

fact File

RIVER RODING



GUARDIANS OF THE WATER ENVIRONMENT



NRA

*National Rivers Authority
Thames Region*

Fact File - RIVER RODING

FACTS IN BRIEF

- The Roding is a small, lowland clay river which drains a narrow catchment (342km²) in Western Essex.
- Rising at Molehill Green, 107m above sea-level, it flows in a southerly direction for 80km, joining the Thames at Barking Creek.
- During dry weather, the flow measured at Redbridge gauging station is usually less than one cubic metre per second but increases rapidly after heavy rainfall.
- In the middle reaches, near Abridge, the channel gradient is gentle (1:100) and the river comprises alternating shallows (riffles) and deep water pools.
- The average channel width is 7.5m and the river bed comprises mainly clay or gravel, but extensive silt deposits occur in sheltered bends.
- There has been considerable channel realignment and bank reinforcement associated with flood alleviation and motorway construction in the lowest reaches where the catchment is heavily urbanised.
- In contrast, agriculture dominates the upper and middle catchment.
- The average annual rainfall in the Roding catchment is 606mm.

THE NATIONAL RIVERS AUTHORITY

Established on 1 September 1989, the NRA is an independent public body charged with safeguarding and improving the natural water environment. It is responsible for flood defence, regulating the quality of rivers and groundwaters, balancing the needs of various water users, protecting and improving fish stocks and promoting water based recreation of all kinds. The NRA is committed to improving wildlife habitats and conserving the natural environment in all it undertakes.

TRIBUTARIES

The Cripsey Brook meets the Roding at Chipping Ongar and the Brookhouse Brook meets the Roding at Abridge. As the river moves towards the Thames, it is joined by a number of small stream tributaries, including the Chigwell Brook, the Loughton Brook and the Little London Brook.

PLANNING LIAISON

The NRA works with local planning authorities to protect the Roding catchment from undesirable development.

WATER QUALITY

The Roding has suffered from a number of pollution incidents over recent years, the most significant being in April 1985 when a pesticide entered the river via the Brookhouse Brook. The immediate impact of this particular incident was the loss of about 90% of the fish population and the elimination of aquatic arthropods. There was little impact on bankside vegetation, water voles, birds or non-arthropods (i.e. snails and worms). A major study was undertaken to monitor the effects and the recovery of the river. The invertebrate fauna has recovered effectively to its pre-pollution state, mainly by recolonisation from side streams or downstream drift from unaffected areas. The fish population was restored by the introduction of good quality fish of a range of species and sizes.

WATER QUALITY OBJECTIVES

From	To	Length Km	Objective
RODING			
Chapel End	Canfield (A120)	5.1	E*
Canfield (A120)	Cripsey Brook	25.7	1B - Good
Cripsey Brook	Brookhouse Brook	15.6	1B - Good
Brookhouse Brook	Chigwell	11.2	2A - Fair
Chigwell	Six Gates Sluice	11.3	2A - Fair
BROOKHOUSE BROOK			
Source	Stewards Green Road	2.8	E*
Stewards Green Road	Roding	4.7	3 - Poor
CRIPSEY BROOK			
Thornwood	Moreton Bridge	8.6	2B - Fair
Moreton Bridge	Roding	8.1	2A - Fair

E * Ephemeral - When flowing it should comply with the objective of the downstream reach.



Fact File - RIVER RODING

BIOLOGY

In addition to the chemical sampling programme, the river is also surveyed biologically. Benthic invertebrate surveys are carried out at a number of sites. The diversity of the fauna present reflects the water quality of the river. The population structure of the invertebrate fauna gives a measure of quality complementary to the chemical data. Additionally, the invertebrates form a part of the fish diet.

DISCHARGES

The main discharges to the Roding catchment are as follows:

Discharge	Cubic Metres Per Day	Type of Effluent
RODING		
Stanford Rivers STW	12630	Sewage effluent
Theydon Bois STW	10320	Sewage effluent
BROOKHOUSE BROOK		
Epping(Fiddlers Hamlet) STW	18300	Sewage effluent
CRIPSEY BROOK		
Thornwood STW	666	Sewage effluent
North Weald STW	3540	Sewage effluent

The figures represent the maximum amount permitted. All the discharges in the catchment are regularly monitored by NRA staff based in Waltham Cross.

WATER RESOURCES

Rivers can be a major source of drinking water. They also provide essential water supply to agriculture and industry, and a natural and efficient means of disposing of discharged effluent. Ensuring that there is enough water to go round calls for a delicate balancing act on the part of NRA staff. The majority of water taken out of most rivers is used for public drinking water and similarly, the majority of effluent comes from sewage treatment works.

In order to ensure that there is sufficient information on river flows, the NRA carries out regular measurements and has a number of fixed gauging stations.

There are no major abstractions from the River Roding.



Fact File - RIVER RODING

FLOOD DEFENCE

Reducing the risk of flooding from the Roding on a day to day basis forms part of the NRA Thames Region's work. The NRA's flood control room at Waltham Cross keeps a round the clock check on weather conditions and river levels. Staff interpret the information and give emergency services early warning of possible floods.

A flood defence team is based at Ware to carry out regular river maintenance work. This includes dredging, weedcutting, and removal of blockages. This team is mobilised during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible. It also provides assistance to environmental quality staff in cleaning up after pollution incidents.

The NRA is committed to protecting and improving the natural river environment and wherever possible our flood defence work includes features of environmental conservation and enhancement.

FISH IN THE RODING

The Roding supports fine mixed coarse fisheries throughout its length. It is dominated by chub, roach and dace with pike, perch and eels common throughout. Modest natural populations of brown trout exist in the headwaters around Canfield.

Since 1977 a series of fisheries surveys have been carried out. Copies of these are available at a modest charge from NRA Thames Region, Aspen House, Crossbrook Street, Waltham Cross, Herts EN8 8HE.



National Rivers Authority Thames Region:

Kings Meadow House,
Kings Meadow Road,
Reading,
Berkshire,
RG1 8DQ.
Tel: 0734 535000.

ENVIRONMENT AGENCY



042425