



**ENVIRONMENT  
AGENCY**

**ANGLIAN REGION**

**SHORELINE MONITORING DATA CATALOGUE**

**AUGUST 2000**



**ENVIRONMENT AGENCY VERSION  
(INTERNAL USE)**

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135503

160



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## Information Services Unit

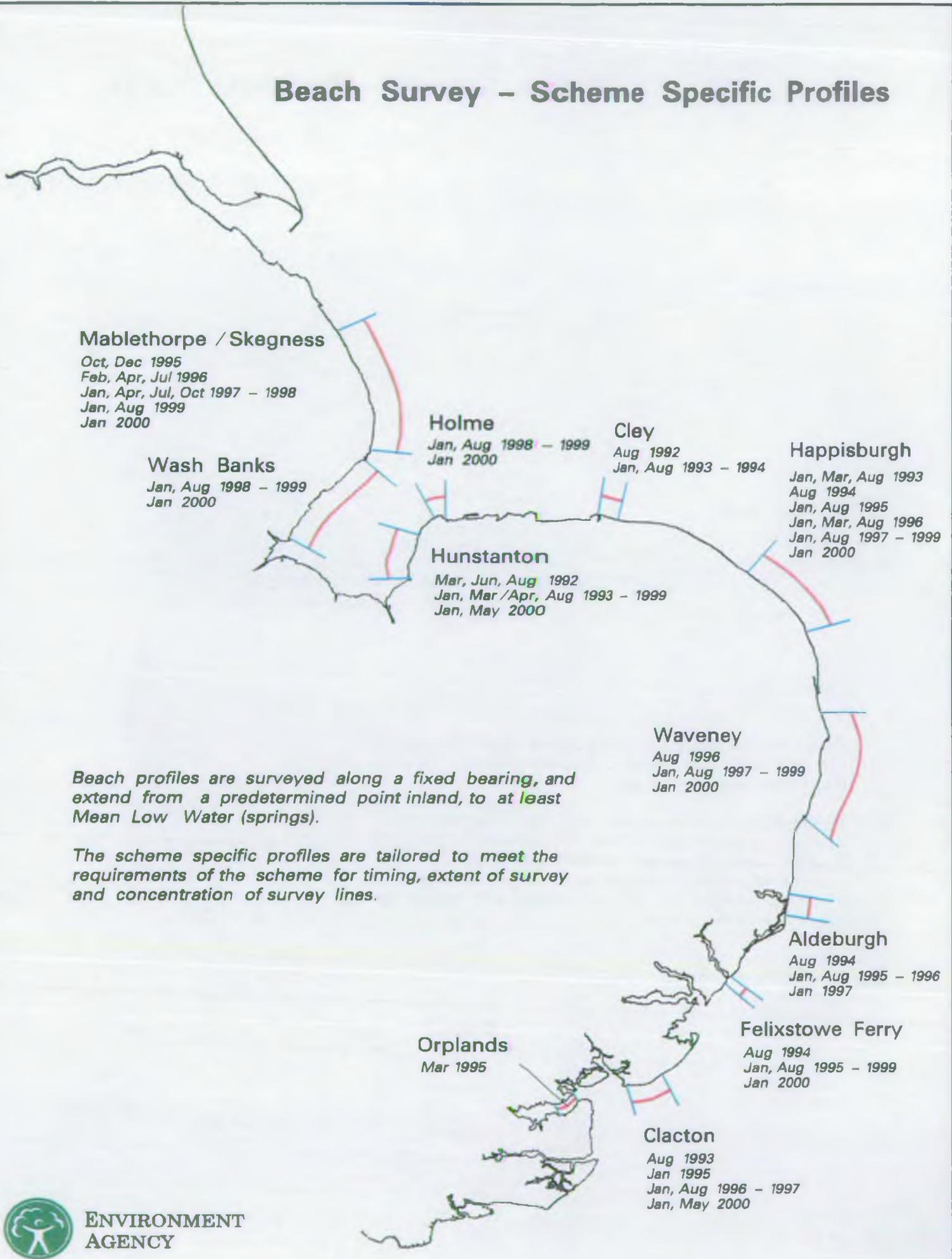
Please return or renew this item by the due date

**Due Date**





# Beach Survey – Scheme Specific Profiles



Beach profiles are surveyed along a fixed bearing, and extend from a predetermined point inland, to at least Mean Low Water (springs).

The scheme specific profiles are tailored to meet the requirements of the scheme for timing, extent of survey and concentration of survey lines.



# Intertidal Survey - Estuary Profiles

Humber : Both Banks  
Mar 1998

Humber : South Bank  
Aug 1994  
Jan 1995

*Estuary profiles are surveyed along a fixed bearing, and extend from a predetermined point inland, to at least Mean Low Water (springs).*

*The estuary profiles are tailored to meet specific requirements for timing, extent of survey and concentration of survey lines.*

Blyth  
Aug 1995

Deben  
Aug 1995

Alde / Ore  
Aug 1995

Colne  
May 1993  
Aug 1998

Stour / Orwell  
Mar 1997

Blackwater  
Dec 1993 - 1994

Crouch / Roach  
Oct 1997 - 1998



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# Bathymetric Survey - Strategic Profiles

Lincolnshire

Summer 1994  
Summer 1999

Norfolk

Summer 1991  
Summer 1996

The Wash  
Summer 1995

Suffolk

Summer 1992  
Summer 1997

Essex

Summer 1993  
Summer 1998

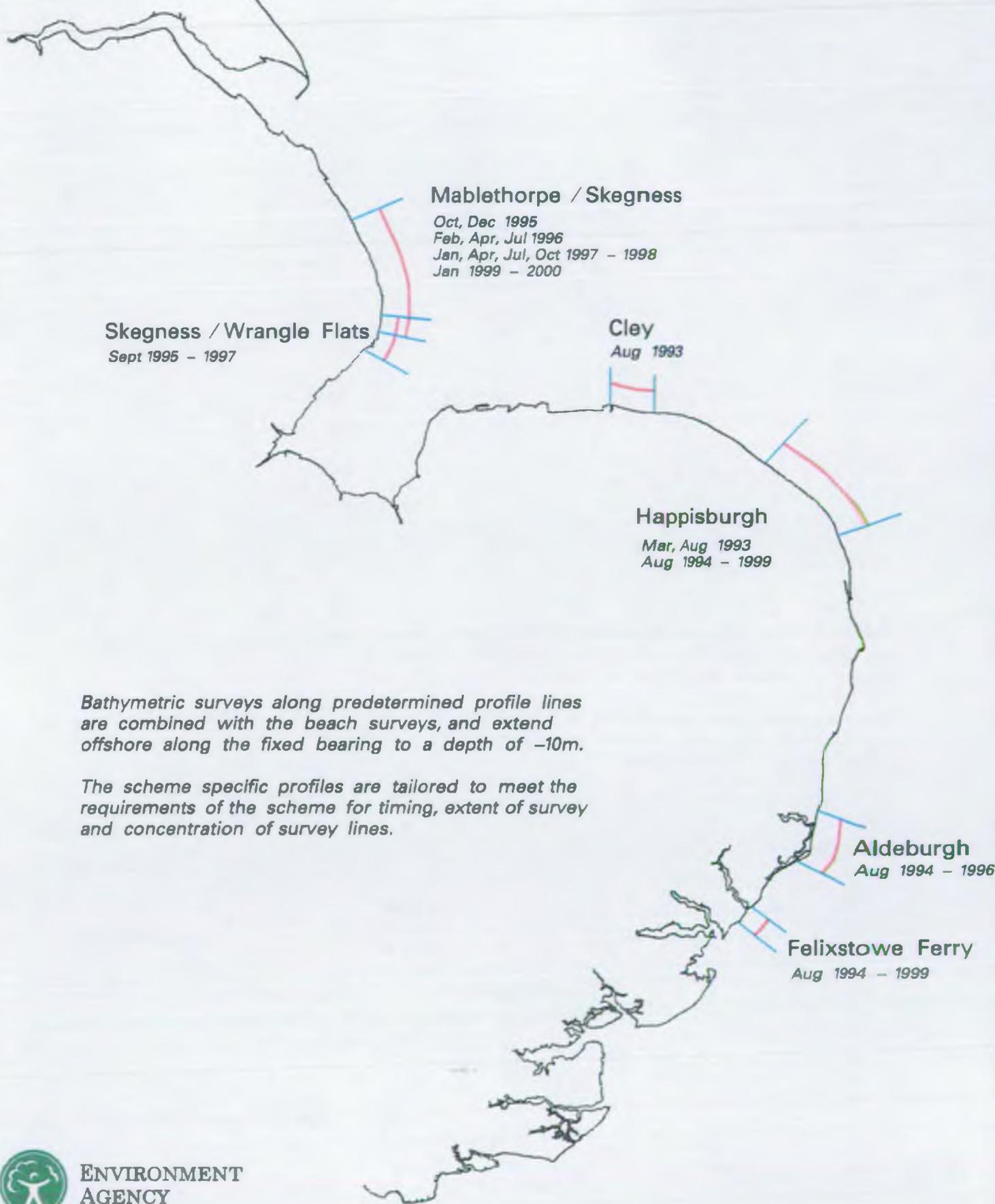
*Bathymetric surveys along predetermined profile lines are combined with the beach surveys, and extend offshore along the fixed bearing to a depth of -10m.*

*The strategic profiles are spaced approximately 1 km apart and are surveyed in the Summer (Jul/Aug).*



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# Bathymetric Survey – Scheme Specific Profiles



*Bathymetric surveys along predetermined profile lines are combined with the beach surveys, and extend offshore along the fixed bearing to a depth of -10m.*

*The scheme specific profiles are tailored to meet the requirements of the scheme for timing, extent of survey and concentration of survey lines.*



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# Bathymetric Survey - Estuary Profiles

Humber  
Mar 1997



*Bathymetric surveys along predetermined profile lines are combined with the intertidal surveys, and extend across the whole length of the estuary.*

*The estuary profiles are tailored to meet specific requirements for timing, extent of survey and concentration of survey lines.*

Blyth  
Aug 1995

Deben  
Aug 1995

Alde / Ore  
Aug 1995

Colne  
May 1993  
Aug 1998

Stour / Orwell  
Mar 1997

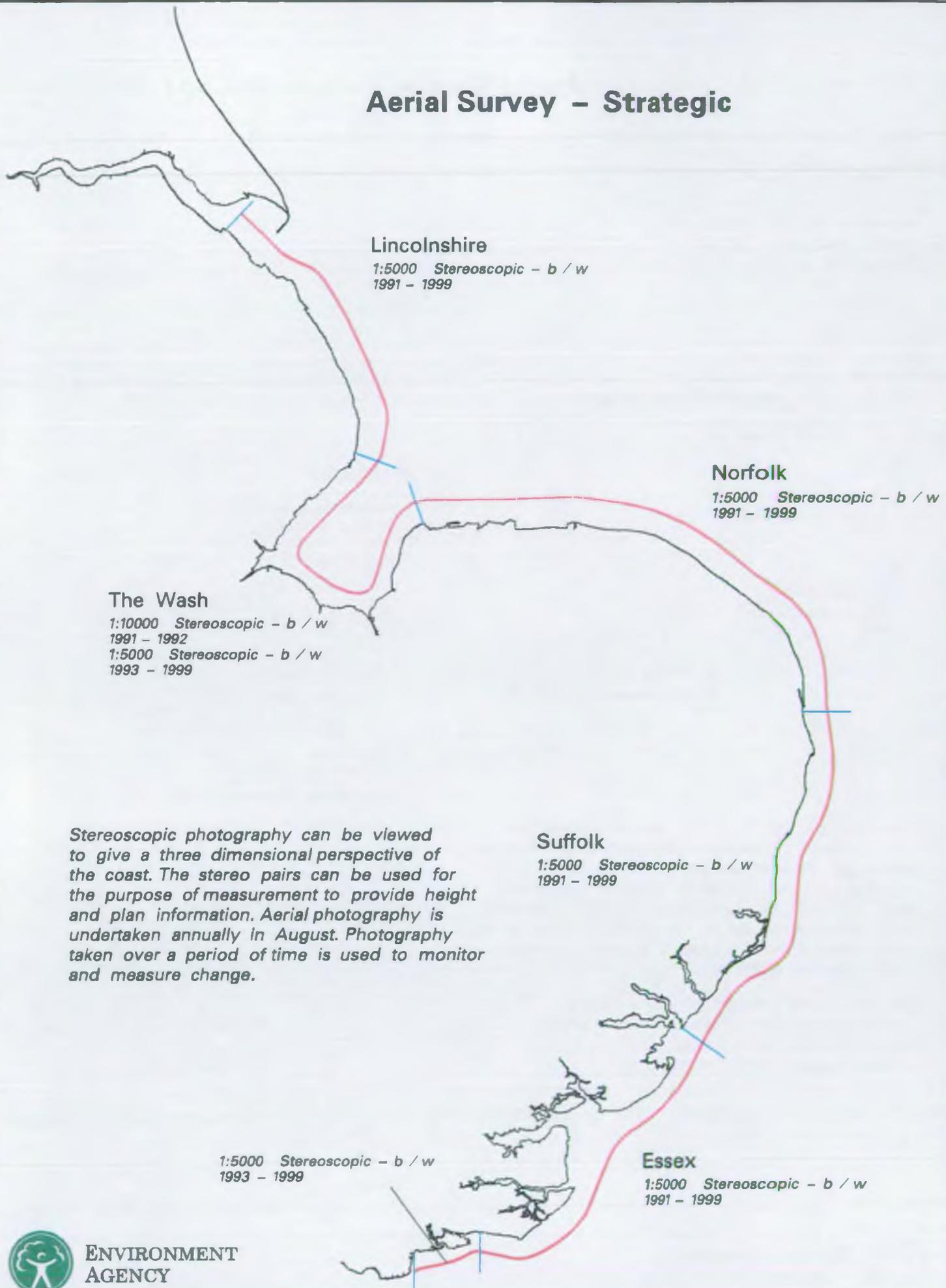
Blackwater  
Dec 1993 - 1994

Crouch / Roach  
Oct 1997 - 1998



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# Aerial Survey – Strategic



## Lincolnshire

1:5000 Stereoscopic – b / w  
1991 – 1999

## Norfolk

1:5000 Stereoscopic – b / w  
1991 – 1999

## The Wash

1:10000 Stereoscopic – b / w  
1991 – 1992  
1:5000 Stereoscopic – b / w  
1993 – 1999

*Stereoscopic photography can be viewed to give a three dimensional perspective of the coast. The stereo pairs can be used for the purpose of measurement to provide height and plan information. Aerial photography is undertaken annually in August. Photography taken over a period of time is used to monitor and measure change.*

## Suffolk

1:5000 Stereoscopic – b / w  
1991 – 1999

1:5000 Stereoscopic – b / w  
1993 – 1999

## Essex

1:5000 Stereoscopic – b / w  
1991 – 1999



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## Aerial Survey - Scheme Specific

**Humber South Bank**  
1:5000 Stereoscopic - b / w  
1994 - 1995

**Mablethorpe / Skegness**  
Oblique surveys - col  
1994 - 1999

**R. Witham**  
1:5000 Stereoscopic - b / w  
1993

**R. Welland**  
1:5000 Stereoscopic - b / w  
1993

**R. Nene**  
1:5000 Stereoscopic - b / w  
1993

**Hunstanton**  
Emergency Survey  
1:3000 Stereoscopic : Nov 1993

**R. Nar**  
Emergency Survey  
1:3000 Stereoscopic : Nov 1993  
1:5000 Vertical : Jan 2000

**R. Wissey**  
1:5000 Stereoscopic 1993

*Stereoscopic photography can be viewed to give a three dimensional perspective of the area surveyed. The stereo pairs can be used for the purpose of measurement to provide height and plan information. Aerial photography is normally undertaken annually in the summer. Photography taken over a period of time is used to monitor and measure change.*

*Oblique aerial photography provides a permanent record of the landscape and its temporal state. It is also used as a reference to monitor change.*



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## Aerial Survey – Estuary

### Humber

1:5000 Stereoscopic – b / w  
1996 – 1997  
1:25000 Stereoscopic – b / w  
1996 – 1997

*Stereoscopic photography can be viewed to give a three dimensional perspective of the area surveyed. The stereo pairs can be used for the purpose of measurement to provide height and plan information. Aerial photography is normally undertaken annually in August. Photography taken over a period of time is used to monitor and measure change.*

### Bedford River / Gt Ouse

1:5000 Stereoscopic – b / w  
1993  
1:10000 Stereoscopic – col  
1994 – 2000

### Blyth

1:5000 Stereoscopic – b / w 1994  
1:5000 Stereoscopic – col 1995, 1998  
1:10000 Stereoscopic – col 1997

### Alde / Ore

1:5000 Stereoscopic – b / w 1994  
1:5000 Stereoscopic – col 1995, 1998  
1:10000 Stereoscopic – col 1997

### Deben

1:5000 Stereoscopic – b / w 1994  
1:5000 Stereoscopic – col 1995, 1998  
1:10000 Stereoscopic – col 1997

### Colne

1:5000 Stereoscopic – b / w 1993  
1:10000 Stereoscopic – col 1997  
1:5000 Stereoscopic – col 1998

### Crouch / Roach

1:5000 Stereoscopic – b / w 1993, 1996  
1:10000 Stereoscopic – col 1997  
1:5000 Stereoscopic – col 1998

### Stour / Orwell

1:5000 Stereoscopic – b / w  
1994 to 1996  
1:10000 Stereoscopic – col  
1997  
1:5000 Stereoscopic – col 1999

### Blackwater

1:5000 Stereoscopic – col 1993, 1994, 1999  
1:3000 Stereoscopic – col 1995  
1:10000 Stereoscopic – col 1997



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## Wave & Tide Data

Wave & Tide Data	
	Wave / Tide Stations
	Waverider Buoy

The Wash  
010699 to 300500

North Norfolk  
011194 to 300895

River Blyth  
010495 to 300495

River Alde / Ore  
010495 to 300495

River Deben  
010495 to 300495

River Blackwater  
010194 to 311294

Rivers Crouch & Roach  
080498 to 080499

Wave / Tide Data - Water levels are collected hourly over one year, more detailed data is collected over 2 spring / neap tidal cycles during the period of deployment. Wave data is measured for twenty minutes every three hours. Summary statistics are then generated, including significant maximum and minimum wave heights, zero crossing period and spectral peak period.



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## Water Level Data

### Water Level Data

X Water Level  
(EA Telemetered)  
1992 - 2000

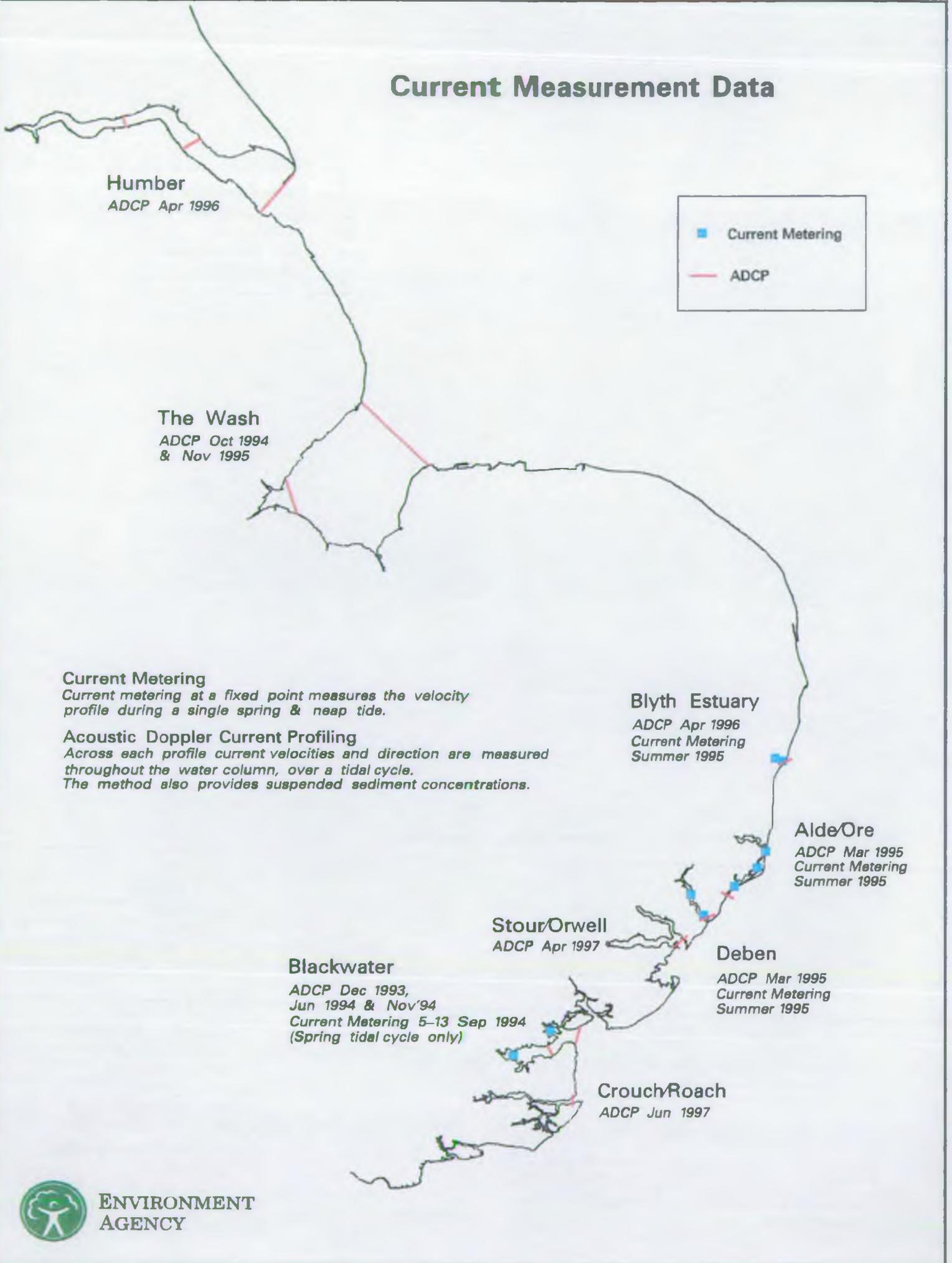
Water Level Data (EA Telemetered) - Measured every 15 minutes.

STATIONS	
1	BOYGRIFT
2	FOSDYKE BRIDGE
3	LAWYER SLUICE
4	WEST LIGHTHOUSE
5	WELLS
6	ACLE BRIDGE
7	GREAT YARMOUTH
8	SOUTHWOLD
9	WOODBIDGE
10	FELIXSTOWE
11	FELIXSTOWE PIER
12	HOLLAND-ON-SEA
13	SOUTHEND-ON-SEA
14	BENFLEET
15	EAST HAVEN
16	FOBBING BARRIER
17	TILBURY BARRIER



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# Current Measurement Data



**Humber**  
ADCP Apr 1996

■ Current Metering

— ADCP

**The Wash**  
ADCP Oct 1994  
& Nov 1995

**Current Metering**

Current metering at a fixed point measures the velocity profile during a single spring & neap tide.

**Acoustic Doppler Current Profiling**

Across each profile current velocities and direction are measured throughout the water column, over a tidal cycle. The method also provides suspended sediment concentrations.

**Blyth Estuary**  
ADCP Apr 1996  
Current Metering  
Summer 1995

**Alde/Ore**  
ADCP Mar 1995  
Current Metering  
Summer 1995

**Stour/Orwell**  
ADCP Apr 1997

**Deben**  
ADCP Mar 1995  
Current Metering  
Summer 1995

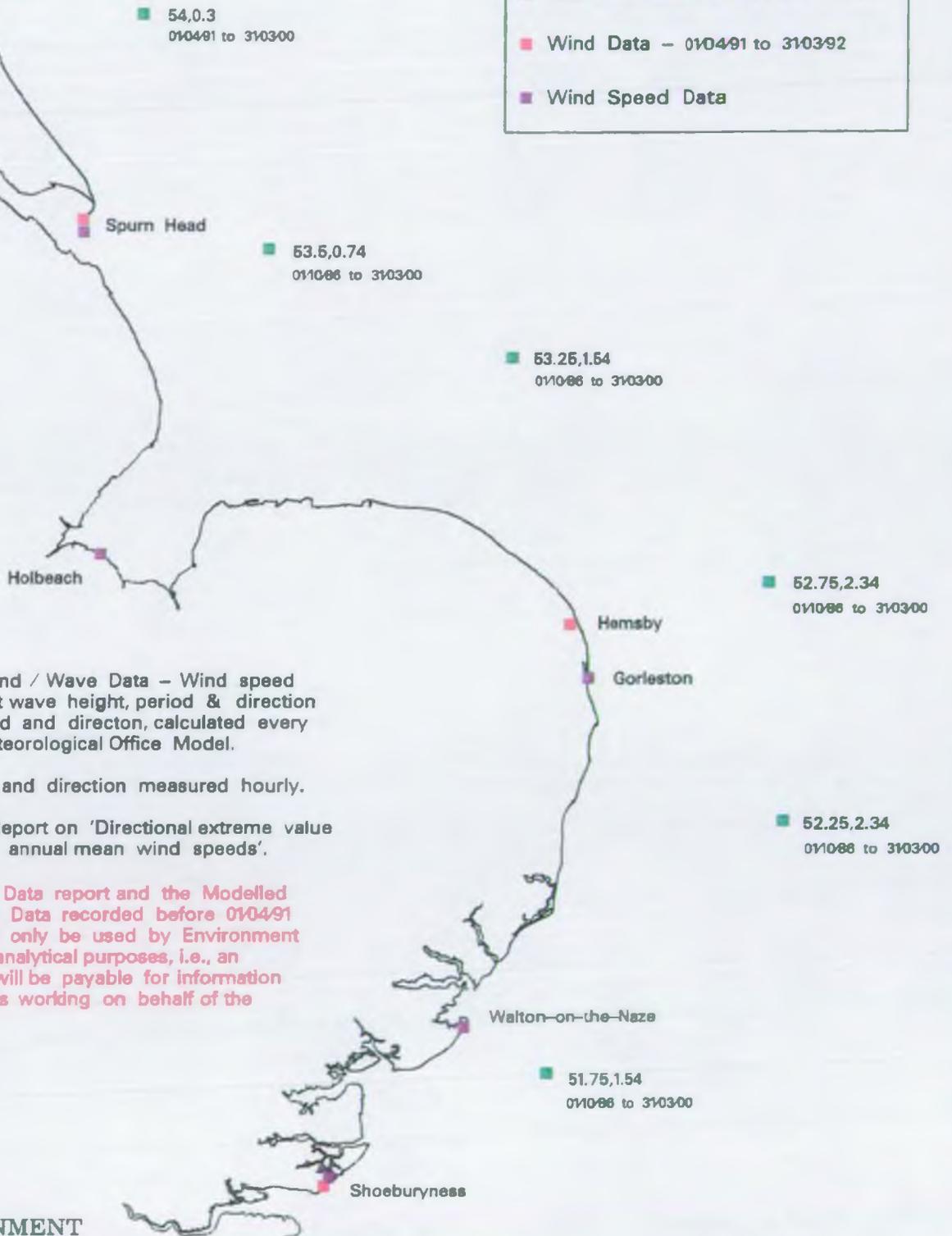
**Blackwater**  
ADCP Dec 1993,  
Jun 1994 & Nov '94  
Current Metering 5-13 Sep 1994  
(Spring tidal cycle only)

**Crouch/Roach**  
ADCP Jun 1997



## Wind, Wave & Tide Data (Meteorological Office)

Wind, Wave & Tide Data	
■	Modelled Offshore Wind / Wave
■	Wind Data – 010491 to 310392
■	Wind Speed Data



Modelled Offshore Wind / Wave Data – Wind speed and direction, resultant wave height, period & direction and swell height, period and direction, calculated every three hours from Meteorological Office Model.

Wind Data – Velocity and direction measured hourly.

Wind Speed Data – Report on 'Directional extreme value analyses of maximum annual mean wind speeds'.

**NB: The Wind Speed Data report and the Modelled Offshore Wind / Wave Data recorded before 010491 and after 310398, may only be used by Environment Agency personnel for analytical purposes, i.e., an additional licence fee will be payable for information released to consultants working on behalf of the Agency.**



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## Water Level Data (Proudman Oceanographic Laboratory)

### Water Level Data

- Water Level (Proudman Oceanographic Laboratory)

Immingham  
010491 to 310300

Cromer  
010491 to 310300

Lowestoft  
010491 to 310300

Water Level Data (Proudman Oceanographic Laboratory) –  
Measured hourly. Class A gauges only (Verified for accuracy  
and level).

Felixstowe  
010491 to 310300

Sheerness  
010491 to 310300



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