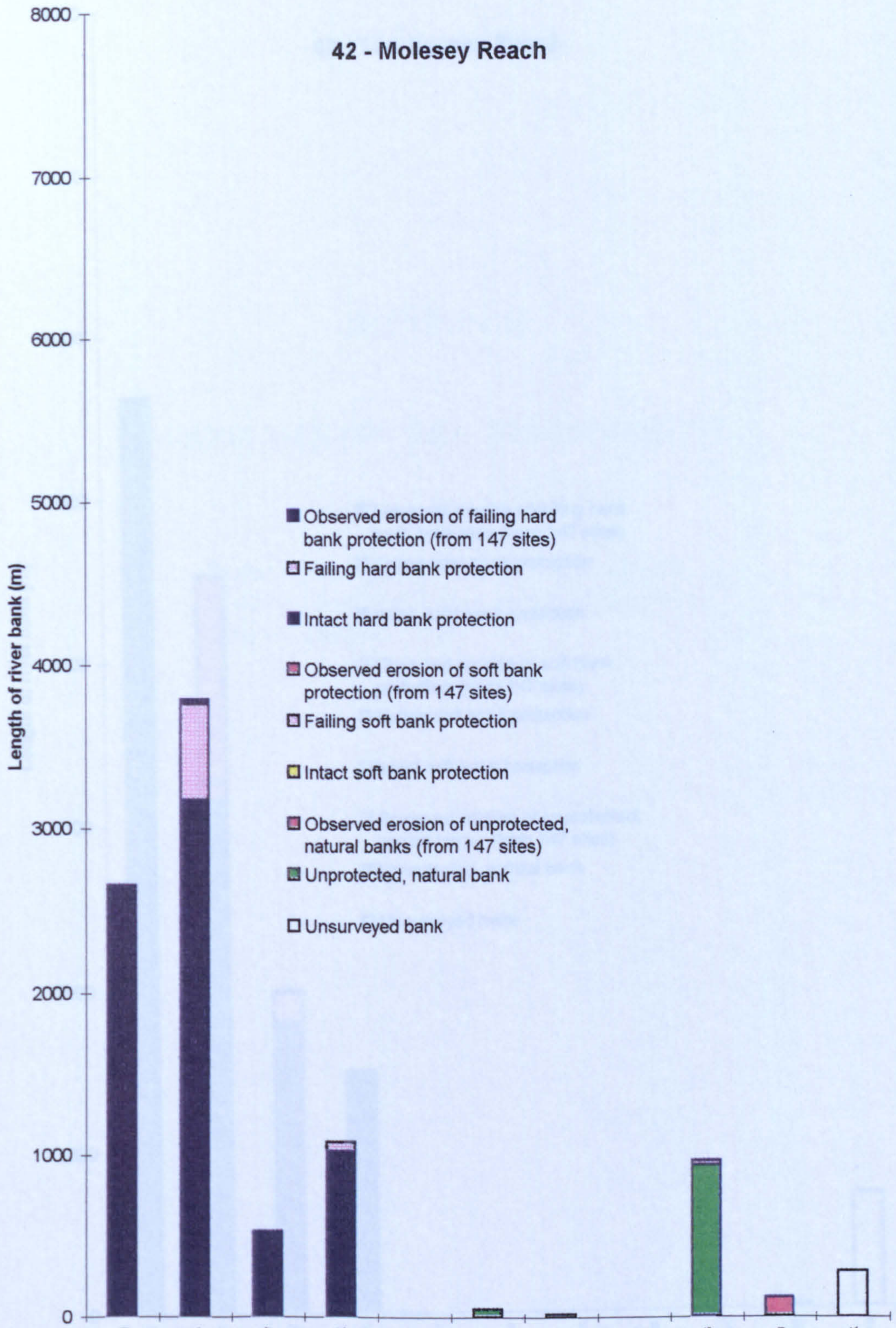

39 - Chertsey Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

40 - Shepperton Reach

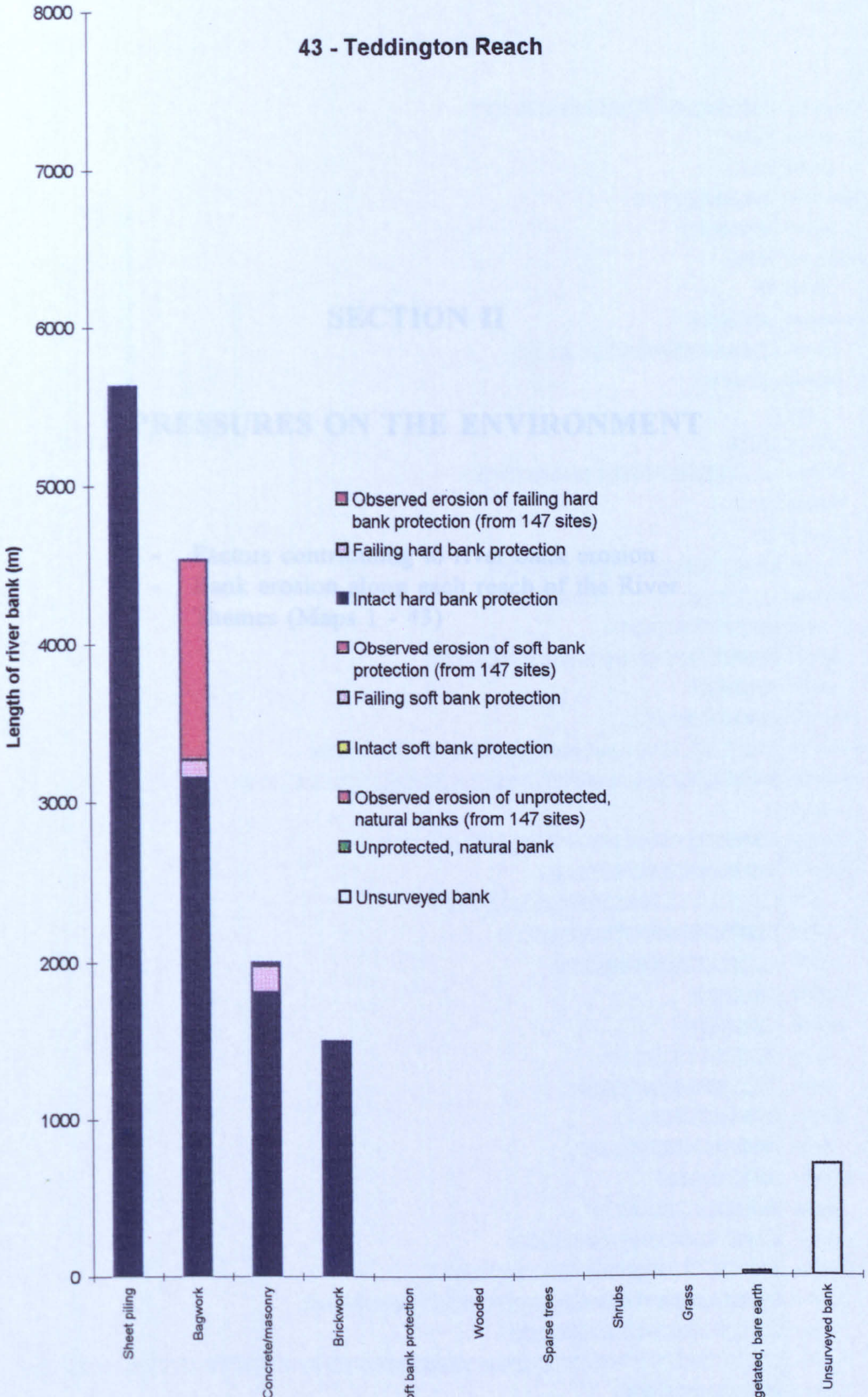



41 - Sunbury Reach
Length of river bank (m)
8000
7000
6000
5000
4000
3000
2000
1000
0
Observed erosion of failing hard bank protection (from 147 sites)
Failing hard bank protection
Intact hard bank protection
Observed erosion of soft bank protection (from 147 sites)
Failing soft bank protection
Intact soft bank protection
Observed erosion of unprotected, natural banks (from 147 sites)
Unprotected, natural bank
Unsurveyed bank
Sheet piling
Bagwork
Concrete/masonry
Brickwork
Soft bank protection
Wooded
Sparse trees
Shrubs
Grass
Unvegetated, bare earth
Unsurveyed bank

42 - Molesey Reach



43 - Teddington Reach

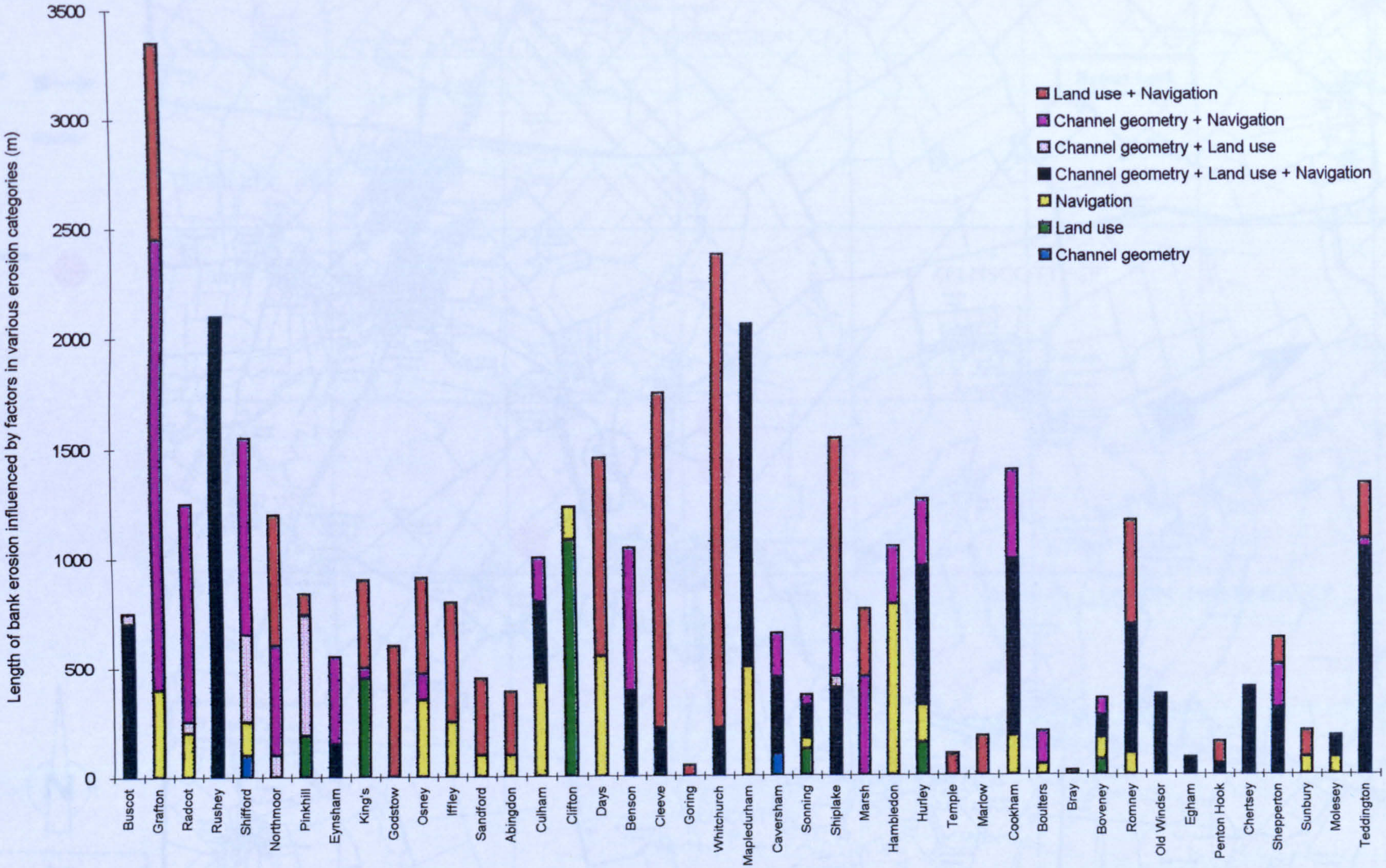


SECTION II

PRESSURES ON THE ENVIRONMENT

- Factors contributing to river bank erosion
- Bank erosion along each reach of the River Thames (Maps 1 - 43)

Pressures on the Environment:
Factors contributing to river bank erosion.



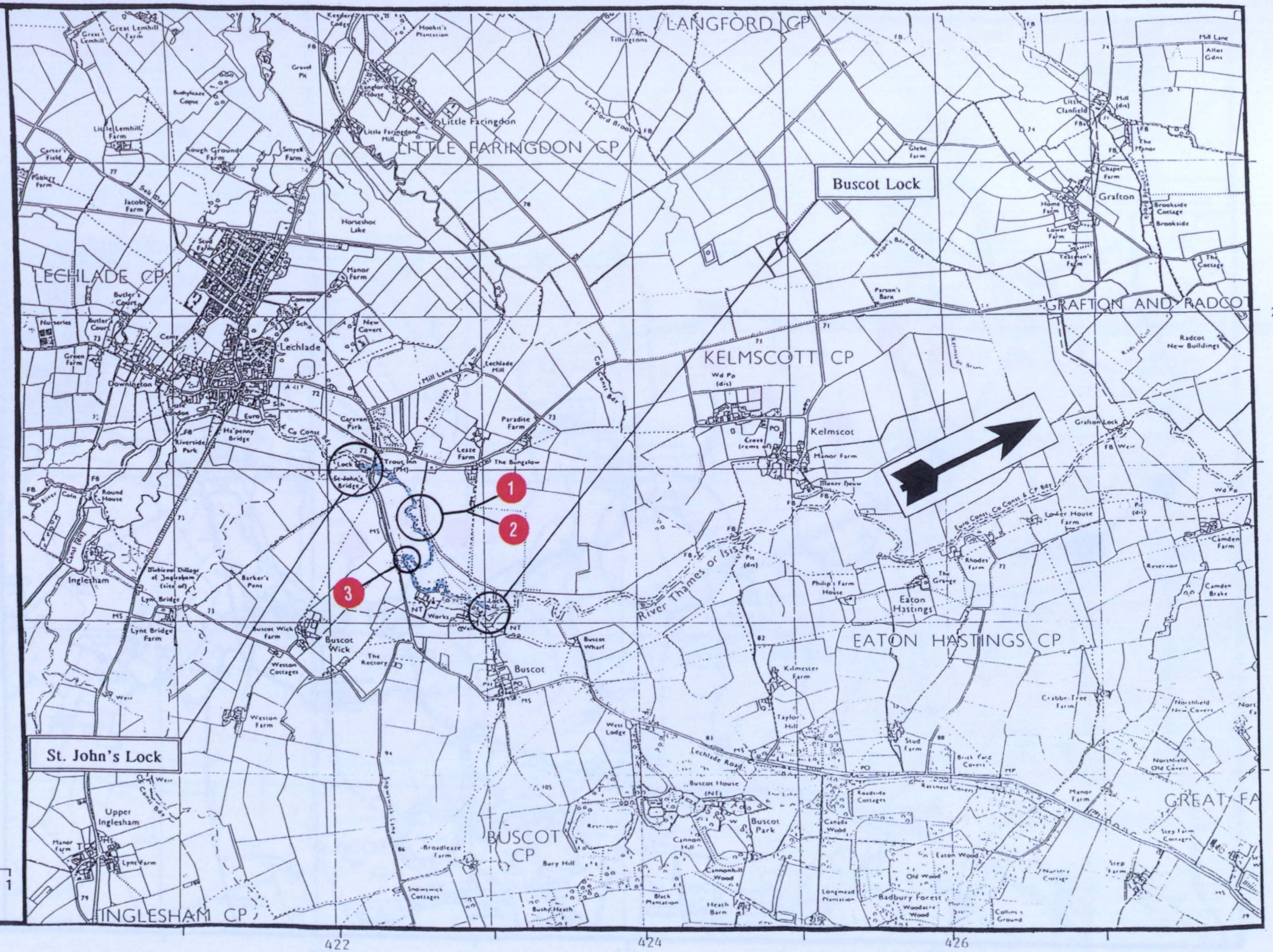
MAP 1

BUSCOT REACH
St. John's to Buscot

Direction of flow

River reach

Bank erosion site no.


LANGFORD CP
LITTLE FARINGDON CP
LECHLADE CP
KELMSCOTT CP
GRAFTON AND RADCOT
EATON HASTINGS CP
BUSCOT CP
INGLESHAM CP
Buscot Lock
St. John's Lock
1
2
3
Lechlade
Kelmscot
Grafton
Buscot
Inglesham
Upper Inglesham
Eaton Hastings
River Thames or Isis
Little Faringdon
Buscot Wick
Radcot
Langford Brook
Horseshoe Lake
Trout Inn (PH)
Riverside Park
Ha'penny Bridge
Lechlade Mill
Paradise Farm
Lynt Bridge
Lynt Bridge Farm
Weston Farm
Weston Cottages
Buscot Wharf
Buscot House (NT)
Buscot Park
Kilmester Farm
Taylor's Hill
Badbury Forest
Eaton Wood
Old Wood
Broadleaze Farm
Snowmans Cottages
Bury Hill
Cannon Hill
Cannonhill Wood
Black Plantation
Heath Barn
Bushy Heath
Lechlade Road
Snowmans Lane
Kelmscot Manor
Philip's Farm House
The Grange
Rhodes Farm
Lower House Farm
Camden Farm
Camden Brake
Reservoir
Crabbe Tree Farm
Manor Farm
Step Farm
Step Farm Cottages
Nursery Cottage
Collins Ground
Roadside Cottages
Canada Wood
Longmead Plantation
Woodacre Wood
Brick Yard Covert
Northfield Old Covert
Northfield Farm Covert
Radcot New Buildings
Grafton Lock
Lower Farm
Home Farm
Chapel Farm
Brookside Cottage
Brookside
The Cottage
Tessman's Farm
Glebe Farm
Little Clanfield
Mill Lane
Allot Gdns
Parson's Barn
Kelmscot Manor
Manor Farm
Manor House
Cross (remains of)
Wd Po (dis)
Mill (dis)
Pit (dis)
Pit (dis)
Euro Canal
Co Const Bdy
Lock
Works
Weir
Canal (dis)
Old Village of Inglesham (site of)
Round House
Manor Farm
Lynt Farm
Barker's Pens
Buscot Wick Farm
The Rectory
Lechlade Cemy
Sch
Nurseries
Butler's Court
Green Farm
Downington
Caravan Park
Lesse Farm
The Bungalow
Mill Lane
New Covert
Manor Farm
Suss Farm
Jacobs Farm
Rough Grounds Farm
Smyers Farm
Little Lemhill Farm
Great Lemhill Farm
Buttsbridge Copse
Gravel Pit
Hooker's Plantation
Langford House
Little Faringdon Mill
Tillingtons
Keepers Cottage
Carter's Field
Market Farm
Salt Way
Common
Cemy
Sch
Co Const Bdy
Euro Can
Lock
St John's Bridge
Lock
Weir
Canal (dis)
Works
Weir
Weir
Canal Bdy
Weir
Lock
Lock
Lock

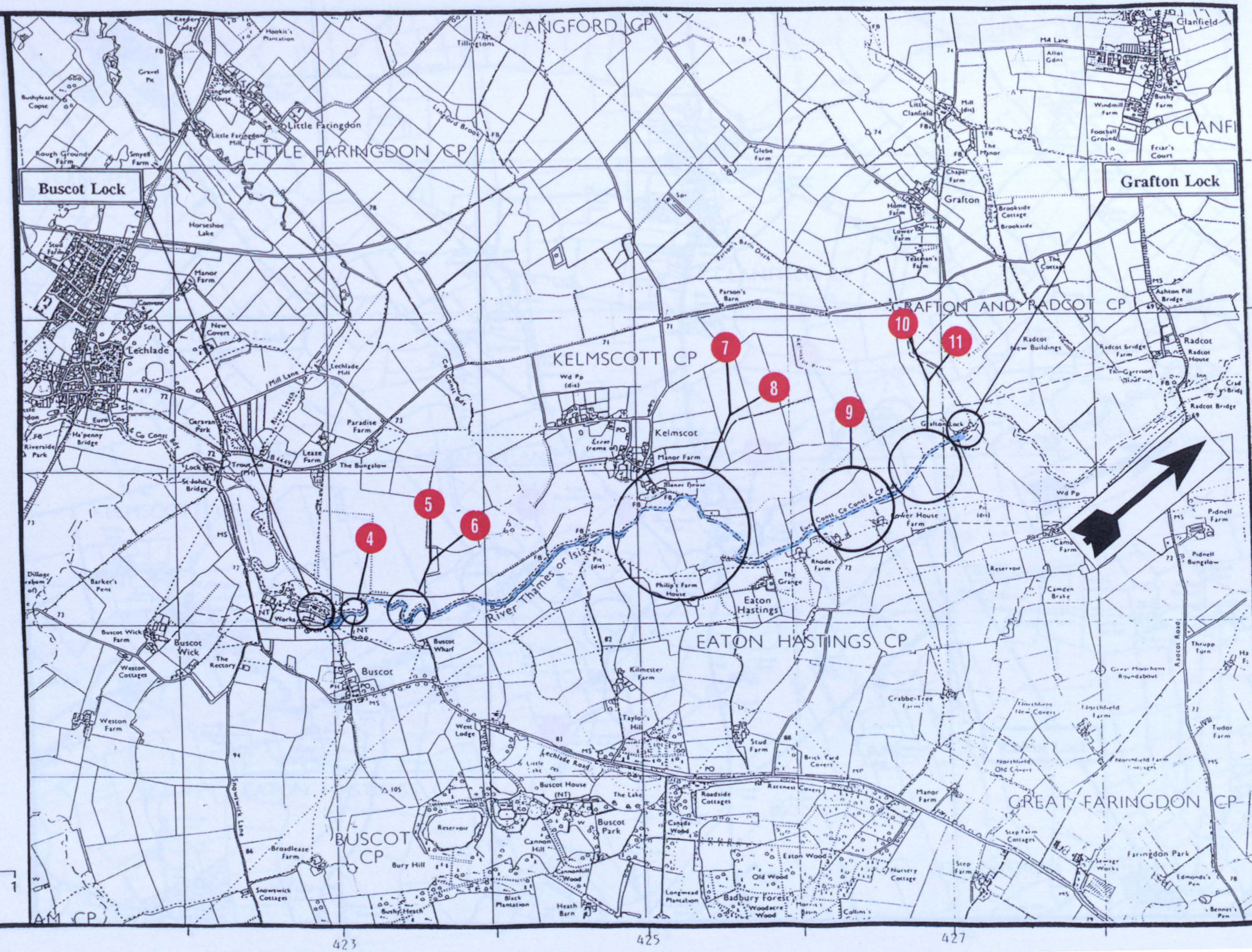
MAP 2

GRAFTON REACH
Buscot to Grafton

Direction of flow

River reach

Bank erosion site no.



MAP 3

RADCOT REACH
Grafton to Radcot

Direction of flow

River reach

Bank erosion site no.



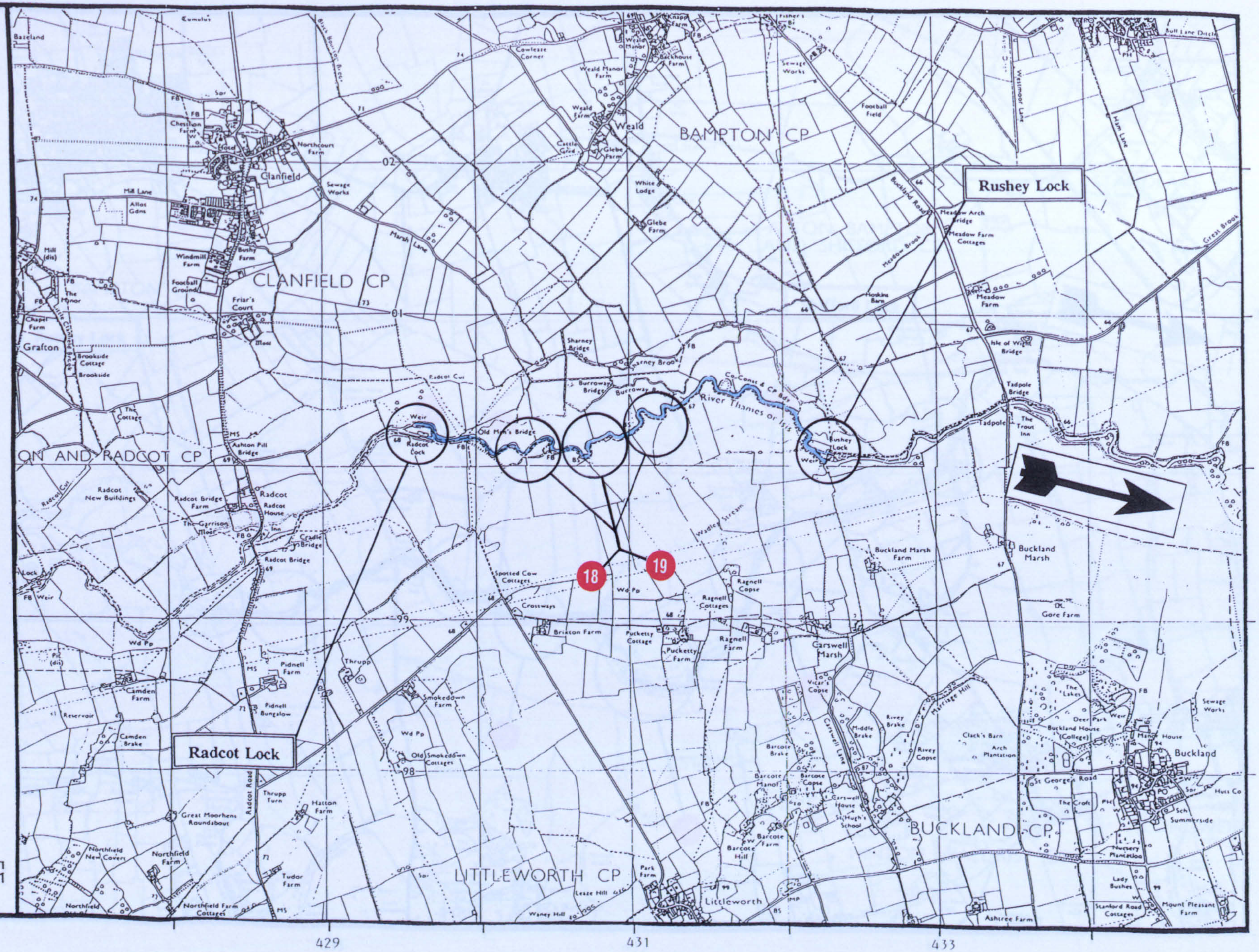
MAP 4

RUSHEY REACH
Radcot to Rushey

Direction of flow

River reach

Bank erosion site no.



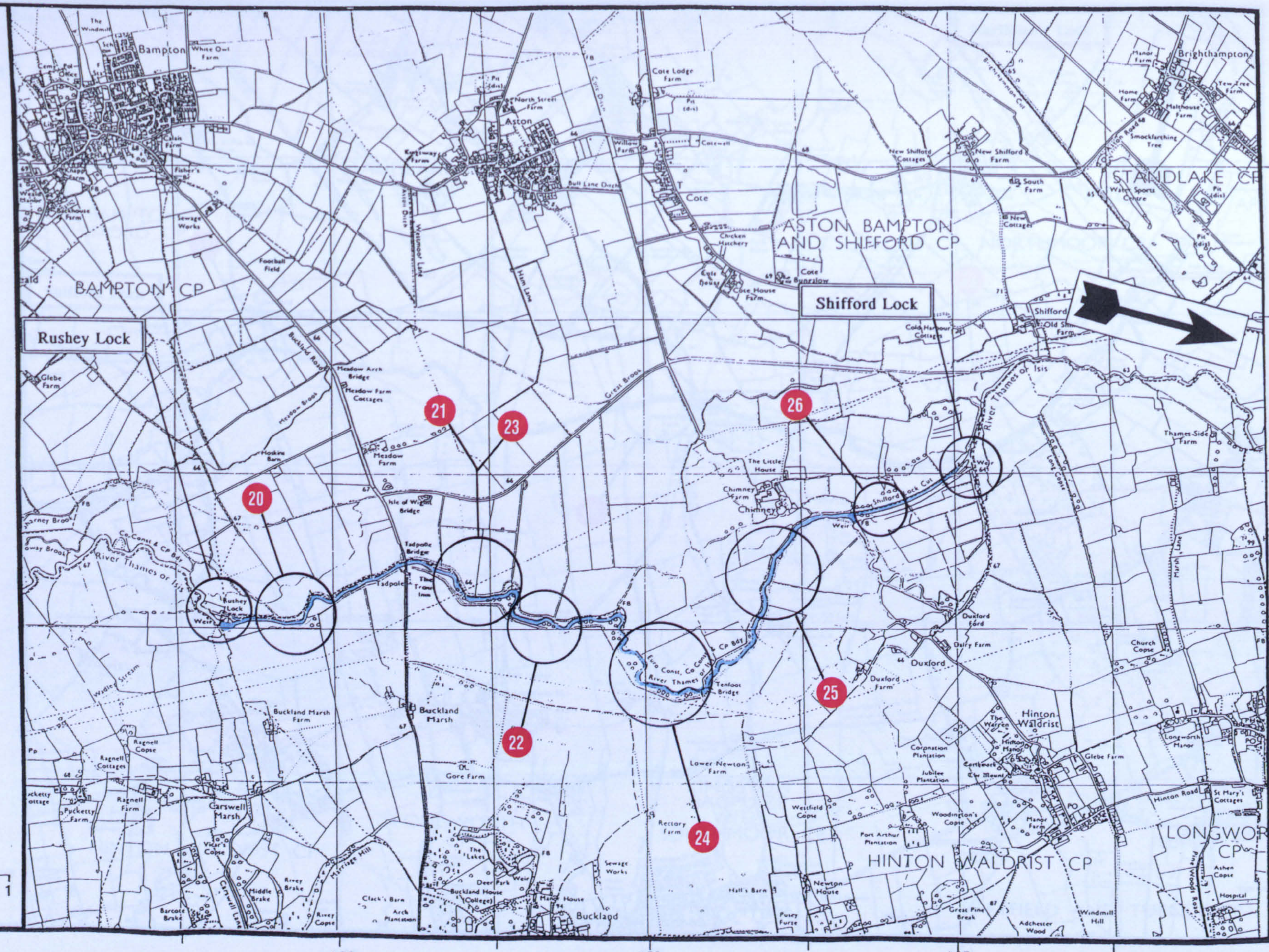
MAP 5

SHIFFORD REACH
Rushey to Shifford

Direction of flow

River reach

Bank erosion site no.


Bampton
Aston
Cote
Brighthampton
BAMPTON CP
ASTON BAMPTON AND SHIFFORD CP
STANDLAKE CP
HINTON WALDRIST CP
LONGWOOD CP
Rushey Lock
Shifford Lock
River Thames or Isis
Great Brook
Buckland Marsh
Garsewell Marsh
Hinton Waldrist
Duxford
Buckland
Lower Newton Farm
Rectory Farm
Gore Farm
Cote House Farm
Chimney
Duxford Farm
Dairy Farm
Meadow Farm
Tadpole Bridge
Tenfoot Bridge
Bushey Lock
Weir
Shifford Lock Cut
Meadow Arch Bridge
Buckland Marsh Farm
Ragnell Farm
Puckeridge Farm
Buckland House (College)
Manor House
Newton House
Westfield Copse
Woodington's Copse
Port Arthur Plantation
Coronation Plantation
Jubilee Plantation
Church Copse
Ashen Copse
Windmill Hill
Adchester Wood
Great Pine Break
Glebe Farm
Thames-Side Farm
Longworth Manor
St Mary's Cottages
Hinton Road
Marsh Lane
Longwood Lane
Marriage Hill
Carswell Lane
Buckland Marsh
Tadpole Bridge
Duxford Ford
Church Copse
Hinton Waldrist
Longworth Manor
Glebe Farm
Hinton Road
St Mary's Cottages
Ashen Copse
Hospital
Windmill Hill
Adchester Wood
Great Pine Break
Marsh Lane
Longwood Lane
Rushey Lock
Weir
Shifford Lock Cut
Weir
Tadpole Bridge
Tenfoot Bridge
Duxford Ford
Dairy Farm

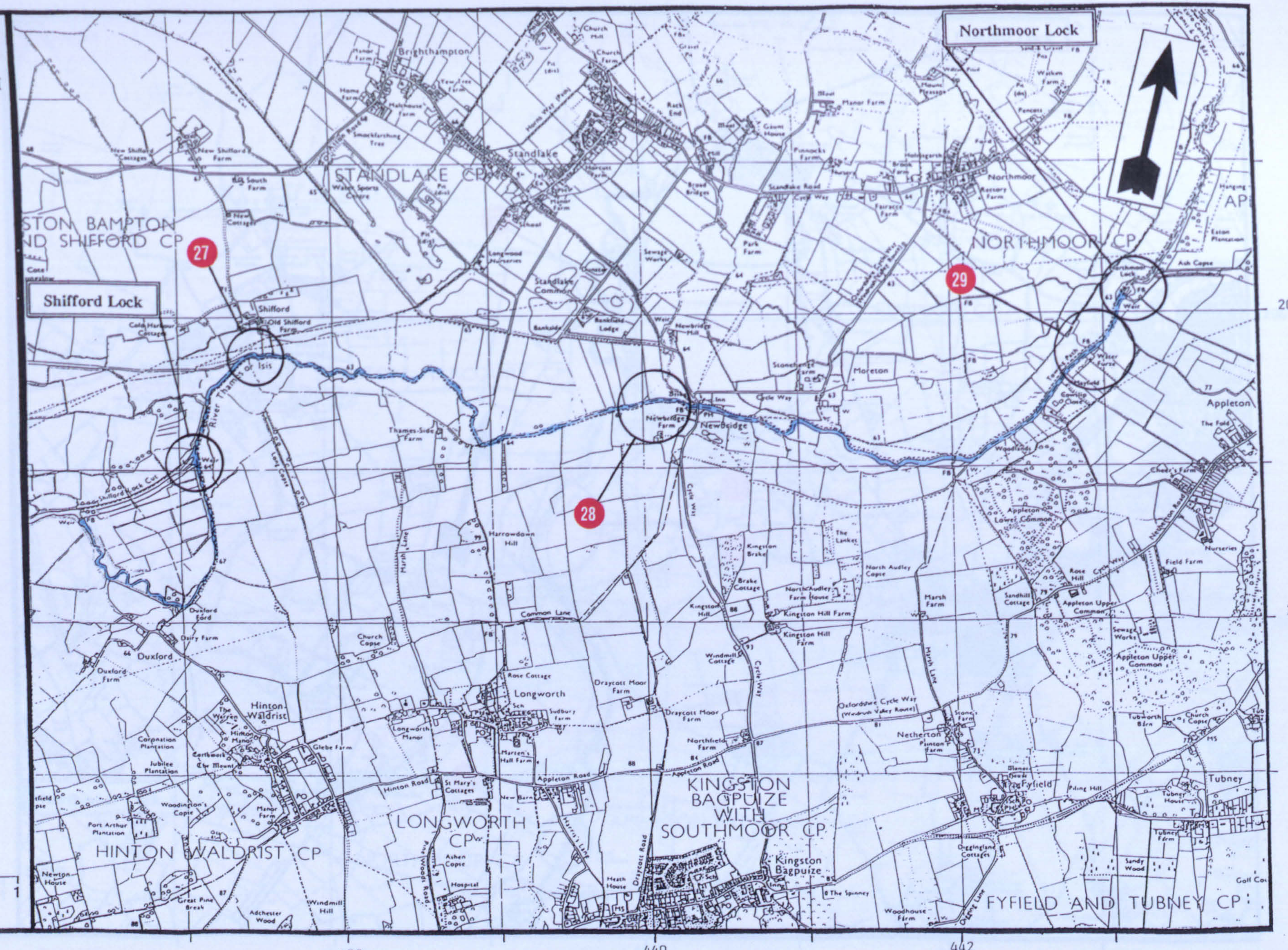
MAP 6

NORTHMOOR REACH
Shifford to Northmoor

Direction of flow

River reach

Bank erosion site no.



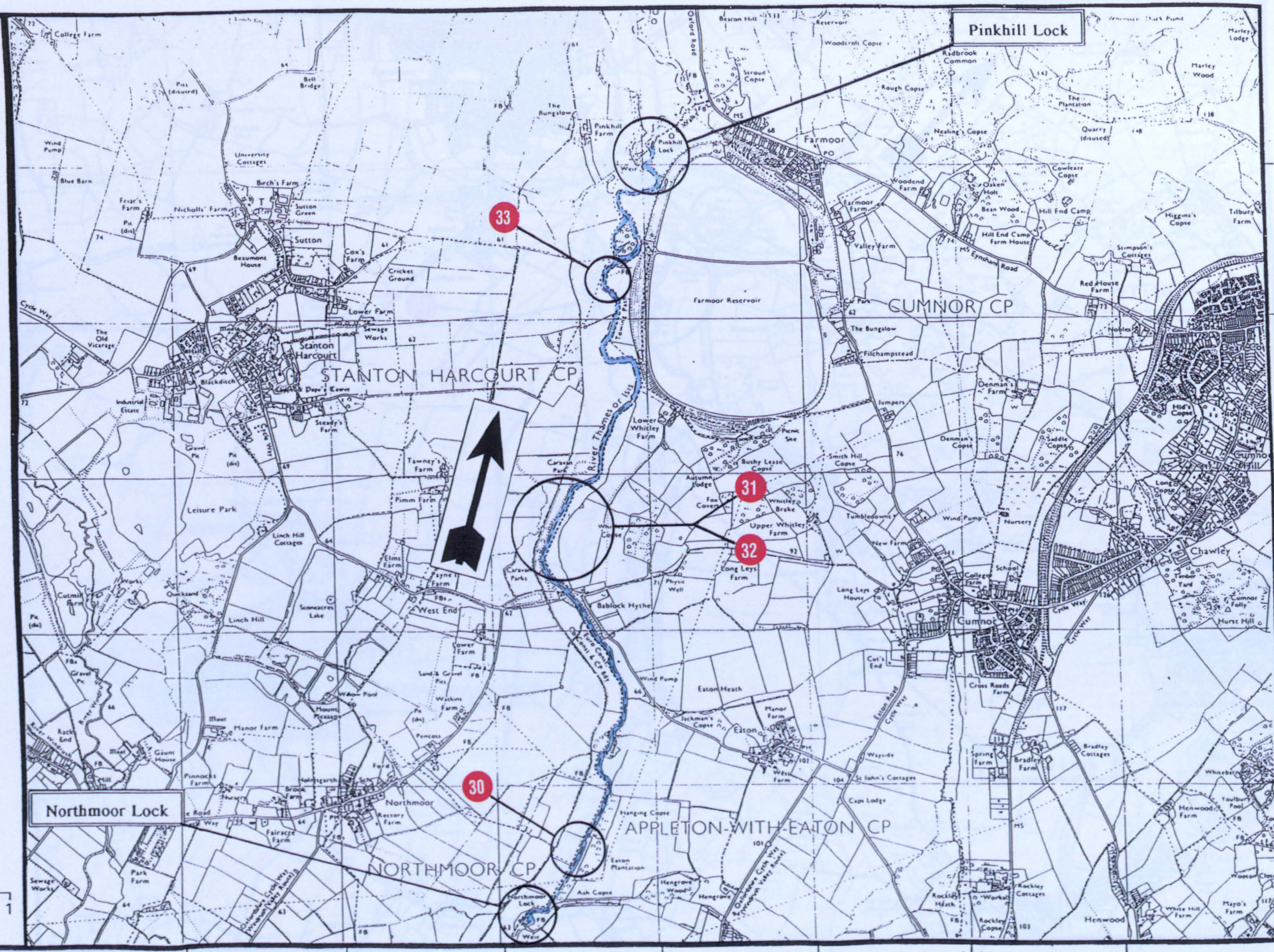
MAP 7

PINKHILL REACH
Northmoor to Pinkhill

Direction of flow

River reach

Bank erosion site no.


Pinkhill Lock
Northmoor Lock
33
31
32
30
STANTON HARCOURT CP
CUMNOR CP
APPLETON-WITH-EATON CP
NORTHMOOR CP
Farmoor Reservoir
Farmoor
Cumnor
Chawley
Northmoor
Eaton
Stanton Harcourt
Sutton
Pinkhill Lock
Weir
Oxford Road
Eynsham Road
River Thames or Isis
Cumnor Hill
Henwood
Hurst Hill
Tilbury Farm
Hill End Camp
Farmoor Reservoir
Leisure Park
Linch Hill
Eaton Heath
Wytham Great Wood
Bushy Leasow Copse
Long Leys Farm
Upper Whitley Farm
Lower Whitley Farm
Eaton Plantation
Hengrove Wood
Ash Copse
Seacrest Lake
Cumnor Parks
Babblock Hythe
Physic Well
Cumnor Folly
Cumnor Hill
Henwood Farm
Bradley Farm
Bradley Cottages
Rockley Cottages
Rockley Copse
Rockley Heath
Mayo's Farm
White Hill Farm
Whitehorse Hill
Taylburn Pool
Wootton Close
Spring Farm
Cross Roads Farm
Cut's End
Long Leys House
College Farm
Nursery
Wind Pump
Tumbledown
New Farm
Whitley Brake
Fox Covert
Autumn Lodge
Smith Hill Copse
Denman's Copse
Denman's Farm
Jumpers
Filchampstead
The Bungalow
Valley Farm
Farmoor Farm
Woodend Farm
Hill End Camp Farm House
Bean Wood
Oaken Holt
Cowleaze Copse
Higgins's Copse
Stimpson's Cottages
Red House Farm
Nobles
Marley Lodge
Marley Wood
The Plantation
Quarry (disused)
Neating's Copse
Rough Copse
Woodcroft Copse
Radbrook Common
Beacon Hill
Reservoir
Stroud Copse
The Bungalow
Pinkhill Farm
Bell Bridge
College Farm
Pit (disused)
Wind Pump
Blue Barn
University Cottages
Birch's Farm
Sutton Green
Frizer's Farm
Nicholls' Farm
Besumont House
Cox's Farm
Cricket Ground
Lower Farm
Sewage Works
The Old Vicarage
Stanton Harcourt
Blackditch
Industrial Estate
Steady's Farm
Tawney's Farm
Pimm Farm
Elms Farm
Payne's Farm
West End
Lower Farm
Sand & Gravel Pits
Wilcote Pond
Watkins Farm
Mount Pleasant
Manor Farm
Moat
Givins House
Pinnocks Farm
Brook Farm
Holmegarth
Rectory Farm
Fairacre Farm
Park Farm
Sewage Works
Cutmill Farm
Quicksand
Works
Gravel Pit
Racks End
River Windrush
Hanging Copse
Pic Nic Site
Caravan Park
Manor Farm
Wytham Great Wood
Oxfordshire Cycle Way (Wytham Valley Route)
Cycle Way
Eynsham Road
Eaton Road
Wayside
St John's Cottages
Cape Lodge
Jackman's Copse
Manor Farm
Eaton

MAP 8

EYNSHAM REACH
Pinkhill to Eynsham

Direction of flow

River reach

Bank erosion site no.

34

35

Eynsham Lock

Pinkhill Lock

STANTON HARCOURT CP

CUMNOR CP

WYTHAM CP

0 km 1

442 444 446

206 208

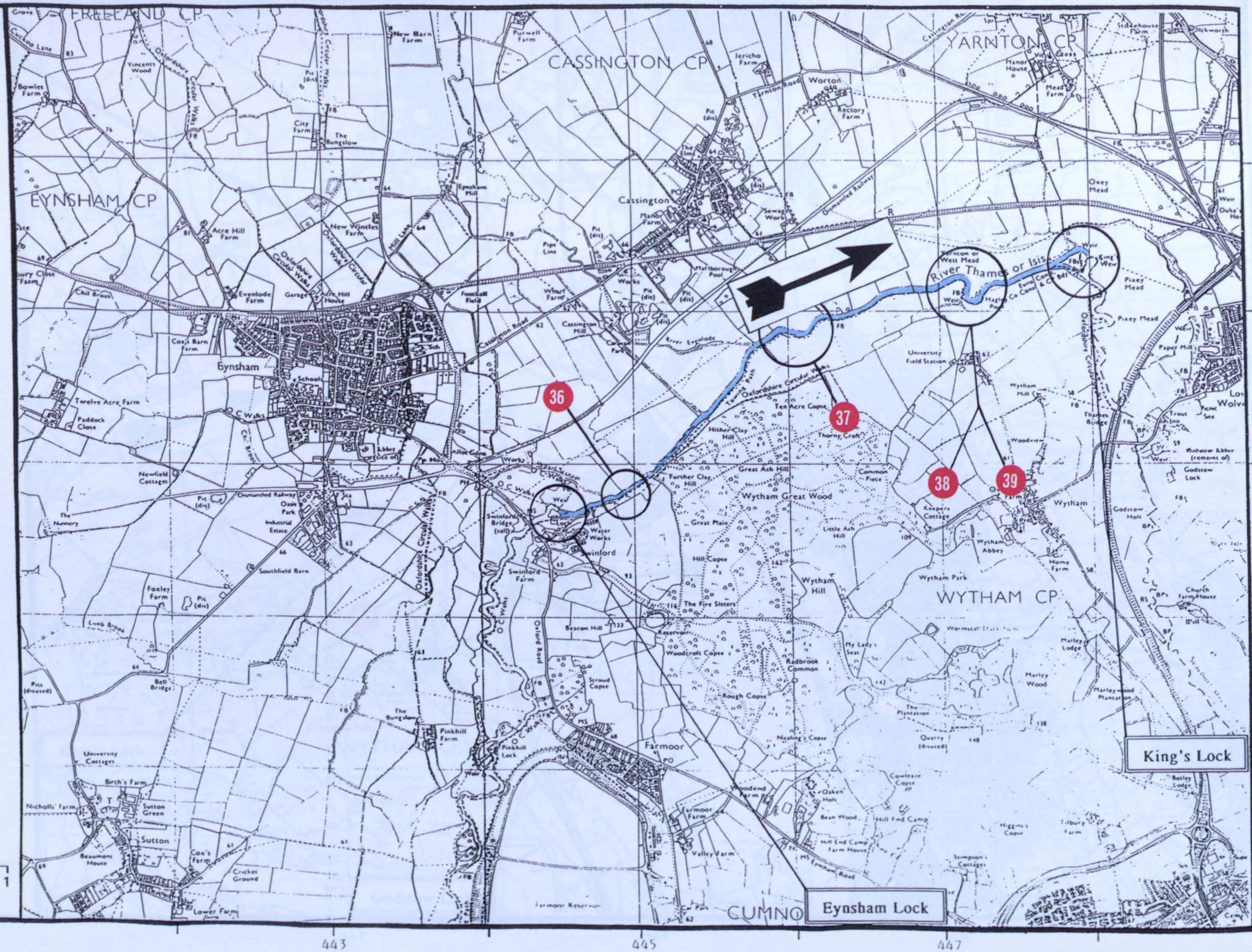
MAP 9

KING'S REACH
Eynsham to King's

Direction of flow

River reach

Bank erosion site no.



MAP 10

GODSTOW REACH
King's to Godstow

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



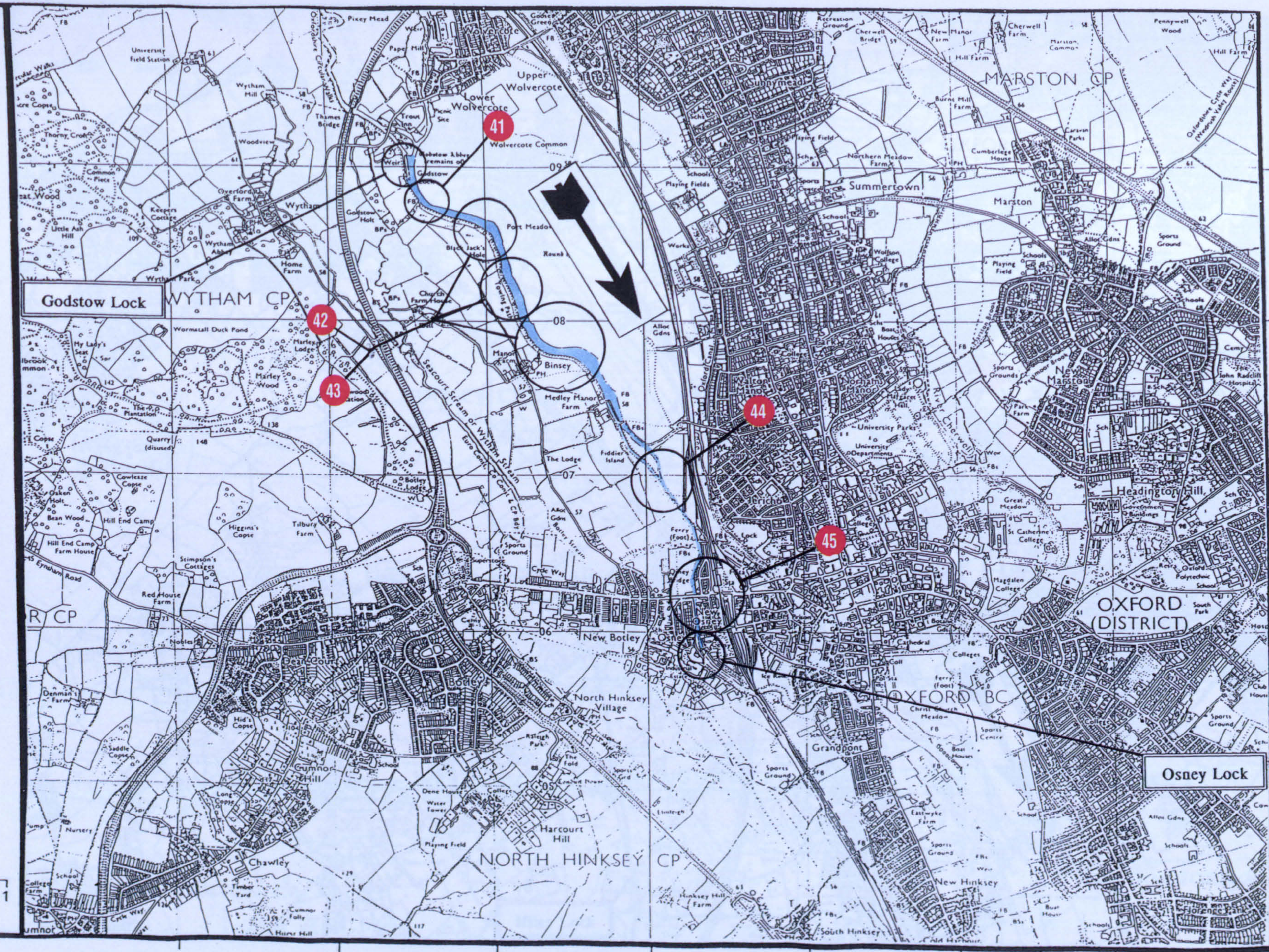
MAP 11

OSNEY REACH
Godstow to Osney

Direction of flow

River reach

Bank erosion site no.


41
42
43
44
45
Godstow Lock
Osney Lock
WYTHAM CP
MARSTON CP
OXFORD (DISTRICT)
OXFORD BC
NORTH HINKSEY CP
Wolvercote
Upper Wolvercote
Lower Wolvercote
Wolvercote Common
Port Meadow
Summertown
Marston
New Marston
Binsey
Medley Manor Farm
Wytham
Wytham Abbey
Wytham Park
Wytham Hill
Wytham Woods
Godstow Abbey remains of
Godstow
Godstow Holt
Church Farm House
Manor Farm
Marley Wood
Marley Lodge
Wormstall Duck Pond
Seacourt Stream or Wytham Stream
Euro Canal to Cork
Botley Lodge
Tilbury Farm
Higgins's Copse
Hill End Camp
Hill End Camp Farm House
Stimpson's Cottages
Red House Farm
Eynsham Road
Botley
New Botley
Dean Court
North Hinksey Village
Cumnor Hill
Chawley
Harcourt Hill
Dene House
Wytham Woods
Cowleaze Copse
Oaken Holt
Bean Wood
Denman's Farm
Saddle Copse
Hid's Copse
Long Copse
Timber Yard
Cumnor Fatty
Hurst Hill
Sports Ground
Playing Field
Schools
Cemetery
Allot Gdns
Sunnymead
Northern Meadow Farm
Cumberlege House
Burne Hill Farm
Cherwell Farm
Cherwell Bridge
New Manor Farm
Hill Farm
Marston Common
Pennywell Wood
Sports Grounds
Wolfson College
Keble College
Merton College
Worcester College
Oriel College
Corpus Christi College
Christ Church Meadow
Magdalen College
Grandpont
University Parks
University Departments
Jericho
Walton Manor
Ferry (Foot)
Lock
Headington Hill
Great Meadow
St Catherine's College
Oxford Polytechnic
Government Buildings
Cathedral
Colleges
Coll
Sports Centre
Boat Houses
Club House
Nursery
College Farm
Eastwyke Farm
New Hinksey
South Hinksey
Hinksey Hill Farm
Florence Park
Thames Bridge
Trout Inn
Pixey Mead
Pope Mill
Godstow Green
Keepers Cottage
Overford Farm
Little Ash Hill
Home Farm
Thorny Croft
Woodview
Common Piece
Oxfordshire Cycleway
Oxfordshire Cycle Way (Headington Hall to Bicester)
University Field Station
Nuclear Walks
Recreation Ground
Schools Playing Fields
Works
Quarry (disused)
Sewage Works
Ferry Hinksey Road
Abbey Barges
Abbey Meadow
Round
Bigg Jack's Hole
Fiddler Island
The Lodge
Medley Weir
Weir
Mill
Mill Stream
Sewage Farm
Sewage Treatment Works
Sewage Disposal Works
Reservoir
Pumping Station
Sch
Lib
Ch
Cem
Hospital
Nursing Home
Public House
Post Office
Youth Hostel
Caravan Site
Camping Site
Golf Course
Golf Links
Racecourse
Stadium
Swimming Pool
Tennis Courts
Bowling Green
Recreation Ground
Common
Wood
Copse
Plantation
Orchard
Scrub
Marsh
Reeds
Rushes
Osiers
Sand
Shingle
Gravel Pit
Sand Pit
Clay Pit
Chalk Pit
Quarry
Spoil Heap
Refuse Tip
Slag Heap
Pylon
Electricity Transmission Line
Aerial Mast
Radio Station
Radio Telescope
Windmill
Windpump
Telephone Exchange
Telephone Call Box
Telephone Kiosk
Post Box
Milestone
Milepost
Milestone or Milepost
Boundary Stone
Guide Post
Guide Stone
Sign Post
Sign Stone
Cattle Grid
Level Crossing
Tunnel
Bridge
Ford
Footbridge
Foot Suspension Bridge
Aqueduct
Viaduct
Embankment
Cutting
Lock
Weir
Sluice
Flood Gate
Slipway
Boat Yard
Boat Building Yard
Boat Repair Yard
Boat Hire Centre
Boat Hire Station
Boat Hire Base
Boat Hire Depot
Boat Hire Office
Boat Hire Shop
Boat Hire Service
Boat Hire Agency
Boat Hire Company
Boat Hire Business
Boat Hire Enterprise
Boat Hire Operation
Boat Hire Facility
Boat Hire Service Point
Boat Hire Service Station
Boat Hire Service Depot
Boat Hire Service Office
Boat Hire Service Shop
Boat Hire Service Agency
Boat Hire Service Company
Boat Hire Service Business
Boat Hire Service Enterprise
Boat Hire Service Operation
Boat Hire Service

MAP 12

IFFLEY REACH
Osney to Iffley

Direction of flow

River reach

Bank erosion site no.

0 km 1

Osney Lock

Iffley Lock

OXFORD (DISTRICT)

OXFORD BC

NORTH HINKSEY CP

SOUTH HINKSEY CP

KENNINGTON CP

WOOTTON CP

SANDFORD-ON

New Botley

North Hinksey Village

Harcourt Hill

Chawley

Grandpont

New Hinksey

South Hinksey

Kennington

Sandford-on-Thames

46

47

48

205

203

449

451

453

MAP 13

SANDFORD REACH
Iffley to Sandford

Direction of flow

River reach

Valley axis

Bank erosion site no.

Erosion control case study no.



MAP 14

ABINGDON REACH
Sandford to Abingdon

Direction of flow

River reach

Bank erosion site no.

51

52

53

54

Sandford Lock

Abingdon Lock

SUNNINGWELL CP

RADLEY CP

SANDFORD-ON-THAMES CP

NUNEHAM COURTENAY CP

ABINGDON

Bayworth

Sandford-on-Thames

Radley

Lower Radley

Nuneham Park

Andersey Island

Peachcroft

Abingdon Bridge

Barton Lane

Dismantled Railway

Oxfordshire Circular Walks

Thame Lane

Oxford Road

0 km 1

200

198

450

452

454

MAP 15

CULHAM REACH
Abingdon to Culham

Direction of flow

River reach

Bank erosion site no.



MAP 16

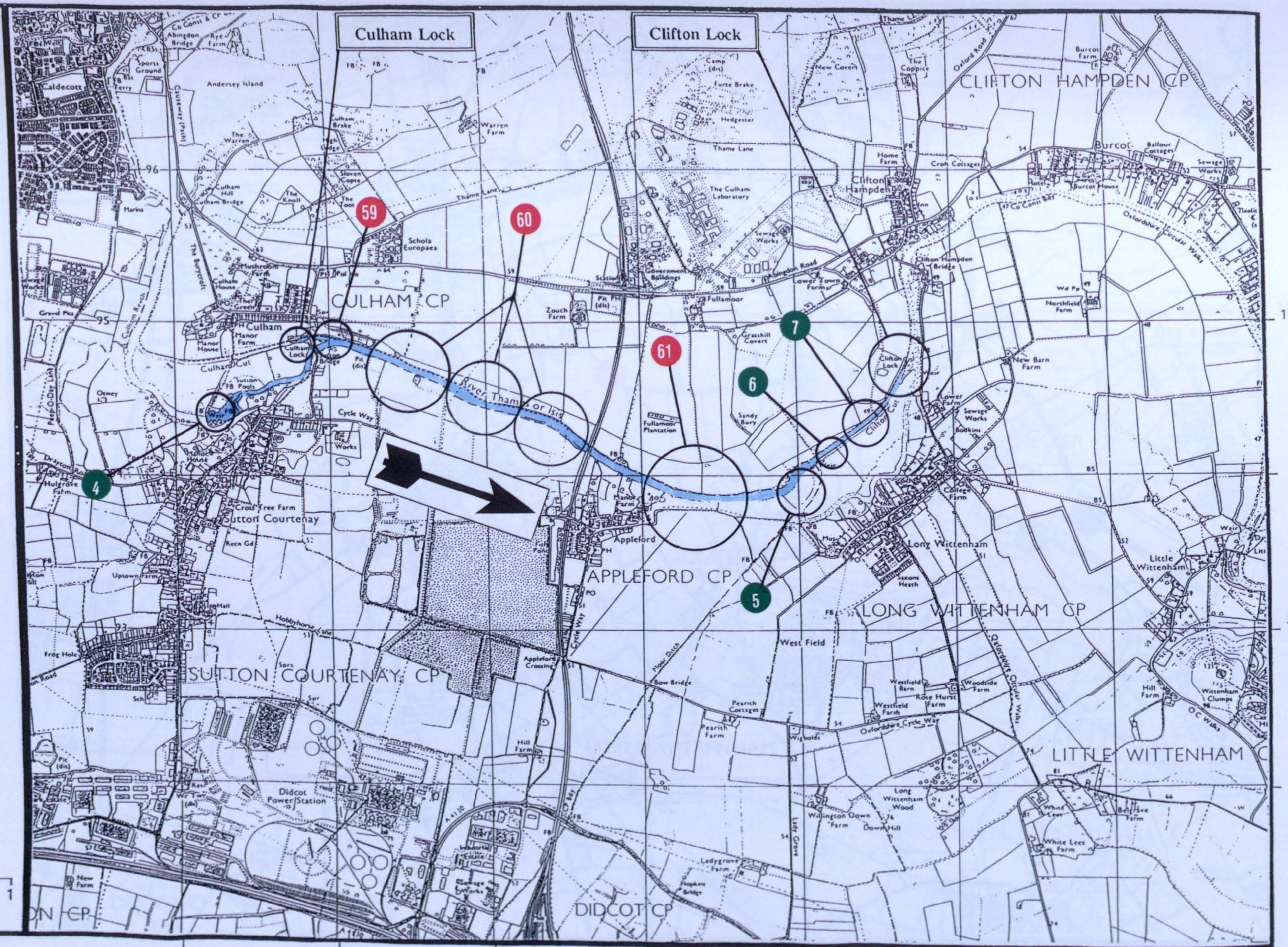
CLIFTON REACH
Culham to Clifton

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



0 km 1

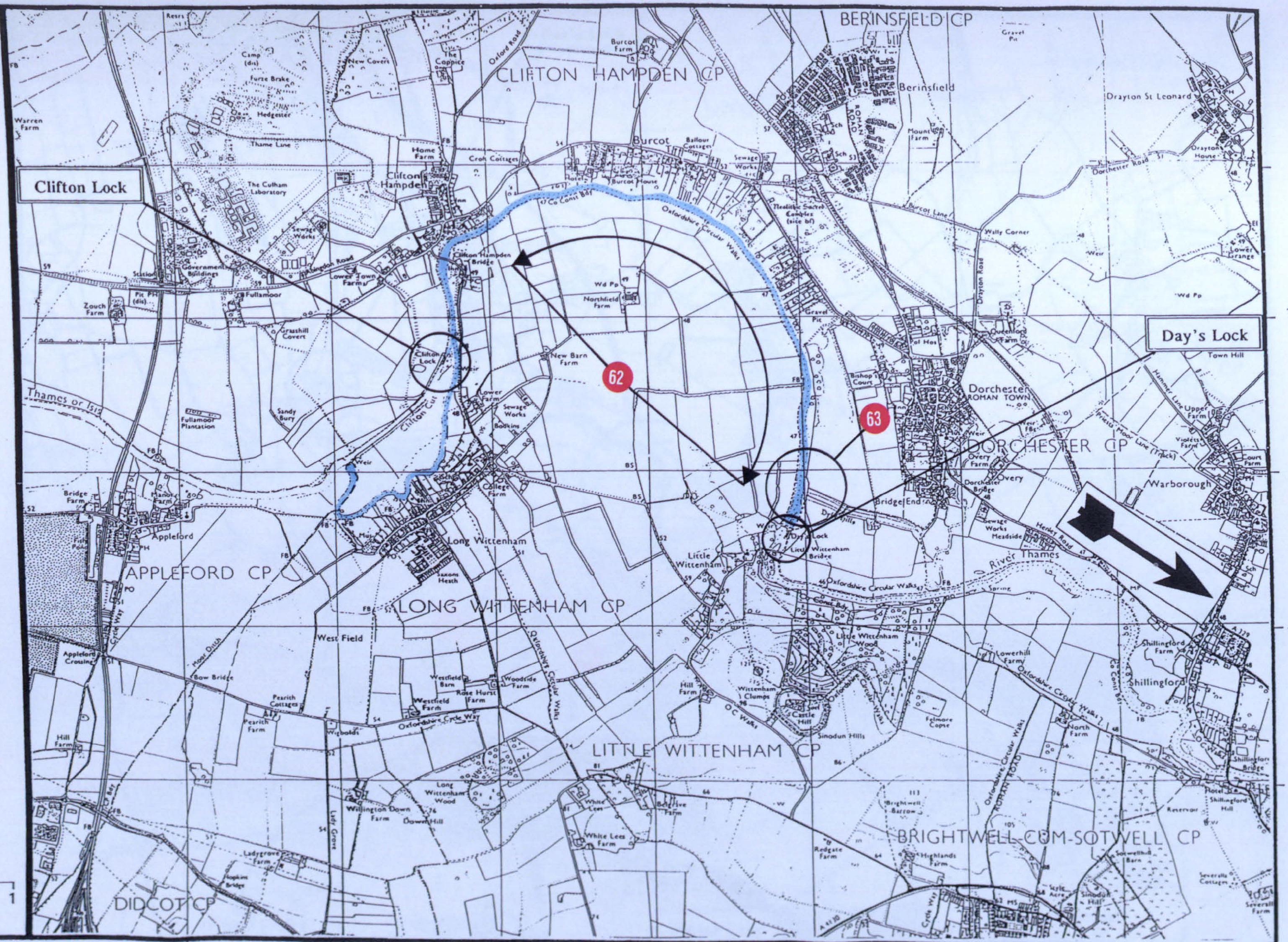
MAP 17

DAY'S REACH
Clifton to Day's

Direction of flow

River reach

Bank erosion site no.


Clifton Lock
Day's Lock
62
63
CLIFTON HAMPDEN CP
BERINSFIELD CP
DORCHESTER CP
APPLEFORD CP
LONG WITTENHAM CP
LITTLE WITTENHAM CP
BRIGHTWELL-CUM-SOTWELL CP
DIDCOT CP
Thames or Isis
River Thames
Dorchester ROMAN TOWN
Clifton Hampden
Burcot
Berinsfield
Drayton St Leonard
Warborough
Shillingford
Long Wittenham
Little Wittenham
Appleford
Oxfordshire Circular Walks
Oxfordshire Cycle Way
Clifton Cut
Day's Lock Cut
Dorchester Bridge
Clifton Hampden Bridge
Long Wittenham Bridge
Little Wittenham Bridge
Shillingford Bridge
Sinodun Hills
Castle Hill
Wittenham Clumps
West Field
Fullamoor
Fullamoor Plantation
Grasshill Covert
Sandy Bury
Lady Grove
Queenford Farm
Bridge End
Overy
Overy Farm
Mount Farm
Willy Corner
Lower Grange
Drayton House
Queenford Farm
Town Hill
Upper Farm
Violetts Farm
Court Farm
Shillingford Farm
Lowerhill Farm
Shillingford Hill
Somerville Barn
Severalls Farm
Highlands Farm
Redgate Farm
Brightwell Barrow
Felmore Copse
Little Wittenham Wood
Long Wittenham Wood
Willington Down
Down Hill
White Lees
White Lees Farm
Hill Farm
Northfield Farm
New Barn Farm
Lower Farm
College Farm
Bridge Farm
Manor Farm
Appleford Crossing
Westfield Farm
Westfield Barn
Rose Hurst Farm
Woodside Farm
Pesrith Farm
Pesrith Cottages
Witholds
Ladygrove Farm
Hoppin Bridge
Zouch Farm
Government Buildings
Lower Town Farm
Home Farm
The Coppice
New Covert
Furze Brake
Hedgester
Thame Line
Warren Farm
The Culham Laboratory
Croh Cottages
Burcot House
Burcot Farm
Ballour Cottages
Sewage Works
Oxford Road
Dorchester Road
Burcot Lane
Drayton Road
Hermitage Road
Meadside
Bishop Court
Old Hos
Gravel Pit
Weir
Lock
Mill
Ch
Sch
Wd Po
Pit
Station
Hall
Manor Ditch
Bow Bridge
Circle Way
Saxons Hatch
Hill Farm
Fish Pond
Appleford Sidings
Sewage Works
Meadside
Hinksey Hill
Hinksey Hill Farm
Hinksey Hill Plantation
Hinksey Hill Quarry
Hinksey Hill Quarry Nature Reserve
Hinksey Hill Quarry Nature Reserve
Hinksey Hill Quarry Nature Reserve

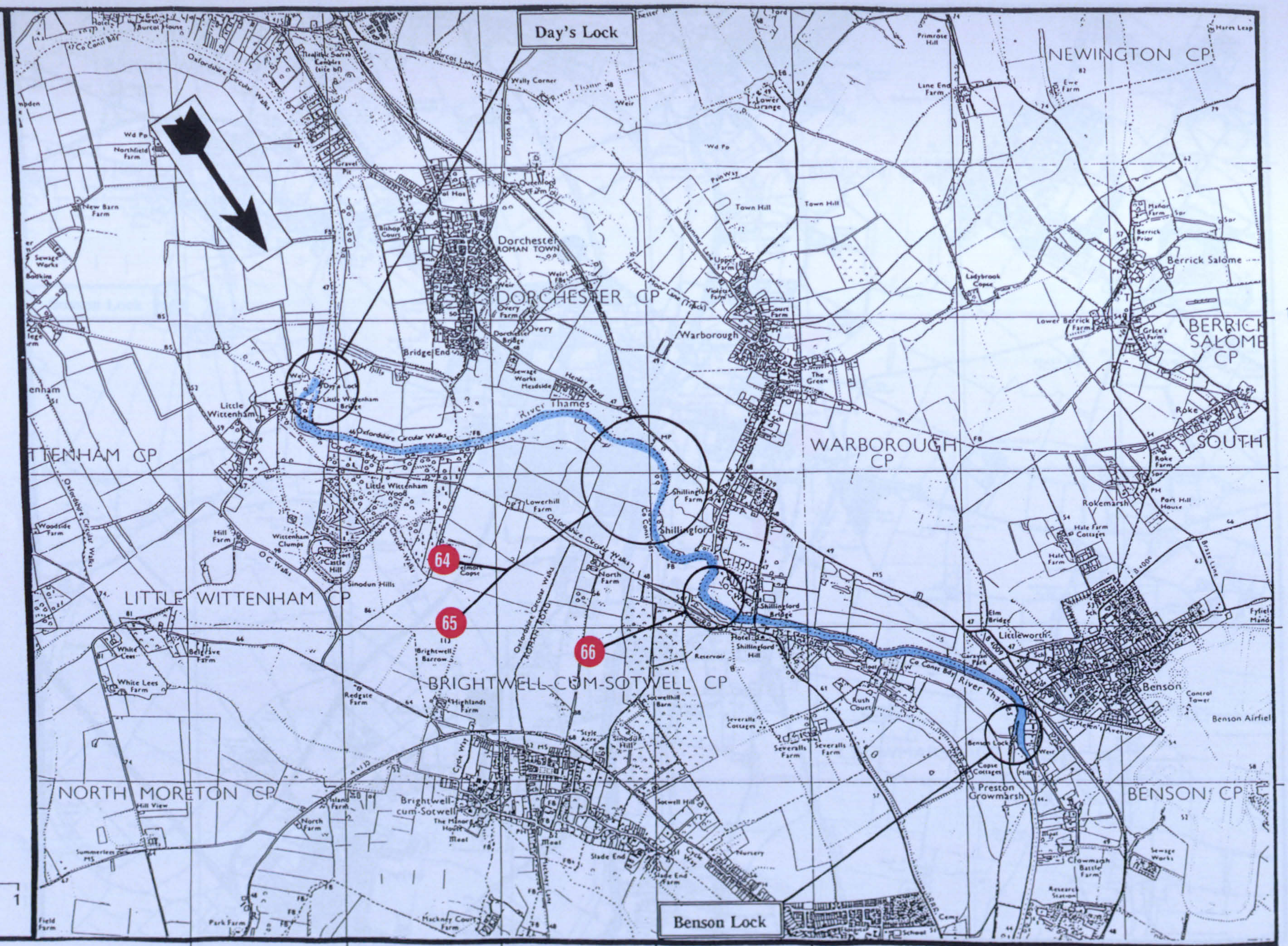
MAP 18

BENSON REACH
Day's to Benson

Direction of flow

River reach

Bank erosion site no.



MAP 19a

CLEEVE REACH
Benson to Cleeve
(part 1 of 2)

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.


BRIGHTWELL-CUM-SOTWELL CP
BENSON CP
WALLINGFORD
CROWMARSH CP
Benson Lock
9
8
67
68
69
Brightwell-cum-Sotwell
Mackney
Benson
Benson Airfield
Preston Crowmarsh
Littleworth
Ewelme
Crowmarsh Battle Farm
Crowmarsh Gifford
Newnham Murren
Winterbrook
Mongewell
Cholsey
North Stoke
Newtown
Sheepcot Farm
Coldharbour Farm
Gould's Grove Farm
Clack's Farm
Oakley Wood
Woodhouse Farm
Drunken Bottom
Coblers Hill
Bachelor's Hill
River Thames
Hichercroft Farm
Cholsey Hill
Hillgreen Farm
Carmel College
Newnham Manor Farm
Lonesome Farm
Blenheim Farm
Turners Court
Whistley House
Western View
Park View
Crowmarsh Hill
Wicks Hill
Forest Row
Pigeonhouse Bottom
Poors Farm
Hailey Compton
Roman Coins found
Sewage Works
Research Station
Hydrological Station
Offices
Pol Sta
Sch
Works
Pumping Station
Fair Mile Hospital
Hospl
Ch
Mon
Hill
Rly
Tkd
Bdge
Ho
Cott
Cotts
Gdns
Ind Est
Recn Gd
Cemy
Allot
Gas Gov
Sta
Ret Pk
Caravan Park
Co Const Bdy
Reservoir
Hotel
Control Tower
Church Fm
Rabbits Hill
Dr's Lane
Beggarsbush Hill
Cart Gap
Ashen Copse
Grim's Ditch
Ridgeway
Tickledown
Poor Way
Pond
Lake
Mill Brook
Bradford's Brook
Bradford Bridge
Winterbrook Bridge
Bow Bridge
Bow Barn
Mead Furlong
Hill Copse
Cholsey Stables
Slade End Farm
Slade End Barn
Fir Tree Cottage
Sherwood Farm
Manor Farm
The Manor
The Minors House
Moat
Brook House
Lees Cottages
The Lees
West End
Buckland
The Lodge
Lark Rise
The Cottage
Coppice Cottages
Severalls Farm
Severalls Cottages
Sotwellhill Barn
Shillingford Hill
Redgate Farm
Highlands Farm
Brightwell Barrow
Ruth Court
Old Hichercroft House
Cox Farm
Carmel Cottage Farm
Park Wall
Cycle Way
Oxford Road
A 4130
A 329
Nursery
Stile Acres
Sinodun Hill
Socwell Hill
Socwell Hall
Rectory Cottages
Co Const Bdy
Weir
Lock
Hill
Mill
Moat
Allot
Gas Gov
Sta
Ret Pk
Caravan Park
Co Const Bdy
Reservoir
Hotel
Control Tower
Church Fm
Rabbits Hill
Dr's Lane
Beggarsbush Hill
Cart Gap
Ashen Copse
Grim's Ditch
Ridgeway
Tickledown
Poor Way
Pond
Lake
Mill Brook
Bradford's Brook
Bradford Bridge
Winterbrook Bridge
Bow Bridge
Bow Barn
Mead Furlong
Hill Copse
Cholsey Stables
Slade End Farm
Slade End Barn
Fir Tree Cottage
Sherwood Farm
Manor Farm
The Manor
The Minors House
Moat
Brook House
Lees Cottages
The Lees
West End
Buckland
The Lodge
Lark Rise
The Cottage
Coppice Cottages
Severalls Farm
Severalls Cottages
Sotwellhill Barn
Shillingford Hill
Redgate Farm
Highlands Farm
Brightwell Barrow
Ruth Court
Old Hichercroft House
Cox Farm
Carmel Cottage Farm
Park Wall
Cycle Way
Oxford Road
A 4130
A 329
Nursery
Stile Acres
Sinodun

MAP 19b

CLEEVE REACH
Benson to Cleeve
(part 2 of 2)

Direction of flow

River reach

Bank erosion site no.


CHOLSEY CP
SOUTH STOKE CP
IPSDEN CP
MOULSFORD CP
STREATLEY CP
GORING CP
WOODCOTE CP
Cleeve Lock
70
Moulsford
South Stoke
Streatley
Woodcote
Ipsden
Goring
Cleeve
Bowsladen
Offlands Farm
Viaduct
Watch Folly
White Hill
Braziers Park
Ickneild Farm
Mile End Hill
Cassbrain Hill
Lower Cadley's Farm
Grove Farm
Grove House
Spring Farm
Streatley Farm
Thurle Grange
Thurle Down
Moulsford Bottom
Moulsford Downs
Ridge Roads
Lardon Chase (NT)
Golf Course
Ipsden House
Ipsden Farm
Larkstoke Stud
Warren Farm
Hailey
Knapps Wicheln
Great Wichelo Shaw
Garsons Hill
Ouseley Barn
Ouseley Barn Cottages
Hammond Wood
Woodcote Fruit Farm
Broad Street Farm
Beech Farm
Wroxhills Plantation
Wroxhills Wood
Elmorepark Wood
Elvendon Priory
Park Farm
Park Wood
Old Elvendon Wood
Crays Pond
Blackbird's Bottom
Oxwood Covert
Upper Gatehampton Farm
Littlestoke Manor Farm
Freedom Cottages
Glebe Cottages
South Bank
Spring Farm Cottages
Grove Farm House
Upper Cadley
Langtree House
Church Farm
Woodcroft
Braziers Cottages
Castle Grid
Iron Age Coin Found
Warren Hill
Warrens Chase
Monument
Newtown
Red Barn
Middle Barn
Wd Po
Castle Grid
Freeman's Farm
Tracks Farm
Bracy Bottom
Frank's Drive
War Memorial
The Cottage
Hill Farm
Ipsden Wood
Massey's Prehistl
Tidmarsh Pool
Deane Farm
Deane Wood
Cassington Farm
Westfield Farm
Abbey (site of)
Moat
The Lynch
The Gables
Hospl
Bowsladen
Breach House
Westfield Nursery
Gold Torque Found 1960
Downs Farm
Kingscandin Hill
Starveall Farm
Greenlands Farm
Well Barn
Co Conse Bdy
Stonefield Shaw
Kiddington Cottage
Golf Course
Sch
PH
Cemy
Chapel
Mast
Quarry
Fox Covert
Oxwood Covert
Little Heath
Burneswood
North Cottage
Battle House
Battle Plantation
Grims Wood
Great Chase Wood
Bottom Farm
Seapnall's Farm
Sch
Newtown
Ickneild Farm
Ivel Barn
Kaffirs
Lardon Chase (NT)
Lough Down
Ridgeway Path
Conse Bdy
Cong Bdy
River Thames
A329
A4130
Tumulus
Tumulus (Disturbed)
Tumulus (Destroyed)
Hill Fort
Roman Villa
Roman Road
Roman Camp
Roman Temple
Roman Building
Roman Pottery
Roman Coins
Roman Tessellated Pavement
Roman Burial
Roman Cemetery
Roman Kiln
Roman Mosaic
Roman Hypocaust
Roman Bath
Roman Inscription
Roman Sculpture
Roman Finds
Roman Villa
Roman Road
Roman Camp
Roman Temple
Roman Building
Roman Pottery
Roman Coins
Roman Tessellated Pavement
Roman Burial
Roman Cemetery
Roman Kiln
Roman Mosaic
Roman Hypocaust
Roman Bath
Roman Inscription
Roman Sculpture
Roman Finds
Tumulus
Tumulus (Disturbed)
Tumulus (Destroyed)
Hill Fort

MAP 20

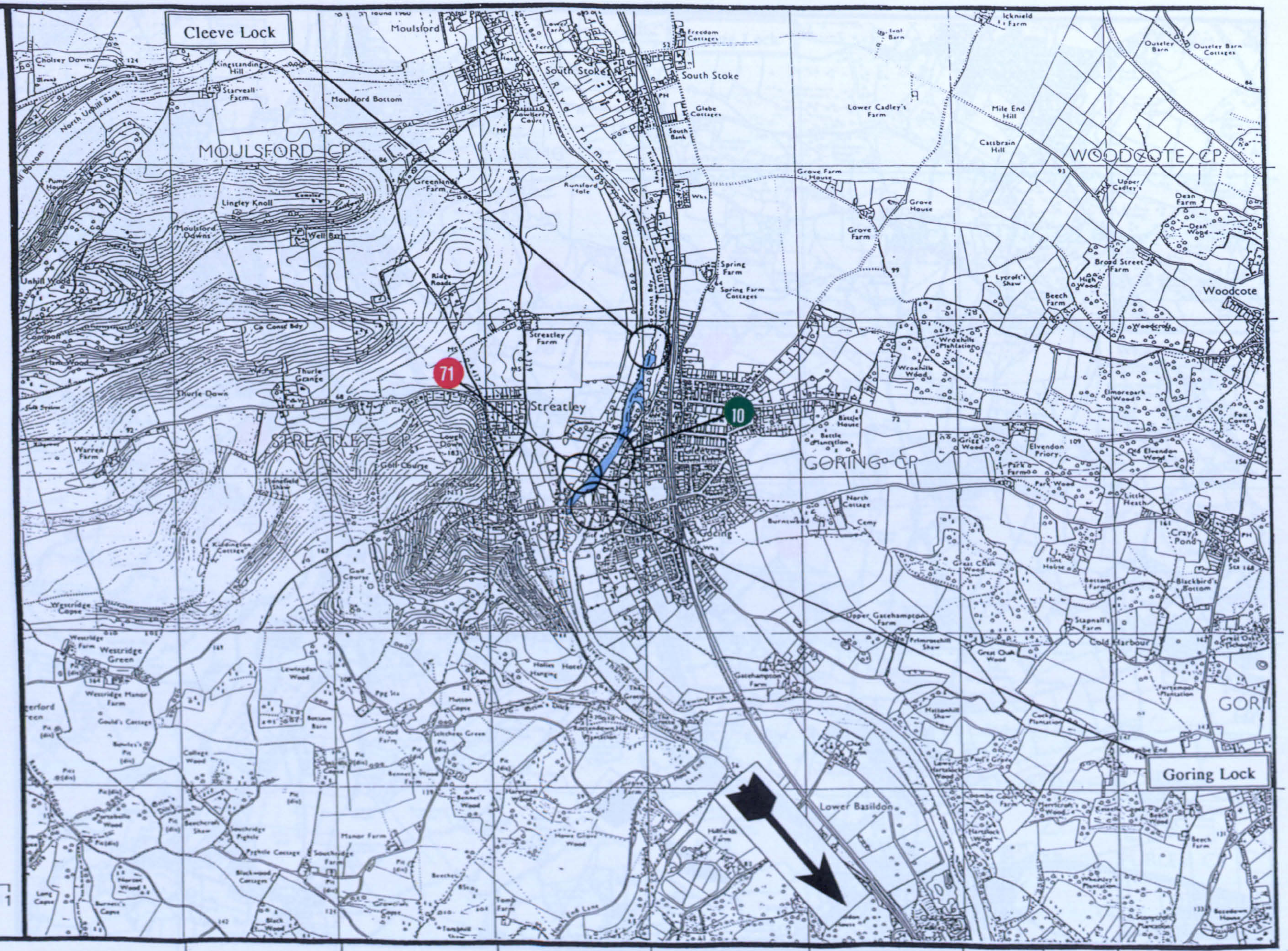
GORING REACH
Cleeve to Goring

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.


Cleeve Lock
Moulsford
MOULSFORD CP
South Stoke
River Thames
Streatley
STREATLEY CP
GORING CP
WOODCOTE CP
Woodcote
Goring Lock
71
10
Lower Basildon
Lower Cadley's Farm
Grove Farm
Grove House
Spring Farm
Mile End Hill
Cattsbrain Hill
Broad Street Farm
Beech Farm
Elvendon Priory
Upper Gatehampton Farm
Gatehampton Farm
Cold Harbour
Moulsford Bottom
Lingley Knoll
Moulsford Downs
Thurle Grange
Thurle Down
Streatley Farm
Westridge Green
Westridge Manor Farm
Lowerdown
Upper Basildon
Blackbird's Bottom
Great Oak Wood
Dean Farm
Dean Wood
Broad Street Farm
Lyford's Shaw
Wroxhills Plantation
Wroxhills Wood
Elmorepark Wood
Fox Covert
Old Elvendon Wood
Park Wood
Little Heath
Great Oak Plantation
Forty Acre Plantation
Cuckoo Plantation
Beech Wood
Hartslock Wood
Harridge's Wood
Hartslock Plantation
Lower Hartslock Wood
Paul's Grove
Chamberlain's Farm
Hollyhock Farm
Manor Farm
Southridge Farm
Pyrtle Cottage
Blackwood Cottages
Tumpshill Farm
Tumpshill Shaw
Holies Hanging
Holies Hotel
Lewesdon Wood
College Wood
Bennet's Wood
Bennet's Wood Farm
Wood Farm
Hanner Grove Wood
Hollyhock Shaw
Primrosehill Shaw
Hassenhill Shaw
Beechcroft Shaw
Stonefield Shaw
Stonefield Copse
Burnett's Copse
Black Wood
Westridge Copse
Kidmeton Cottage
Golf Course
Golf Course
Freedom Cottages
Glebe Cottages
South Bank
Gooseberry Court
Runsford Hole
Spring Farm Cottages
Ferry
Lower Ferry Farm
Ferry Boat Inn
Ferry Cottage
Ferry Boat
Lock Island
Lock Island Cottage
Lock Island Farm
Lock Island Barn
Ousseley Barn
Ousseley Barn Cottages
Upper Cadley's
Dean Farm
Dean Wood
Broad Street Farm
Lyford's Shaw
Beech Farm
Woodcote
Wroxhills Plantation
Wroxhills Wood
Elmorepark Wood
Fox Covert
Old Elvendon Wood
Park Wood
Little Heath
Crays Pond
Blackbird's Bottom
Great Oak Wood

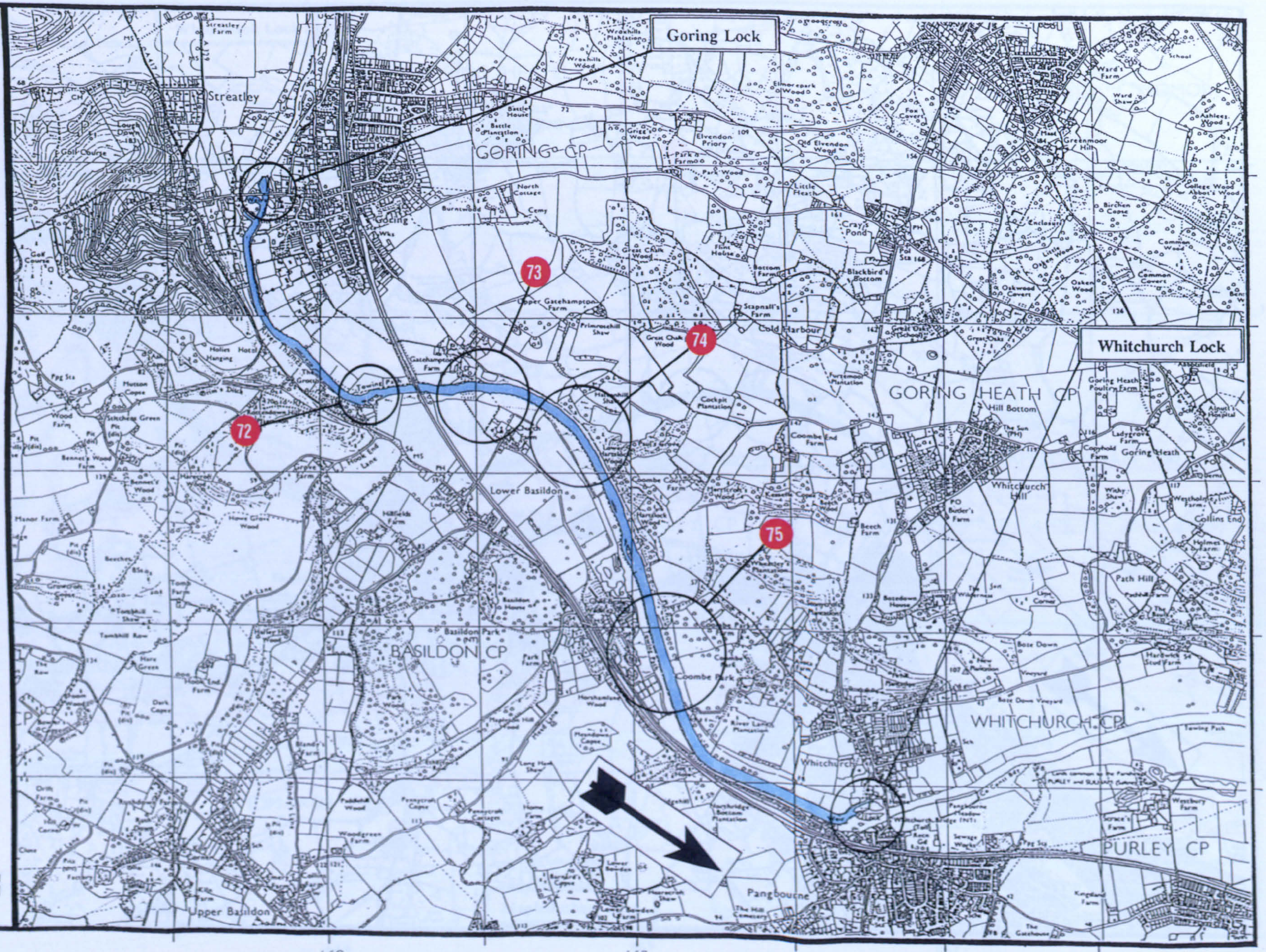
MAP 21

WHITCHURCH REACH
Goring to Whitchurch

Direction of flow

River reach

Bank erosion site no.



MAP 22

MAPLEDURHAM REACH
Whitchurch to Mapledurham

Direction of flow

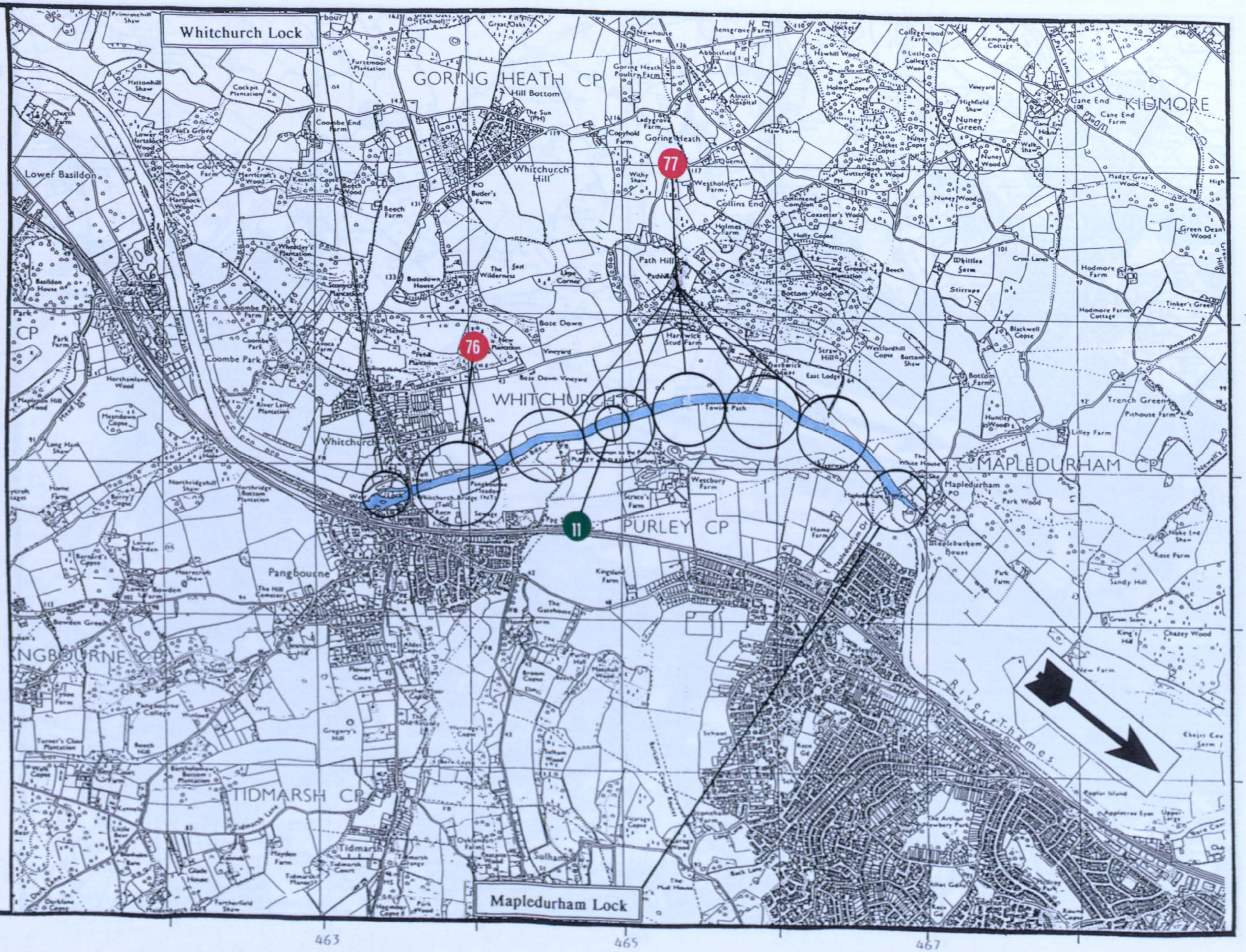
River reach

Bank erosion site no.

Erosion control case study no.

N

0 km 1



MAP 23

CAVERSHAM REACH
Mapledurham to Caversham

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.

N

0 km 1

Mapledurham Lock

Caversham Lock

12

78

79

80

81

82

MAPLEDURHAM CP

PURLEY CP

TILEHURST CP

READING NORTH BC

River Thames

Caversham

Caversham Heights

Emmer Green

Caversham Park

176

174

467

469

471

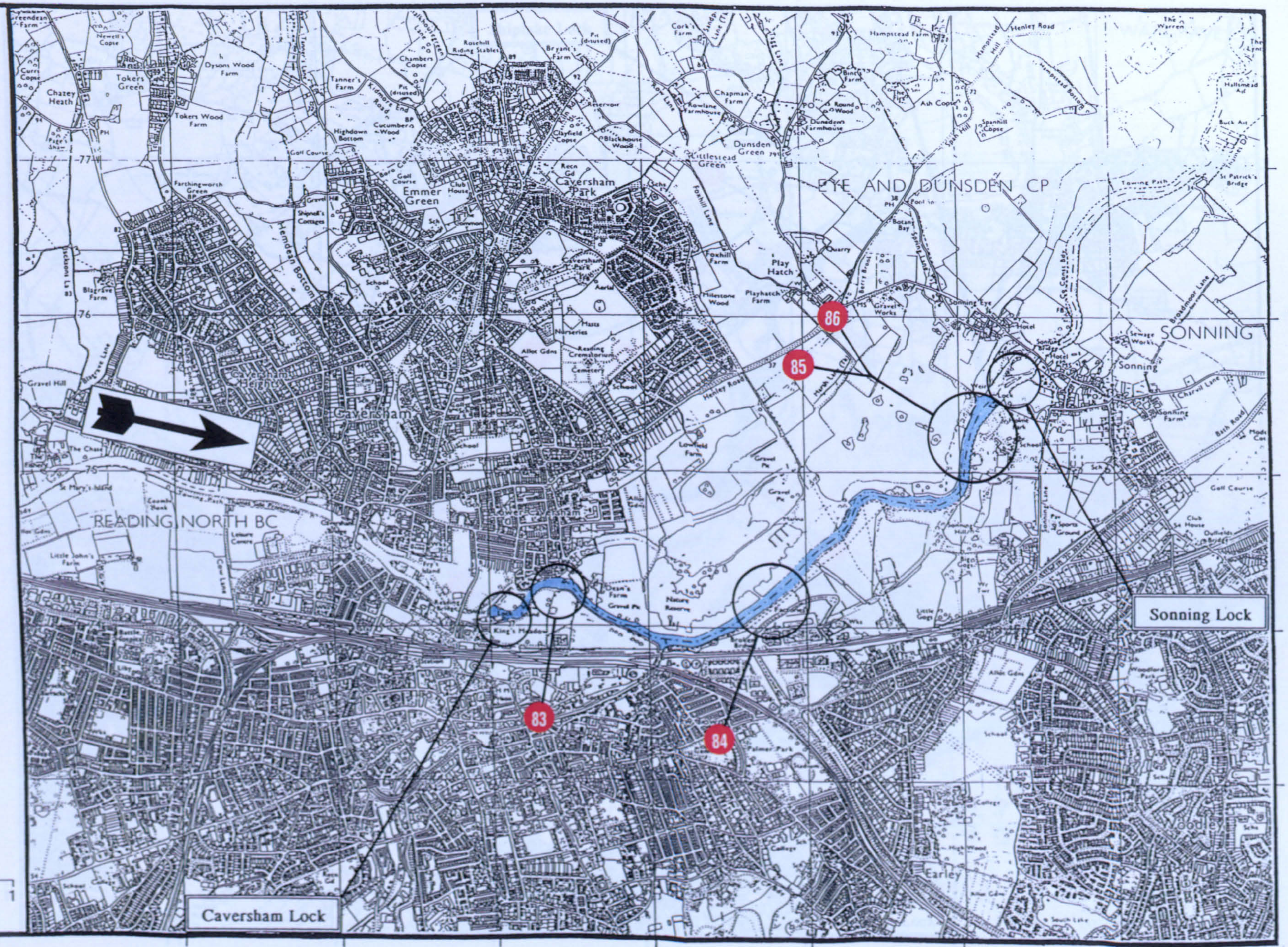
MAP 24

SONNING REACH
Caversham to Sonning

Direction of flow

River reach

Bank erosion site no.



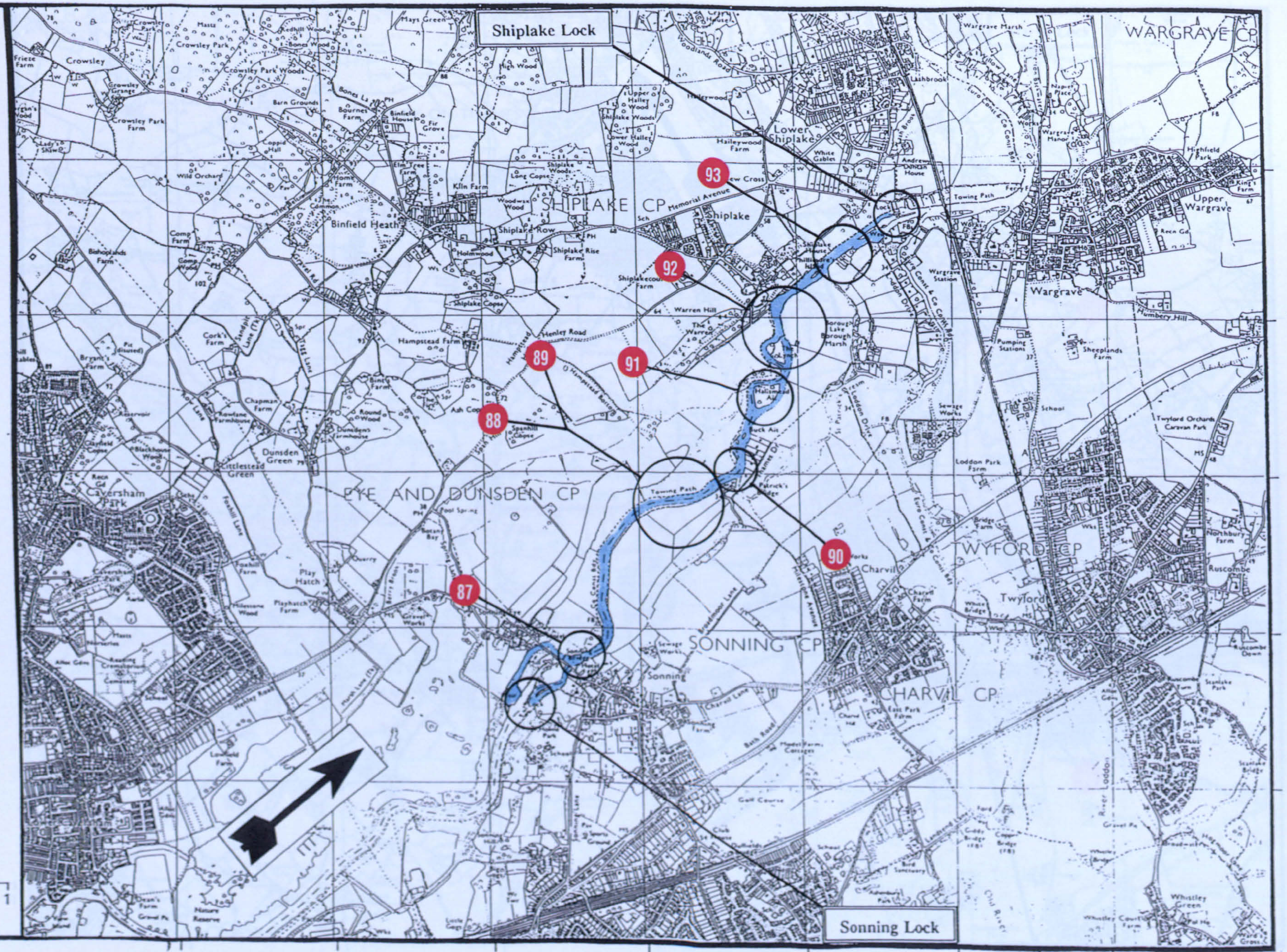
MAP 25

SHIPLAKE REACH
Sonning to Shiplake

Direction of flow

River reach

Bank erosion site no.



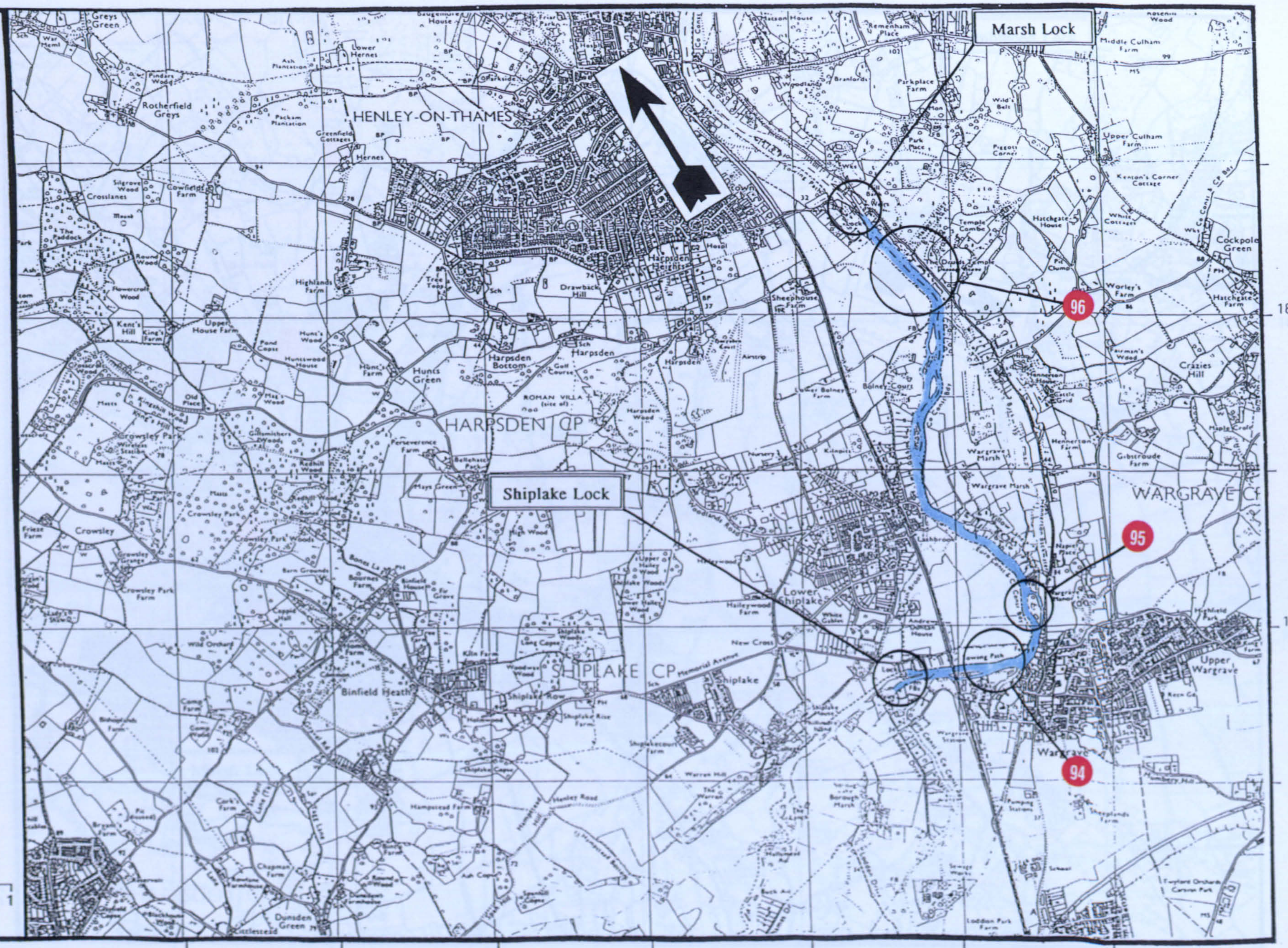
MAP 26

MARSH REACH
Shiplake to Marsh

Direction of flow

River reach

Bank erosion site no.



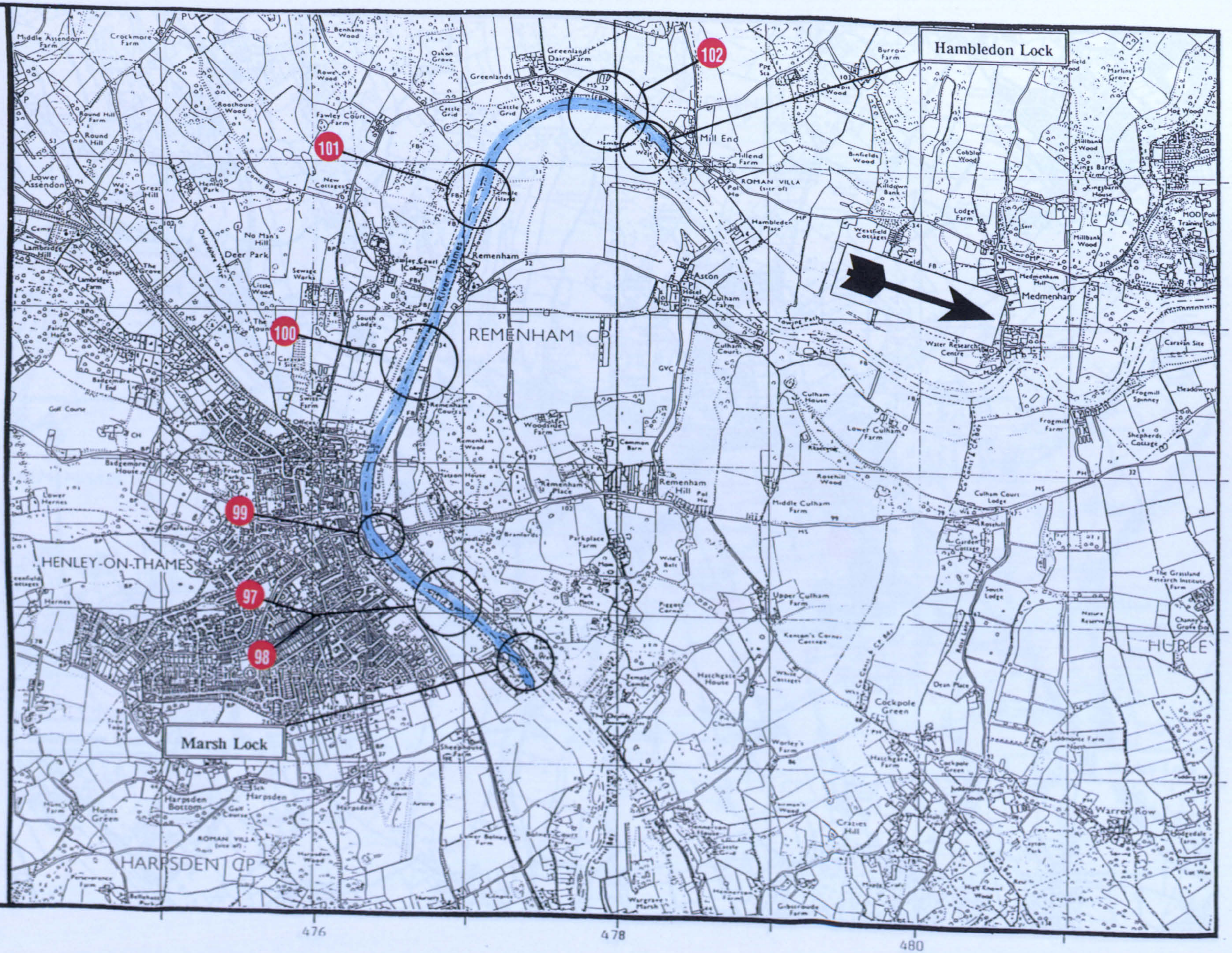
MAP 27

HAMBLEDEN REACH
Marsh to Hambleden

Direction of flow

River reach

Bank erosion site no.


Hambledon Lock
Marsh Lock
100
101
102
97
98
99
River Thames
REMENHAM CP
HENLEY-ON-THAMES
HARPSDEN CP
HURLEY
Mill End
Remenham
Aston
Medmenham
Cockpole Green
Warren Row
Greenlands
Fawley Court Farm
Lower Assendon
Deer Park
Culham Court
Culham Farm
Remenham Hill
Middle Culham Farm
Upper Culham Farm
Harpsden
Harpsden Bottom
Water Research Centre
The Grassland Research Institute
ROMAN VILLA (site of)
Golf Course
Caravan Site
Frogmill Farm
Lower Culham Farm
Crazies Hill
Hambleden Place
Millend Farm
Lodge Farm
Millbank Wood
Binfields Wood
Cobbler Wood
Rosehill Wood
Remenham Wood
Woodcroft Farm
Parkplace Farm
Hascheate House
Warley's Farm
Gibscroude Farm
Wargrave Marsh
Sheepcote Farm
Swiss Farm
Badgemore House
Hunts Green
Lambridge Farm
Lambridge Hill
Round Hill
Great Hill
Roothouse Wood
Oaken Grove
Benham Wood
Rowe's Wood
Crockmore Farm
Middle Assendon Farm
Greenlands Dairy Farm
Sewage Works
Little Wood
South Lodge
Remenham Court
Remenham Place
Culham House
Culham Court Lodge
Garden Cottage
Kingsbarn House
Hillbank Wood
Hog Wood
Marlins Grove
Shepherds Cottage
Frogmill Spinney
Meadowcroft
Kingsbarn
Westfield Cottages
Killdown Bank
Burrow Farm
Hambleden Weir
Temple Island
Remenham Court (College)
Towing Path
Golf Course
Caravan Site
Carlton Park
Hodgedale Farm
Cockpole Green
Hascheate Farm
Upper Culham Farm
Kemsen's Corner Cottage
Garden Cottage
Rose Hill
Culham Court Lodge
Middle Culham Farm
Rosehill Wood
Remenham Hill
Common Barn
Remenham Wood
Woodcroft Farm
Parkplace Farm
Remenham Place
Tesson House
Lower Harpsden
Harpsden Court
Harpsden Wood
Lower Bolney Farm
Bolney Court
Sheepcote Farm
Swiss Farm
Badgemore House
Lower Harpsden
Hunts Green
Harpsden Bottom
Lambridge Farm
Lambridge Hill
Round Hill
Great Hill
Roothouse Wood
Oaken Grove
Benham Wood
Rowe's Wood
Crockmore Farm
Middle Assendon Farm
Greenlands Dairy Farm
Sewage Works
Little Wood
South Lodge
Remenham Court
Remenham Place
Culham House
Culham Court Lodge
Garden Cottage
Kingsbarn House
Hillbank Wood
Hog Wood
Marlins Grove
Shepherds Cottage
Frogmill Spinney
Meadowcroft
Kingsbarn
Westfield Cottages
Killdown Bank
Burrow Farm
Hambleden Weir
Temple Island
Remenham Court (College)
Towing Path
Golf Course
Caravan Site
Carlton Park
Hodgedale Farm
Cockpole Green
Hascheate Farm
Upper Culham Farm
Kemsen's Corner Cottage
Garden Cottage
Rose Hill
Culham Court Lodge
Middle Culham Farm
Rosehill Wood
Remenham Hill
Common Barn
Remenham Wood
Woodcroft Farm
Parkplace Farm
Remenham Place
Tesson House
Lower Harpsden
Harpsden Court
Harpsden Wood
Lower Bolney Farm
Bolney Court
Sheepcote Farm
Swiss Farm
Badgemore House

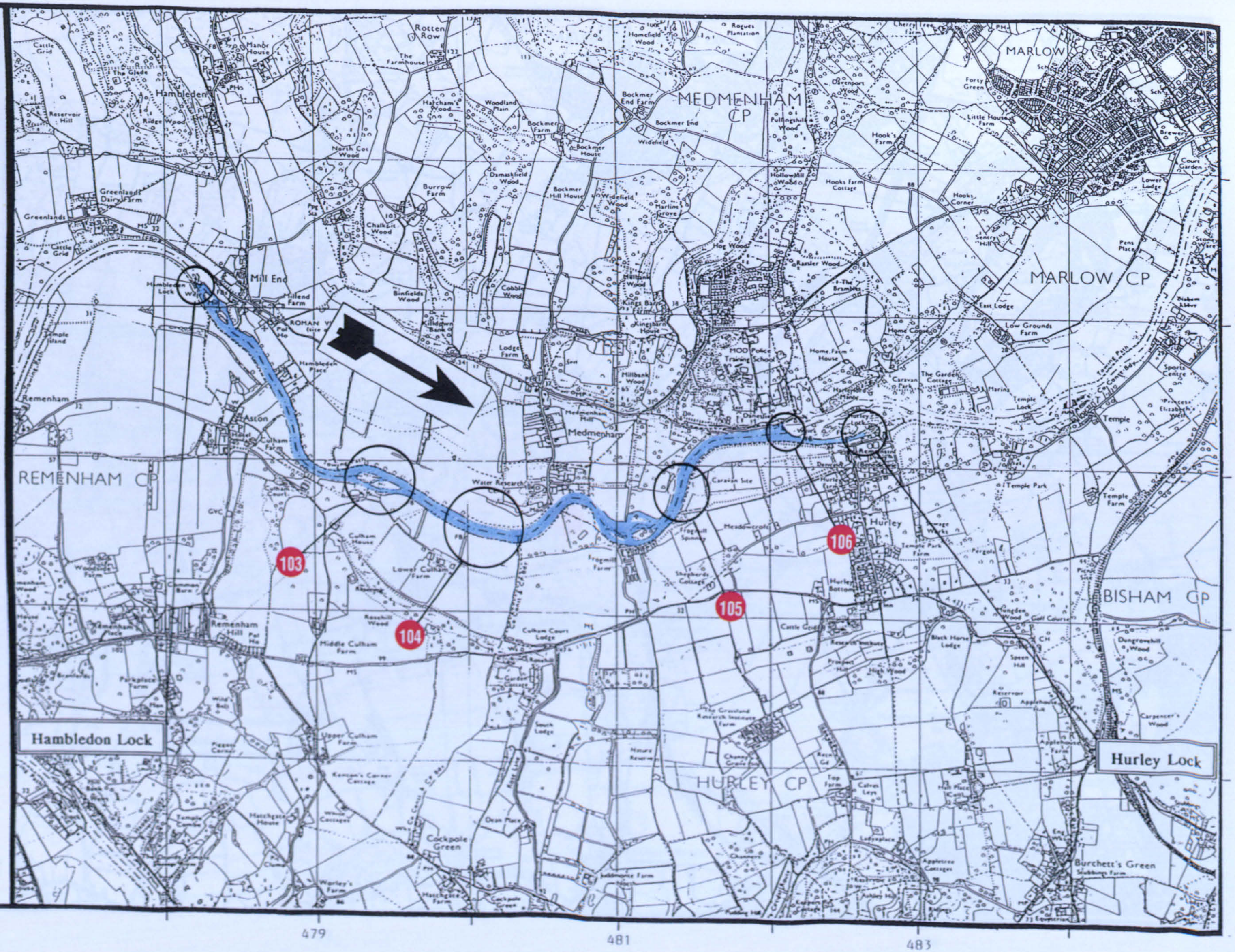
MAP 28

HURLEY REACH
Hambleden to Hurley

Direction of flow

River reach

Bank erosion site no.



0 km 1

185

183

479 481 483

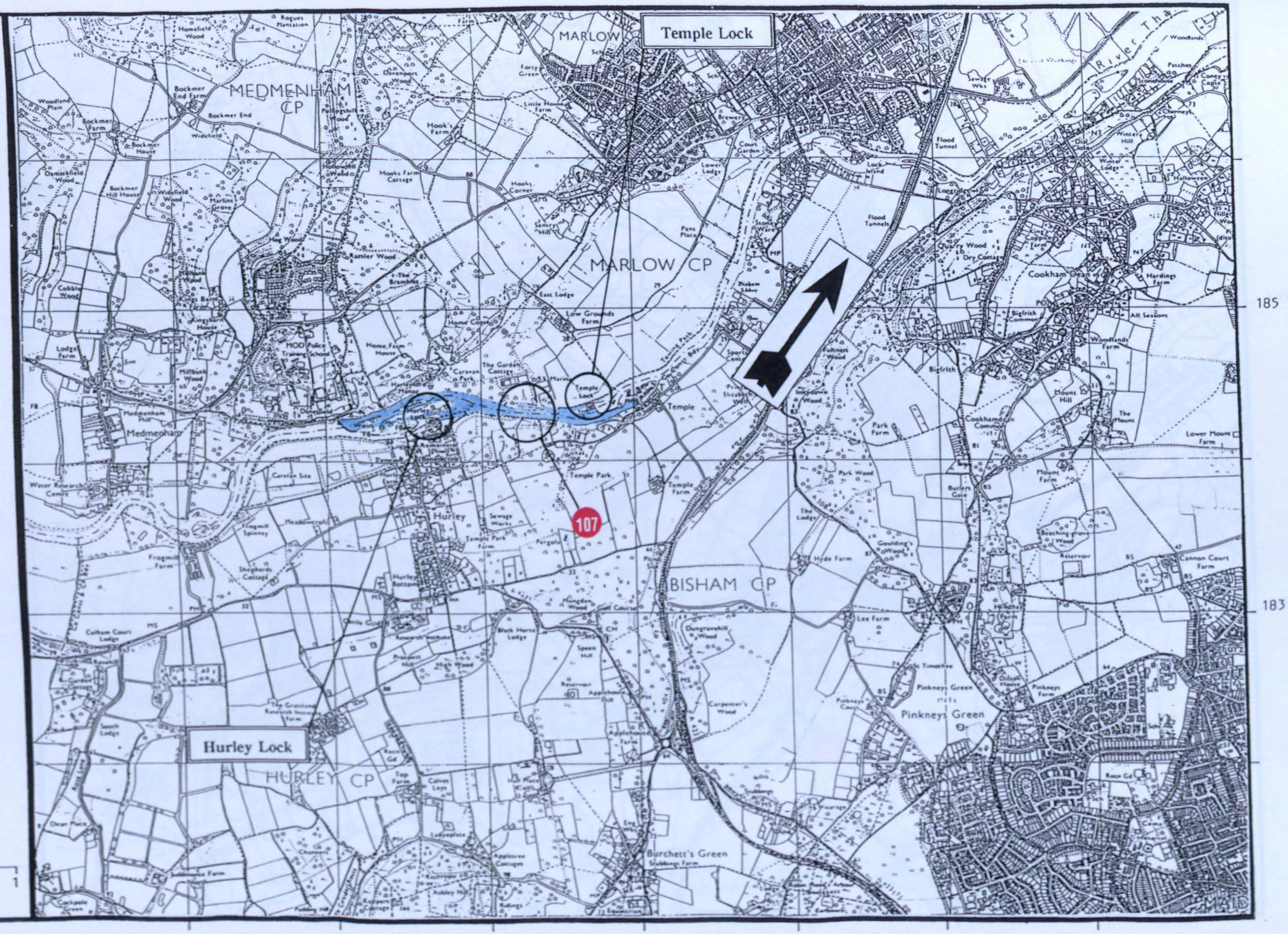
MAP 29

TEMPLE REACH
Hurley to Temple

Direction of flow

River reach

Bank erosion site no.



MAP 30

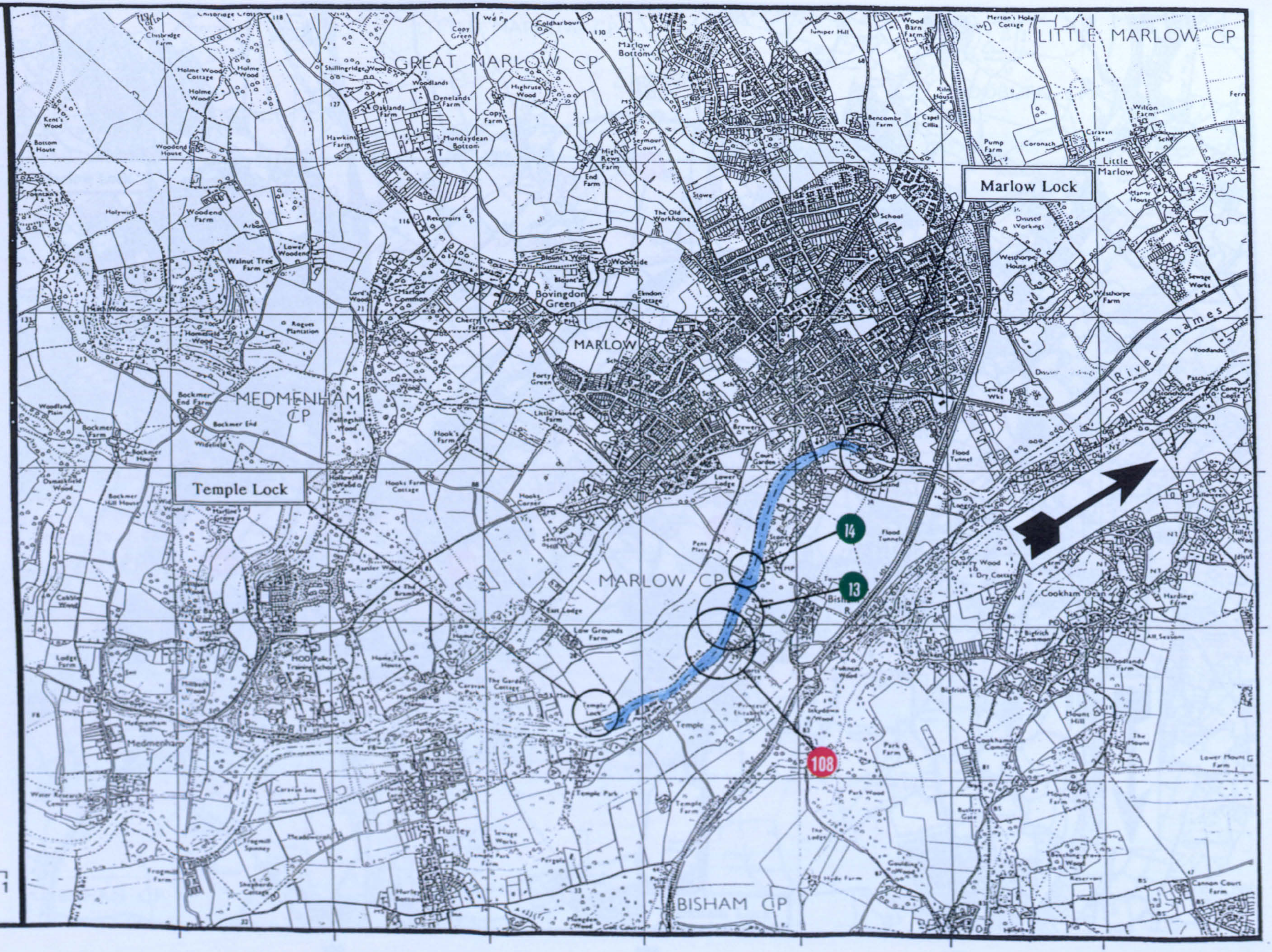
MARLOW REACH
Temple to Marlow

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



N

0 km 1

187

185

482 484 486

MAP 31

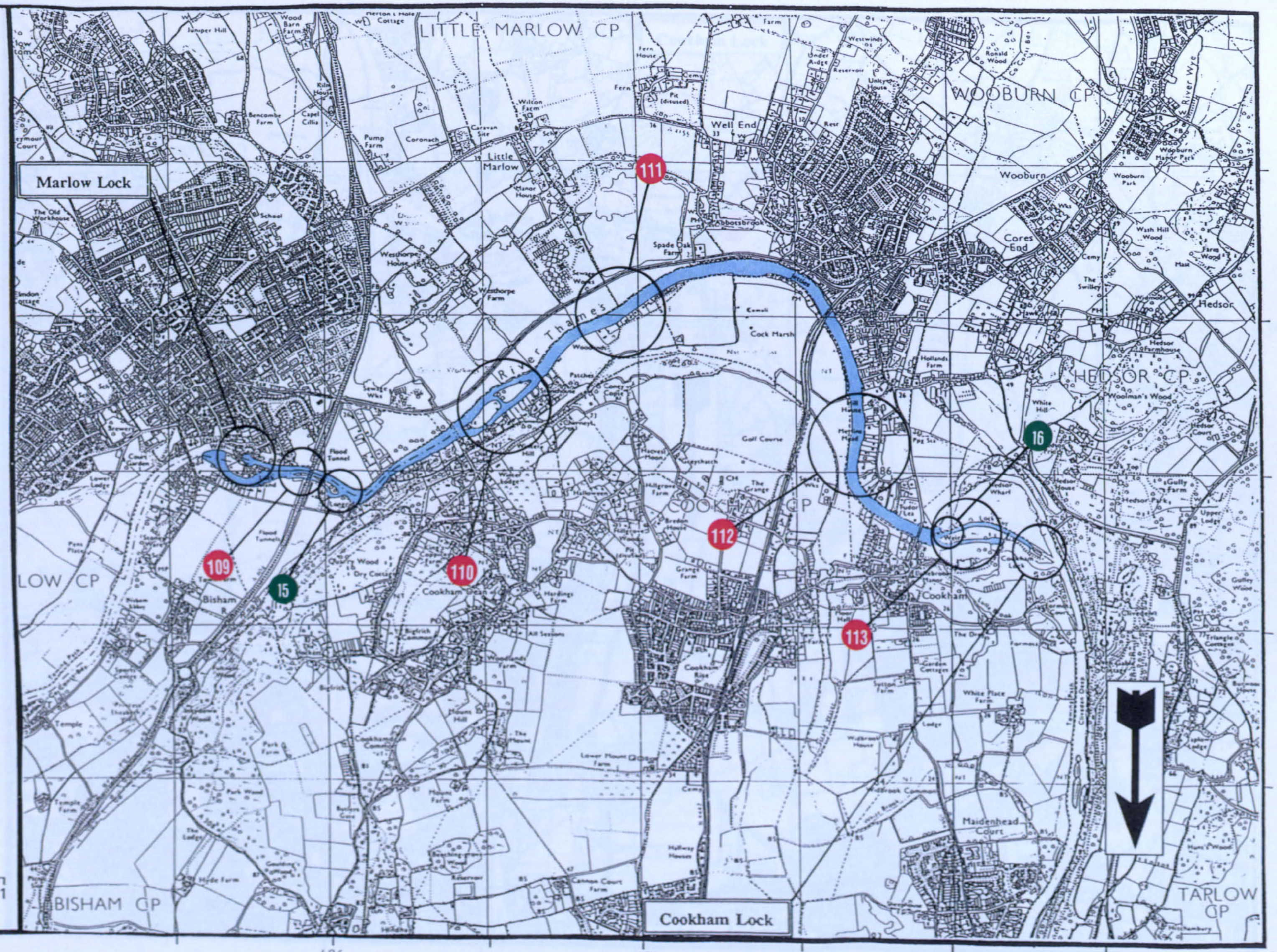
COOKHAM REACH
Marlow to Cookham

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



0 km 1

187

185

486 488 490

MAP 32

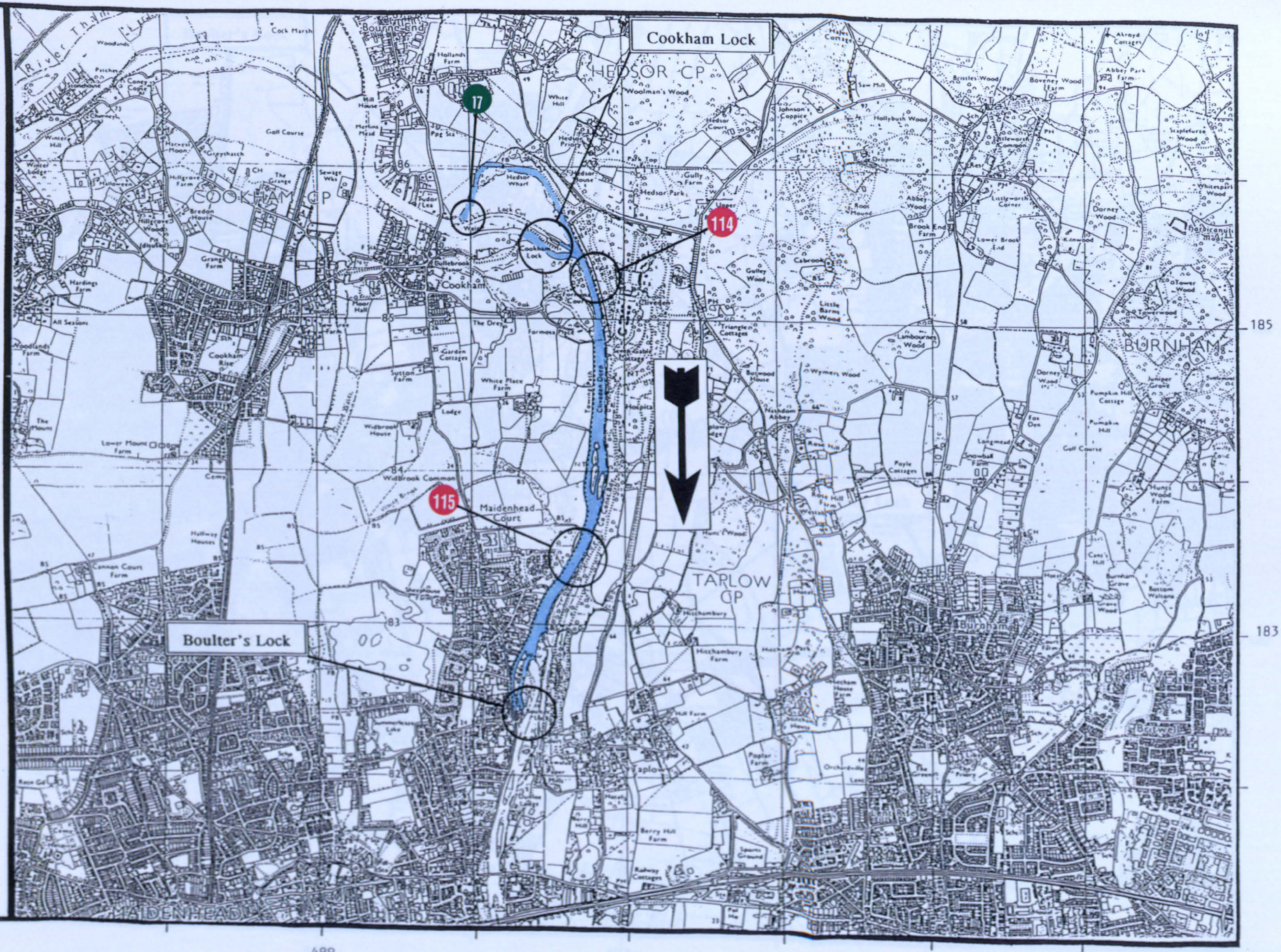
BOULTER'S REACH
Cookham to Boulter's

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.


Cookham Lock
Boulter's Lock
17
114
115
River Thames
Bourne End
HEDSOR CP
COOKHAM CP
Cookham
Maidenhead Court
Widbrook Common
TARLOW CP
BURNHAM
MAIDENHEAD
Golf Course
Cock Marsh
Woodlands
Hollands Farm
Woolman's Wood
White Hill
Hedsor Court
Hedsor Priory
Hedsor Wharf
Hedsor House
Hedsor Park
Gully Farm
Johnson's Coppice
Hollybush Wood
Bisslers Wood
Bovency Wood
Abbey Park Farm
Sapleforze Wood
Whitespirit Wood
Dorney Wood
Abbey Wood
Root Wound
Brook End Farm
Lower Brook End
Littlewort Common
Cabrook
Gulley Wood
Little Barns Wood
Lambourne Wood
Wymers Wood
Burnwood House
Nashdom Abbey
Rose Hill
Pumpkin Hill
Pumpkin Hill Cottage
Fox Den
Longmead
Snowball Farm
Hunts Wood Farm
Cane's Hill
Burnham Grove
Bottom Wallow Wood
Tower Wood
Juniper Grove
Hitchambury
Hitchambury Farm
Hitchambury Park
Hitcham House Farm
Mill Farm
Poplar Farm
Berry Hill Farm
Sports Ground
Railway Cottages
Pyle Cottages
Orchardville
The Green
Primary
Burnham
Bridge
Cookham Rise
Sutton Farm
White Place Farm
Garden Cottages
Bullebrook Manor
Moor Hall
Formosa
The Dregs
Clivedon
Triangle Cottages
Lodge
Widbrook House
Lower Mount Farm
The Mount
Woodlands Farm
All Seasons
Hardings Farm
Bredon House
Hillgrove Farm
Hillgrove Woods
Grange Farm
The Grange
Winter Lodge
Winters Hill
Harvest Moon
Greythatch
Halloween
Sewage Wks
Tudor Lea
Merlins Mead
Hill House
Cannon Court Farm
Halliwy Haunes
Furze
Lake
Cemy
Cemetery
Sch
Ch
PH
Rec Gd
Sewage Works
Lock Cut
Weir
Cookham Lock
Cookham Brook
Taplow
Golf Course
Hunts Wood
Burnham Beeches
Burnham Beeches Hotel
Hotel
Hospital
Nursing Home
Tarmac Ltd
Clivedon Deep
Farm Ditch
Ditch
Sewage Works

MAP 33

BRAY REACH
Boulter's to Bray

Direction of flow

River reach

Bank erosion site no.



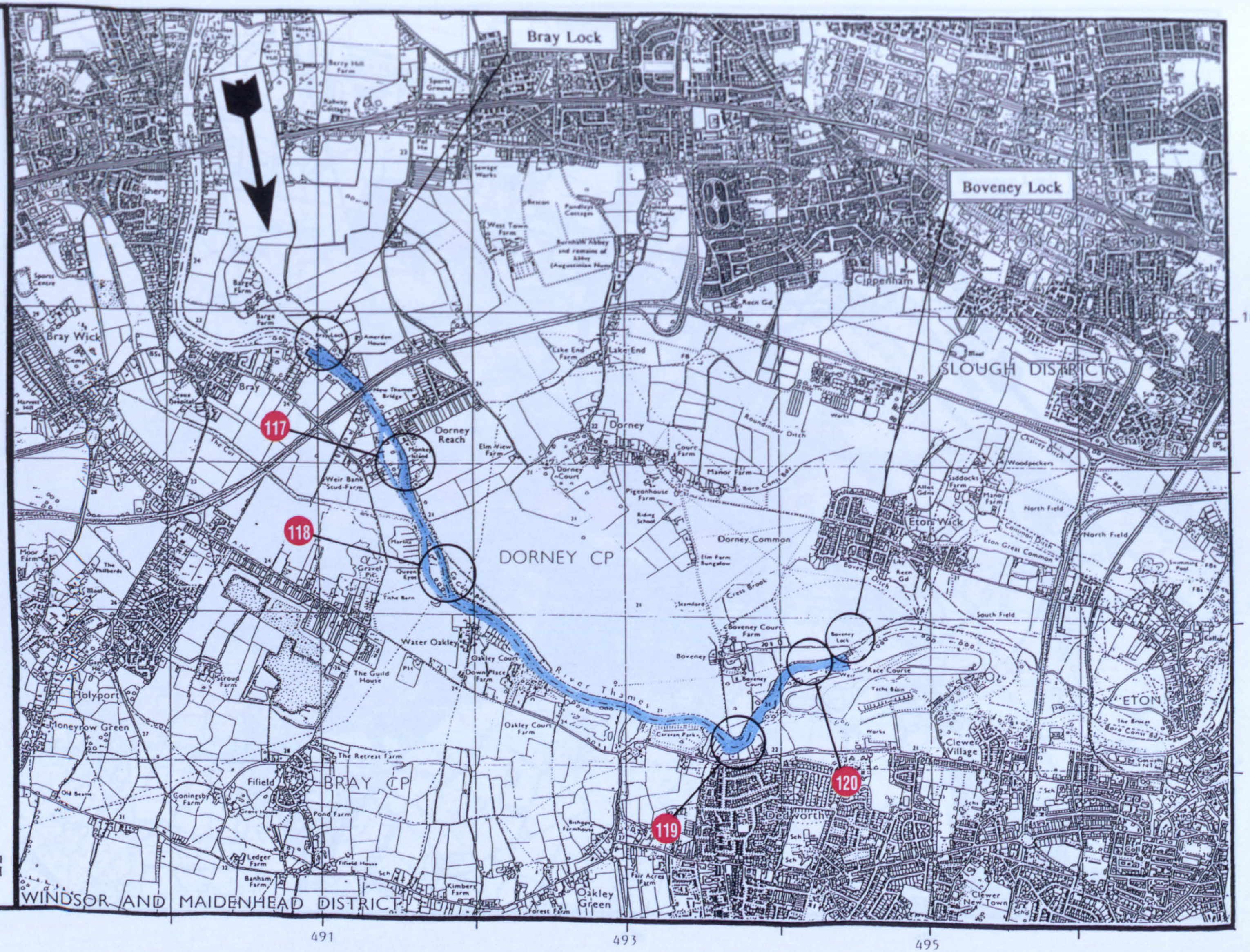
MAP 34

BOVENEY REACH
Bray to Boveney

Direction of flow

River reach

Bank erosion site no.



MAP 35

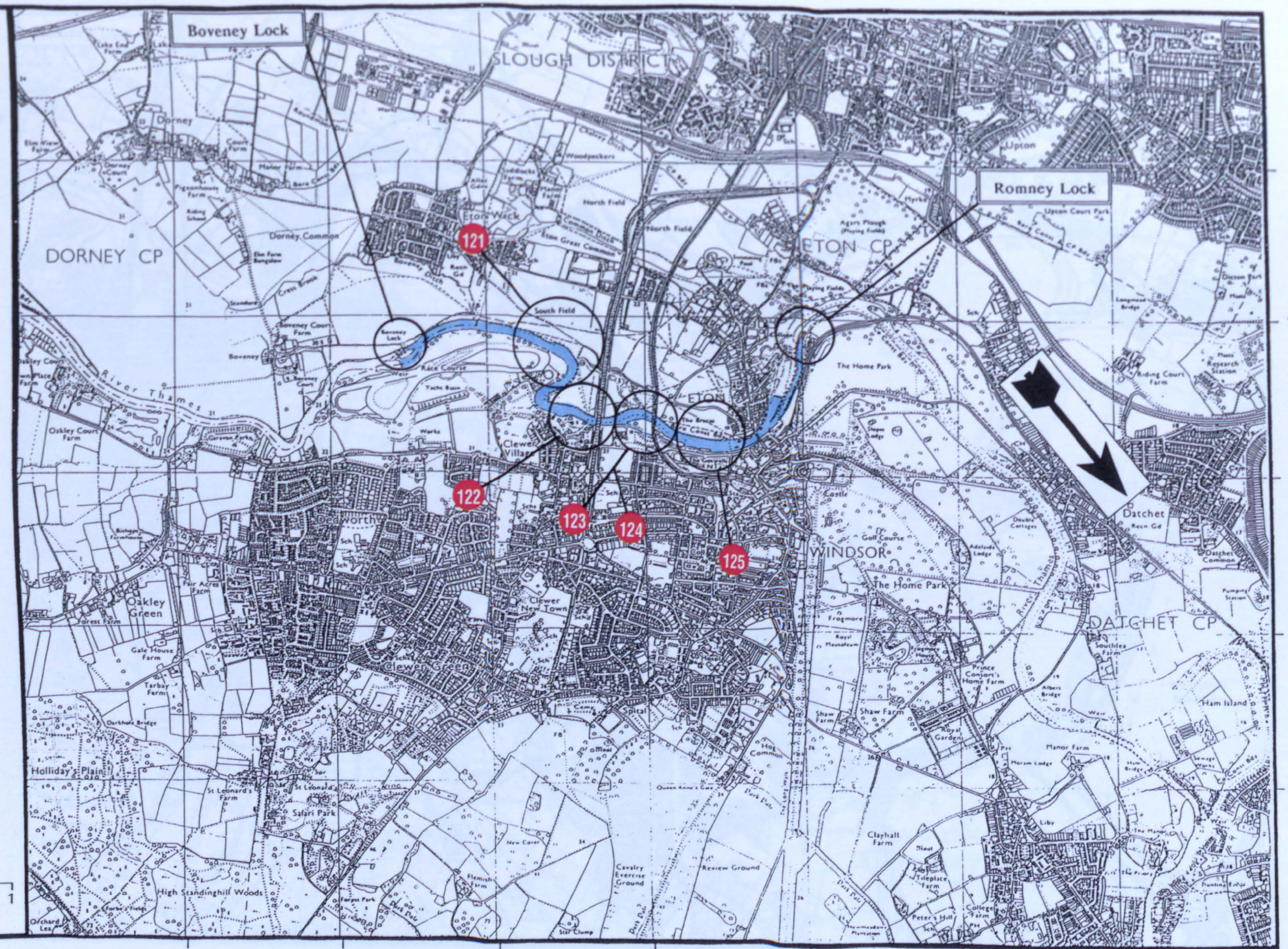
ROMNEY REACH
Boveney to Romney

Direction of flow

River reach

Valley axis

Bank erosion site no.



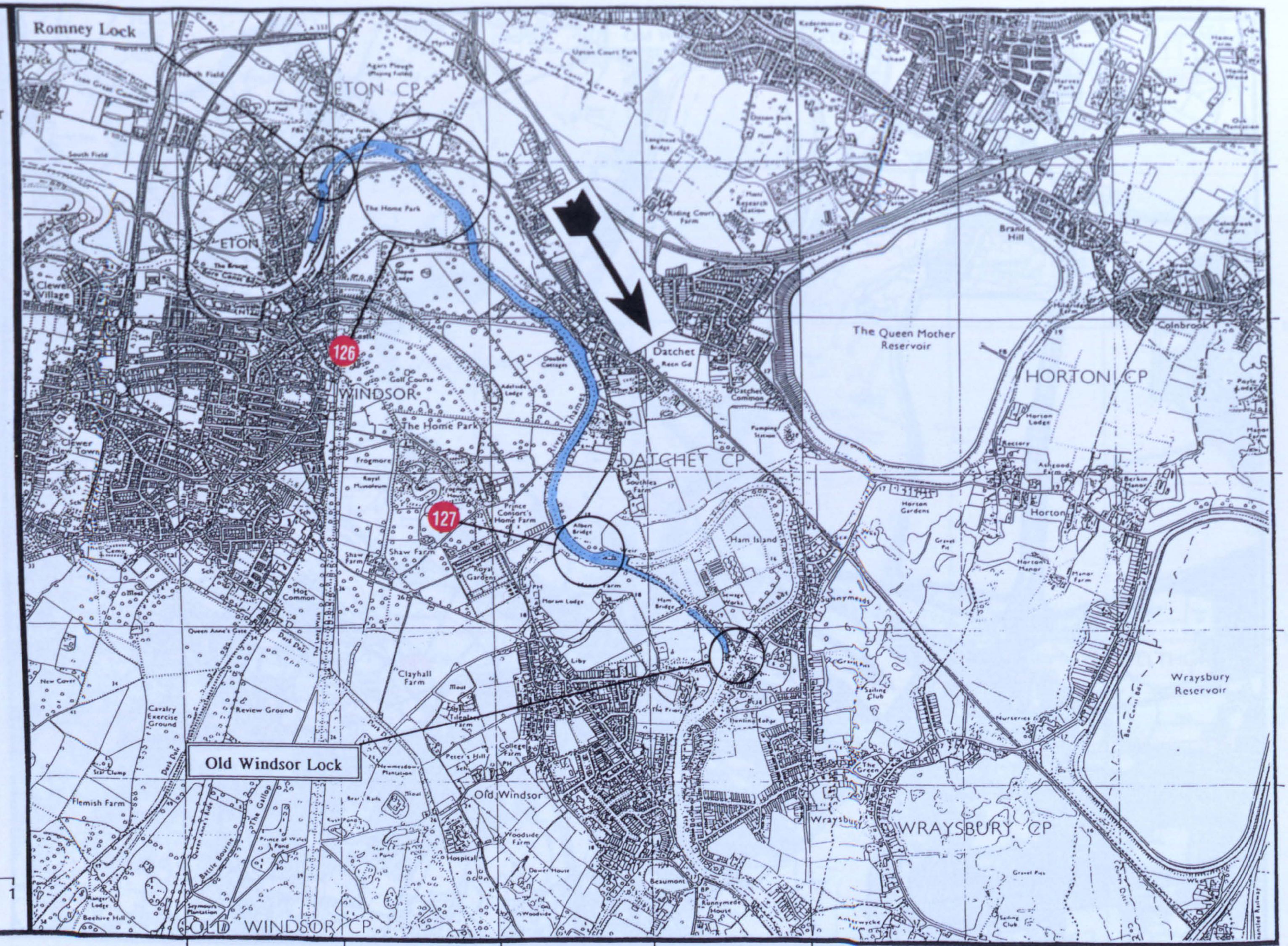
MAP 36

OLD WINDSOR REACH
Romney to Old Windsor

Direction of flow

River reach

Bank erosion site no.


Romney Lock
ETON CP
ETON
WINDSOR
DATCHET CP
HORTON CP
WRAYSBURY CP
OLD WINDSOR CP
Old Windsor
Old Windsor Lock
126
127
The Queen Mother Reservoir
Wraysbury Reservoir
Datchet
Horton
Wraysbury
Clewer Village
Clewer New Town
The Home Park
Frogmore
Royal Mausoleum
Prince Consort's Home Farm
Shaw Farm
Royal Gardens
Albert Bridge
Ham Island
Sunnymeads
Brands Hill
Colnbrook
Horton Gardens
Horton Lodge
Ashwood Farm
Horton Manor
Manor Farm
Clayhall Farm
Cavalry Exercise Ground
Review Ground
Flemish Farm
Hot Common
Queen Anne's Gate
Peter's Hill
College Farm
Newmeadow Plantation
Woodside Farm
Besumont
Runnymede House
Wraysbury
Sailing Club
Nurseries
The Green
Datchet Common
Pumping Station
Riding Court Farm
Horton Research Station
Southlea Farm
Hunting Lodge
Seymours Plantation
Beehive Hill
Ranger Lodge
Prince of Wales Pond
Bear Rails
Golf Course
Double Cottages
Addidas Lodge
Oxbow Lake
Gravel Pits
Sailing Club
Anthonycroft
Wks
Sch
Cemy
Spital
Mound
Pond
Lodge
Farm
Hospital
Liby
PH
Mill
Weir
Lock
Bridge
Cottages
Works
Nursery
Huntercombe Manor
Ashwood Farm
Berkyn Manor
Manor Farm
Horton Lodge
Horton Gardens
Horton Manor
Sunnymeads
Wraysbury Reservoir
Nurseries
The Green
Sailing Club
Anthonycroft
Gravel Pits
Besumont
Runnymede House
Wraysbury
Hunting Lodge
The Priory
Huntercombe Manor
Datchet Common
Pumping Station
Riding Court Farm
Horton Research Station
Southlea Farm
Colnbrook
Brands Hill
Sunnymeads
Ham Island
Albert Bridge
Royal Gardens
Shaw Farm
Prince Consort's Home Farm
Frogmore
Royal Mausoleum
Clewer New Town
Clewer Village
The Home Park
Golf Course
Double Cottages
Addidas Lodge
Oxbow Lake
Datchet
Horton
Wraysbury
Old Windsor
Clayhall Farm
Cavalry Exercise Ground
Review Ground
Flemish Farm
Hot Common
Queen Anne's Gate
Peter's Hill
College Farm
Newmeadow Plantation
Woodside Farm
Besumont
Runnymede House
Seymours Plantation
Beehive Hill
Ranger Lodge
Prince of Wales Pond
Bear Rails
Spital
Cemy
Sch
Wks
Mound
Pond
Lodge
Farm
Hospital
Liby
PH
Mill
Weir
Lock
Bridge
Cottages
Works
Nursery
Oxbow Lake
Gravel Pits
Sailing Club
Anthonycroft
Huntercombe Manor
Ashwood Farm
Berkyn Manor
Manor Farm
Horton Lodge
Horton Gardens
Horton Manor
Sunnymeads
Wraysbury Reservoir
Nurseries
The Green
Sailing Club

MAP 37

EGHAM REACH
Old Windsor to Egham

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.


Old Windsor Lock
Egham Lock
128
18
19
129
Windsor
Wraysbury
WRAYSBURY CP
Horton
Stanwell
Staines Moor
Staines Reservoirs
SPELTHORNE
Cooper's Hill Slopes (National Trust)
Runnymede
Hythe End
Ankerwycke Priory
Home Farm
Castehill Farm
Eaglefield Green
Egham Wick
Bakeham House
Rusham Farm
Glenwill Farm
Shortwood Common
HM Remand Centre
Sailing Club
Golf Course
Gravel Pit
Nurseries
Disused Railway
Reservoir
Weir
Church
College
Cemy
Sch
Hospl
Farm
Lodge
Island
Mead
Green
Park
Hill
Wood
Cottage
Footbridge
Bridge
Ford
Pond
Lake
Spring
Well
Tank
Pumping Station
Sewage Works
Boathouse
Slipway
Jetty
Pier
Landing Stage
Boat Yard
Boat Club
Yacht Club
Rowing Club
Sailing Club
Canoe Club
Water Ski Club
Golf Course
Golf Club
Golf Range
Golf Practice Ground
Golf Driving Range
Golf Practice Range
Golf Practice Net
Golf Practice Nets
Golf Practice Cage
Golf Practice Cages
Golf Practice Tee
Golf Practice Tees
Golf Practice Green
Golf Practice Greens
Golf Practice Fairway
Golf Practice Fairways
Golf Practice Rough
Golf Practice Roughs
Golf Practice Bunker
Golf Practice Bunkers
Golf Practice Hazard
Golf Practice Hazards
Golf Practice Water Hazard
Golf Practice Water Hazards
Golf Practice Out of Bounds
Golf Practice Out of Bounds Line
Golf Practice Out of Bounds Lines
Golf Practice Out of Bounds Marker
Golf Practice Out of Bounds Markers
Golf Practice Out of Bounds Post
Golf Practice Out of Bounds Posts
Golf Practice Out of Bounds Stake
Golf Practice Out of Bounds Stakes
Golf Practice Out of Bounds Wall
Golf Practice Out of Bounds Walls
Golf Practice Out of Bounds Fence
Golf Practice Out of Bounds Fences
Golf Practice Out of Bounds Hedge
Golf Practice Out of Bounds Hedges
Golf Practice Out of Bounds Ditch
Golf Practice Out of Bounds Ditches
Golf Practice Out of Bounds Bank
Golf Practice Out of Bounds Banks
Golf Practice Out of Bounds Embankment
Golf Practice Out of Bounds Embankments
Golf Practice Out of Bounds Cutting
Golf Practice Out of Bounds Cuttings
Golf Practice Out of Bounds Tunnel
Golf Practice Out of Bounds Tunnels
Golf Practice Out of Bounds Bridge
Golf Practice Out of Bounds Bridges
Golf Practice Out of Bounds Footbridge
Golf Practice Out of Bounds Footbridges
Golf Practice Out of Bounds Ford
Golf Practice Out of Bounds Fords
Golf Practice Out of Bounds Pond
Golf Practice Out of Bounds Ponds
Golf Practice Out of Bounds Lake
Golf Practice Out of Bounds Lakes
Golf Practice Out of Bounds Spring
Golf Practice Out of Bounds Springs
Golf Practice Out of Bounds Well
Golf Practice Out of Bounds Wells
Golf Practice Out of Bounds Tank
Golf Practice Out of Bounds Tanks
Golf Practice Out of Bounds Pumping Station
Golf Practice Out of Bounds Pumping Stations
Golf Practice Out of Bounds Sewage Works
Golf Practice Out of Bounds Sewage Works
Golf Practice Out of Bounds Boathouse
Golf Practice Out of Bounds Boathouses
Golf Practice Out of Bounds Slipway
Golf Practice Out of Bounds Slipways
Golf Practice Out of Bounds Jetty
Golf Practice Out of Bounds Jetties
Golf Practice Out of Bounds Pier
Golf Practice Out of Bounds Piers
Golf Practice Out of Bounds Landing Stage
Golf Practice Out of Bounds Landing Stages
Golf Practice Out of Bounds Boat Yard
Golf Practice Out of Bounds Boat Yards
Golf Practice Out of Bounds Boat Club
Golf Practice Out of Bounds Boat Clubs
Golf Practice Out of Bounds Yacht Club
Golf Practice Out of Bounds Yacht Clubs
Golf Practice Out of Bounds Rowing Club
Golf Practice Out of Bounds Rowing Clubs
Golf Practice Out of Bounds Sailing Club
Golf Practice Out of Bounds Sailing Clubs
Golf Practice Out of Bounds Canoe Club
Golf Practice Out of Bounds Canoe Clubs
Golf Practice Out of Bounds Water Ski Club
Golf Practice Out of Bounds Water Ski Clubs
Golf Practice Out of Bounds Golf Course
Golf Practice Out of Bounds Golf Courses
Golf Practice Out of Bounds Golf Club
Golf Practice Out of Bounds Golf Clubs
Golf Practice Out of Bounds Golf Range
Golf Practice Out of Bounds Golf Ranges
Golf Practice Out of Bounds Golf Practice Ground
Golf Practice Out of Bounds Golf Practice Grounds
Golf Practice Out of Bounds Golf Driving Range
Golf Practice Out of Bounds Golf Driving Ranges
Golf Practice Out of Bounds Golf Practice Range
Golf Practice Out of Bounds Golf Practice Ranges
Golf Practice Out of Bounds Golf Practice Net
Golf Practice Out of Bounds Golf Practice Nets
Golf Practice Out of Bounds Golf Practice Cage
Golf Practice Out of Bounds Golf Practice Cages
Golf Practice Out of Bounds Golf Practice Tee
Golf Practice Out of Bounds Golf Practice Tees
Golf Practice Out of Bounds Golf Practice Green
Golf Practice Out of Bounds Golf Practice Greens
Golf Practice Out of Bounds Golf Practice Fairway
Golf Practice Out of Bounds Golf Practice Fairways
Golf Practice Out of Bounds Golf Practice Rough
Golf Practice Out of Bounds Golf Practice Roughs
Golf Practice Out of Bounds Golf Practice Bunker
Golf Practice Out of Bounds Golf Practice Bunkers
Golf Practice Out of Bounds Golf Practice Hazard
Golf Practice Out of Bounds Golf Practice Hazards
Golf Practice Out of Bounds Golf Practice Water Hazard
Golf Practice Out of Bounds Golf Practice Water Hazards
Golf Practice Out of Bounds Golf Practice Out of Bounds
Golf Practice Out of Bounds Golf Practice Out of Bounds Line
Golf Practice Out of Bounds Golf Practice Out of Bounds Lines
Golf Practice Out of Bounds Golf Practice Out of Bounds Marker
Golf Practice Out of Bounds Golf Practice Out of Bounds Markers
Golf Practice Out of Bounds Golf Practice Out of Bounds Post
Golf Practice Out of Bounds Golf Practice Out of Bounds Posts
Golf Practice Out of Bounds Golf Practice Out of Bounds Stake
Golf Practice Out of Bounds Golf Practice Out of Bounds Stakes
Golf Practice Out of Bounds Golf Practice Out of Bounds Wall
Golf Practice Out of Bounds Golf Practice Out of Bounds Walls
Golf Practice Out of Bounds Golf Practice Out of Bounds Fence
Golf Practice Out of Bounds Golf Practice Out of Bounds Fences
Golf Practice Out of Bounds Golf Practice Out of Bounds Hedge
Golf Practice Out of Bounds Golf Practice Out of Bounds Hedges
Golf Practice Out of Bounds Golf Practice Out of Bounds Ditch
Golf Practice Out of Bounds Golf Practice Out of Bounds Ditches
Golf Practice Out of Bounds Golf Practice Out of Bounds Bank
Golf Practice Out of Bounds Golf Practice Out of Bounds Banks
Golf Practice Out of Bounds Golf Practice Out of Bounds Embankment
Golf Practice Out of Bounds Golf Practice Out of Bounds Embankments
Golf Practice Out of Bounds Golf Practice Out of Bounds Cutting
Golf Practice Out of Bounds Golf Practice Out of Bounds Cuttings
Golf Practice Out of Bounds Golf Practice Out of Bounds Tunnel
Golf Practice Out of Bounds Golf Practice Out of Bounds Tunnels
Golf Practice Out of Bounds Golf Practice Out of Bounds Bridge
Golf Practice Out of Bounds Golf Practice Out of Bounds Bridges
Golf Practice Out of Bounds Golf Practice Out of Bounds Footbridge
Golf Practice Out of Bounds Golf Practice Out of Bounds Footbridges
Golf Practice Out of Bounds Golf Practice Out of Bounds Ford
Golf Practice Out of Bounds Golf Practice Out of Bounds Fords
Golf Practice Out of Bounds Golf Practice Out of Bounds Pond
Golf Practice Out of Bounds Golf Practice Out of Bounds Ponds
Golf Practice Out of Bounds Golf Practice Out of Bounds Lake
Golf Practice Out of Bounds Golf Practice Out of Bounds Lakes
Golf Practice Out of Bounds Golf Practice Out of Bounds Spring
Golf Practice Out of Bounds Golf Practice Out of Bounds Springs
Golf Practice Out of Bounds Golf Practice Out of Bounds Well
Golf Practice Out of Bounds Golf Practice Out of Bounds Wells
Golf Practice Out of Bounds Golf Practice Out of Bounds Tank
Golf Practice Out of Bounds Golf Practice Out of Bounds Tanks
Golf Practice Out of Bounds Golf Practice Out of Bounds Pumping Station
Golf Practice Out of Bounds Golf Practice Out of Bounds Pumping Stations
Golf Practice Out of Bounds Golf Practice Out of Bounds Sewage Works
Golf Practice Out of Bounds Golf Practice Out of Bounds Sewage Works
Golf Practice Out of Bounds Golf Practice Out of Bounds Boathouse
Golf Practice Out of Bounds Golf Practice Out of Bounds Boathouses
Golf Practice Out of Bounds Golf Practice Out of Bounds Slipway
Golf Practice Out of Bounds Golf Practice Out of Bounds Slipways
Golf Practice Out of Bounds Golf Practice Out of Bounds Jetty
Golf Practice Out of Bounds Golf Practice Out of Bounds Jetties
Golf Practice Out of Bounds Golf Practice Out of Bounds Pier
Golf Practice Out of Bounds Golf Practice Out of Bounds Piers
Golf Practice Out of Bounds Golf Practice Out of Bounds Landing Stage
Golf Practice Out of Bounds Golf Practice Out of Bounds Landing Stages
Golf Practice Out of Bounds Golf Practice Out of Bounds Boat Yard
Golf Practice Out of Bounds Golf Practice Out of Bounds Boat Yards
Golf Practice Out of Bounds Golf Practice Out of Bounds Boat Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Boat Clubs
Golf Practice Out of Bounds Golf Practice Out of Bounds Yacht Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Yacht Clubs
Golf Practice Out of Bounds Golf Practice Out of Bounds Rowing Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Rowing Clubs
Golf Practice Out of Bounds Golf Practice Out of Bounds Sailing Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Sailing Clubs
Golf Practice Out of Bounds Golf Practice Out of Bounds Canoe Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Canoe Clubs
Golf Practice Out of Bounds Golf Practice Out of Bounds Water Ski Club
Golf Practice Out of Bounds Golf Practice Out of Bounds Water Ski Clubs
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MAP 38

PENTON-HOOK
REACH
Egham to Penton-Hook

Direction of flow

River reach

Bank erosion site no.



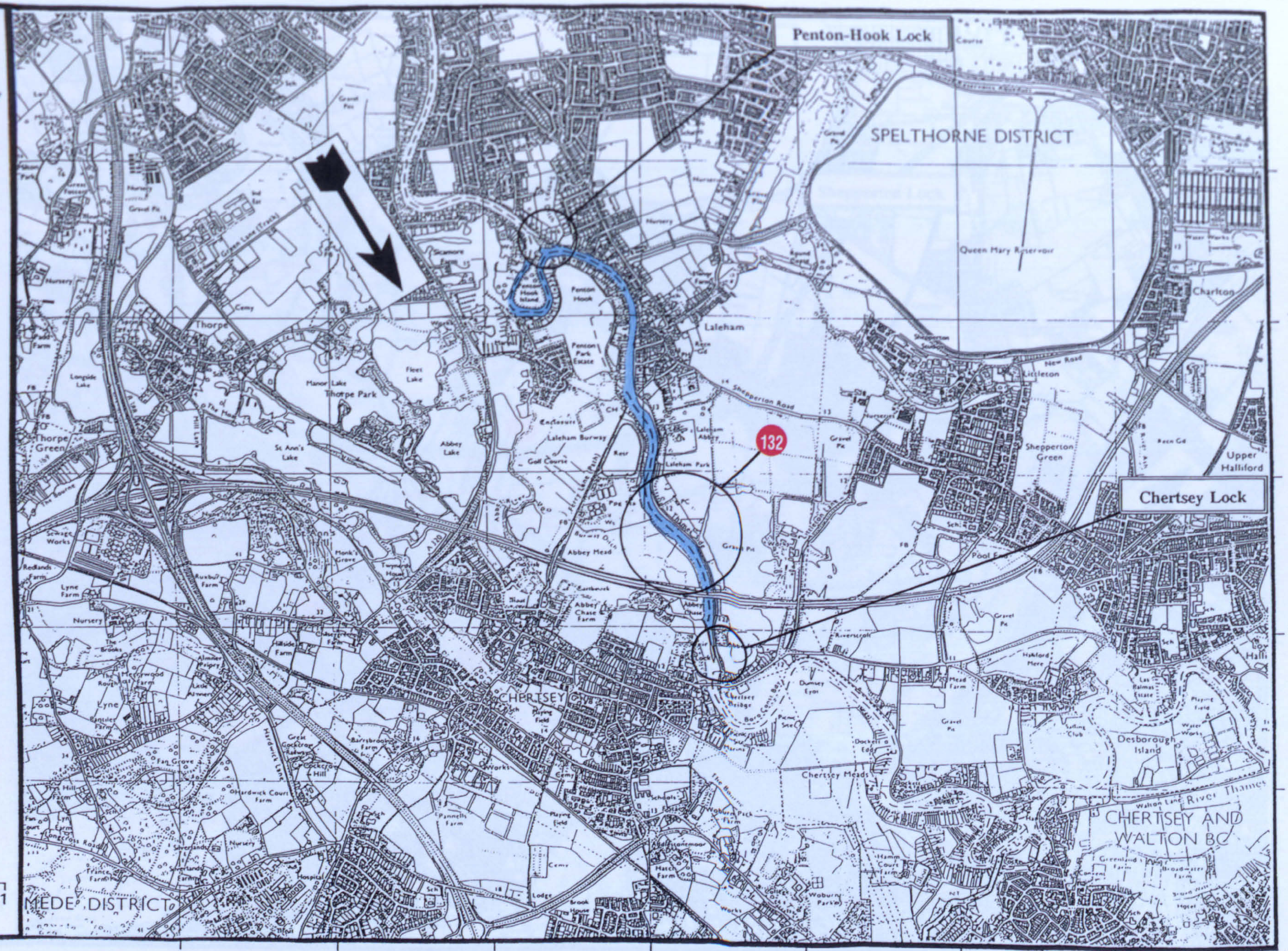
MAP 39

CHERTSEY REACH
Penton-Hook to Chertsey

Direction of flow

River reach

Bank erosion site no.



MAP 40

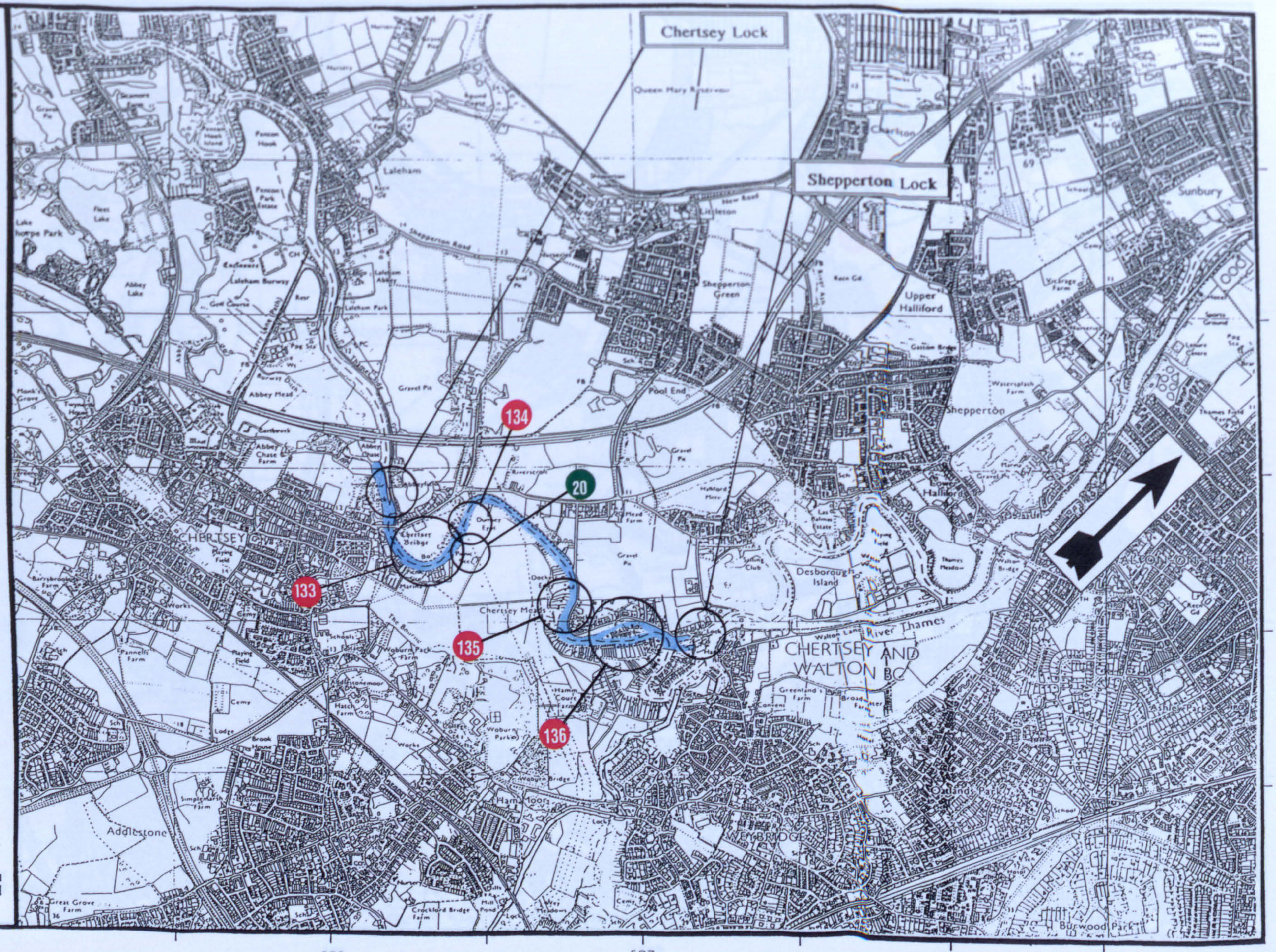
SHEPPERTON REACH
Chertsey to Shepperton

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



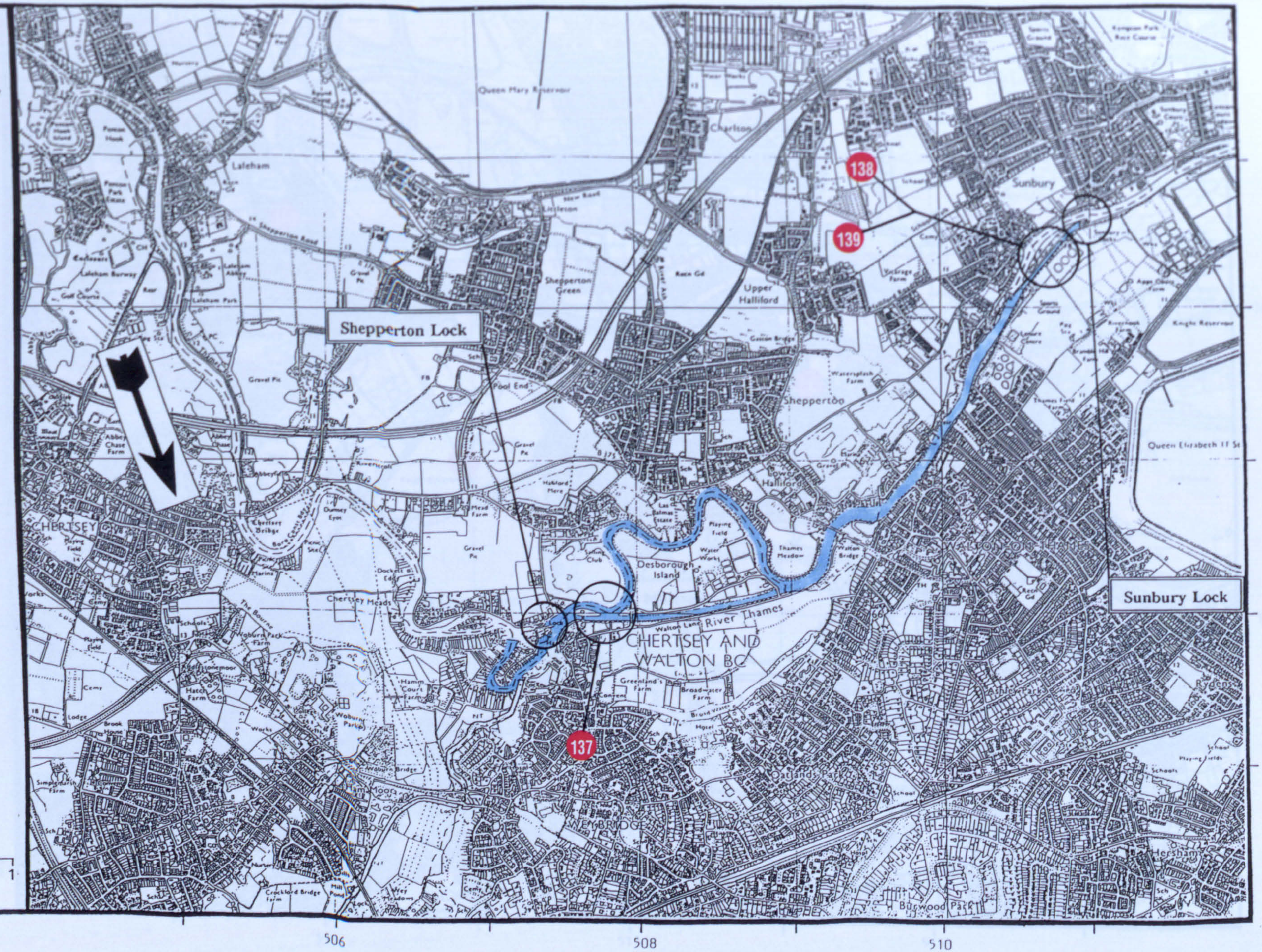
MAP 41

SUNBURY REACH
Shepperton to Sunbury

Direction of flow

River reach

Bank erosion site no.



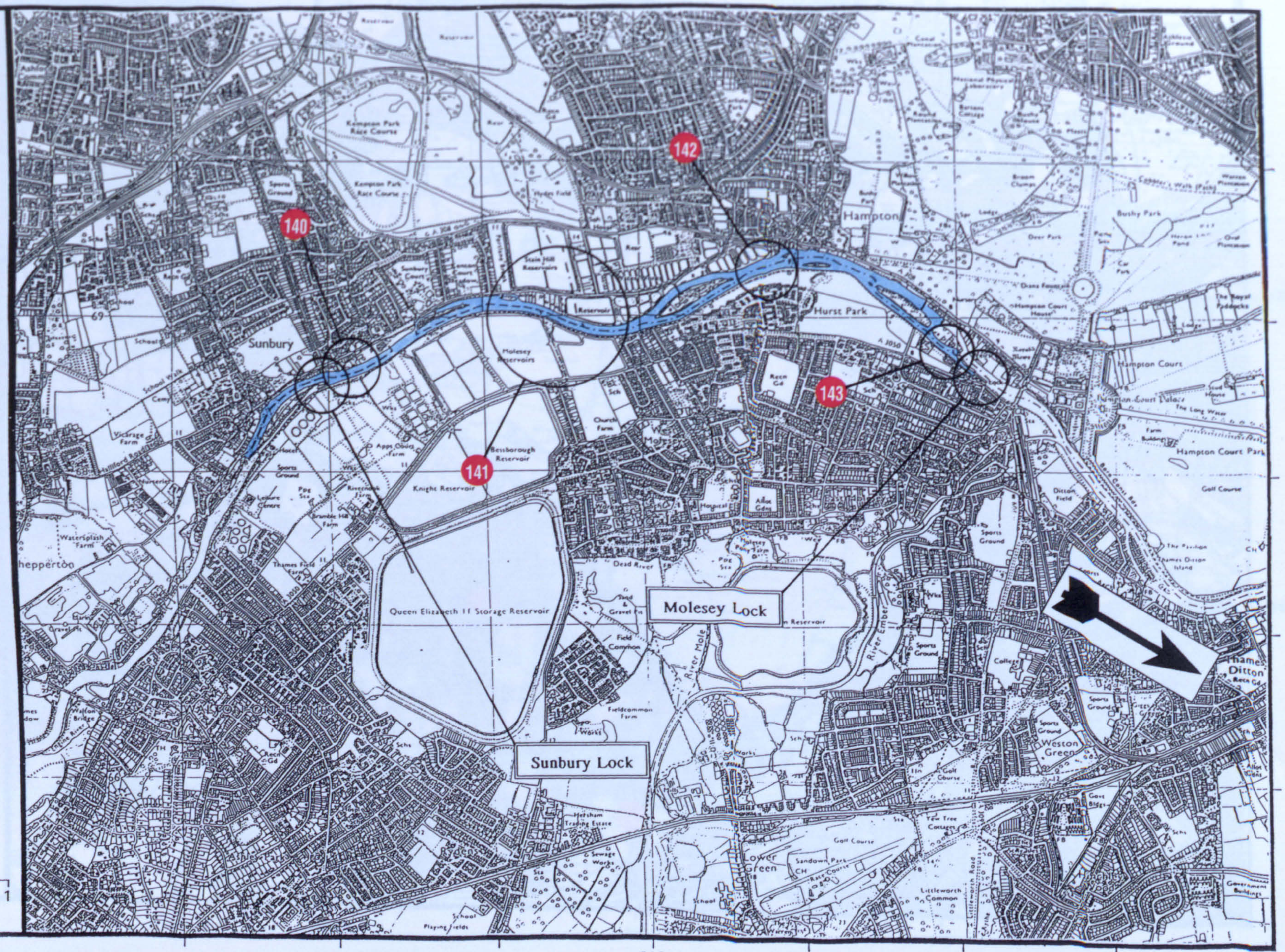
MAP 42

MOLESEY REACH
Sunbury to Molesey

Direction of flow

River reach

Bank erosion site no.



MAP 43

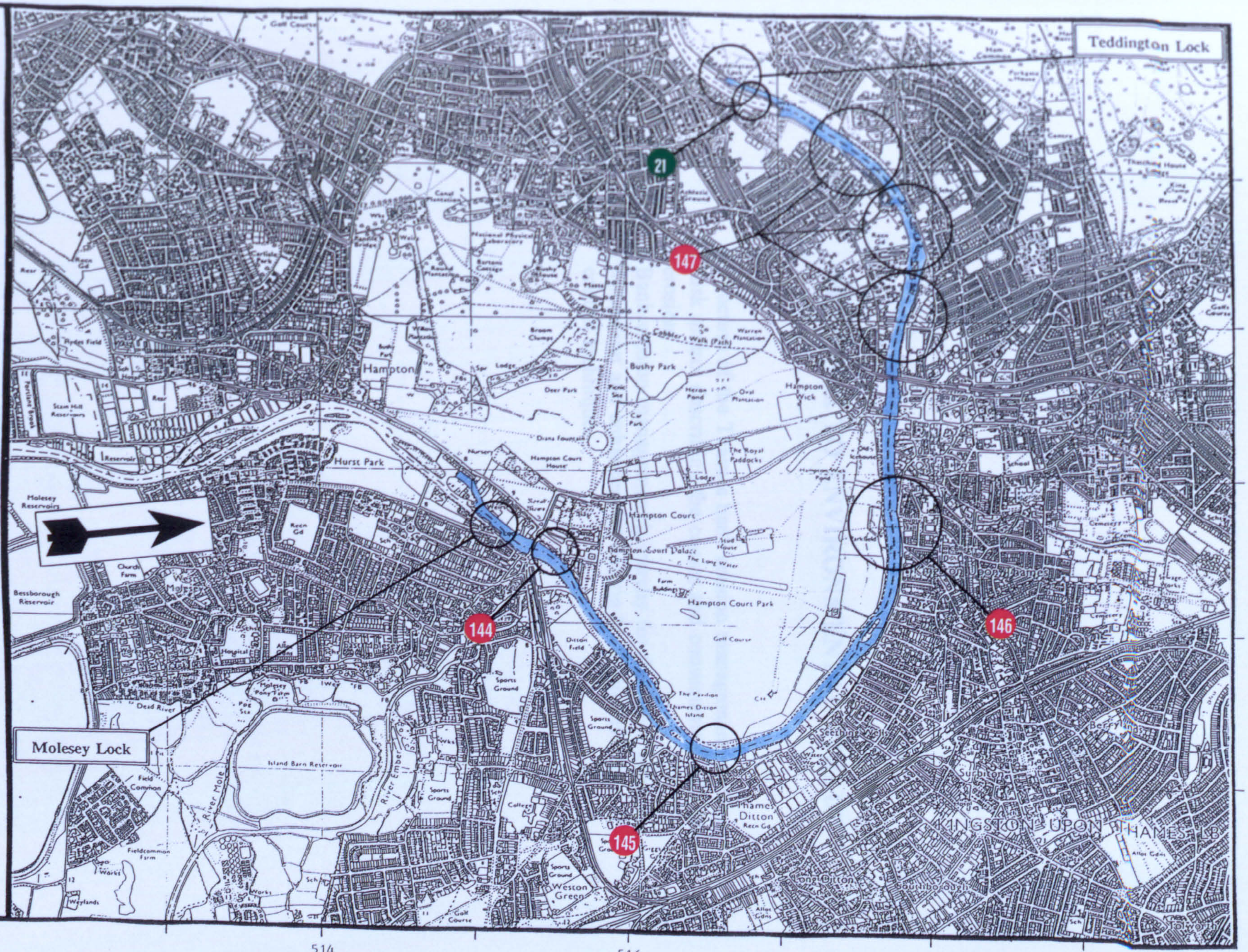
TEDDINGTON REACH
Molesey to Teddington

Direction of flow

River reach

Bank erosion site no.

Erosion control case study no.



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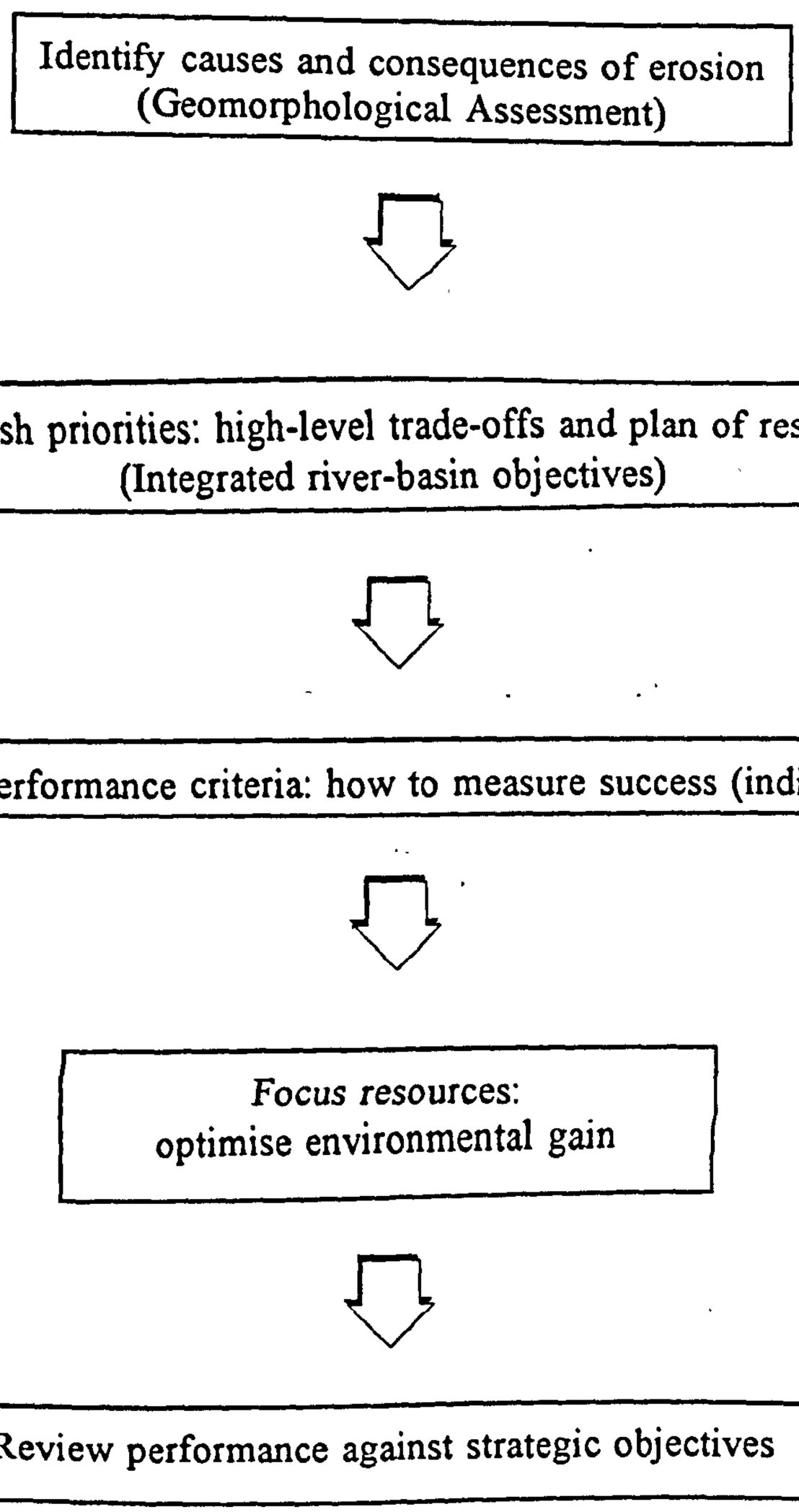
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SECTION III

RESPONSE TO ENVIRONMENTAL STRAIN

- Structure of the Thames bank erosion management strategy
- Risk matrix describing the causes and consequences of bank erosion
- Bank erosion management hierarchy for the River Thames
- Mitigation and enhancement criteria for alternative erosion control techniques



Structure of the Thames bank erosion management strategy

Severity of threat posed by continued erosion		**Probability of erosion occurring according to cause of erosion**		
		HIGH Channel planform & geometry	**MEDIUM** Land & bank use	**LOW** Navigation related
- Integral flood defence bank - Buildings/properties: residential/commercial - Structures: weirs, bridges etc - Infrastructure: metalled roads, railways etc. - Water quality: pollution to surface waters	**HIGH**	HIGH RISK	MEDIUM RISK	LOW RISK
- Non-metalled public rights of way/bridleways - Designated heritage/ conservation sites - Navigation activities	**MEDIUM**	MEDIUM RISK	MEDIUM RISK	NO RISK
- Recreation: formal/informal - Agricultural land: arable/pasture - Gardens and allotments	**LOW**	LOW RISK	NO RISK	NO RISK

Risk matrix describing the causes and consequences of bank erosion on the River Thames

River / bank environment	Hierarchy of *erosion management* strategies according to the risk associated with erosion			
	HIGH RISK	MEDIUM RISK	LOW RISK	NO RISK
High probability of erosion occurring: - weir stream - impinging flow - adjacent to scour pool - turbulence at structures - outside bank of bend	- Regrade bank slope - In-channel structures - Bioengineering - Biotechnical engineering - Structural engineering	- Allowed natural adjustment - Regrade bank slope - Relocation - Bioengineering	- Allowed natural adjustment - Relocation	N/A
Medium probability of erosion occurring: - livestock access - general public amenity - angling	N/A	- Allowed natural adjustment - Management - Relocation - Bioengineering (or biotechnical engineering against cattle)	N/A	- Allowed natural adjustment - Management
Low probability of erosion occurring: - boat wash - mooring - lock cut	N/A	N/A	- Allowed natural adjustment - Management - Bioengineering	- Allowed natural adjustment - Management

Bank erosion management hierarchy for the River Thames

Erosion control strategy/technique & severity of impact		Additional mitigation & enhancements required for performance ranking			
		Mitigation ranking			Enhancement ranking
		LOW	MEDIUM	HIGH	LOW-MEDIUM-HIGH
Natural adjustment Management Relocation	No impact	N/A	N/A	N/A	Low performance = inclusion of no additional measures. Medium performance = inclusion of minor improvements (eg. MP), but no contribution to strategic management objectives. High performance = inclusion of improvements (additional to mitigation) that contribute to the strategic (multi-functional) management objectives: flood plain restoration; buffer strips; etc.
Channel realignment/ obstruction removal Bank regrading	No impact	N/A	N/A	N/A	
Bioengineering techniques, eg. willows and faggots	Low	None	None	None	
Planted rock/coir rolls	Low	None	None	None	
Geotextiles	Medium	None	None	MP	
Riprap, gabions, cellular concrete	Medium	None	None	MP	
Hard (structural) engineering: sheet piling, concrete *etc.*	High	None	MP	RN	

Note: MP = marginal planting, or other minor mitigation measures, but not re-naturalisation (RN) of the bank.

Mitigation and enhancement criteria for alternative erosion control techniques

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