

The River Ouse, Barcombe Mills



Guardians of the Water Environment



NRA

*National Rivers Authority
Southern Region*



ENVIRONMENT AGENCY

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STUDY OF THE

RIVER STOUR

KENT

THE NATIONAL RIVERS AUTHORITY

RECREATION AND AMENITY ON RIVERS AND OTHER WATERWAYS:

The River Stour, Kent

1. Description

The Kentish Stour in its various guises, originates above Ashford and enters the sea at Pegwell Bay. The Great Stour has its source at Lenham and flows south-east to Ashford where it joins the river East Stour, which flows in a north-westerly direction from its source near Hythe. From Lenham, the Great Stour passes first over Hythe Beds (sandy limestone and calcareous sand) and Sandgate Beds (silty clay) before entering the Weald clay above Ashford. The East Stour flows over Weald clay throughout its catchment. The upper reaches therefore have many characteristics of clay catchments, particularly in respect of hydrology; run-off is rapid with high peak flows.

Underlying clay continues to Wye where the river, the Great Stour, enters the chalk of the North Downs. Recharge from chalk springs between Wye and Canterbury gives the river, now flowing in a north-easterly direction its 'typical' chalk-stream characteristics in these middle reaches. Below Canterbury, Brickearth and Thanet Beds predominate to the tidal limit at Fordwich from where the valley deposits are largely alluvial in nature.

The Little Stour which joins the main river at Plucks Gutter, has its source in the chalk strata near to Elham, but for several miles runs underground, except in very wet seasons; this part is known as the Nailbourne. It usually emerges in lakes at Bourne Park and becomes a small chalk stream of great quality before it reaches the marsh levels at Plucks Gutter.

Turning east at Plucks Gutter, the alluvial valley takes the main river, now simply the River Stour, towards Sandwich where it turns south through a large loop before entering the sea back to the north at Pegwell Bay.

Overall the Stour is a fairly modest sized river, the tidal reach being some 35 km and the non-tidal Great Stour 58 km long. The East Stour is approximately 16 km long. In the upper reaches both the East and Great Stours are about 2 to 3 m wide increasing to 5 m at Ashford, 10 m to Canterbury and 20 to 30 m in the tidal reaches.

2. Organisations

2.1 Sandwich Port and Haven Commissioners are the navigation authority for the lower reaches of the River Stour below North Polders Sluice (near Richborough Castle). There is no navigation authority for the remainder of the tidal river.

- 2.2 There are a number of Local Authorities with interests in the Kentish Stour. The entire catchment falls within the County of Kent. The upper reaches above Shalmsford Street are within the Borough of Ashford, the middle reaches downstream to Grove Ferry within Canterbury City while in the lower reaches, the river forms the boundary between Thanet and Dover Districts. The loop to Sandwich falls entirely within the Dover District.
- 2.3 The National Rivers Authority (NRA) is the land drainage authority for the Kentish Stour, inclusive of the East Stour, Great Stour, Stour and Little Stour, carrying out river maintenance works such as dredging and weed cutting to maintain adequate channel capacity for land drainage purposes. The current programme of works includes dredging upstream of Plucks Gutter to Grove Ferry. In addition, a major flood relief scheme for Ashford involving storage areas at Hothfield (Great Stour) and Aldington (East Stour) is included in the Authority's capital works programme. The Aldington works are due for completion during 1989 and the Hothfield works in 1990.

The NRA also has responsibility for setting and monitoring water quality standards, routinely taking biological and chemical samples from a number of points on the river. An important facet of this work is the setting and monitoring of discharge consents. Presently, the water quality of the upper reaches of the Stour is satisfactory for the maintenance of a coarse fishery, the river being classified as Class 2. Below Wye, augmentation from the chalk springs improves the quality to Class 1B or better, indicating suitability for a good coarse or game fishery.

Additional functions of the NRA include the regulation of abstractions from the river, fisheries and conservation. In each of these areas the Authority plays an active part in the management of the Stour. It does not have responsibility for the maintenance of the Stour tidal navigation.

The NRA owns little riparian land in the Stour valley, small areas at Stodmarsh and Canterbury being retained for river functions use.

- 2.4 Southern Water discharges sewage effluent to the river at a number of points. The major discharges occur at Ashford and Canterbury but there are other, smaller discharges at Hothfield, Wye and Westbere. Southern Water also has a major water abstraction facility at Plucks Gutter.

With the exception of operational facilities, Southern Water has no major land holdings within the Stour Valley. It formerly owned Chartham Mill, but this was sold in 1986.

- 2.5 Considerable tracts of land within the valley are owned by industrial concerns, in particular, those involved with mineral extraction. These industries have had a major impact on the valley landscape and the availability of facilities for water-based recreation in the valley during the last 40 years.
- 2.6 The remainder and probably the majority of riparian lands within the Stour valley are in private ownership, often as part of large estates (for example at Godmersham and Olantigh). The agreement of these owners is required in one form or another in order to pursue recreational activities on the river and adjacent lands.
- 2.7 There are a number of preservation and conservation societies whose main interests are focused on the River Stour and the Stour Valley. These include the Stour Valley Society, the Canterbury Society, the River Stour (Lower Reaches) Society and the Stour Valley Conservation Group. These groups are actively involved in promoting informal access to the valley while protecting its rural quality and historic heritage.

3. Recreation and Amenity

3.1 Navigation

The river from its mouth in Pegwell Bay to Fordwich is tidal and as such is a public navigable river. The NRA regards the upper limit of the tidal river to approximate to the A28 road bridge, as indicated by standard Ordnance Survey and Land Drainage maps. However, for a number of years, tidal navigation has effectively stopped at Fordwich Bridge, several hundred metres downstream, the river between the Black and White Mill Pools (adjacent to the A28 bridge) and Fordwich Bridge having been reserved as a trout fishery. Latterly, the actual limit of tidal influence has been in the vicinity of Westbere.

The situation as regards navigation on the non-tidal Great Stour is not very certain. The public have no general right to navigate non-tidal waters, although such a right does sometimes exist. It would appear that the public may have acquired a right of navigation on the river, or at least parts of it, within the City of Canterbury (or more precisely, within the boundaries of the former Canterbury County Borough) though the right may be limited to local residents. This right does not necessarily give a right of access to the banks of the river for which the agreement of the riparian owners may be needed.

Above Canterbury there is no right of navigation and again, the consent of the riparian landowners and owners of fishing rights must be obtained.

There are a number of obstacles to navigation in the tidal reaches including dangerous currents at Stonar Cut when the flood sluices are open (the NRA maintain a warning flag mast/lamp standard at the upstream entrance to the Cut), and a weed tie set across the river by the NRA near to Chislet Colliery at certain times of the year. A low road bridge at Grove Ferry prevents large boats from passing upstream to the tidal limit (although the river in this section is probably too small to accommodate such vessels anyway) and an underwater obstruction at Minster is passable by large vessels for about one hour either side of high tide only. Above the tidal limit, the physical size of the river and depth of water dictate that where navigation is permitted, only small craft can be used.

a. Boating

The main concentrations of boating (motor cruising) activity appear to be at Grove Ferry and Sandwich, and to a lesser extent at Fordwich and Pluck's Gutter. Most moorings are in private ownership and there are waiting lists for future tenancies in many cases. There is therefore pressure for extra moorings at most centres, but in particular at Grove Ferry and Sandwich. Slipways, again mostly in private ownership, are available at Fordwich, Grove Ferry, Pluck's Gutter and Sandwich. A half-tide public slipway is available at Sandwich. Lifting facilities are available at commercial yards at Grove Ferry and Sandwich. In the lower reaches, above Sandwich, there are a number of large boat yards which generate considerable commercial traffic and a passenger service operates from Grove Ferry.

Although there is pressure for improved facilities, in particular for slipways and moorings, most points of road access are already saturated. In addition, the Royal Charter which provides for access to the river for anglers, affects mooring rights between Fordwich and Stourmouth. Expansion of facilities is therefore likely to lead to conflict with other interests and as a result, the County Council's policy is a general presumption against further riverside moorings except for within the limits of existing moorings. Several of larger than average vessels have started to use the tidal river in recent years and the pressure from this sector might increase if this is the only way in which commercial ventures can remain viable. The physical capacity of the river to accommodate such vessels is, however, questionable.

b. Sailing

Some sail-boats, which motor to the sea for use, are stationed at Sandwich, the only inland centre for sailing in the study area being at Westbere Lake which is used by an organised club for sailing small dinghies, especially when the sea is rough. The lake is used extensively for training purposes.

Windsurfers use Stonar Lake at Sandwich and there would appear to be some pressure for the use of other enclosed waters resulting from quarrying operations in the Stour Valley. In fact, few of the enclosed waters cater for sail-craft and it is to be expected that attention will be focused on new developments, for instance at Conningbrook (Ashford) where mineral extraction will eventually provide approximately 20 ha of open water. Sailing is excluded from many well-established inland waters in the valley by their owners in order to protect existing interests which include angling and the rich wildlife which has now developed.

c. Rowing and Canoeing

The tidal river, although navigable, is of little more than local interest to canoeists since it is slow flowing and for the greater part, bordered by high flood banks. Occasional use of the tidal river is made for formal rowing by the King's School which has boat clubs at Fordwich and Pluck's Gutter.

Within the City of Canterbury, where local residents may have acquired such a right of navigation, the depth of water available dictates that only small craft such as rowing boats or canoes can be used and these are available for private hire on the 'King's River' between Greyfriars Island and Abbots Mill. Private canoes are concentrated at Longbridge Leisure Centre where a river slalom course has been established.

Although ostensibly for the use of residents, the river would appear to attract many non-residents and this has led to over-use within the city. As there is presently no method of policing this activity, this problem is unlikely to be resolved in the near future. Similarly, there are no regulations or mechanisms for controlling the numbers of hired craft using the river in the city. As a result, there have been occasions when excessive numbers of boats using the river have caused animosity with local residents. Unauthorised access to riparian, often domestic, property from the river has also led to complaints. The situation has eased somewhat in recent years, possibly due to poor summer weather, but in anticipation of a return to over-use, the City Council are investigating a variety of control measures.

Elsewhere on the non-tidal river, local canoeists would appear to have obtained permission from riparian owners to use the river from time to time for organised events, but sporadic use at other times continues to lead to conflict.

Above Canterbury, there has been pressure from canoeists to use the river outside the fishing season but it has proved impossible to reach agreement with all of the riparian interests. Sporadic unauthorised use continues to occur.

Ashford Borough Council have identified a demand among local canoeists for use of the river within the town and are considering ways in which this demand might be met. One possibility is for canoeists to use one river (the Great Stour or East Stour) in the immediate vicinity of the Stour Valley Leisure Centre where the riparian interests are controlled by the local authority.

3.2 Angling

The Stour is widely acknowledged as a quality fishery, providing for both the coarse and game angler. The 'chalk stream' from Olantigh Weir below Wye, downstream as far as Fordwich is a renowned fly fishery, the main quarry being brown- and sea-trout. The fishing rights within this section are principally controlled by the Stour Fisheries Association, Tonford AA and Canterbury and District AA.

In recent years, following the general improvement in water quality, the numbers of migratory fish running in from the sea has been increasing. The runs usually take place in late summer and autumn after there has been good rainfall to provide an adequate flow in the river. Work carried out by Southern Water to improve the fishery in recent years is beginning to show good results, with locally bred fish returning to spawn on their native redds. However, angling and other interest groups continue to voice concern at the low flows experienced at times due to water abstraction.

A programme of fish-pass installation should improve natural replenishment of stock, although this is unlikely to obviate the need for supplementary re-stocking. Passes due for completion include those at Barton Mill and Kingsmead in Canterbury and further installations are planned for Kingsmead, Abbott's Mill (Canterbury) and Chartham Mill.

Within the city boundaries of Canterbury there is free fishing for residents, although it is impractical to police the situation. As a result, visitors to the city often take advantage of this.

The main angling activity in terms of numbers of participants takes place on the tidal river. The river is noted for its specimen roach although bream is perhaps the most abundant species. Pike are also present in large numbers, along with lesser numbers of eels, dace, gudgeon, perch, carp, tench and barbel. Mullet and other maritime species enter the river from the estuary.

The fishing rights are controlled by Canterbury and District AA from Fordwich to Plucks Gutter, Betteshanger Colliery AS downstream at Plucks Gutter; and Sandwich and District AA in

the lower reaches. It is of interest to note that the fishing rights immediately below Fordwich arise from a Royal Charter originally granted by King Canute in 1023. Although amended by Henry II, recent court actions have shown the Charter to remain effective. Day tickets are sold at Grove Ferry, Plucks Gutter and Sandwich and the fishing draws large numbers of holiday anglers and club parties from London and other urban areas. Open and club match competitions are held regularly, mostly at Grove Ferry, during the Autumn and Winter. Facilities are available for disabled anglers at Canterbury near St Radigunds car park and at Grove Ferry in the KCC picnic site.

Whilst the investment in Ashford and Canterbury sewage treatment works has produced benefits in water quality and the Stour game fishery, ironically there has been a change in the distribution of coarse fish in the river leading to complaints that the quality of the coarse fishery has declined. The recent tendency for fish to shoal in particular locations has encouraged undue angling pressure on very short stretches such as the deeper water below Grove Ferry board house. Meanwhile, many miles of what used to be prime fishery are little used. The reasons for this shift in distribution are far from clear, but the possibility of stocking with species which are more suited to the cleaner water conditions, for instance with barbel and chub, is being investigated.

Along the river valley between Chilham and Stodmarsh there is also much angling activity in flooded gravel workings adjacent to the river. Fordwich lakes are maintained as a bird sanctuary as well as specialised fisheries, one primarily for carpe, the other a put-and-take trout fishery. In Canterbury, the Central Electricity Generating Board, in co-operation with Kent Education Committee, operate Vauxhall lakes as a nature reserve and fishing water for local children and junior anglers.

3.3 Walking

Within the Stour Valley, a number of organisations, including local interest groups and Local Authorities, are promoting a hierarchy of walks. These include long distance routes, circular routes of various lengths, trails to features of interest (historic, natural or landscape) and town centre walks. These walks may be entirely or only in part along the river bank, but all use the river as a focal point. Of particular note are series of walk guides published by the Stour Valley Society, the River Stour Society (Lower Reaches) and Dover District Council, and the Canterbury Riverside Parks and Footpaths policy which has been adopted by Canterbury City Council. The latter is aimed at providing access to the riverside in Canterbury through land acquisition or agreement and promoting use of the river and adjacent open-space for informal recreation.

Of particular concern to walkers are the lack of access to the river between Ashford and Canterbury and Canterbury and Fordwich, the poor condition of many footpath links and in particular footbridges across the river, the decline in public transport serving the Stour Valley (most notably on Sundays) and the declining standard of the valley landscape due to changes in agricultural practices and expansion in the minerals industry. A number of vital links have been lost in recent years, notably footbridges at Olantigh and Chartham Mill (another bridge above Wye is usable only by more athletic walkers because of erosion at its western end) and a large section of river bank and footpath at Westbere. The latter severs the almost unbroken riverside walk between Fordwich and Sandwich (a very minor diversion is necessary at Upstreet).

3.4 Informal Recreation and Tourism

The river Stour is within a very strong catchment area for tourism, Sandwich and the City of Canterbury in particular attracting large numbers of visitors. The preservation of existing and creation of new open spaces and river side access for informal recreation in these urban centres therefore feature prominently in local authority plans.

In more rural localities, there are a number of open spaces used by the public for informal recreation including the picnic sites at Grove Ferry and Larkey Valley Wood, and land owned by the Forestry Commission at Lyminge Forest, the Nature Conservancy Council at Wye and Crundale Downs and Mid Kent Water Company at Chilham. The excessive use made of some of these facilities, for example Wye and Crundale Downs, would suggest a large (and growing) demand for such sites and the need for additional capacity to relieve pressure on existing facilities. In response to an appeal from the Nature Conservancy Council for action to relieve pressure on the Wye Downs National Nature Reserve, Kent County Council have considered a number of alternative sites (Stour Valley Countryside Plan, 1980) but difficulties remain, in particular with regard to access infrastructure.

3.5 Conservation

Extensive changes to the Stour Valley landscape during the last 40 years have been highlighted by the Countryside Commission (Changing River Landscapes, 1987). For instance, the area of land used for agriculture has declined by 14% since the 1940s, woodland, largely in the form of broad-leaved high forest developing from formerly cleared or coppiced woodland, has increased by 11% and the area of orchard and hop garden has more than doubled. Urban development has increased by 105% but the biggest change has been in the area of open water which has increased by over 840%, largely as a result of mineral extraction. In consequence, the area of permanent pasture has declined by 74%. The Commission have also drawn attention to the loss of hedgerows and river-side trees during this period.

These changes have led the Commission to conclude, perhaps rather harshly, that the story of the Great Stour over the last 40 years has been a "sad tale of voracious developments and abysmal visual planning".

These changes in land use within the flood plain have conspired to alter the character of the river itself. Thus, increased run-off due to development at Ashford and improved field drainage has made the river more flashy - quicker to rise into flood and faster to subside - while intensive cultivation right up to the river bank has left little or no margin for waterside and riparian vegetation.

Despite these changes, and in some cases possibly because of them, the Stour Valley remains an extremely valuable habitat and varied wildlife corridor. Thus, it contains at least nine Sites of Special Scientific Interest, two National Nature Reserves, one Local Nature Reserve and two County Trust Reserves. Part of the valley is included in the North Downs Area of Outstanding Natural Beauty and at least two areas have been identified as Areas of High Nature Conservation Value by the Kent County Council. A number of rare or local species are found in the Stour Valley including the river water-dropwort which is common throughout the chalk influenced reaches and the otter which was most recently recorded in 1986 (NCC). Hence, it can be argued that the Stour Valley is still a very valuable natural resource but that it is also highly vulnerable, perhaps more vulnerable than ever, to insensitive management and development.

In addition to natural resources, the Stour Valley has a rich historical heritage. Canterbury is an obvious focal point and the City Council is promoting the industrial, military and religious heritages of the City as tourist features under its Riverside Parks and Footpaths Policy. However, the remainder of the valley is also of note with places of interest ranging from Neolithic long barrows near Chilham, through roman remains at Richborough, 16th and 17th century buildings at Chartham and buildings and other artifacts from more recent times throughout the valley. Particularly noteworthy is the Elizabethan Town Hall at Fordwich. A number of sites within the valley, including most of Canterbury City, are protected as Ancient Monuments or Archaeological Areas. Many of the walk guides produced by local societies and authorities draw special attention to these features and use the historical heritage of the Stour Valley to add interest to walks.

4. Conclusions

The Kentish Stour is perhaps unique among the rivers so far considered in this series of studies, in that it not only attracts the attentions of primary user groups such as anglers and boaters, but also generates more interest from preservation societies and the Local Authorities. The Valley is held in high regard and is seen very much as an asset to be protected and promoted. Clearly, many of the changes which have taken place or which

may in the future affect the valley are not to the liking of the voluntary bodies, but they nevertheless feel that there is still much to be protected. Their continued vigilance and commitment to the interests of the Stour Valley are therefore assured.

In common with other rivers, the Stour suffers the historic consequences of recreation development. Well established groups resist the demands of those interests which have emerged more recently as a result of increased leisure time, wealth, mobility and interest in the countryside. These demands are unlikely to decline and although there would appear to be some, albeit limited, scope for accommodating extra activity on the river and riparian lands, this will only be brought about by objective dialogue between all interested parties. It is encouraging, therefore, that effective channels of communication between different interest groups exist in the form of the Stour Conservation Group (and others) and that good relationships between conservation, boating and angling interests can thereby be fostered.

The pressure on the Stour Valley and the Kent countryside in general is inevitably going to grow as a result of developments at Ashford and, to a lesser extent, other Kent towns, in connection with the Channel Tunnel. This is of concern to all current users, not only because of the potential influx of people demanding recreational facilities into the valley, where present capacity cannot always meet current demand, but also because of the potential consequences for the river in terms of landscape, residual flows and water quality. Existing Local Authority plans include provisions for protecting green space and preserving the integrity and rural quality of the Stour Valley by, for example, promoting waymarking and maintenance of footpaths while presuming against developments in recreation if they are likely to materially damage the agricultural or nature conservation value of the valley.

While demonstrating a commitment to the Stour Valley as an amenity for informal recreation through the promotion of specific policies, the Local Authorities necessarily have to identify priorities for action in order to make the best use of scarce resources. As a result, attention to date has tended to be focused on the larger urban areas in preference to rural localities. This emphasis may shift as urban projects are completed.

As previously indicated, there is already an identifiable demand for access to the Stour valley and for facilities for informal recreation which, with current provision, cannot always be accommodated. Growing demand can only compound the problems. Careful planning in line with County and Local Plans should enable some of this demand to be satisfied without detriment to the quality of the Valley. In particular it should be possible to reinstate existing footpath links and negotiate access to open up new routes in rural localities, and to provide extra open space for picnicking or other informal use. Some resources will inevitably need to come from Local Authorities who might also be expected to co-ordinate any necessary liaison with landowners and other interests. However, incentives for changes in the use of agricultural land and in particular set-aside policies and the trends towards diversification into farm tourism suggest that some provision may come from private initiatives. Changing attitudes within the farming community are already evident and there have been a number of initiatives to improve the river corridor environment through,

for example, re-planting or river-side trees. Such initiatives are to be commended and encouraged where possible. Nevertheless, considerable damage continues to occur in places where intensive production techniques result in ploughing right up to the river bank leaving no buffer between river and field. It is also encouraging to note that other industrial concerns operating within the valley are increasingly aware of their public responsibilities and have been involved in a number of initiatives to improve the amenity value of the river corridor and provide facilities for informal recreation.

Pressure for increased navigational use of the river is unlikely to go away. Access to the tidal river by small craft (canoes and row boats) is not a problem but uncontrolled pressure for access to the non-tidal channel, particularly from canoeists, can only lead to further conflicts, underlining the need for continuing dialogue. The pressure from larger craft for use of the tidal reaches is ever present but it is unlikely that there will be any great expansion in the numbers of vessels using the river in view of its physical capacity, restrictions on moorings imposed by the planning authorities and the lack of financial returns for private investors.

The NRA owns little land within the Stour Valley and that which it does own must inevitably be reserved for operational purposes. It is unlikely, therefore, to be able to make a significant contribution towards the provision of facilities for informal recreation. However, the activities of the NRA could have a profound effect on the amenity value of the river corridor, and it has obligations, in general terms, to maintain and where possible, enhance this value while carrying out its statutory functions. This may include continued maintenance and improvement of river water quality and fisheries, retention of residual flows adequate not only for operational purposes, but also to maintain the conservation and amenity value of the river, and sympathetic land drainage operations carried out in accordance with published guidelines. Continued close liaison with fisheries interests is essential if concerns over the future of the Stour Fishery are to be allayed. Similarly, liaison with other groups which are active within the Stour Valley must continue, perhaps at local level, in order to ensure that their interests are taken into account while the Authority is going about its work.

Thus, while pressure for recreational facilities in the Stour Valley is likely to grow, the capacity to accommodate this is limited. Most potential lies in facilities for informal land-based activity and for water-based activity on new enclosed waters. The scope for increased water-based activity on either the River Stour itself or well established enclosed waters is very limited indeed if the quality of the recreational experience of current users and the environment are to be protected.

The NRA would be interested to hear the Committee's views on this report.

AJH
30 August 1989

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