

NRA-Anglian 237



NRA



*National Rivers Authority  
Anglian Region*

## RIVER STOUR (2), SUDBURY

Report of a River Corridor Survey carried out for the National Rivers Authority, Anglian Region, by A.M. Walker, 10th August 1989

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ENVIRONMENT AGENCY

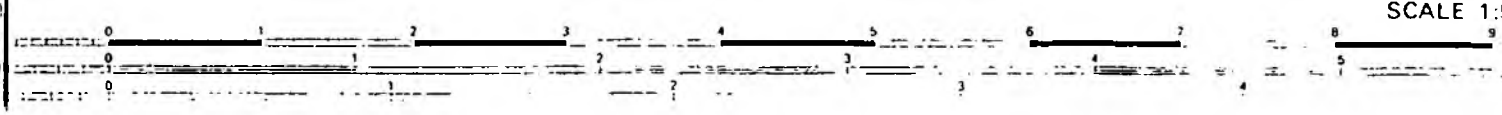


130692



Colchester  
14 1/2 m or 9 miles  
B 1508

45°



SCALE 1:50

## RIVER STOUR (2), SUDBURY

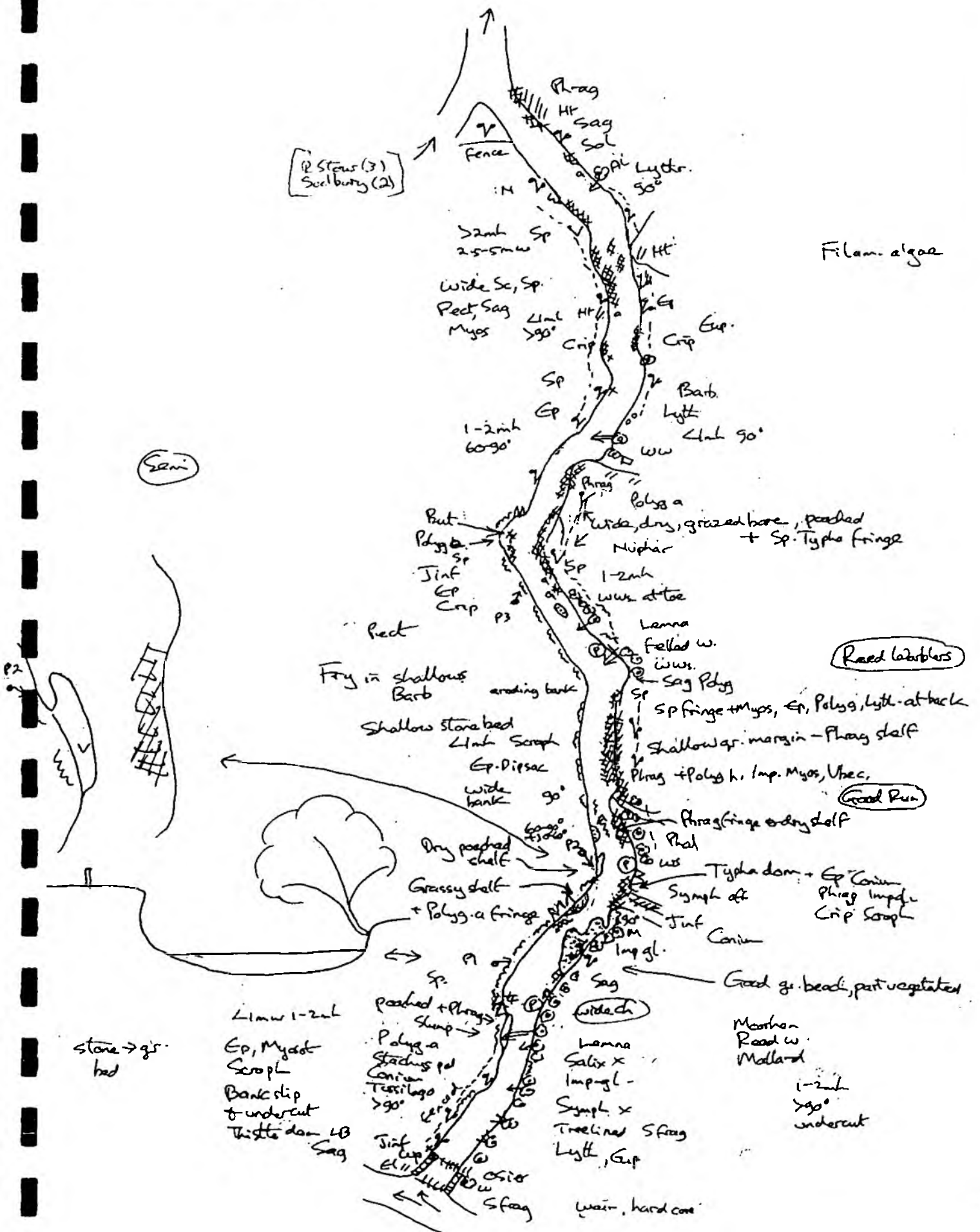
Location A length of river downstream of the weir at TL 868419 to the confluence with the mill channel at TL 866414.

Length affected 600m flowing through semi-improved and improved grassland.

Division and Personnel Tim Barritt from the North Essex District of the Eastern Area.

Maintenance Requirements Removal and redistribution of shoals of gravel.

R. Stour (2) Sudbury (1)



## SURVEY SUMMARY

### Adjacent Land

The semi-improved grassland of the common land on the left bank is not botanically species rich, but provides a better habitat for invertebrates such as grasshoppers than the improved grassland and arable fields on the right bank. There is an old meander on the right bank, but this is no longer wet and is marked only by a clump of willows.

### Banks

The banks vary in height and profile, with shelves, small cliffs and shallow slopes. The most varied banks are in the upstream half, where there are moderate cliffs and several cattle-poached shelves, some with a mixed flora including Amphibious Bistort *Polygonum amphibium*, Water-pepper *Polygonum hydropiper* and Water Figwort *Scrophularia auriculata* in addition to ruderals and grasses. Elsewhere along the banks there are some good stands of Purple Loosestrife *Lythrum salicaria*, Gypsywort *Lycopus europaeus*, Water Chickweed *Myosoton aquaticum*, Reed Canary-grass *Phalaris arundinacea*, Policeman's Helmet *Impatiens glandulifera* and Hemp-agrimony *Eupatorium cannabinum*. There are several good beds of Common Reed *Phragmites australis*, notably on the right bank.

Some of the cliffs are partly vegetated, whereas others are actively eroding, particularly where the cattle are helping to break down the banks. There are several areas of active bank erosion and slumping: The most valuable cliffs are identified on the dredging map.

Tree cover is moderate on the right bank, with several Crack Willow *Salix fragilis*, White Willow *S. alba*, willow hybrids and Alder *Alnus glutinosa*. These trees overhang the river and provide shaded water for fish as well as low branches which are suitable as perches for fishing Kingfisher, or nest sites for Moorhen. On the left bank there is no cover, apart from a few planted saplings at the upstream end of the length.

### Margins

There are good, shallow gravel margins, especially in the upstream half, valuable areas for invertebrates and small fish. A large gravel shoal/beach has formed on the right bank; this is partly vegetated, with Policeman's Helmet, Water-pepper and other wetland plants. The bare gravel is a good feeding site for birds such as wagtails.

Wide fringes of Branched Bur-reed *Sparganium erectum*, Reedmace *Typha latifolia* and Common Reed occur at several points along the section and there are a few good fringes of Greater Pond-sedge *Carex riparia*. Small amounts of Arrowhead *Sagittaria sagittifolia* and Flowering Rush *Butomus umbellatus* are also present along the margins.

### Channel

The channel has a varied depth profile, with some good runs and riffles, stretches of deeper water and pools. The greatest variety of depth and channel width occurs in the upstream half of the section. This variety is of value to fish and aquatic invertebrates, providing a wide range of conditions and available habitats in a short length of river. The gravel runs and riffles are valuable spawning areas for certain species of fish and provide well oxygenated, fast-flowing water required for certain invertebrates. The slacker water/finer sediment conditions support a different community of invertebrates and plants and the deeper water is suitable for larger fish.

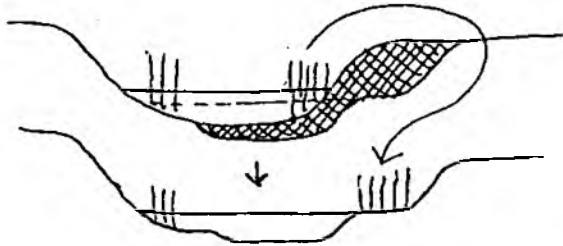
The aquatic flora is not rich but there is some Fennel Pondweed *Potamogeton pectinatus* and beds of Yellow Water-lily *Nuphar lutea*. Arrowhead and Flowering Rush occur in small amounts. At the downstream end there is a stand of Common Clubrush *Scirpus lacustris* which extends from the margin into the channel. These stands of vegetation are important for waterbirds and their young, as well as for aquatic invertebrates and fish.

RIVER STOUR (2), SUDBURY (1) - DREDGING RECOMMENDATIONS

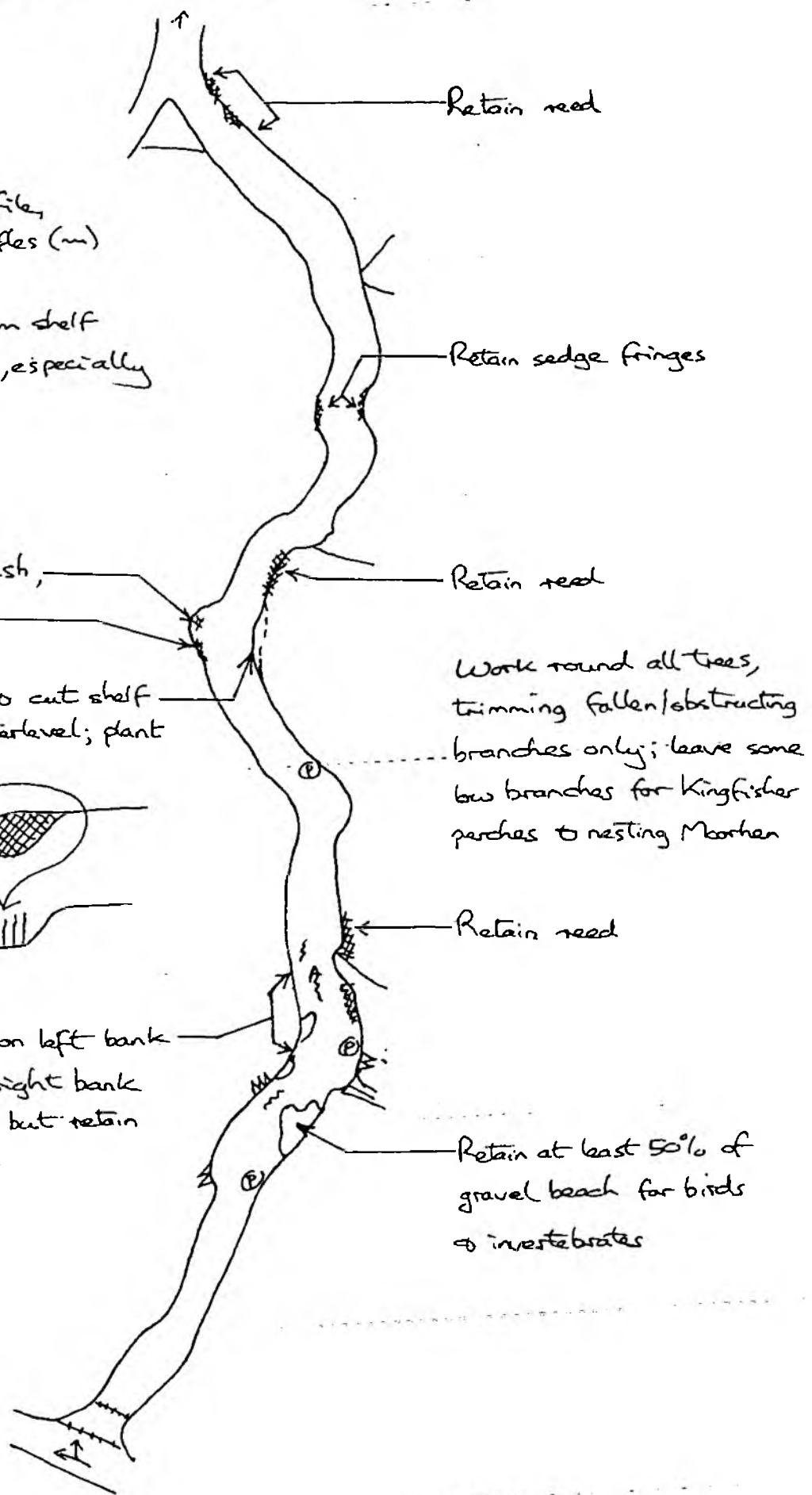
Retain or reinstate variety of bed profile, with runs (m) & riffles (m) & pools (P); leave banks untouched (apart from shelf enhancement below), especially cliffs (AA)

Retain Flowering Rush, Sedge & Rush

Trim right bank to cut shelf near to normal water level; plant reed spoil on shelf



Dry poached shelf on left bank & wide fringe on right bank could be trimmed, but retain gravel bed & run



Work round all trees, trimming fallen/obstructing branches only; leave some low branches for Kingfisher perches & nesting Moorhen

Retain at least 50% of gravel beach for birds & invertebrates





223 LIGUR OVR 612 Ogent var 694 POTAM AID 781 RuweX \*eoo\* 860 Solid can 935 VALER dlo  
524 LILLU VUL 613 Ognon aqu 695 Der Ber 782 RuweX ace 869 91g  
525 LILLU MAR 616 CTO 696 CRI 783 acobosa 870 vlt  
526 LIMON VUL 615 FIC 697 GTO 784 con 871 Sonch arv 936 VERDE nig  
527 LINER DUT 616 JAC 698 Luc 785 CR190B 872 873 937  
528 REP 617 Ognot can 699 net hyd 786 Lon 874 875 938  
529 VUL 618 GRY 700 dnt 787 789 876 877 939  
530 LINUM CAT 619 Ognot vic 701 Decclin 788 789 877 878 940  
531 LISTA OVR 620 Ognol rep 702 Der Ber 790 RuweX acu 879 880 941  
532 LIENO REV 621 Onogo aca 703 DCL 791 Sglt+epe 881 882 942  
533 LIENO OFF 622 Ognofy apl 704 Dus 792 793 883 884 943  
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542 LUZUL GRM 631 632 Tho 713 714 800 801 952  
543 MUL 632 Tho 714 715 801 802 953  
544 DILL 633 802 803 804 954  
545 634 PEPRO BIT 716 Piona vul 805 806 955  
546 LYCNH FLO 635 Pato Jud 717 Pionu vul 807 808 956  
547 LYCLO BAR 636 PARIQ GUA 718 CERASU 809 810 957  
548 637 RARNE DAL 719 811 812 813 958  
549 LYCOP EUR 638 PARELL SAC 720 Laura dom 814 815 816 817 959  
550 LYSIN NAM 639 Padic DAL 721 818 819 820 960  
551 num 640 821 822 823 961  
552 Pun 641 Penta oem 722 824 825 826 962  
553 VUL 642 PETAH SID 723 Puect dis 827 828 829 830 963  
554 LYCNE POR 643 831 832 833 834 964  
555 644 hvo 835 836 837 838 965  
556 LYCNH SAR 645 Phala ARU 839 840 841 842 966  
557 MELUS SYL 646 843 844 845 846 967  
558 MELVA MO5 647 Phieu ARE 847 848 849 850 968  
559 neg 648 851 852 853 854 969  
560 SYL 649 DRA GEL 855 856 857 858 970  
561 MARTU VUL 650 OFR DIB 859 860 861 862 971  
562 MARCI MAR 651 PHNG GUS 863 864 865 866 972  
563 REC 652 PICHM DBI 867 868 869 870 973  
564 MECON CAM 653 871 872 873 874 974  
565 654 Plect1 ALT 875 876 877 878 975  
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