



Information for Re-Use Register

We are The Environment Agency. It's our job to look after your environment and make it **a better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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### Information for Re-use Register

The Information for Re-use Register (IfRR) acts as a catalogue of our licensed information resources. Each item on our IfRR is available for re-use under licence. Please note that other information we hold, such as that on our Publication Scheme, is potentially available for re-use on request.

### How to use the IfRR

The datasets available for re-use are listed below together with a brief description. The tables give detail of the specific fields that we extract from that information source and make available under licence. Information warnings are also provided where appropriate. For further enquiries, please contact us where details on licensing and charging can also be obtained.

### **Restricted information**

We license certain information that is accessible to the public under the Freedom of Information Act. The data available in the IfRR have undergone the Approval for Access (AfA) process where relevant policy and legal checks have been made. Please note that data, which we do not make accessible because of the exemptions detailed in that legislation (e.g. for reasons of national security, personal data etc), will not be available under licence. In addition, where we do not have permission from the owners of third-party IPR, we are not able to make that information available under licence, unless royalties have been negotiated.

### User guides

User guides, in pdf format, are available for many items on our register. They contain much more detailed information on the purposed and contents of each dataset. They are available free of charge.



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# **Enforcement Action against Corporate Entities (AfA004)**

## **Dataset Description**

Convictions (excluding those under appeal and, for avoidance of doubt, not including acquittals) & formal cautions data, filtered to limit information to corporate entities only. Data available commences from 1/1/2000. Updates available on a quarterly basis.

## **Price Category: Medium**

Attribute Name	Attribute Description
Type of Action	Court case/caution
Date of Action	Date of conviction or when caution signed
Region	Agency region taking the action
Organisation	Name of defendant company or other legal entity
Registration Number	Company registration number if applicable
Act	offence provision - name of Act or Statutory Instrument
Section	offence provision - section of Act or Statutory Instrument
Fine	If penalty was a fine, amount of fine
Penalty type	Type of penalty other than fine
Defendant Address	Registered Address if a Company.
Polluting Site Address <sup>1</sup>	The site where the pollution originated, or an error/fault
	occurred such as breach of a licence condition - this can be the
,	same as Event Address.
Event Address <sup>1</sup>	The place where the offence was committed - usually where the
	impact happened or where the error/fault occurred (depending on
	what the statute prescribes for the offence). Caution: this does
	not necessarily mean that the owner of the property at this
	location committed an offence.
Description	A description of the circumstances which triggered a charge
Event Reference	The National Incident Recording System (NIRS) event reference
	in the case of an incident or a serial number assigned by
	Regional Legal for non-NIRS events
Agency Function	E.g., Fisheries, Flood Defence, Waste etc.
Industry Sector	The industry sector to which the defendant belongs
Impact (CICS) Water/Land/Air	Environmental impact: major, persistent, severe (CICS cat. 1);
	significant (CICS cat. 2); minor (CICS cat. 3); none (CICS cat. 4)
Sub Category Name	Sub categorisation of offence type
	e.g. Waste = fly tipping
Appeal Result - fine	New fine after appeal
Appeal	New penalty type after appeal

Information for Re-Use Register (IfRR)

<sup>&</sup>lt;sup>1</sup> The polluting site address field may be left blank if it is the same as the Event Address or a non-pollution offence (e.g. Water Resources, Flood Defence and most Fisheries offences, failure to have a Waste Carriers registration, failure to comply with an Information Notice, Waste Packaging offences, fly tipping). Use of this information in a GIS system/product based on geography will need to be carefully checked as neither field is meant as a definitive indicator of impact or fault.



# **Waste Management Licence Current Exemptions (AfA005)**

### **Dataset Description**

Current Waste Mgt. Licence Exemption data as required by Schedule 3 of the Waste Management Licensing Regulations 1994 (as amended) lists the activities which are normally exempt from WML in England and Wales. Circular 11/94 in England and Circular 26/94 in Wales provides additional information.

### Typical exemptions include:

- Cleaning or coating of waste packaging, containers and textiles
- Burning waste as a fuel in an exempt appliance
- Burning waste as a fuel in an engine
- secure storage of waste treatment of waste for recovery of materials
- burning of waste in an exempt incinerator at place of production
- depositing of mineral exploration waste storing WEE for recovery elsewhere

Some activities may be excluded from WML where the activity is controlled under other regimes.

### **Price Category: Low**

Attribute Name	Attribute Description
Exempt E/U	Name & Address of the exempt establishment or undertaking
Site Address	Place where exempt activity occurs
Activity Sub para	Specific activities registered for exemption
Activity Description	Description of the Activity that makes it Exempt
Date Notified	When the Agency is notified about the exempt activity
Date Registered	The date we register or refuse to register etc (3 different status')
District	District where exempt site is
Catchment	Catchment where site is



# Spatial Flood Defences (including standardised attributes) (AfA006)

## **Dataset Description**

This dataset shows, represented by a purple line, flood defences protecting against river floods with a 1 per cent (1 in 100) chance of happening each year, or sea floods with a 0.5 per cent (1 in 200) chance of happening each year, together with some, but not all, defences which protect against smaller floods. Flood defences that are not yet shown, and the areas that benefit from them, will be gradually added.

Attribute Name	Attribute Description
DES_STAND	Design standard of defence as a return period.
ACTU_STAND	Actual assessed standard of defence as a return period
CONDITION	Overall condition grade of the crest
WORST_COND	Condition grade of asset element in worst condition at last
	inspection
ASSE_TYPE	Type of Asset (one of 17 asset types)
LENGTH	Length of asset in metres
DEF_TYPE	Major or minor defence
YEAR_BUILT	Year of construction
US_ CRE_LEV	Upstream crest level
DS_ CRE_LEV	Downstream crest level
DESCRIPT	Description of the asset (e.g. a weir description could be 'fixed
	concrete weir, piled/concrete wing walls, steel/concrete footbridge
	spanning structure)
QUAL_FLAG	Overall condition of the asset based on the (weighted) condition
	of each element of the latest inspection of the asset
PROT_TYPE	This asset protection type indicates the type of flooding the asset
	defends against (Coastal, Fluvial, Coastal/Fluvial).
BANK	The side of bank the flood defence is situated. This is assigned
	by facing the direction of river flow.



# **Monthly Maximum River Flows (AfA007)**

## **Dataset Description**

Monthly Maximum River Flows is an extract from the WISKI host database of monthly peak river flow for each river gauging station in the network in England and Wales with at least 25 years of records and no gaps greater than 6 months in duration.

Attribute Name	Attribute Description
Station name,	Site Name – e.g. ASHFORD MILL
Station number,	Identifies the Station Device e.g. "520110"
External number,	External reference number that has been used to allow import of
	data e.g. Met Office reference
River,	Name of River e.g. ISLE
Operator,	External operators could be Met Office, Water Companies and
	soon, effluent discharges from small commercial companies
NGR,ST	Easting, "3610" Northing, "1880"
Parameter-name,	Flow
Parameter Type	FQ Code (for No.7)
Time series name,	520110.FQ.MonthMax
Time series unit,	e.g. m3/s
Time level,	e.g. Monthly value
Time series type,	e.g. Maximum
Equidistant time series,	e.g. No
Time series quality,	Production or Edited. If edited, comments on reasons etc. are put
	in No. 23
Time series measuring method,	Spot readings as opposed to normal
Period of record in file:	e.g. 01/01/1982 00:00:00 to 02/01/2007 00:00:00
Quality code description,	G = good; E = estimated; S = suspect; U = unchecked; M =
	missing; C = complete; I =
	Incomplete; Ed = edited; WR = within rating; NR = no rating; EX>
	= extrapolated upper part; EX< = extrapolated lower part; BL> =
	beyond upper limit; BL< = beyond lower limit; MH = weir modular
	(head); NH = weir non modular (head); EH = weir extremely non
	modular (head); MT = weir modular (tail); NT = weir non modular
	(tail); ET = weir extremely non modular (tail); MC = weir modular
	(crest); NC = weir non modular (crest); EC = weir extremely non
	modular (crest); -H = weir head only; RAS = rastered time stamp;
Date Time	A = apportioned/interpolated; D = dry; SN = snow; T = trace e.g. 20/12/1981 09:00:00
FQ [m3/s]	e.g. 37.9, Flow Quantity in cub. Metres
q [l/(s*km2)]	e.g. 421 As above in litres
Quality flag	e.g. C Code from no. 18
Comments	U User Comments e.g. why edited



# **Historic Flood Outlines (AfA008)**

## **Dataset Description**

Historic Flood Outlines contains the individual location outline and approved attributes for records of historic flooding extracted from the National Flood and Coastal Defence Database (NFCDD). Please note that these records show flooding to the land and do not necessarily indicate that properties within the historic flood extents were flooded internally. It is also possible that the pattern of flooding in this area has changed and that this area would now flood under different circumstances. In addition, absence of a historic flood event for an area does not mean that the area has never flooded, only that we do not currently have records of flooding in this area.

Attribute Name	Attribute Description
FLOOD_EVENT_CODE	Unique code identifying the flood event group the flood event
	outline is part of.
OUTLINE_CODE	Unique code identifying the flood event outline within the flood
	event group.
NAME	Name of the flood event outline e.g. October 2000 Floods on the
	Severn at Shrewsbury.
START_DATE	Start date of flooding.
END_DATE	End date of flooding.
BOUNDARY_SOURCE	Indicates source ("Person", "Organisation", "Aerial Photography", etc.) from which the extent of flooding (i.e. the flood event outline) was drawn/plotted.
SOURCE_OF_FLOODING	The source of the flooding from a list, including main river, critical ordinary watercourse, ordinary watercourse, sewer, groundwater etc. Enumeration List: Valid values given in NFCDD Data Lists DOC0034
CAUSE_OF_FLOODING	Enumeration List: Valid values given in NFCDD Data Lists DOC0034
FLUVIAL_IND	Boolean flag indicating if source of flooding was fluvial. Enumeration List: Valid values given in NFCDD Data Lists DOC0034
TIDAL_IND	Boolean flag indicating if source of flooding was tidal. Enumeration List: Valid values given in NFCDD Data Lists DOC0034
COASTAL_IND	Boolean flag indicating if source of flooding was coastal. Enumeration List: Valid values given in NFCDD Data Lists DOC0034
HFM_IND	Flag indicating if the flood event outline is to be included in the historic flood map.



# **Bathing Water Quality at Designated Beaches (AfA012)**

## **Dataset Description**

497 bathing water sites identified under EC Directive 76/160/EEC in England and Wales. Monitoring season is mid-May to the end of September, but sampling starts two weeks earlier, from the beginning of May to the end of September (as required by Article 6 of the Directive). There will be 20 samples taken at every site. Data consists of - Bathing Water Sites, Site Samples & Site Sample Compliance. Note: Bathing Water Sites may also be de-listed.

**Price Category: EA OpenData** 

Attribute Name	Attribute Description
SamplingPoint	Unique code for sampling point
Region	Agency region reference number
EC Region	EC region code
Country	Country reference number
Area	EA Area reference number (public face boundaries)
County	County reference code
District	District code
GridRef	NGR for bathing water sample point
Description	Name of bathing water site
NCSX	Easting
NCSY	Northing
Lat	Latitude
Long	Longitude
BW Type	Bathing water type reference number
ColourWaiver	Is there a colour waiver
TranspWaiver	Is there a transparency waiver
NUTS	NUTS code for the site
New NUTS	New NUTS code for the site (1999 season)
Des_year	Year of designation
De_des_year	Year of de-designation
WIMS_code	WIMS code
	Bathing Water Samples Table
SamplingPoint	Unique code for sampling point
Region	Agency region reference number
EC Region	EC region code
Country	Country reference number
Area	EA Area reference number (public face boundaries)
County	County reference code
District	District code
GridRef	NGR for bathing water sample point
Description	Name of bathing water site
NCSX	Easting
NCSY	Northing
Lat	Latitude
Long	Longitude
BW Type	Bathing water type reference number
ColourWaiver	Is there a colour waiver
TranspWaiver	Is there a transparency waiver
NUTS	NUTS code for the site
New NUTS	New NUTS code for the site (1999 season)
Des_year	Year of designation



Attribute Name	Attribute Description
De_des_year	Year of de-designation
WIMS_code	WIMS code
VVIIVIS_code	Bathing Water Compliance Table
ComplingDoint	Sample Point code
SamplingPoint Year	Year sample taken
	·
NTCSamples	Number of Total Coliform samples  Number of Total Coliform samples failing Imperative
NTCFailImp	standards
TCPImp	Site passes Total Coliform Imperative standards
NTCfailG	Number of Total Coliform samples failing Guideline
INTOTALIO	standards
TCPG	Site passes Total Coliform Guideline standards
TCMedian	Median of Total Coliform sample results
TCGeoMean	Geometric mean of Total Coliform sample results
TCMean	Mean of Total Coliform sample results
TCMinInd	Indicator ( <or>) for minimum of Total Coliform sample</or>
1 Givininia	results
TCMin	Minimum of Total Coliform sample results
TCMaxInd	Indicator ( <or>) for maximum of Total Coliform sample</or>
- Civianii a	results
TCMax	Maximum of Total Coliform sample results
NFCSamples	Number of Faecal Coliform samples
NFCFallImp	Number of Faecal Coliform samples failing Imperative
, , , , , , , , , , , , , , , , , , ,	standards
FCPImp	Site passes Faecal Coliform Imperative standards
NFCFailG	Number of Faecal Coliform samples failing Guideline
	standards
FCPG	Site passes Faecal Coliform Guideline standards
FCMedian	Median of Faecal Coliform sample results
FCGeoMean	Geometric mean of Faecal Coliform sample results
FCMean	Mean of Faecal Coliform sample results
FCMinInd	Indicator (< or >) for minimum of Faecal Coliform sample
	results
FCMin	Minimum of Faecal Coliform sample results
FCMaxInd	Indicator (< or >) for maximum of Faecal Coliform sample
	results
FCMax	Maximum of Faecal Coliform sample results
NFSSamples	Number of Faecal Streptococci samples
NFSFailG	Number of Faecal Streptococci samples failing Guideline
5000	standards
FSPG	Site passes Faecal Streptococci Guideline standards
FSMedian	Median of Faecal Streptococci sample results
FSGeoMean	Geometric mean of Faecal Streptococci sample results
FSMean	Mean of Faecal Streptococci sample results
FSMinInd	Indicator ( <or>) for minimum of Faecal Streptococci sample results</or>
FSMin	Minimum of Faecal Streptococci sample results
FSMaxInd	Indicator ( <or>) for maximum of Faecal Streptococci</or>
	sample results
FSMax	Maximum of Faecal Streptococci sample results
Compliance	Compliance status for the year
WeatherWaiver	Abnormal weather waiver was applied for one or more



Attribute Name	Attribute Description
	samples in the year



# **Historic Flood Map (AfA013)**

### **Dataset Description**

Historic Flood Outlines is the maximum extent of all recorded individual Historic Flood Events Outlines from river, the sea and groundwater springs and shows areas of land that have previously been subject to flooding in England & Wales. The data is updated every three months, but may not change quarter to quarter if there have been any significant flood events in the preceding period. The dataset consists of spatial data only.

Please note that this map shows flooding to the land and does not necessarily indicate that properties within the Historic Flood Map were flooded internally. It is also possible that the pattern of flooding in this area has changed and that this area would now flood under different circumstances. In addition, absence of coverage by the Historic Flood Map for an area does not mean that the area has never flooded, only that we do not currently have records of flooding in this area.

**Price Category: Medium** 

Attribute Name	Attribute Description
This dataset is not attributed.	



# **Consented Discharges to Controlled Waters with Conditions (AfA014)**

### **Dataset Description**

These data provide details of permit details as required under the Environmental Permit Regulations. Information is held for all permit holders and covers all substances that are controlled. These data are taken from the Environment Agency's Public Register and contain only the first of three tiers of data for all active permits.

### Tier 1 - Site and General

Information on the consent holder that has a consent to discharge into controlled waters. Consent holder and the discharge address and type. The date of permit issue, effective and revocation. Information where the effluent enters the environment (such as sewage disposal works) for each holder that has been granted a permit. Data is also held on the effluent type e.g. Sewage effluent, Overflow. The location of the grid reference is supplied for the effluent and the outlet location in OS Nation Grid Reference format.

More detailed information is available under AfA184, Consented Discharges to Controlled Waters with Conditions, which includes:

#### Tier 2 - Effluent

Further detail is provided on the amount that can be discharged and in which time period in months. This is stored as Dry Weather Flow, Maximum Daily, Mean, Maximum Rate. Further data about the permit type and treatment type from lookup lists are provided.

#### Tier 3 - Determinand Limits

Determinands are the substances and numerical limits that make up the effluent. This could include chemical, biological, and physical limits. Textual conditions are not included. The permitted limits are included for each determinand type. Data is provided for each effluent and may contain one or more determinands depending on the complexity of the discharge.

### **Price Category: Low**

Attribute Name	Attribute Description
	Site and General
COMPANY_NAME	Consent holders name
DISCHARGE_SITE_NAME	Discharge site name
DISCHARGE_SITE_TYPE_CODE	Discharge site type code
DSI_TYPE_DESCRIPTION	Discharge site type description
ADD_OF_DISCHARGE_SITE_LINE_1	Address data
ADD_OF_DISCHARGE_SITE_LINE_2	Address data
ADD_OF_DISCHARGE_SITE_LINE_3	Address data
ADD_OF_DISCHARGE_SITE_LINE_4	Address data
ADD_OF_DISCHARGE_SITE_PCODE	Address data
DISCHARGE_NGR	Location of the discharge site
DISTRICT_COUNCIL	District council
CATC_NAME	Catchment name
CATCHMENT_CODE	Catchement code
EA_REGION	Environment agency region code
REGION	Environment agency region name
PERMIT_REF	Consent number
VERSION	Consent version



Attribute Name	Attribute Description
RECEIVING_WATER	Name of the receiving environment
RECEIVING_ENVIRON_TYPE_CODE	receiving environment type code
REC_ENV_CODE_DESCRIPTION	receiving environment type description
ISSUED_DATE	Date the permit was issued
EFFECTIVE_DATE	Date the permit became effective
REVOCATION_DATE	Date the permit will be revoked
STATUS_OF_PERMIT	Code for relevant section/schedule of act of Parliament
STATUS_DESCRIPTION	Text describing relevant section/schedule of act of Parliament
OUTLET_NUMBER	ID for the outlet
OUTLET_TYPE_CODE	Code for outlet type
OUTLET_TYPE_DESCRIPTION	Description of type of outlet
OUTLET_GRID_REF	Outlet grid reference
EFFLUENT_NUMBER	ID for the effluent
EFFLUENT_TYPE	Code for effluent type
EFFLUENT_GRID_REF	Effluent Grid ref
PERMIT_TYPE	Consent type code
PERMIT_TYPE_DESC	Consent type description



# **Administrative Boundaries (AfA015)**

## **Dataset Description**

Environment Agency administrative boundaries set at 1:10,000 scale. These consist of 4 discrete data layers showing:

- · Water Management Areas;
- · Water Management Regions;
- Public Face Areas;
- Public Face Regions;

Water management and Public Face boundaries are attributed with the name and address for each head office.

**Price Category: EA OpenData** 

1:10k Environment Agency Water Management Area Identifier	Attribute Name	Attribute Description
REG_NAME Water Management Area Name REG_ID Water Management Region Identifier REG_NAME Water Management Region Name  AREA_PRP_N Water Management Area Office Name  AREA_ADDR1 Water Management Area Office Address Line 1  AREA_ADDR2 Water Management Area Office Address Line 2  AREA_TOWN Water Management Area Office Address Town  AREA_PCODE Water Management Area Office Postcode  ALT_ADDR Water Management Area Office Postcode  ALT_ADDR Water Management Region Identifier  REG_NAME Water Management Region Identifier  REG_NAME Water Management Region Office Name  REG_PROP_N Water Management Region Office Address Line 1  Water Management Region Office Address Line 2  REG_DONN Water Management Region Office Address Line 2  Water Management Region Office Address Line 2  REG_PCODE Water Management Region Doundary Length (m)  Shape_Area Water Management Region Doundary Length (m)  **Shape_Area Water Management Region Identifier  **Public Face Area Name**  Public Face Area Name  Public Face Area Name  Public Face Region Identifier  REG_NAME Public Face Region Identifier  REG_NAME Public Face Area Office Address Line 1  AREA_ADDR1 Public Face Area Office Address Line 2  AREA_PRP_N Public Face Area Office Address Line 2  AREA_PRP_N Public Face Area Office Address Line 2  Public Face Area Office Address Line 2  Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Boundary Length (m)  Shape_Area Public Face Area Office Address Postcode  Public Face Area	1:10k Environme	ent Agency Water Management Areas
REG_ID  Water Management Region Identifier  REG_NAME  Water Management Region Name  AREA_PRP_N  Water Management Area Office Name  AREA_ADDR1  Water Management Area Office Address Line 1  Water Management Area Office Address Line 2  AREA_TOWN  Water Management Area Office Address Town  Water Management Area Office Address  1:10k Environment Agency Water Management Regions  REGION_ID  Water Management Region Regions  Water Management Region Identifier  REG_NAME  Water Management Region Name  REG_PROP_N  Water Management Region Office Name  REG_ADDR_1  Water Management Region Office Address Line 1  Water Management Region Office Address Line 2  Water Management Region Office Address Town  Water Management Region Office Address Town  Water Management Region Office Postcode  Water Management Region Office Address Town  REG_PCODE  Water Management Region Boundary Length (m)  Shape_Area  Water Management Region Boundary Length (m)  Water Management Region Rea (m²)  1:10k Environment Agency Public Face Area S  AREA_ID  Public Face Area Identifier  AREA_NAME  Public Face Area Identifier  AREA_NAME  Public Face Area Office Name  AREA_ADDR1  AREA_ADDR1  Public Face Area Office Address Line 1  AREA_ADDR2  AREA_ADDR1  Public Face Area Office Address Line 2  AREA_ADDR2  Public Face Area Office Address Line 1  AREA_ADDR3  AREA_ADDR4  AREA_ADDR4  AREA_ADDR6  Public Face Area Office Address Line 2  AREA_ADDR6  AREA_ADDR7  AREA_ADDR8  Public Face Area Office Address Line 1  AREA_PCODE  Public Face Area Office Address Line 2  AREA_PCODE  Public Face Area Office Address Line 2  AREA_PCODE  Public Face Area Office Address Line 1  AREA_PCODE  Public Face Area Office Address Line 1  AREA_PCODE  Public Face Area Office Add	AREA_ID	Water Management Area Identifier
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AREA_PRP_N AREA_ADDR1 AREA_ADDR1 AREA_ADDR2 AREA_ADDR2 AREA_TOWN AREA_FOODE ALT_ADDR AREA_BOR2 ALT_ADDR AREA_BOR2 AREA_TOWN AREA_POODE ALT_ADDR AREA_BOR2 AREA_TOWN AREA_ROBE ALT_ADDR AREA_BOR2 AREA_TOWN AREA_ROBE ALT_ADDR Water Management Area Office Address Town AREA_POODE ALT_ADDR Water Management Area Alternative Office Address  1:10k Environment Agency Water Management Region S  REGION_ID Water Management Region Identifier  REG_NAME Water Management Region Office Name AREA_ROBP_N Water Management Region Office Address Line 1  REG_ADDR_1 Water Management Region Office Address Line 1  REG_ADDR_2 Water Management Region Office Address Line 2  REG_TOWN Water Management Region Office Postcode  Water Management Region Office Postcode  Shape_Leng Water Management Region Office Postcode  Shape_Area Water Management Region Office Postcode  Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Identifier  AREA_NAME Public Face Area Office Name  AREA_PRP_N Public Face Region Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR1 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 1  AREA_PCODE Public Face Area Office Address Line 2  AREA_PCODE Public Face Area Office Address Line 1  AREA_PCODE Public Face Area Office Address Line 2  AREA_PCODE Public Face Area Office Address Fown  AREA_PCODE Public Face Area Office Address Fown  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADR Public Face Area Office Address Postcode	REG_ID	Water Management Region Identifier
AREA_ADDR1 Water Management Area Office Address Line 1 AREA_ADDR2 Water Management Area Office Address Line 2 AREA_TOWN Water Management Area Office Address Town AREA_PCODE Water Management Area Office Postcode ALT_ADDR Water Management Area Alternative Office Address  1:10k Environment Agency Water Management Regions  REGION_ID Water Management Region Identifier REG_NAME Water Management Region Identifier REG_NAME Water Management Region Office Name REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_2 Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Town REG_PCODE Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Boundary Length (m)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier  REG_NAME Public Face Region Identifier  REG_NAME Public Face Area Office Address Line 1  AREA_ADDR1 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode	REG_NAME	Water Management Region Name
AREA_ADDR1 Water Management Area Office Address Line 1 AREA_ADDR2 Water Management Area Office Address Line 2 AREA_TOWN Water Management Area Office Address Town AREA_PCODE Water Management Area Office Postcode ALT_ADDR Water Management Area Alternative Office Address  1:10k Environment Agency Water Management Regions  REGION_ID Water Management Region Identifier REG_NAME Water Management Region Identifier REG_NAME Water Management Region Office Name REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_2 Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Town REG_PCODE Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Boundary Length (m)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier  REG_NAME Public Face Region Identifier  REG_NAME Public Face Area Office Address Line 1  AREA_ADDR1 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Line 2  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode	AREA_PRP_N	Water Management Area Office Name
AREA_TOWN AREA_PCODE Water Management Area Office Postcode ALT_ADDR Water Management Area Alternative Office Address  1:10k Environment Agency Water Management Regions  REGION_ID Water Management Region Identifier REG_NAME Water Management Region Office Name REG_PROP_N REG_ADDR_1 Water Management Region Office Name REG_ADDR_2 Water Management Region Office Address Line 1 REG_ADDR_2 Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Postcode Shape_Leng Water Management Region Office Postcode Shape_Leng Water Management Region Office Postcode Shape_Area Public Face Area Region Name AREA_ID AREA_ID Public Face Area Name Public Face Region Identifier REG_ID Public Face Region Identifier REG_NAME Public Face Region Name AREA_ADDR1 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Fown AREA_PCODE Public Face Area Office Address Postcode ALT_ADDR Public Face Area Office Address Postcode ALT_ADDR Public Face Area Boundary Length (m) Shape_Area Public Face Area Boundary Length (m) Public Face Area Region Identifier REG_NAME Public Face Region Identifier Public Face Region Name	AREA_ADDR1	
AREA_PCODE ALT_ADDR Water Management Area Alternative Office Address  1:10k Environment Agency Water Management Regions  REGION_ID Water Management Region Identifier REG_NAME Water Management Region Office Name REG_PROP_N Water Management Region Office Name REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_2 Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Town REG_PCODE Water Management Region Office Postcode Water Management Region Office Postcode Water Management Region Doundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier REG_NAME AREA_PRP_N Public Face Area Office Address Line 1 AREA_ADDR1 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Line 2 AREA_PCODE Public Face Area Office Address Line 2 AREA_PCODE Public Face Area Office Address Fown AREA_PCODE Public Face Area Office Address Fown AREA_PCODE Public Face Area Office Address Fown AREA_PCODE Public Face Area Office Address Postcode ALT_ADDR Public Face Area Boundary Length (m) Shape_Area Public Face Area Region Identifier Public Face Region Identifier Public Face Area Region Identifier	AREA_ADDR2	Water Management Area Office Address Line 2
ALT_ADDR  1:10k Environment Agency Water Management Regions  REGION_ID  REG_NAME  REG_NAME  REG_PROP_N  Water Management Region Office Name  REG_ADDR_1  Water Management Region Office Name  REG_ADDR_1  Water Management Region Office Address Line 1  REG_ADDR_2  Water Management Region Office Address Line 2  REG_TOWN  REG_PCODE  Water Management Region Office Address Town  REG_PCODE  Water Management Region Office Postcode  Shape_Leng  Water Management Region Demote Address Town  REG_PCODE  Water Management Region Demote Address Town  REG_PCODE  Shape_Leng  Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID  AREA_NAME  Public Face Area Identifier  AREA_NAME  Public Face Area Name  REG_ID  Public Face Region Identifier  REG_NAME  AREA_PRP_N  Public Face Region Name  AREA_PRP_N  AREA_ADDR1  AREA_ADDR1  Public Face Area Office Address Line 1  AREA_ADDR1  AREA_ADDR2  Public Face Area Office Address Line 2  AREA_TOWN  Public Face Area Office Address Line 2  AREA_TOWN  Public Face Area Office Address Sown  AREA_PCODE  Public Face Area Office Address Fown  AREA_PCODE  Public Face Area Office Address Sown  AREA_PCODE  Public Face Area Office Address Fown  AREA_PCODE  Public Face Area Office Address Soun  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Town  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Doffice Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Doffice Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Doffice Address Town  AREA_PCODE	AREA_TOWN	Water Management Area Office Address Town
1:10k Environment Agency Water Management Regions   REGION_ID   Water Management Region Identifier	AREA_PCODE	Water Management Area Office Postcode
REGION_ID Water Management Region Identifier REG_NAME Water Management Region Name REG_PROP_N Water Management Region Office Name REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_2 Water Management Region Office Address Line 2 REG_TOWN Water Management Region Office Address Town REG_PCODE Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  AREA_PRP_N Public Face Area Office Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR2 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Office Address  REGION_ID Public Face Region Identifier  REG_NAME  Public Face Area Office Address Postcode  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier	ALT_ADDR	Water Management Area Alternative Office Address
REG_NAME REG_PROP_N Water Management Region Office Name REG_ADDR_1 Water Management Region Office Address Line 1 REG_ADDR_2 REG_TOWN Water Management Region Office Address Line 2 REG_PCODE Water Management Region Office Address Town REG_PCODE Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID AREA_NAME Public Face Area Identifier AREA_NAME Public Face Region Identifier REG_NAME Public Face Region Name AREA_PRP_N Public Face Area Office Name AREA_ADDR1 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Line 2 AREA_PCODE Public Face Area Office Address Town AREA_PCODE Public Face Area Office Address Postcode ALT_ADDR Public Face Area Office Address Public Face Area Office Address Shape_Leng Public Face Area Boundary Length (m) Phalic Face Area (m²)  1:10k Environment Agency Public Face Region Name  REG_NAME Public Face Region Identifier	1:10k Environmer	nt Agency Water Management Regions
REG_PROP_N  REG_ADDR_1  REG_ADDR_2  REG_TOWN  REG_PCODE  Shape_Leng  AREA_NAME  REG_NAME  REG_NAME  REG_NAME  REG_NAME  REG_NAME  AREA_ADDR_1  REG_NAME  AREA_RDDR_1  REG_NAME  REG_ROBD  RE	REGION_ID	Water Management Region Identifier
REG_ADDR_1  REG_ADDR_2  Water Management Region Office Address Line 2  REG_TOWN  REG_PCODE  Water Management Region Office Postcode  Shape_Leng  Shape_Area  Water Management Region Office Postcode  Water Management Region Description  Water Management Region Description  Water Management Region Description  Water Management Region Boundary Length (m)  Shape_Area  Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID  Public Face Area Identifier  AREA_NAME  Public Face Area Name  REG_ID  Public Face Region Identifier  REG_NAME  Public Face Region Name  AREA_PRP_N  AREA_PRP_N  Public Face Area Office Address Line 1  AREA_ADDR1  AREA_ADDR2  Public Face Area Office Address Line 2  AREA_TOWN  Public Face Area Office Address Town  AREA_PCODE  AREA_PCODE  Public Face Area Office Address Postcode  ALT_ADDR  Public Face Area Boundary Length (m)  Shape_Area  Public Face Area (m²)  1:10k Environment Agency Public Face Region Identifier	REG_NAME	
REG_ADDR_1  REG_ADDR_2  Water Management Region Office Address Line 2  REG_TOWN  Water Management Region Office Address Town  REG_PCODE  Water Management Region Office Postcode  Shape_Leng  Water Management Region Boundary Length (m)  Shape_Area  Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID  Public Face Area Identifier  AREA_NAME  Public Face Area Name  REG_ID  Public Face Region Identifier  REG_NAME  Public Face Area Office Name  AREA_PRP_N  AREA_ADDR1  AREA_ADDR1  AREA_ADDR2  Public Face Area Office Address Line 1  AREA_TOWN  AREA_PCODE  AREA_TOWN  Public Face Area Office Address Town  AREA_PCODE  ALT_ADDR  Public Face Area Office Address  Public Face Area Boundary Length (m)  Shape_Area  Public Face Area (m²)  1:10k Environment Agency Public Face Region  REGION_ID  Public Face Region Identifier	REG_PROP_N	Water Management Region Office Name
REG_ADDR_2  REG_TOWN  Water Management Region Office Address Line 2  REG_PCODE  Water Management Region Office Postcode  Shape_Leng  Water Management Region Boundary Length (m)  Shape_Area  Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID  AREA_NAME  Public Face Area Identifier  REG_ID  Public Face Region Identifier  REG_NAME  Public Face Region Name  AREA_PRP_N  Public Face Area Office Name  AREA_ADDR1  AREA_ADDR1  AREA_ADDR2  Public Face Area Office Address Line 1  AREA_PCODE  AREA_PCODE  ALT_ADDR  Public Face Area Boundary Length (m)  Shape_Area  Public Face Area Boundary Length (m)  Shape_Area  Public Face Region Identifier  Public Face Area Office Address  Public Face Area Office Address  Public Face Area Office Address Town  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Town  AREA_PCODE  ALT_ADDR  Public Face Area Boundary Length (m)  Shape_Area  Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID  Public Face Region Identifier  Public Face Region Identifier  Public Face Region Name		
REG_PCODE Shape_Leng Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier REG_NAME Public Face Region Name AREA_PRP_N Public Face Area Office Name AREA_ADDR1 AREA_ADDR1 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Town AREA_PCODE Public Face Area Office Address Postcode ALT_ADDR Public Face Area Office Address Shape_Leng Public Face Area Boundary Length (m) Shape_Area Public Face Region Identifier  REG_NAME Public Face Region Identifier Public Face Region Name	REG_ADDR_2	
REG_PCODE Shape_Leng Water Management Region Office Postcode Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier AREA_NAME Public Face Area Name REG_ID Public Face Region Identifier REG_NAME Public Face Region Name AREA_PRP_N Public Face Area Office Name AREA_ADDR1 AREA_ADDR1 Public Face Area Office Address Line 1 AREA_ADDR2 Public Face Area Office Address Line 2 AREA_TOWN Public Face Area Office Address Town AREA_PCODE Public Face Area Office Address Postcode ALT_ADDR Public Face Area Office Address Shape_Leng Public Face Area Boundary Length (m) Shape_Area Public Face Region Identifier  REG_NAME Public Face Region Identifier  Public Face Region Name	REG_TOWN	Water Management Region Office Address Town
Shape_Leng Water Management Region Boundary Length (m) Shape_Area Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name  REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  AREA_PRP_N Public Face Area Office Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR2 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Boundary Length (m)  Shape_Leng Public Face Area (m²)  1:10k Environment Agency Public Face Region Identifier  REG_NAME Public Face Region Identifier  Public Face Region Identifier  Public Face Region Name	REG_PCODE	
Shape_Area  Water Management Region Area (m²)  1:10k Environment Agency Public Face Areas  AREA_ID  Public Face Area Identifier  AREA_NAME  Public Face Area Name  REG_ID  Public Face Region Identifier  REG_NAME  Public Face Region Name  AREA_PRP_N  Public Face Area Office Name  AREA_ADDR1  AREA_ADDR1  AREA_ADDR2  Public Face Area Office Address Line 1  AREA_TOWN  Public Face Area Office Address Line 2  AREA_PCODE  AREA_PCODE  Public Face Area Office Address Postcode  ALT_ADDR  Public Face Area Office Address  Shape_Leng  Public Face Area Boundary Length (m)  Shape_Area  Public Face Region Identifier  Public Face Region Name	Shape_Leng	Water Management Region Boundary Length (m)
AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name  REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  REG_NAME Public Face Area Office Name  AREA_PRP_N Public Face Area Office Address Line 1  AREA_ADDR1 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Area Boundary Length (m)  Shape_Area Public Face Region Identifier  REG_NAME Public Face Region Identifier  Public Face Region Name		Water Management Region Area (m²)
AREA_ID Public Face Area Identifier  AREA_NAME Public Face Area Name  REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  AREA_PRP_N Public Face Area Office Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR2 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Alternative Office Address  Shape_Leng Public Face Area Boundary Length (m)  Shape_Area Public Face Region Identifier  REG_NAME Public Face Region Name	1:10k Enviro	
REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  AREA_PRP_N Public Face Area Office Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR2 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Alternative Office Address  Shape_Leng Public Face Area Boundary Length (m)  Shape_Area Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier  Public Face Region Name		
REG_ID Public Face Region Identifier  REG_NAME Public Face Region Name  AREA_PRP_N Public Face Area Office Name  AREA_ADDR1 Public Face Area Office Address Line 1  AREA_ADDR2 Public Face Area Office Address Line 2  AREA_TOWN Public Face Area Office Address Town  AREA_PCODE Public Face Area Office Address Postcode  ALT_ADDR Public Face Alternative Office Address  Shape_Leng Public Face Area Boundary Length (m)  Shape_Area Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier  Public Face Region Name	AREA_NAME	Public Face Area Name
AREA_PRP_N Public Face Area Office Name Public Face Area Office Address Line 1 Public Face Area Office Address Line 2 Public Face Area Office Address Town Public Face Area Office Address Town Public Face Area Office Address Postcode Public Face Area Office Address Postcode Public Face Alternative Office Address Public Face Area Boundary Length (m) Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier Public Face Region Name		Public Face Region Identifier
AREA_ADDR1  AREA_ADDR2  AREA_TOWN  AREA_PCODE  ALT_ADDR  Public Face Area Office Address Line 2  Public Face Area Office Address Town  Public Face Area Office Address Postcode  Public Face Area Office Address Postcode  Public Face Alternative Office Address  Shape_Leng  Public Face Area Boundary Length (m)  Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID  Public Face Region Identifier  Public Face Region Name	REG_NAME	Public Face Region Name
AREA_ADDR2  AREA_TOWN  Public Face Area Office Address Line 2  Public Face Area Office Address Town  AREA_PCODE  Public Face Area Office Address Postcode  ALT_ADDR  Public Face Alternative Office Address  Shape_Leng  Public Face Area Boundary Length (m)  Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID  Public Face Region Identifier  REG_NAME  Public Face Region Name	AREA_PRP_N	Public Face Area Office Name
AREA_TOWN AREA_PCODE Public Face Area Office Address Town Public Face Area Office Address Postcode  ALT_ADDR Public Face Alternative Office Address Shape_Leng Public Face Area Boundary Length (m) Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier REG_NAME Public Face Region Name	AREA_ADDR1	Public Face Area Office Address Line 1
AREA_PCODE ALT_ADDR Public Face Area Office Address Postcode Public Face Alternative Office Address Public Face Area Boundary Length (m) Public Face Area (m²)  1:10k Environment Agency Public Face Regions REGION_ID Public Face Region Identifier Public Face Region Name	AREA_ADDR2	Public Face Area Office Address Line 2
ALT_ADDR Public Face Alternative Office Address Shape_Leng Public Face Area Boundary Length (m) Shape_Area Public Face Area (m²)  1:10k Environment Agency Public Face Regions REGION_ID Public Face Region Identifier REG_NAME Public Face Region Name	AREA_TOWN	Public Face Area Office Address Town
Shape_Leng	AREA_PCODE	Public Face Area Office Address Postcode
Shape_Area Public Face Area (m²)  1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier  REG_NAME Public Face Region Name	ALT_ADDR	Public Face Alternative Office Address
1:10k Environment Agency Public Face Regions  REGION_ID Public Face Region Identifier  REG_NAME Public Face Region Name	Shape_Leng	Public Face Area Boundary Length (m)
REGION_ID Public Face Region Identifier REG_NAME Public Face Region Name	Shape_Area	Public Face Area (m <sup>2</sup> )
REGION_ID Public Face Region Identifier REG_NAME Public Face Region Name		
REG_NAME Public Face Region Name		
TADIO TADIO TADIO	REG_PROP_N	Public Face Office Name



Attribute Name	Attribute Description
REG_ADDR_1	Public Face Region Office Address Line 1
REG_ADDR_2	Public Face Region Office Address Line 2
REG_TOWN	Public Face Region Office Address Town
REG_PCODE	Public Face Region Office Postcode
Shape_Leng	Public Face Region Boundary Length (m)
Shape_Area	Public Face Region Area (m <sup>2</sup> )



# **Environmental Permitting Regulations – Industrial Sites (AfA021)**

### **Dataset Description**

The Environmental Permitting Regulations, amongst other things, implement the IPPC (Integrated Pollution Prevention and Control) Directive (EC/61/96) in England & Wales. Facilities covered by this legislation are known as Installations and generally have significant releases to air, land or water or carry out certain, larger scale, waste management activities.

Further information on the Environmental Permitting Regulations (EPR) and the IPPC directive, is available on our website or at <a href="https://www.defra.gov.uk">www.defra.gov.uk</a>

This dataset covers all Process Industry sites within the EPR regime and some larger waste activities. Other smaller waste facilities are known as 'Waste Operations' (formerly known as Waste Management Licences) and are covered in a separate dataset, see below:

Other related datasets that are available are:

- Environmental Permitting Regulations Waste Sites
- Authorised Treatment Facilities (End of Life Vehicles)
- Waste Electrical, Electronic Equipment (WEEE)

### **Price Category: Medium**

Attribute Name	Attribute Description
All_EPR_Ind or Active_EPR_Ind	
Region	Environment Agency Region
Area	Environment Agency Area
Original Permit Number	Unique PAS (Permitting Administration System)
	authorisation number for initial application
Permit Number	Unique PAS authorisation number for current application
	(primary key, and reference cell for linked table)
EPR Ref	Environmental Permit Reference Number (will only be
	present for recent permits). Takes the format:
	AB1234CD/A001 (application for a new licence)
	AB1234CD/V001 (variation, also known as modification)
	AB1234CD/T001 (transfer)
	AB1234CD/R001 (revocation, also known as surrender)
	7.5.20.007 (revealer, also known as carronaer,
Operator Name	Operator Name
Status	Current (at date of extraction) status of permission:
	Superceded [sic]
	Effective
	Surrender Effective
	Revoked
	Transfer Effective
	Refused
	Determination
	Not Yet Effective
Local Authority	Local Authority Name
Installation Name	Name of installation where activities occur



Attribute Name	Attribute Description
Secondary Name IS	Operator Address – line 1
Primary Name IS	Operator Address – line 2
Street Name IS	Operator Address – Street
Locality IS	Operator Address – Locality
Town IS	Operator Address – Town
Post Town IS	Operator Address – Post Town
County IS	Operator Address – Post County
Post Code IS	Operator Address – Postcode
Duly Made Date	Date application was accepted as 'duly made'
Issue Date	Date of issue of a variation on an effective permit
Permit Effective From Date	Date when conditions of Authorisation/Variation apply
Application Type	Type of entry:
7.ppiloddon Typo	Application Variation Surrender
	Transfer
	PPCAPP
Application Sub-Type	Sub-type of entry:
Grid Reference IS Eastings Northings	New Minor Standard Whole Simple Standard variation Substantial Whole without FAPP Whole with FAPP Whole limited change in management Installation never operated Part NGR for site entrance (Eight figure AA1111999) SIX-FIGURE EASTINGS FOR THE SITE ENTRANCE (TYPICALLY FIVE FIGURE ACCURACY PADDED WITH A ZERO) SIX-FIGURE NORTHINGS FOR THE SITE ENTRANCE
	(TYPICALLY FIVE FIGURE ACCURACY PADDED WITH A ZERO)
All EPR In	Id_ASR or Active_EPR_Ind_ASR
Region	Environment Agency Region
Area	Environment Agency Area
Original Permit Number	Unique PAS authorisation number for initial application
Permit Number	Unique PAS authorisation number for current application (links to same field in other table)
500 D (	Part of compound primary key for table
EPR Ref	Environmental Permit Reference Number
Operator Name	Operator Name
Status	Current (at date of extraction) status of permission:
	Superceded [sic]
	Effective
	Surrender Effective



Attribute Name	Attribute Description
	<ul> <li>Revoked</li> <li>Transfer Effective</li> <li>Refused</li> <li>Determination</li> <li>Not Yet Effective</li> </ul>
Local Authority	Local Authority Name
Activity Schedule Reference	Activity Schedule Reference Number e.g. 5.3 A(1) c) (ii)  Part of compound primary key for table
Activity Description	Description of Activity Schedule Reference Number e.g. OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY PHYSICO-CHEMICAL TREATMENT
Grid Reference IS	NGR for site entrance (Eight-figure e.g. SP12341234)
Primary Activity Y/N	Whether this is the primary permitted activity under this permit
	(Boolean operator distinguishing whether this is the primary activity being permitted at a site)
	e.g. Y/N  Part of compound primary key for table



## **Discharges of Consented Red List Substances (AfA028)**

### **Dataset Description**

The UK has a list (known as the Red List) of 23 of the most dangerous substances which were selected for priority control under the Integrated Pollution Control legislation (subsequently superseded by the Pollution Prevention and Control and then Environmental Permitting Regulations). This list of substances includes EC List I substances defined under the Dangerous Substances Directive, as well as certain substances listed on EC List 2. There are statutory Environmental Quality Standards (EQSs) in place for their discharge into surface waters. Statutory EQSs for a further 25 substances came into force on 1 April 1998. These deal with substances produced by manufacturing industry, as well as a number of pesticides applied to crops.

Dangerous Substances are toxic, do not or are very slow to degrade in water, and are likely to accumulate in living organisms.

Discharges of Consented Priority Dangerous Substances to water contains:

- REDLIST\_PERMIT\_HOLDERS\_FULL: the consent details of companies with consents to discharge priority Dangerous Substances including the type of discharge and where it is discharged;
- TBL\_FINAL\_CONSENTED\_REDLIST\_DETS: the list of priority Dangerous Substances and the limits consented to be discharged (it does not show the amount of substances actually discharged); and
- TBL\_AREAS: information on the areas associated with consents.

## **Price Category: Low**

Attribute Name	Attribute Description
	The consent details of companies with consents to
	nces including the type of discharge and where it is
discharged.	
PERMIT_NUMBER	Consent number [e.g. AEECS12401]
PERMIT_VERSION	Version [e.g. 1]
COMPANY_NAME	Company name [e.g. Anglian Water Services]
DISCHARGE_SITE_NAME	Name of the site where the discharge is occurring [e.g. POPPY HILL STW]
ADD_OF_DISCHARGE_SITE_LINE_1	First line of site address
ADD_OF_DISCHARGE_SITE_LINE_2	Second line of site address
ADD_OF_DISCHARGE_SITE_LINE_3	Third line of site address
ADD_OF_DISCHARGE_SITE_LINE_4	Fourth line of site address
ADD_OF_DISCHARGE_SITE_PCODE	Postcode of site address
DISTRICT_COUNCIL	ID of county within which council is located [e.g. TENDRING]
EA_REGION	Environment Agency region code [e.g. AN]
SOURCE	Environment Agency region full description [e.g. EA Anglian Region]
DATE_APPROVED	Date consent was approved [Date format ]
TYPE_OF_PERMIT	Code for consent type [e.g. WQ]
STATUS_OF_PERMIT	Code for relevant section/schedule of act of Parliament
	[e.g. E4]
STATUS_DESCRIPTION	Text describing relevant section/schedule of act of
STATUS_DESCRIPTION	Parliament [e.g. NEW CONSENT (WRA 91, S88 & SCHED



Attallanda Nama	Attalkanta Danamintian	
Attribute Name	Attribute Description	
	10 AS AMENDED BY ENV ACT 1995)]	
DSI_TYPE_DESCRIPTION	ID of type of site [e.g. Sewage Disposal Works – water company]	
OUTLET_NUMBER	Reference number for outlet [e.g. '1' or '2']	
OUTLET_GRID_REF	Grid reference of outlet [e.g. TM2200017090]	
EFFLUENT_NUMBER	Effluent reference number [e.g. 1]	
EFF_TYPE_DESCRIPTION	Description of type of effluent [e.g. SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY]	
CATC_NAME	Name of sub-catchment [e.g. HULL AND TRIBS]	
TBL_FINAL_CONSENTED_REDLIST_DETS: The list of priority Dangerous Substances and the limits consented to be discharged (it does not show the amount of substances actually discharged).		
COMPANY_NAME	Company name [e.g. Anglian Water Services]	
PERMIT_NUMBER	Consent number [e.g. P05268]	
PERMIT_VERSION	Version number of consent [e.g. 1]	
OUTLET_NUMBER	Reference number for outlet [e.g. 5]	
EFFLUENT_NUMBER	Effluent reference number [e.g. 1]	
DISCHARGE_SITE_NAME	Name of the site where the discharge is occurring [e.g. HOO ISLAND]	
DISCHARGE_SITE_NAME	First line of site address	
ADD_OF_DISCHARGE_SITE_LINE_1	Second line of site address	
ADD_OF_DISCHARGE_SITE_LINE_2	Third line of site address	
ADD_OF_DISCHARGE_SITE_LINE_3	Fourth line of site address	
ADD_OF_DISCHARGE_SITE_LINE_4	Postcode of site address	
ADD_OF_DISCHARGE_SITE_PCODE	First line of site address	
EA_REGION	Environment Agency region code [e.g. SO]	
SOURCE	Environment Agency region full description [e.g. EA Southern Region]	
EFFLUENT_GRID_REF	Grid reference of effluent sampling point [e.g. TQ7935070270]	
OUTLET_GRID_REF	Grid reference of outlet [e.g. TQ7935070270]	
DETERMINAND	Agency code to identify determinand [e.g. 0106]	
DETE_DESC	Full description of determinand [e.g. CADMIUM DISSOLVED - AS CD]	
UNIT_DESCRIPTION	Full description of units used [e.g. MICROGRAM PER LITRE]	
UNIT_SHORT_DESCRIPTION	Unit abbreviation [e.g. ug/l]	
MAXIMUM	Maximum consented concentration [e.g. 15]	
NINETY_FIVE_PERCENTILE	Ninety fifth percentile allowed quantity of substance measured [BLANK – as above]	
TBL_AREA: Information on the areas associated with consents		
PERMIT_NUMBER	Consent number [e.g. AEECS12401]	
DSI_AREA	ID of area [e.g. K]	
AREA_DESC	Environment Agency area full description [e.g. ANGLIAN - CENTRAL]	



# Source Protection Zones [Merged] (AfA029)

## **Dataset Description**

'Source Protection Zones (Merged)' have been created as public facing boundaries where discrete groundwater bodies within Source Protection Zones (SPZ) have been dissolved on zone number where common boundaries and overlaps have been removed.

SPZs are defined around large and public potable groundwater abstraction sites. The purpose of SPZs is to provide additional protection to safeguard drinking water quality through constraining the proximity of an activity that may impact upon a drinking water abstraction. This is part of an initial screening process in assessing impacts to groundwater resources. Zones around location sites are defined by groundwater travel time to an abstraction. This is determined through applying Environment Agency groundwater flow models run at the location of abstractions, inputting parameters such as flow direction, geology type, rainfall and hydrological boundaries. SPZs provide a visual representation of the increased risks as you get closer to the abstraction. The following subdivisions are defined within SPZs:

- **Zone 1**: (Inner Protection Zone) This zone is defined by a travel time of 50-days or less from any point within the zone at, or below, the water table. Additionally, the zone has as a minimum a 50-metre radius. It is based principally on biological decay criteria and is designed to protect against the transmission of toxic chemicals and water-borne disease.
- **Zone 2**: (Outer Protection Zone) This zone is defined by the 400-day travel time from a point below the water table. Additionally this zone has a minimum radius of 250 or 500 metres, depending on the size of the abstraction. The travel time is derived from consideration of the minimum time required to provide delay, dilution and attenuation of slowly degrading pollutants.
- **Zone 3**: (Total catchment) This zone is defined as the total area needed to support the abstraction or discharge from the protected groundwater source.

A further **Zone 4**, or 'Zone of Special Interest' was previously defined for some groundwater sources. These zones highlighted areas (mainly on non-aquifers) where known local conditions meant that potentially polluting activities could impact on a groundwater source even though the area is outside the normal catchment of that source. In future this zone will be incorporated into one of the other zones (1, 2 or 3), whichever is appropriate in the particular case.

Price Category: Low

Attribute Name	Attribute Description
FID	Feature Identifier.
	Number that related to the SPZ Zone Classification:
	<ul> <li>1. Inner Protection Zone;</li> </ul>
	<ul> <li>2. Outer Protection Zone;</li> </ul>
NUMBER	3. Total Catchment.



# Flood Map (AfA031)

## **Dataset Description**

The Flood Map shows the areas across England and Wales that could be affected by flooding from rivers or the sea. It also shows flood defences and the areas that benefit from them. Flood Map is designed to raise awareness among the public, local authorities and other organisations of the likelihood of flooding, and to encourage people living and working in areas prone to flooding to find our more and take appropriate action.

The Flood Map includes the following layers of information:

- Flood Zone 3 is the Agency's best estimate of the areas of land with a 100 to 1 (or greater) chance of flooding each year from rivers, or with a 200 to 1 chance (or greater) of flooding each year from the sea.
- **Flood Zone 2** is the Agency's best estimate of the areas of land between Zone 3 and the extent of the flood from rivers or the sea with a 1000 to 1 chance of flooding in any year. It includes those areas defined in flood zone 3.

### **Price Category: High (3&2 Inclusive)**

• Spatial Flood Defences (without standardised attributes) shows those defences constructed during the last five years with a standard of protection equal to or better than 1 percent for rivers and 0.5 percent from the sea. (Some additional defences area also shown.)

### **Price Category: Low**

• Areas Benefiting from Flood Defences shows those areas that would benefit from the presence of defences in a 1 percent fluvial / 0.5 percent tidal flood event.

### **Price Category: Low**

• Flood Storage Areas shows those areas that act as a balancing reservoir, storage basin or balancing pond. Their purpose is to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel. It may also delay the timing of a flood peak so that its volume is discharged over a longer time interval.

**Price Category: Very Low** 

Attribute Name	Attribute Description
These data layers are not attributed.	
Table 1 – Flood Zone 2	Flood Zone 2 - Polygon
Table 2 – Flood Zone 3	Flood Zone 3 - Polygon
Table 3 – Flood Defence Assets	Flood Defence Asset - Line
Table 4 – Flood Storage Area	Storage Area - Polygon
Table 5 – Area Benefitting	Benefiting Locality - Polygon



# **GPS Survey Control Points (AfA033)**

## **Dataset Description**

Location & Height data related to benchmark points created for EA surveys.

(By the 1990s, we found that in many areas OSBMs were being destroyed during development. So to fill these gaps, we started installing Environment Agency Benchmarks (EABM) along most watercourses. EABMs were levelled from the OSBMs. We hold description cards for these points which are useful for reference. We are gradually updating these points with GPS-observed levels as and when we work in the area concerned).

# **Price Category: EA OpenData**

Attribute Name	Attribute Description
Grid Square	Grid Reference e.g. SU5664
Point Data Type	e.g. E1
Region Code	e.g. 06
Area Code	e.g.1
Ref No	e.g. 0001
Easting	e.g. 456789.652
Northing	e.g. 164787.487
Orthometric Height	e.g. 60.868
Transformation	e.g. OSTn 02/OSGM02
WGS84 latitude	e.g. 51° 22' 45".50324"N
WGS84 longitude	e.g. 01° 11' 07".42218"W
WGS84 height	e.g. 107.597
Method	e.g. from EA PASSIVE
EA Survey Job No	e.g. 6984
Height from OSBMs	e.g. 60.904
Comments	Clarification/additional information e.g. OS Passive Station
	C1SU1473



# **Historic Landfill (AfA034)**

### **Dataset Description**

Under the Town and Country Planning (General Development Procedure) Order 1995 Local Planning Authorities have to consult with the Environment Agency about all applications they receive to develop land within 250 metres of landfill sites (including any land that has been used as a landfill site within the past 30 years or is likely to be used as one in the near future).

The Historic Landfill dataset was created to help fulfil our statutory responsibility to Local Planning Authorities by supplying information on the risks posed by landfill sites for development within 250m. The data is the most comprehensive and consistent national historic landfill dataset and defines the location of, and provides specific attributes for, known historic (closed) landfill sites, i.e. sites where there is no PPC permit or waste management licence currently in force. This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where this licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Historic Landfill includes all relevant historic information for the sites that both local authorities and the Environment Agency have collected over the years. The data is available in ESRI shape file format, with the boundaries digitised from a base scale of 1:10,000 and an associated attribute table comprising 34 fields. The polygons and attributes describe where the sites were located, when they were used, who used them and what was deposited. This means there are name and address fields, licensee and operator information, licence issue and surrender dates, first and last input dates, and waste types, together with some historical comments.

Attribute Name	Attribute Description
HLD_REF	Historical Waste Data project Unique Key for each record [String, 10]
SITE NAME	Site Name [String, 200]
SITE_ADD	Site Address [String, 200]
EA_WMLR	Environment Agency Waste Management Licence Number [String, 5]
REGIS_NO	REGIS reference number [String, 11]
WRC_REF	WRC dataset reference [String, 9]
BGS_Num	BGS dataset Reference Number [String, 4]
SITE_REF	Waste Regulation Authority Licence Number [String, 100]
LIC_HOLD	Licence Holder [String, 150]
LICHOLDADD	Licence Holder's address [String, 250]
SITEOPNAME	Site Operator [String, 50]
SITEOPADD	Site Operator's address [String, 250]
OS_PREFIX	OS Prefix [String, 2]
EASTING	Easting (automated at nearest 100m grid to the South West of the Site Centroid) [String, 6]
NORTHING	Northing (automated at nearest 100m grid to the South West of the Site Centroid) [String, 6]
EAREGION	Code identifying the Environment Agency Region in which the site is located [String, 2]
EAAREA	Code identifying the Environment Agency Area in which the site is located [String, 30]
LIC_ISSUE	Date of Issue of Licence [Date, 8]
LIC_SURREN	Date of surrender of Licence [Date, 8]
FIRSTINPUT	Date of first input of waste [Date, 8]



Access of the second	
Attribute Name	Attribute Description
LASTINPUT	Date of last input of waste [Date, 8]
INERT	Waste deposited at the site included Inert ['Yes' or blank, 3]
INDUSTRIAL	Waste deposited at the site included industrial waste ['Yes' or blank, 3]
COMMERCIAL	Waste deposited at the site included Commercial ['Yes' or blank, 3]
HOUSEHOLD	Waste deposited at the site included Household ['Yes' or blank, 3]
SPECIAL	Waste deposited at the site included Special ['Yes' or blank, 3]
LIQSLUDGE	Waste deposited at the site included Liquid Sludge ['Yes' or blank, 3]
WASTEUNK	Waste deposited at the site included some unknown material ['Yes' or blank, 3]
GASCONTROL	A flag recording if there was any Gas control measures installed at the site ['Yes' or blank, 3]
LEACHATECNT	A flag recording if there was any Leachate control measures installed at the site ['Yes' or blank, 3]
EXEMPT	Was the site known to be exempt from Waste Management Licensing ['Yes' or blank, 3]
LICENCED	Was the site licensed under Waste Disposal or Waste Management Licensing ['Yes' or blank, 3]
NOLICREQ	Was the site known to have not required a licence ['Yes' or blank, 3]
BUFF_POINT	Flag (yes/no) field for Buffered Point polygons ['Yes' or blank, 3]



# **Detailed River Network (AfA036)**

## **Dataset Description**

The Detailed River Network (DRN) is the only large-scale, accurate and fully attributed digital river centreline covering England and Wales.

The DRN is captured from the water features theme of the OS MasterMap topographic layer and built into a network using automated rules. Other input datasets and extensive local Environment Agency staff knowledge has been used to augment the core geometry to incorporate critical spatial detail and attribution, such as flow direction and path, not available from the OS mapping and to verify the accuracy of the centreline itself

The dataset has full-feature network geometry cross-referenced with OS MasterMap following Digital National Framework principles.

Attribute Name	Attribute Description	
DRN Layer: Feature class description	on highlighting the structure of the layer and any associated	
domains (lookups) for individual attributes.		
OBJECTID	Internal ArcSDE unique Object identifier - not essential to the DRN.	
SHAPE <sup>1</sup>	Geometry: Internal ArcSDE geometry link.	
Length	Double: Auto-generated object length in metres.	
DRN_ID	Text: Unique identifier.	
VERSION	Short integer: Version number of the DRN object - integer value that increases by +1 when the object referenced by the DRN_ID is updated.	
REASON	Text: Reason for object referenced by the DRN_ID being updated. Choice of:  New Object Modified Geometry Modified Attribution Modified Geometry & Attribution Object Modified (due to split) Other	
OSMMDATE	Date: Date of OS MasterMap Cross referenced feature association (Currency date of OS MasterMap feature that the DRN object was extracted from).	
RIVERTYPE	Short integer: Description of DRN and the primary display field - river types as referenced from the drn_RiverType domain.	
FLOWDIR <sup>1</sup>	Short integer: Direction of flow as defined by the object digitised direction.	
PRIMFLOW <sup>1</sup>	Short integer: Identifies single routes from all sources to outflow points (the sea).	
DRAINS	Text: Drains (Ditch, Reen, Rhyne, Drain etc) as identified using local area knowledge (Environment Agency staff) or from OS MasterMap annotation if appropriate. DRN section is identified as Drain YES or NO.	
LEVELS	Short integer: Inferred level of DRN feature. DRN object lines crossing at different levels do not have a junction node and the <i>No Intersection</i> rule is in exception. For example a canal section that overlays a river section will get the Level of +1 while the river will be 0 any below surface features will be -1.	
GEOMSOURCE <sup>2</sup>	Short integer: In feature metadata - Identifier of the main source information of the DRN geometry.	
FLOWSOURCE <sup>2</sup>	Short integer: In feature metadata - Identifier of the main source information of the DRN Flow Direction information.	



Attribute Name	Attribute Description
	Text: River Name as from Ordnance Survey base-mapping (OS
RIVERNAME	MasterMap) linked through to the whole river section when
	appropriate. When not available on base map Environment
	Agency staff knowledge used to derive name. Initial stage of data
	extraction is based upon OS MasterMap cartographic text within
	100m of DRN lines
	Text: Welsh River Name as from Ordnance Survey base-mapping (OS MasterMap) linked through to the whole river section when
	appropriate. When not available on base map Environment
WELSHNAME	Agency staff knowledge used to derive name. Initial stage of data
	extraction is Based upon OS MasterMap cartographic text within
	100m of DRN lines.
	Text: Alternative River Name if know from local knowledge
ALTNAME	(Environment Agency staff) linked through to the whole river
	section when appropriate.
	Text: Identifier for the Flood Risk Management Statutory (sealed) Main River (Defra and Welsh Assembly Government statutory
	Main River). In that the DRN section is identified as FRM Main
FRMMAINRIV <sup>3</sup>	River YES or No. Identifies mainly RIVERTYPE = 1 plus any
	RIVERTYPE(s) that are not = 1 but are also Main River (for
	example: 4 - Lake).
WCRS_REF	Text: Watercourse reference number - corresponding to
WORG_REI	Environment Agency Flood Risk Management (FRM) coding.
WODO NAME	Text: Watercourse Name - corresponding to Environment Agency
WCRS_NAME	Flood Risk Management (FRM) WRCS_REF watercourse
	identifier.
FRMSTATUS	Short integer: Identifier of the statutory status (or stage within process in obtaining) of the FRMMAINRIV attribute
	Short integer: Number corresponding to the Environment Agency
	"water management" Region that the DRN object is within.
	Corresponding to the FRM region numbers held on the current
REGIONNR	FRM Main river layer - these will be updated in the future
	(potentially by DRN full release) to the standard Environment
	Agency numerical region codes. Scotland has been included for
	completeness.  Text: Catchment Name as identified by Environment Agency local
CATCHNAME	area teams. Note: Will only be tagged as undetermined at initial
O/ (TOTILO WILL	release.
	Text: Unique ID representing the Catchment that is named in the
CATCHID	CATCHNAME attribute. Note: Will only be tagged as
	undetermined at initial release.
BASENAME	Text: Unique ID representing the dataset production level units
	(approximate to larger river basins).
NAFRA	Short Integer: Identifier tag to show if section has been included in current NaFRA modelling. Note: Will only be tagged as
	undetermined at initial release.
PERSIST	Short integer: Hydrological persistence of the section of water.
	The information will be defined by local Environment Agency staff
	knowledge. Note: Will only be tagged as undetermined at initial
	release.
ORIGINI	Short integer: The Hydrological Origin of the section of water. The
	information will be defined by local Environment Agency staff
ORIGIN	knowledge. Descriptions are based on Water Framework Directive (WFD) definitions. Note: Will only be tagged as
	undetermined at initial release.
EA_WB_ID	Text: The Environment Agency Water Framework Directive
	waterbody unique identifier. Identifies the Waterbody "catchment"
	that the DRN section is within.
EA_WB_TAG	Short integer: The Environment Agency Water Framework



Attribute Name	Attribute Description
/ttilibato Italiio	Directive waterbody display network identifier. Note: Will only be
	tagged as undetermined at initial release.
FROMNODE	Text: Unique identifier of the "Upstream" Node (DRNnodes) for
FROMINODE	the section
TO NODE	Text: Unique identifier of the "Downstream" Node (DRNnodes) for
DPN Nodes Laver, Feeture class	the section description highlighting the structure of the layer and any
	ndividual attributes. DRN Nodes of the DRN feature class.
` ' '	Internal ArcSDE unique Object identifier - not essential to the
OBJECTID	DRN.
SHAPE	Geometry: Internal ArcSDE geometry link.
DRN_ID	Text: Unique identifier.
	Short integer: Version number of the DRN object - integer value
VERSION	that increases by +1 when the object referenced by the DRN_ID
	is updated.
	Text: Reason for object referenced by the DRN_ID being updated. Choice of:
	New Object
	Modified Geometry
REASON	Modified Attribution
	Modified Geometry & Attribution
	Object Modified (due to split)
	Other
	Date: Date of OS MasterMap Cross referenced feature
OSMMDATE	association (Currency date of OS MasterMap feature that the
	DRN object was extracted from).
NODETYPE	Short integer: Description of DRN Nodes and the node types as
	referenced from the drn_NodeType domain.
BASENAME	Text: Unique ID representing the dataset production level units (approximate to larger river basins).
	Short integer: Identifier of the statutory status (or stage within
FRMSTATUS	process in obtaining) of the FRMMAINRIV attribute
DRN Offline Drainage Features Lay	er: Feature class description highlighting the structure of the
	okups) for individual attributes. DRN offline drainage features
	des feature class. [Water features from OS MasterMap that
	river network and are generally of limited length.]
	Internal ArcSDE unique Object identifier - not essential to the
OBJECTID	DRN.
SHAPE	Geometry: Internal ArcSDE geometry link.
LENGTH	Double: Auto-generated object length in metres.
DRN_ID	Text: Unique identifier.
VEDOLON	Short integer: Version number of the DRN object - integer value
VERSION	that increases by +1 when the object referenced by the DRN_ID
	is updated.  Text: Reason for object referenced by the DRN_ID being
	updated. Choice of:
	New Object
REASON	Modified Geometry
	Modified determining     Modified Attribution
	Modified Geometry & Attribution
	Object Modified (due to split)
	Other
	Date: Date of OS MasterMap Cross referenced feature
OSMMDATE	association (Currency date of OS MasterMap feature that the
	DRN object was extracted from).
RIVERTYPE	Short integer: Description of DRN and the primary display field -
REGIONNR	river types as referenced from the drn_RiverType domain.  Short integer: Number corresponding to the Environment Agency
IVEOLOGIAL	Choir integer. Number corresponding to the Environment Agency



Attribute Name	Attribute Description
	"water management" Region that the DRN object is within. Corresponding to the FRM region numbers held on the current FRM Main river layer - these will be updated in the future (potentially by DRN full release) to the standard Environment Agency numerical region codes. Scotland has been included for completeness.
CATCHNAME	Text: Catchment Name as identified by Environment Agency local area teams. Note: Will only be tagged as undetermined at initial release.
NAFRA	Short Integer: Identifier tag to show if section has been included in current NaFRA modelling. Note: Will only be tagged as undetermined at initial release.
BASENAME	Text: Unique ID representing the dataset production level units (approximate to larger river basins).
CATCHID	Text: Unique ID representing the Catchment that is named in the CATCHNAME attribute. Note: Will only be tagged as undetermined at initial release.



# National Coastal Erosion Risk (NCERM) (AfA039)

## **Dataset Description**

The National Coastal Erosion Risk shows the spatial NCERM coastal baseline. This baseline is split to 'frontages'. These are defined as lengths of coast with consistent characteristics based on the cliff behaviour characteristics and the defence characteristics. It is intended as an up-to-date and reliable benchmark dataset showing erosion extents and rates for three periods:

- Short Term (0 20yr);
- Medium Term (20 50yr); and
- Long Term (50 100yr).

For 5, 50 and 95%-ile confidence levels for (All distances are cumulative over time and given in metres):

- No Active Intervention Policy Scenario; and
- With the implementation of Shoreline Management Plan 2 Policies.

Defence type and SMP policies for each of the three periods described above are included.

Guidance for use is available in NCERM Overview for Professional Partners (document 768\_11)

The data and associated information is intended for guidance - it cannot provide details for individual properties. The NCERM information considers the predominant risk at the coast, although flooding and erosion processes are often linked, and data on erosion of foreshore features are, in general, not included.

The data describes the upper and lower estimates of erosion risk at a particular location, within which the actual location of the coastline is expected to lie. The data does not estimate the absolute location of the future coastline. Details of geologically complex areas, known as "complex cliffs" are, in general, not included within the dataset due to the inherent uncertainties associated with predicting the timing and extent of erosion at these locations.

### **Price Category: Medium**

Attribute Name	Attribute Description
Geometry	Polyline
	British National Grid
	No Active Intervention retreat distance in metres for the
ST_NAI_5	Short Term 5%-ile All distances are cumulative over time
	and given in metres
	No Active Intervention retreat distance in metres for the
ST_NAI_50	Short Term 50%-ile. All distances are cumulative over time
	and given in metres
	No Active Intervention retreat distance in metres for the
ST_NAI_95	Short Term 95%-ile. All distances are cumulative over time
	and given in metres
MT_NAI_5	No Active Intervention retreat distance in metres for the
	Medium Term 5%-ile. All distances are cumulative over
	time and given in metres
MT_NAI_50	No Active Intervention retreat distance in metres for the



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MT_SMP_5  5%-ile. All distances are cumulative over time and given in metres  Medium Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Medium Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 5%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 5%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:		in metres
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MT_SMP_50  50%-ile. All distances are cumulative over time and given in metres  Medium Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 5%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the LT_SMP_50  Long Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:		metres
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MT_SMP_95  95%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 5%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the LT_SMP_50  Long Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:		
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LT_SMP_5  5%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the LT_SMP_95  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:		
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Long Term SMP Policy retreat distance in metres for the 50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the Unique Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:	LI_SMP_5	
LT_SMP_50  50%-ile. All distances are cumulative over time and given in metres  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  DEFTYER  Defence Type as utilised in the NCERM model:		
in metres  Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:	LT_SMP_50	
Long Term SMP Policy retreat distance in metres for the 95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:		
LT_SMP_95  95%-ile. All distances are cumulative over time and given in metres  Defence Type as utilised in the NCERM model:	LT_SMP_95	
in metres  Defence Type as utilised in the NCERM model:		
Defence Type as utilised in the NCERM model:		
	DEFTYEP	



Attribute Name	Attribute Description
ST_SMP	Short Term Shoreline Management Plan Policy:
	Hold the line
	Managed Realignment
	No interactive Intervention
MT_SMP	Medium Term Shoreline Management Plan Policy
LT_SMP	Long Term Shoreline Management Plan Policy
MID_X	Easting for the mid point of the section of foreshore that has
	been assessed.
MID_Y	Northing for the mid point of the section of foreshore that
	has been assessed.
Shape_Leng	Length of the frontage (in metres)
Feat_Type	Feature Type (either Erodible, Floodable or Complex Cliff)
ST_NAI_5	No Active Intervention retreat distance in metres for the
	Short Term 5%-ile



## Hazardous Waste Registrations with SIC Code (AfA043)

#### **Dataset Description**

The Hazardous Waste Regulations 2005 require that anyone who produces or holds hazardous waste at any premises in England and Wales must register the premises with the EA each year, unless the total quantity of hazardous waste is less than 500kg each year.

Customers can register online, by telephone or on a paper application form. There is an online public register that allows searches to be run on registrations which shows the business name, registration reference, address, postcode, registration start date and registration end date. The dataset contains about 160,000 live registrations.

This dataset includes the contact details for each registrant(, their primary SIC code identifying business type and number of employees (by category)).

SIC (Standard Industrial Classification) codes should be treated with caution. A SIC code is provided by the registrant and indicates its principal area of business. This has not been validated by the Environment Agency, and the registrant may also operate in a number of other activities.

## **Price Category: EA OpenData**

Attribute Name	Attribute Description
Registration Reference	
Business Name	
Site Address	
Post Code	
Business Phone No	
Business e-mail address	
SIC Code Main Activity	
Company Registration No	
Individual Name	
Applicant Address	
Applicant Post Code	
Registration Start Date	
Registration End Date	
No of Employees	
Applicant Business Name	



# 25cm Light & Detection Ranging (LIDAR) Digital Terrain and Digital Surface Model (AfA047)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

Some areas are available at 25cm resolution and these can be supplied as a combined Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) and Digital Terrain Model (a "bare earth" model with surface objects filtered out of the DSM by applying bespoke software techniques).

Attribute Name	Attribute Description
Title Attribution	
FILENAME	Environment Agency file name
TILENAME	Ordnance Survey tile name
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec 06 – Jan 07)
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 50cm LIDAR Digital Surface and Digital Terrain Model (AfA049)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

Some areas are available at 50cm resolution and these can be supplied as a combined Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) and Digital Terrain Model (a "bare earth" model with surface objects filtered out of the DSM by applying bespoke software techniques).

Attribute Name	Attribute Description	
Title Attribution		
FILENAME	Environment Agency file name	
TILENAME	Ordnance Survey tile name	
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)	
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



# 1m LIDAR Digital Terrain and Digital Surface Model (AfA050)

### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

Some areas are available at 1m resolution and these can be supplied as a combined Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) and Digital Terrain Model (a "bare earth" model with surface objects filtered out of the DSM by applying bespoke software techniques).

Attribute Name	Attribute Description	
Title Attribution		
FILENAME	Environment Agency file name	
TILENAME	Ordnance Survey tile name	
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)	
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



## 2m LIDAR Digital Terrain and Digital Surface Model (AfA051)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

Some areas are available at 2m resolution and these can be supplied as a combined Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) and Digital Terrain Model (a "bare earth" model with surface objects filtered out of the DSM by applying bespoke software techniques).

Attribute Name	Attribute Description	
Title Attribution		
FILENAME	Environment Agency file name	
TILENAME	Ordnance Survey tile name	
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)	
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



## 2m Composite LIDAR Digital Surface Model (AfA052)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of our full dataset which has been merged and resampled to give the best possible coverage. The dataset is 2m resolution and is supplied as a Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface).

Attribute Name	Attribute Description
Title Attribution	
FILENAME	Environment Agency file name
TILENAME	Ordnance Survey tile name
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec
	06 – Jan 07)
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 2m Composite LIDAR Digital Terrain Model (AfA053)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of our full dataset which has been merged and resampled to give the best possible coverage. The dataset is 2m resolution and is supplied as a Digital Terrain Model produced by removing objects from the Digital Surface Model.

Attribute Name	Attribute Description	
Title Attribution	·	
FILENAME	Environment Agency file name	
TILENAME	Ordnance Survey tile name	
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (Dec	
	06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by LiDAR data (0 – 100%)	
RESOLUTION	Resolution in metres (e.g. 0.5, 1.0, 2.0)	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



## Flood Warning Areas (AfA054)

#### **Dataset Description**

A Flood Warning Area is defined as a portion of the floodplain containing a community at risk of flooding, which is provided with an appropriate flood warning service as per the Work Instruction on Flood Warning Levels of Service.

Specifically, Flood Warning Areas define locations within the Flood Warning Service Limit (FWSL) that represent a single or aggregation of Flood Warning Sub Areas (FWSAs) or Flood Warning Flood Risk Areas (FWFRAs) containing a discrete community at risk of flooding. The primary concept in aggregating FWSAs/FWFRAs into a Flood Warning Area is to form a recognised and named geographical Community which can be an urban area, a significant suburb of a large city or a village or a hamlet.

The purpose of Flood Warnings is to alert people of the danger to life and property within a Community and different codes are applied, as appropriate, depending on the scale of the flood risk. Warnings are only issued to areas that contain property or other high impact land use and warnings may be targeted to different FWSAs within the Flood Warning Area as the flood envelope expands and as forecasting and mapping capabilities allow.

[N.B. High impact land is defined as Major Roads (trunk roads & Motorways), Caravan Parks/Campsites, major tourist/recreational attractions and railway lines. Low impact areas are serviced only by Flood Watch, where technically feasible.]

Attribute Name	Attribute Description
GIS Geometry	Environment Agency file name
REGION	Agency Region Name
AREA	Agency Area Name
FWD_TACODE	FWD TA Code
FWIS_CODE	FWIS FWA Code - the code issued by FWIS
FWA_NAME	FWA Name - English
DESCRIP	FWA Description - English
RIVER_SEA	River or Sea (English) linked to FWA
COUNTY	County name intersecting with FWA, entered by FIM Team
PARENT	Links to Flood Watch - contains FWIS FWA Code for Flood Watch
E_QDIAL	QuickDial number for English language recording
W_REGION	Welsh translation of Region Name
W_FWA_NAME	Welsh translation of FWA Name
W_DESCRIP	Welsh translation of FWA Description
W_AFON	Welsh translation of River Sea
W_QDIAL	QuickDial number for Welsh language recording



## Flood Alert Areas (AfA055)

#### **Dataset Description**

A Flood Alert Area is generally a large expanse of floodplain (up to and including the extreme flood outline which defines the Flood Warning Service Limit), within a catchment, sub-catchment or group of catchments, that is/are at risk from low impact flooding (from main rivers, ordinary watercourses and the sea).

A single Flood Alert Area may cover the floodplain of multiple catchments of broadly similar hydrological and hydraulic characteristics but practical and administrative factors may influence the exact extent of the Flood Watch Area. Upland reaches will often form different flood alert areas than slower responding lowland reaches; fast responding tributaries may also form different flood alert areas than the slower responding rivers to which they join. Some coastal locations may receive a Flood Alert for spray and overtopping, yet there may be no floodplain at risk. A Flood alert in this circumstance would be defined by a stretch of coastline.

Flood Alert Areas must cover the whole of the Flood Warning Service Limit.

The trigger for Flood Alert is a forecast, which for fluvial situations is likely to be based on river level/flow information and alarms, or perhaps rainfall information and alarms for faster responding rivers and for coastal/tidal situations the forecast is likely to be based on wind, wave and surge information from the Storm Tide Forecasting Service provided by the Met Office.

[N.B. Low (or minor) impact flooding is defined as floodplain inundation, Road flooding (A (non Trunk) B, C & Unclassified), Car Park flooding & Farmland Flooding (Arable & Pasture).]

Attribute Name	Attribute Description
GIS Geometry	Environment Agency file name
REGION	Agency Region Name
AREA	Agency Area Name
FWD_TACODE	FWD TA Code
FWIS_CODE	FWIS FWA Code -the coded issued by FWIS
FWA_NAME	FWA Name - English
DESCRIP	FWA Description - English
RIVER_SEA	River or Sea (English) linked to FWA
COUNTY	County name intersecting with FWA, entered by FIM Team
E_QDIAL	QuickDial number for English language recording
W_REGION	Welsh translation of Region Name
W_FWA_NAME	Welsh translation of FWA Name
W_DESCRIP	Welsh translation of FWA Description
W_AFON	Welsh translation of River Sea
W_QDIAL	QuickDial number for Welsh language recording
W_QDIAL	QuickDial number for Welsh language recording



## Referrals of Red List Discharges to Sewers (Corporate Entities) (AfA056)

#### **Dataset Description**

The Referrals of Red List Discharges to Sewers (Corporate Entities) dataset (extracted from IPCIS) records those companies, local or public authorities and hospital trusts who have applied to water undertakers for permission to discharge a Red List substance into sewers.

The Water Industry Act 1991 (as amended) section 120 (Applications for the discharge of special category effluent) directs sewerage undertakers who have received a notice containing an application for consent to discharge trade effluent from a trade premise into a public sewer (section 119) to refer to the Environment Agency the questions:

- · whether the discharges to which the notice relates should be prohibited; and
- whether, if they are not prohibited, any requirements should be imposed as to the conditions on which they are made.

It is this information, stored within IPCIS, that (filtered to exclude individuals) makes up the Referrals of Red List Discharges to Sewers (Corporate Entities) dataset.

This dataset used to be known as the Water Industry Act Referrals dataset.

[Note: The Red List is a list of 23 of the most dangerous substances which were selected for priority control under the Integrated Pollution Control legislation (subsequently superseded by the Pollution Prevention and Control and then Environmental Permitting Regulations). This list of substances includes EC List I substances defined under the Dangerous Substances Directive, as well as certain substances listed on EC List 2.]

Attribute Name	Attribute Description
Region Name	Environment Agency Region
Area Name	Environment Agency Area
Original Permission No	Unique IPCIS authorisation number for initial application
Operator Name	Operator Name [Filtered to exclude individuals/small companies but in practice this has not been experienced. Does include LAs, EA, Crematoriums, Universities, Labs]
Application Tariff	EA Tariff Code [IPCIS Tariff, N/A to WIAR, hence always "Water"]
PP Address Delivery Point	Operator Address – Line 1
PP Address Locality	Operator Address – Line 2
PP Address Town	Operator Address – Town
PP Address County	Operator Address – County
PP Address PostCode	Operator Address – Post Code
Current LC Status	<ul> <li>Current Status of authorisation, options are:</li> <li>Received: The application has been received and input onto IPCIS</li> <li>Effective: The application has been approved and limits provided</li> <li>Dead (Application): Application is no longer active.</li> <li>Dead (Post Determination): N/A to WIAR, relevant to other IPCIS datasets. This status has been used where an application is no longer active.</li> </ul>
Date Received	Date original application was received
Local Authority Name	Local Authority Name
Numeric GR East	Eastings for the site entrance
Numeric GR North	Northings for the site entrance
PP National GR	NGR for site entrance



## 25cm Composite LIDAR Digital Surface Model (AfA057)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data at 25cm or better resolution which has been merged and re-sampled to give the best possible coverage. The dataset is 25cm resolution and is supplied as a Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface).

Attribute Name	Attribute Description
Title Attribution	
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 25cm Composite LIDAR Digital Surface Model JPEG (AfA058)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 25cm.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



## 25cm Composite LIDAR Digital Terrain Model (AfA059)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data that is 25cm resolution or better which has been merged and re-sampled to give the best possible coverage. The dataset is 25cm resolution and is supplied as a Digital Terrain Model produced by removing objects from the Digital Surface Model.

Attribute Name	Attribute Description
Title Attribution	·
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 25cm Composite LIDAR Digital Terrain Model JPEG (AfA060)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast: -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 25cm.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
Red	Red value (0-255)	
Green	Green value (0-255)	
Blue	Blue value (0-255)	



## 50cm Composite LIDAR Digital Surface Model (AfA061)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data at 50cm or better resolution which has been merged and re-sampled to give the best possible coverage. The dataset is 50cm resolution and is supplied as a Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface).

Attribute Name	Attribute Description
Title Attribution	·
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 50cm Composite LIDAR Digital Surface Model (AfA062)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 50cm.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
Red	Red value (RGB 0-255)	
Green	Green value (RGB 0-255)	
Blue	Blue value (RGB 0-255)	



## 50cm Composite LIDAR Digital Surface Model (AfA063)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data that is 50cm resolution or better which has been merged and re-sampled to give the best possible coverage. The dataset is 50cm resolution and is supplied as a Digital Terrain Model produced by removing objects from the Digital Surface Model.

Attribute Name	Attribute Description
Title Attribution	•
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 50cm Composite LIDAR Digital Terrain Model JPEG (AfA064)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 50cm.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
Red	Red value (RGB 0-255)	
Green	Green value (RGB 0-255)	
Blue	Blue value (RGB 0-255)	



## 1m Composite LIDAR Digital Surface Model (AfA065)

## **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data at 1m or better resolution which has been merged and re-sampled to give the best possible coverage. The dataset is 1m resolution and is supplied as a Digital Surface Model produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface).

Attribute Name	Attribute Description
Title Attribution	
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
X-COORDINATE	X-Coordinate of the point
Y-COORDINATE	Y-Coordinate of the point
HEIGHT	Height of the point



## 1m Composite LIDAR Digital Surface Model JPEG (AfA066)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 1m.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
Red	Red value (RGB 0-255)	
Green	Green value (RGB 0-255)	
Blue	Blue value (RGB 0-255)	



## 1m Composite LIDAR Digital Surface Model JPEG (AfA067)

## **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

This dataset is derived from a combination of all data that is 1m resolution or better which has been merged and re-sampled to give the best possible coverage. The dataset is 1m resolution and is supplied as a Digital Terrain Model produced by removing objects from the Digital Surface Model.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
HEIGHT	Height of the point	



## 1m Composite LIDAR Digital Terrain Model JPEG (AfA068)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 1m.

Attribute Name	Attribute Description	
Title Attribution		
TILENAME	Ordnance Survey tile name	
DSM	Name of Digital Surface Model (DSM) tile	
DTM	Name of Digital Terrain Model (DTM) tile	
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)	
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data	
Point Attribution		
Red	Red value (RGB 0-255)	
Green	Green value (RGB 0-255)	
Blue	Blue value (RGB 0-255)	



## 2m Composite LIDAR Digital Surface Model JPEG (AfA069)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 2m.

Attribute Name	Attribute Description
Title Attribution	
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
Red	Red value (RGB 0-255)
Green	Green value (RGB 0-255)
Blue	Blue value (RGB 0-255)



## 2m Composite LIDAR Digital Terrain Model JPEG (AfA070)

#### **Dataset Description**

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at spatial resolutions of between 25cm and 2 metres.

The Environment Agency's LIDAR data archive contains digital elevation data derived from surveys carried out by the Environment Agency and represents over 10 years of survey work carried out by a specialist remote sensing team based in Bath and Coventry. Accurate elevation data is available for approximately 50% of England and Wales.

LIDAR JPEG Images are geo-referenced, coloured, shaded relief images that contain valuable information on terrain elevation and objects contained within the landscapes covered. The images are colour coded for elevation, these colours are uniform across the country, and as such elevation contours can be derived from the data. The contour values that could be extracted are: -8, -6, -4, -2, 0, 5, 10, 20, 35, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800, 1000 and 1200 metres. The most valuable of these contours will be those around the coast - -2, 0, 5 and 10 metres. Image analysis and visual interpretation of the data can be used to derive maps of land use (such as forestry, urban, farmland, etc), and also to identify buildings, roads and other infrastructure within the landscape. The spatial accuracy and resolution of the imagery is the same as the input LIDAR data grids in this case 2m.

Attribute Name	Attribute Description
Title Attribution	
TILENAME	Ordnance Survey tile name
DSM	Name of Digital Surface Model (DSM) tile
DTM	Name of Digital Terrain Model (DTM) tile
RESOLUTION	Resolution (i.e. 25cm, 50cm, 1m and 2m)
AREA_SQKM	Area (sq km) of the tile covered by LiDAR data
Point Attribution	
Red	Red value (RGB 0-255)
Green	Green value (RGB 0-255)
Blue	Blue value (RGB 0-255)



## Nitrate Vulnerable Zones (NVZ) – Groundwater Monitoring Network (AfA071)

#### **Dataset Description**

The Nitrate Vulnerable Zones (NVZ) – Groundwater Monitoring Network dataset is relevant to the environmental protection of water quality. It contains an extract of monitoring points from the Environment Agency held Groundwater Quality Monitoring Network where sites have recorded diffuse agricultural nitrate pollution as defined by the Nitrates directive<sup>2</sup>. Groundwaters are defined within the Nitrates Directive as polluted if they contain or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l. As such NVZ – Groundwater Monitoring Network data has been used as one of the core datasets in identifying catchments that are deemed to be vulnerable to nitrates. Catchments vulnerable to nitrates are defined within the Nitrate Vulnerable Zones – Groundwaters (England), where monitoring sites with the highest recorded nitrate levels have been attributed.

Groundwater monitoring data are represented as a point, geographic data layer that shows the location of sites used to monitor groundwaters for nitrate levels with predicted values being determined through trend based statistical analysis. The Groundwater Quality Monitoring Network holds records from monitoring sites received from water companies, private business and the Environment Agency. It is of note that although the groundwater monitoring sites are recorded to a precision of 1 metre, the data has been adjusted to a precision of 1000 metres i.e. the last 2 coordinates are zero for a 6 digit grid reference.

**Information Warning:** These data have been extracted from our monitoring network. Please contact us if additional fields or extent is required.

Attribute Name	Attribute Description
Easting of Monitoring Point  Northing of Monitoring Point	Easting of Groundwater nitrate monitoring point [6 Digit Grid
	Reference].  Northing of Groundwater nitrate monitoring point [6 Digit Grid
	Reference].
Nitrate in 2005 in mg/l	Nitrate level in 2005.
Nitrate in 2021 in mg/l	Statistically predicted nitrate level for the monitoring site in 2021.
Trend Method Used	Statistical trend based analysis was used to predict nitrate level in 2021.
Green	Green value (RGB 0-255)
Blue	Blue value (RGB 0-255)

<sup>&</sup>lt;sup>2</sup> http://www.environment-agency.gov.uk/business/1745440/444663/1772423/?version=1&lang=\_e



## Nitrate Vulnerable Zones (NVZ) – Surface Waters (England) (AfA073)

#### **Dataset Description**

The Nitrate Vulnerable Zones (NVZ) - Surface Waters (England) dataset is relevant to the environmental protection of water quality. It contains the geographical extent of surface water Nitrate Vulnerable Zones and the core monitoring and landuse modelling data required to identify that the surface water is polluted by diffuse agricultural nitrate pollution as defined by the Nitrates directive<sup>3</sup>. Surface waters are defined within the Nitrates Directive as polluted if they contain or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l.

The geometry defines discrete polygons delineating groundwater delineating surface water catchments that are vulnerable to nitrate pollution. Surface water NVZs have been attributed with Environment Agency held monitoring data and land-use model predictions of nitrate concentration. Surface water NVZs are also attributed with the location of the lowest draining point within each NVZ. Monitored nitrate levels have been extracted from the Surface Water Sampling Sites and/or land-use prediction models. Those with the highest nitrate levels have been attributed to the Surface water NVZs, with predicted values being determined through the worst case land-use predictive model or statistical trend analysis for monitoring stations.

**Information Warning:** These data have been produced for an initial consultation process, with NVZ Groundwaters not being available for re-use (due to third party data use). Final, definitive boundaries may become available through Defra that may be more appropriate. Please contact us for more information.

## **Price Category: Low**

Attribute Name	Attribute Description
Type of NVZ in 2006	Type of NVZ. This is labelled as SW (Surface Water) for features
**	within this dataset.
Id. of Lowest Catchment	Identifier of the catchment with the lowest draining point
Easting of Highest Nitrate in 2004	Easting of highest nitrate level recorded at a monitoring site within
Lacting of Fightoot Mitato in 2001	a catchment in 2004.
Northing of Highest Nitrate in 2004	Northing of highest nitrate level recorded at a monitoring site
TVOTEIIIII OI T II GITCOL TVIII ALC III 2004	within a catchment in 2004.
	Type of catchment code:
	Those benefiting from both water quality monitoring data
	and land-use model predictions of 95%ile nitrate
Type of Catchment (1 or 2)	concentration;
	2. Those with a land-use model based prediction of 95%ile
	nitrate concentration, but lacking direct, site-specific
	monitoring observations.
Nitrate Monitored in 2004 mg/l	Highest, monitored nitrate level recorded within NVZ in 2004.
Nitrate Predicted in 2010 mg/l	A statistically predicted nitrate level in 2010 for the site with the
Nitrate Fredicted in 2010 mg/i	highest nitrate level in 2004.
Nitrate Predicted by Model mg/l	Highest, predicted nitrate level determined from a land-use model
Mitate Fredicted by Model High	for NVZ catchments.
Confidence of Model Prediction	Level of confidence of modelled nitrate level, determined from 6
Confidence of Model Frediction	categories.
Easting of Lowest Point	Easting of lowest drainage point.
Northing of Lowest Point	Northing of lowest drainage point.

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<sup>&</sup>lt;sup>3</sup> http://www.environment-agency.gov.uk/business/1745440/444663/1772423/?version=1&lang=\_e



## Nitrate Vulnerable Zones (NVZ) – Eutrophic Waters (England) (AfA074)

#### **Dataset Description**

Eutrophication is defined in the Nitrates Directive<sup>4</sup> as "the enrichment of water by nitrogen compounds, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned".

Waterbodies within England have been assessed for eutrophication applying an evidence based assessment analysing chemical and biological indicators. If the waterbody exceeds one or more of the indicators assessed, the waterbody and the land draining into the affected waters (the catchment), are designated as Nitrate Vulnerable Zones (NVZs) – Eutrophic Waters. NVZs are a conservation designation that mandate control of nitrates within defined boundaries. NVZs – Eutrophic Waters are already suffering the effects of nitrate pollution and as such require nitrate control to reverse the process rather than as a preventative measure.

The Nitrate Vulnerable Zones – Eutrophic Waters dataset display the geographical extent of the eutrophic NVZs, together with a reference linking the NVZ geometry to a document providing a summary of evidence on why each specific waterbody has been designated as eutrophic. Some eutrophic NVZs are made up of a number of eutrophic waters. In this case each eutrophic polygon will have a series of documented evidence, one for each failing waterbody. Environment Agency Eutrophic NVZs have been extracted attributed with a reference to the summary of evidence for each waterbody within the NVZ designated as eutrophic.

**Information Warning:** These data have been produced for an initial consultation process, with NVZ Groundwaters not being available for re-use (due to third party data use). Final, definitive boundaries may become available through Defra that may be more appropriate. Please contact us for more information.

#### **Price Category: Low**

Attribute Name	Attribute Description
Eutrophic NVZ	
Name of NVZ	Name of NVZ.
Type of NVZ in 2006	Type of NVZ in 2006.
Type of NVZ in 2002	Type of NVZ in 2002.
Reference	Reference link to Summary of Evidence documents.
Candidate name	Name assigned to an individual waterbody.
Area of designation	Information on waterbody's spatial parameters:     Region - Environment Agency Region     Area - Environment Agency Area within Region     Location - OS Grid Reference     Easting [of centroid]     Northing [of centroid]     Surface Area (ha) - Surface area of waterbody in hectares
Summary of Evidence	
Summary of main uses and designations:	Waterbody use and designations, defined as one or more of the following:  • Designated UWWTD (Urban Waste Water Treatment Directive)  • Angling  • Recreation and Tourism  • Water contact sports  • Amenity

http://www.environment-agency.gov.uk/business/1745440/444663/1772423/?version=1&lang=\_e

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Attribute Name	Attribute Description
	Irrigation
	Fish Farm
	Industrial water supply
Conservation status	Whether the waterbody is classified as a conservation site, e.g.
Conservation status	Site of Special Scientific Interest (SSSI)
Method indicators exceeded	Indicators that have exceeded the ecological disturbance
Method indicators exceeded	threshold in classifying eutrophication.
Chemical Data	Chemical indicators assessed, e.g. Nitrate.
	Biological/observational indicators assessed, e.g. Macrophytes [a
Biological/observational data	classification of water plants that give an indication of water pollution], reported algal blooms. <sup>5</sup>
	pollution], reported algal blooms. <sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Reference - looked into the possibility of personal and/or criminal information.



## Groundwater Level Measurements: Chalk Outcrops Subset (AfA075)

#### **Dataset Description**

These data represent a subset extracted from WISKI (Water Information System KISTERS [a Water Resources Information System developed by KISTERS]) containing groundwater level time series data taken at borehole monitoring stations located at chalk outcrops.

Discrete station information is stored for each site including identifier, spatial reference, parameter type and time series type. This dataset contains sites for operational and closed monitoring stations. This subset from WISKI contains time series data for *circa* 300 monitoring sites located on chalk outcrops.

Data is collected from Environment Agency boring stations that are collated by Area staff by either downloading the station 'Logger Data' or manually 'Dipping' to determine borehole water level.

Attribute Name	Attribute Description	
	Monitoring Station	
STATION NUMBER	Unique identifier assigned to each boring station	
EASTING	Easting as converted within WISKI from OS Grid Reference	
NORTHING	Northing as converted within WISKI from OS Grid Reference	
PARAMETER-NAME	Parameter that the borehole station monitors. There is a selection of defined parameters held within WISKI. All Groundwater Depth data is defined and populated as 'WL' (water level). For technical reasons it's included.	
PARAMETER TYPE	For Groundwater Depths this is populated as 'WL' (water level). In other instances within WISKI this would distinguish a parameter sub-category based on measurement type. For technical reasons this is included.	
TIME SERIES NAME	The name of the time series located at the site. This is recorded as a code that is determined by a concatenated string consisting of site number, time series number, parameter type, frequency and status of data.	
TIME SERIES UNIT	Unit for which the time series data is captured (metres)	
TIME LEVEL	Resolution of the time series measurements. Always High- Resolution for Groundwater Depth. Not included.	
TIME SERIES TYPE	The time series capture type, such as whether the value recorded is taken instantaneous or over a longer period (e.g. 15 minutes) or if it has been derived through calculation.	
EQUIDISTANT TIME SERIES	Flag as to whether the time series data is recorded over a regular time period. Can be either:  • Yes  • No (i.e. an irregular time series).	
TIME SERIES QUALITY	Flag as to whether the time series data taken has been quality assured with records being edited or deleted. All data disseminated is production. Flagged as either:  • Production (Validated data)  • Origin Data (Raw data)	
Time Series		
DATE	Date of time series measurement (DD/MM/YYYY)	
TIME	Time of time series measurement (HH:MM:SS)	
DIP [m]	Depth of dip required determining water level (metres). I.e. distance from the top of the borehole to water surface.	
QUALITY FLAG	Quality of the time series measurement:  G (Good) GEd (Good Edited)	



Attribute Name	Attribute Description
	S (Suspect)
	M (Missing)
	U (Unchecked)
	It is of note that no unchecked data is disseminated but has been
	included for completion.
WL [m AOD]	[Ground] Water Level (metres Above Ordnance Datum [metres above sea level])



## WFD Lake Waterbodies (AfA083)

#### **Dataset Description**

'WFD Lake Waterbodies' is a polygon Shapefile dataset containing Water Framework Directive (WFD) attributes that have been collated as defined for the implementation of the Water Framework Directive. Article 2, clause 5 of the WFD defines them as '...a body of standing inland surface water'. There is data on the physical characteristics, risk, classification and proposed objectives that can be linked to waterbodies by their unique identifiers. Artificial and modified lake waterbodies are included within this dataset, however, generally only lakes above > 0.5 ha were assessed under the WFD; lakes below this threshold are not included within this dataset unless allocated as Sites of Special Scientific Interest (SSSI) as supplied by Natural England.

1:50k WFD Lake Waterbody geometry is taken directly from version 2.2 of the Environment Agency owned and held GB Lakes Inventory. This was constructed under an Environment Agency funded contract conducted by the Environmental Change Research Centre (ECRC) based at the University of Central London (UCL). Lake polygons within the inventory were extracted directly from Ordnance Survey (OS) Land-Form PANORAMA®, with lakes being defined within this data as Feature Code: 0202, where areas of inland water > 0.5 ha were included. Lakes that are less than < 0.5 ha and are located within a SSSI are also extracted from the GB Lakes Inventory, if absent from the inventory lakes have been digitised from OS background mapping.

Therefore, geometry is copied from OS Land-Form PANORAMA®, albeit with manual cleaning conducted by the Environment Agency where incorrectly identified lakes, e.g. docks and saline lagoons, were taken out. Each waterbody has been assigned 'EA\_WB\_ID', which is a unique identifier that enables a link to WFD attributes.

Attribute Name	Attribute Description
SHAPE	Geometry type = Polygon;
SHAPE	Spatial Reference = British National Grid.
ID	Object ID: Geometry identifier.
EA_WB_ID	The Unique identifier for each waterbody.
NAME	The name of the waterbody.
WATER_CAT	What type of waterbody it is: coast, river, transitional.
RBD	The River Basin District the Waterbody is in (ID).
RBD_NAME	The River Basin District the Waterbody is in.
CATCHMENT	The river catchment the waterbody is in.
TYPE	The type code the waterbody has been classified as.
TYP_DESC	Description of the waterbody's characteristics. E.g. shallow,
	small siliceous lake.



## WFD Monitoring Network (AfA091)

## **Dataset Description**

The 'WFD Monitoring Network' is a point Shapefile that contains the location of monitoring sites used by the Environment Agency in the implementation of the Water Framework Directive (WFD). The network consists of numerous monitoring sites used to record various parameters. These data are intended to show the location and extent of the network and does not hold any actual monitored data.

Attribute Name	Attribute Description
KEY	Unique identifier for the point.
SITE_ID	The ID for the site from the host system.
MON_PERIOD	When the site was monitored.
MON_TYPE	Type of monitoring carried out, e.g. chemistry, biology etc.
T_P_CODE	Used to map the layer. Combines the monitoring type and monitoring code.
EASTING	The easting of the site [6 digits].
NORTHING	The northing of the site [6 digits].



# Areas to Benefit from New and Reconditioned Flood Schemes under the Medium Term Plan (2011 – 2016) (AfA097)

#### **Dataset Description**

'Areas to Benefit from New and Reconditioned Flood Schemes under the Medium Term Plan (2011 – 2016)' is a spatial, polygon, displaying areas that would benefit from the presence of a new, or improvement of a current flood defence scheme as planned within the Medium Term Plan (i.e. covering the next 5 years: effectively a new dataset will be available annually). It does not directly indicate the likelihood of flooding to individual properties. The Environment Agency is supplying this data in order to support the Government's and Association of British Insurer's (ABI) revised joint Statement of Principles on the provision of flood insurance. The areas defined within this dataset show a forecast of areas benefiting from new/improved flood defence projects. It contains funding allocation for the first financial year (from April). Funding for the following four financial years is not guaranteed being only indicative and will be reviewed annually. Projects within a Medium Term Plan qualify for this dataset if:

- the investment leads to a change in the current standard of service (change projects);
- the investment is a replacement or refurbishment in order to sustain the current standard of service (sustain projects);
- the project has an initial construction budget of £100k of more; and
- the project is included within the first five years of the MTP.

The data includes all the Environment Agency's projects over £100K that will change or sustain the standards of flood defence in England and Wales over the next 5 years. It also includes the equivalent schemes for all Local Authority and Internal Drainage Boards. The number of households and areas of land contributing to DEFRA's Outcome Measures (OM) are also attributed i.e. could benefit from major work on flood defences.

These data also contain Intermittence Flood Maintenance Programme that show the annual maintenance programme of work scheduled to be carried by the Environment Agency, Local Authority or Internal Drainage Board on flood defences. Data details routine maintenance as well as intermittent work that has been funded for the coming year. The data contains a start and end coordinate defining the relevant river section where work is planned.

Information Warning:

"Please note that the maps show the areas where investment is being made to reduce the flood and coastal erosion risk and are not detailed enough to account for individual addresses. Individual properties may not always face the same risk of flooding as the areas that surround them. Also note that funding figures are indicative and any use or interpretation should account for future updates where annual values may change.

We do all that we can to ensure that the maps reflect all the data we possess and that we have applied our expert knowledge to create conclusions that are as reliable as possible. We believe that we have created the maps as well as we can and so should not be liable if the maps by their nature are not as accurate as might be desired or are misused or misunderstood despite our warnings. For this reason we are not able to promise that the maps will always be accurate or completely up to date.

This site includes mapping data licensed from Ordnance Survey used for setting the Environment Agency's data in its geographical context. Ordnance Survey retains the copyright of this material and it can not be used for any other purpose."



Attribute Name	Attribute Description
Attribute Name	Capital Schemes
	Geometry type = Polygon
SHAPE	Spatial Reference = British National Grid.
EA Area	Environment Agency Area
OPAUTH	Operating Authority
RFCC	Regional Flood and Coastal Community
PROJECT NO	Project identifier
Region	Environment Agency Region
region	Postcodes covered by the area benefiting from flood defence
PostCode	(District, Sector).
ProjectName	Project name as given in the Medium Term Plan (MTP).
Y1Spend	Allocated first year spend for the project
Y2Spend	Allocated second year spend for the project
Y3Spend	Allocated third year spend for the project
Y4Spend	Allocated fourth year spend for the project
Y5Spend	
r 5 Spend	Allocated fifth year spend for the project
	Contribution to Defra's Outcome Measure (OM) 2: Number of
	households that move from very significant or significant
OM2	probability bands to moderate or low probability bands of flood
OIVI2	risk if the scheme is to be implemented.
	Contribution to Defra's Outcome Measure (OM) 2b: Number of
	households that move from very significant or significant
0140	probability bands to moderate or low probability bands of flood
OM2b	risk if the scheme is to be implemented
OM2c	The number of households in the 20% most deprived areas
	moved out of the significant or very significant probability
	categories
	Contribution to Defra's Outcome Measure (OM) 3: Number of
	households in deprived communities at reduced flood risk within
OM3	the Medium Term Plan Area of Benefit.
OM3b	The number of households protected against loss in 20 yrs from
	coastal erosion
OM3c	The number of households in the 20% most deprived areas
	protected against loss in 20 yrs from coastal erosion.
	Actions to improve the condition of SSSIs (FRM contribution)
OM4	(ha)
OM4a	Hectares of water dependent habitat created or improved to help
	meet the objectives of the Water Framework Directive.
OM4b	Hectares of inter-tidal habitat created to help meet the objectives
	of the Water Framework Directive for areas protected under the
	EU Habitats/Birds Directive
OM4c	Kilometres of rivers protected under the EU Habitats/Birds
	Directive improved to help meet the objectives of the Water
	Framework Directive
SOP	Standard of Protection (SoP) of the scheme after completion.
	This is represented as a percentage likelihood of flooding in a
	1 year period. The percentage is determined from assessed
	model output on an individual flood scheme basis.
	Either 'EA' for Environment Agency, 'LA CE' for a Local Authority
	with the lead on coastal erosion issues, 'LA FL C' for a Local
	Authority with the lead on coastal flooding issues, 'LA FL R' for a
	Local Authority with the lead on a river flooding issue, and 'IDB'
Authority Type	for an Internal Drainage Board.
	Either:
	Coastal Erosion;
Catagory	River Flooding; or     See Flooding
Category	Sea Flooding



Attribute Name	Attribute Description		
Attribute Name	Recondition Work		
	Geometry type = Point		
SHAPE	Spatial Reference = British National Grid.		
Project	Project name as given in the Medium Term Plan (MTP).		
Region	Environment Agency Region		
RFCC	Regional Flood and Coastal Community		
Work Type	Type of work scheduled such as Asset Condition, Health and		
<b>71</b>	Safety, Conveyance		
Y1Spend	Allocated first year spend for the project		
Y2Spend	Allocated second year spend for the project		
Y3Spend	Allocated third year spend for the project		
Y4Spend	Allocated fourth year spend for the project		
Y5Spend	Allocated fifth year spend for the project		
EA_AREA	Environment Agency Area		
	Intermittent Maintenance		
SHAPE	Geometry type = Point		
	Spatial Reference = British National Grid.		
Project Name	Project name as given in the Medium Term Plan (MTP).		
RFCC	Regional Flood and Coastal Community		
Region	Environment Agency Region		
Area	Environment Agency Area		
Work Type	Type of work scheduled such as Asset Condition, Health and		
	Safety, Conveyance		
Funding Type	Type of funding e.g. Flood Defence Grant in Aid (FDGIA),		
	General Drainage Charge, Capital, Local Levy, Revenue		
System number	The system reference number.		
Project number	Unique number for project		
UnID	Unique Identifier		
County	County		



## Real-time and Near-real-time River Level Data (AfA104)

### **Dataset Description**

Measurements of the height (m) of water in a river taken using automatic field devices, usually every 15 mins, and transferred via telemetry to internal and external systems in, or close to real time. This data may be transferred to these systems or users at different intervals varying, for example, from once per day during normal conditions to several times per day during a flood event.

Real-time or near real-time river level information is available for 1,400 river gauging stations (where flow is also measured) and river level only monitoring sites throughout England and Wales.

### **Price Category: High**

Attribute Name	Attribute Description
EA Time Series Data Exchange Format	Format used to transfer data
xmlns	Format used to transfer data
Xmlns:md	Location of definitions used in XML transfer file
xmlns:xsi	Version of schema used to transfer data
Xsi:schema location	Location of version of schema used to transfer data
	Who is transferring the data, normally the Environment Agency.
Publisher	[This field is included since it adheres to the standard used in
	WISKI, the field may be updated if supplied externally].
Source	System from which the data originates i.e. North East Telemetry
Source	System
Description	Description of process i.e. automated telemetry data export
Creator	Telemetry system and software
Date	Date file created
Time	Time file created
Identifier	Server name
Station reference	Reference based on combination of letters and numbers [unique
Station reference	identifier]
Region	Agency Region in which site is located
NGR	British National Grid reference
River Name	Name of river on which site is located
Station name	Name of station from Telemetry system
Values/Parameters	i.e. flow, rainfall, water level
Qualifier	More detailed meta data relating to the value/parameter above
Qualifier	i.e. logged, or type of gauge
Data type	Definition of data i.e. instantaneous
Period	Time interval of measurement i.e. every 15 mins
Units	Measurement units i.e. meters
Start Date	Date of first parameter in file
Start Time	Time of first parameter in file
End Date	Date of last parameter in file
	Time of last parameter in file (may be identified as 'last collected
End Time	result' on the screen if transferred data is uploaded to the web-
	site automatically)



# NaFRA Property Flood Likelihood Category (FLC) Database (AfA105)

#### **Dataset Description**

NaFRA Property Flood Likelihood Category (FLC) Database (version 8) is the latest output using the Risk Assessment for flood and coastal defence for System Planning (RASP) High Level Method *Plus* (HLM+). It is a broad-brush assessment of the likelihood of flooding at a national scale, based on assessments undertaken for 85 river catchments and coastal cells, where a cell is an area of land measuring 50m by 50m.

The NaFRA Property Flood Likelihood Category Database provides flood likelihood information in a database indicating the level of flood risk to land in the area of a property address. It enables a comparison of the relative risks and their distribution within each of these areas, rather than a detailed, local assessment of the risk at a specific location. The three risk categories are:

- low the chance of flooding each year is 0.5 per cent (1 in 200) or less
- moderate the chance of flooding in any year is 1.3 per cent (1 in 75) or less but greater than 0.5 per cent (1 in 200)
- significant the chance of flooding in any year is greater than 1.3 per cent (1 in 75)

It should be noted that the NaFRA Property FLC Database does not provide addressing information but does provide an Ordnance Survey TOID (AddressLayer TOID [TOID] and Building TOID [AREATOID]). An appropriate 3rd party address database is therefore required to make use of the data.

#### **Price Category: High**

Attribute Name	Attribute Description
TOID	OS Topographic Identifier for address [Source: OS MasterMap Address Layer, Nov 2005]
AREAROID	A unique ID for each non-addressable property [Source: OS Mastermap Building Layer, Nov 2005]
NaFRA_FLC	NaFRA Flood Likelihood Category [Source: NaFRA 2008 Analysis]
NumRes	Number of residential properties. [Source: Residential property count of properties with same TOID, OSAPR, NaFRA_FLC combination]
NumNonRes	Number of non residential properties. [Source: Non residential property count of properties with same TOID, OSAPR, NaFRA_FLC combination]
NumNonAddr	Number of non addressable properties. [Source: Non addressable property count of properties with same TOID, OSAPR, NaFRA_FLC combination}]
Total	Num of total properties. [Source: Total property count of properties with same TOID, OSAPR, NaFRA_FLC combination]



# NaFRA Spatial Flood Likelihood Category (FLC) Grid (AfA106)

## **Dataset Description**

NaFRA Spatial Flood Likelihood Category (FLC) Grid (version 8.2) is the latest output using the Risk Assessment for flood and coastal defence for System Planning (RASP) High Level Method *Plus* (HLM+). It is a broad-brush assessment of the likelihood of flooding at a national scale, based on assessments undertaken for 85 river catchments and coastal cells, where a cell is an area of land measuring 50m by 50m.

NaFRA Spatial (FLC) Grid enables a comparison of the relative risks and their distribution within each of these catchments, rather than a detailed, local assessment of the risk at a specific location. The calculations provide an indication of the likelihood of flooding at the centre of each cell. These results are then placed into three risk categories as used by the insurance industry. The three risk categories are:

- low the chance of flooding each year is 0.5 per cent (1 in 200) or less
- moderate the chance of flooding in any year is 1.3 per cent (1 in 75) or less but greater than 0.5 per cent (1 in 200)
- significant the chance of flooding in any year is greater than 1.3 per cent (1 in 75)

#### **Price Category: Very High**

Attribute Name	Attribute Description
Shapefile	
FID	Shapefile index - internal to ArcGIS
SHAPE	Geometry type = polygon; Spatial Reference = British_National_Grid; Dissolved on PROB_BAND
PROB_BAND	The flood likelihood category low, moderate, or significant according to the (published) NaFRA 2008 flood risk analysis.  Possible values (capitalized as shown and Not NULL):  Low  Moderate Significant No Result
IZ_ID	Six digit catchment number (e.g. 100182). All records in a catchment will have the same number, but the number for different catchments will be unique. Not NULL.
MapInfo	
Object ID	Object identifier
Obj	Geometry type = polygon; Spatial Reference = British_National_Grid; Dissolved on PROB_BAND
PROB_BAND	The flood likelihood category low, moderate, or significant according to the (published) NaFRA 2008 flood risk analysis.  Possible values (capitalized as shown and Not NULL):  Low  Moderate Significant No Result
IZ_ID	Six digit catchment number (e.g. 100182). All records in a catchment will have the same number, but the number for different catchments will be unique. Not NULL.



# NaFRA Postcode Flood Likelihood Category (AfA107)

#### **Dataset Description**

NaFRA Postcode Flood Likelihood Category (FLC) Database (version 8) is the latest output using the Risk Assessment for flood and coastal defence for System Planning (RASP) High Level Method *Plus* (HLM+). It is a broad-brush assessment of the likelihood of flooding at a national scale, based on assessments undertaken for 85 river catchments and coastal cells, where a cell is an area of land measuring 50m by 50m.

The NaFRA Postcode Likelihood Category (FLC) Database is held in Microsoft Access format. Although the database can be queried through a user Form where discrete postcodes can be entered, the entire tables underpinning the user Form can be extracted and used as a single dataset with no user locks in place.

The NaFRA Postcode FLC Database provides flood likelihood information at a postcode unit level, summarising the number of properties in each risk category and also the number of properties that are not at risk within that postcode. It enables a comparison of the relative risks and their distribution within each of these postcode units, rather than a detailed, local assessment of the risk at a specific location. The three risk categories are:

- low the chance of flooding each year is 0.5 per cent (1 in 200) or less
- moderate the chance of flooding in any year is 1.3 per cent (1 in 75) or less but greater than 0.5 per cent (1 in 200)
- significant the chance of flooding in any year is greater than 1.3 per cent (1 in 75)

The postcodes in the dataset are based on OS Mastermap Address Layer 2 September 2008 and the OS CodePoint November 2008 dataset (Non-Addressable properties).

#### **Price Category: High**

Attribute Name	Attribute Description
Overall_SW	
PC	Postcode Unit
CNTPC	Number of Properties in the postcode unit
	Number of Residential Properties in the postcode unit in a Low
RES_CNT_LOW	Flood Likelihood Category
	Number of Non-Residential Properties in the postcode unit in a
NRP_CNT_LOW	Low Flood Likelihood Category
	Number of Non-Addressable Properties in the postcode unit in a
NAD_CNT_LOW	Low Flood Likelihood Category
	Total number of properties in the postcode unit in a Low Flood
TOT_CNT_LOW	Likelihood Category
	Number of Residential Properties in the postcode unit in a
RES_CNT_MOD	Moderate Flood Likelihood Category
	Number of Non-Residential Properties in the postcode unit in a
NRP_CNT_MOD	Moderate Flood Likelihood Category
	Number of Non-Addressable Properties in the postcode unit in a
NAD_CNT_MOD	Moderate Flood Likelihood Category
	Total number of properties in the postcode unit in a Moderate
TOT_CNT_MOD	Flood Likelihood Category
	Number of Residential Properties in the postcode unit in a
RES_CNT_SIG	Significant Flood Likelihood Category
	Number of Non-Residential Properties in the postcode unit in a
NRP_CNT_SIG	Significant Flood Likelihood Category
	Number of Non-Addressable Properties in the postcode unit in a
NAD_CNT_SIG	Significant Flood Likelihood Category
TOT_CNT_SIG	Total number of properties in the postcode unit in a Significant



Attribute Name	Attribute Description
	Flood Likelihood Category
	Number of Residential Properties in the postcode unit in a 'No
RES_CNT_NOR	Result' Category.
	Number of Non-Residential properties in the postcode unit in a
NRP_CNT_NOR	'No Result' Category.
	Number of Non-Addressable Properties in the postcode unit in a
NAD_CNT_NOR	'No Result' Category.
	Total number of properties in the postcode unit in a 'No Result'
TOT_CNT_NOR	Category.
SORTOFF	Postcode Sorting Office
DISTRICT	Postcode District
SECTOR	Postcode Sector
UNIT	Postcode Unit



# Permitted Waste Sites – Authorised Landfill Site Boundaries (AfA111)

#### **Dataset Description**

The 'Authorised Landfill Site Boundaries' is a polygon dataset that contains the boundaries of landfill sites that are currently authorised by the Environment Agency under Environmental Permitting Regulations.

Landfill permits are authorised by a Waste Management Licence, a PPC Permit or an EPR Permit, and are recorded within the Regulatory Information System (Regis). The system is currently being updated to be replaced with the Integrated Regulation (IR) system which will replace both Regis and PAS (Permit Administration System). The current system allows the Environment Agency to extract data on landfill sites. These can be filtered on the following descriptor codes:

- A1: Co-Disposal Landfill Site;
- A2: Other Landfill Site taking Special Waste;
- A4: Household, Commercial & Industrial Waste Landfill;
- A5: Landfill taking Non-Biodegradable Wastes;
- A6: Landfill taking other wastes;
- A7: Industrial Waste Landfill (Factory cartilage);
- 5.2 A(1) a): Waste Landfilling; >10T/D with capacity>25,000T excluding inert waste;
- 5.2 A(1) b): Waste Landfilling; Any other Landfill to which the 2002 regulations apply;
- L04: Non Hazardous Landfill; and
- L05: Inert Landfill.

It is important to note that because a site is authorised it does not necessarily mean it is accepting waste. Landfill sites are only removed from the dataset on a quarterly basis and added to the Historic Landfill site dataset when the waste licence status changes to either:

- Licence Expired Some licences issued under the Control of Pollution Act 1974 were time limited and expired on the date specified in the licence; or
- Licence Revoked Licence has been entirely revoked and is no longer in force; or
- Licence Surrendered Operator has successfully surrendered the licence which is no longer in force.

Please note that details of authorisations are retained on the Public Register for a period of twelve months. Therefore there are some records in the Historic Landfill dataset that are Public Register for a short period of time.

#### **Price Category: Medium**

Attribute Name	Attribute Description
OBJECTID	Object Identifier.
LIC_ADMIN	Licence administration number.
LIC_NMBR	Licence reference number.
LIC_IPPCR	IPPC Reference number if relevant.
LIC_WML	Unique Waste Management licence number.
CUST_NMBR	Customer reference number (intended for internal use only)
STATUS	Landfill status, e.g. Suspended, Closure etc.
LIC_LTYPE	Licence type code.
	Licence holder's name, e.g. private individual's name, company
LIC_NAME	name.
LIC_SITE	Licensed site's name.



Attribute Name	Attribute Description
	Address field 8: Landfill site Name, e.g. private individual's name,
SITE_NAME	company name.
SITE_BUILD	Address field 9: Landfill Site Building e.g. Farnham Quarry.
SITE_STRT	Address field 10: Landfill Site Street.
SITE_AREA	Address field 11: Landfill Site Area.
SITE_TOWN	Address field 12: Landfill site Town.
SITE_CNTY	Address field 13: Landfill site County.
SITE_PCODE	Address field 14: Landfill site Postcode.
	Landfill type description e.g. A4: Household, Commercial &
TYPE_DESC	Industrial Waste Landfill.
NGR	British National Grid Reference.
	Landfill classification e.g. Non-Hazardous, Inert, Hazardous,
LF_CLASS	Pending.
T_REF	Unique polygon reference added by National Data Unit.
CTROID_X	National Grid Easting for the centroid of the polygon.
CTROID_Y	National Grid Northing for the centroid of the polygon.
REGION	Environment Agency Region
AREA	Environment Agency Area
DATE_ISSUE	Date of issue of waste licence (dd/mm/yyyy).



# Reservoir Flood Map Maximum Flood Outline (Extent) (AfA113)

## **Dataset Description**

Data layer showing individual reservoir flood maps for 2,092 Large Raised Reservoirs including attributed data. Individual reservoirs may have up to 5 flood maps associated with them, based on separate breach locations. The data shows the maximum extent of flood should the reservoir be breached, although the location of the reservoir can be inferred it is not explicitly shown on the maps.

# **Price Category: Medium**

Attribute Name	Attribute Description
Chanofile	Polygon
Shapefile	British National Grid
	EA unique reference number for each reservoir.
Reference Number	Required as the reservoir name is not necessarily
	unique.
Name	Reservoir Name
Location	Reservoir Location – will be the grid reference of the
Location	first breach point modelled.
Undertaker	Name of the person/body with legal responsibility for
Undertaker	the operation of the reservoir.
	Local authority within whose boundary the reservoir is
Local Authority	located and who is therefore responsible for
	developing emergency plans.
EA Area	EA Area within whose boundary the reservoir is
	located.



# **Summary Shellfish Directive Assessments (AfA123)**

#### **Dataset Description**

Shellfish waters are coastal and brackish waters used for commercial shell fishing. These areas have been designated under the EC Shellfish Waters Directive. This dataset contains sample results taken within the Designated Shellfish Waters that are assessed for compliance under the standards as defined under Directive (79/923/EEC). These sites are sampled for water quality and for faecal coliform amongst others and contain both the raw sample results as well as the summary compliance data. Samples are taken monthly with summary data collated for compliance annually and reported to Defra/WAG. Since these data are reported annually the dataset is available for each complete year reported.

It is of note that shellfisheries no longer used on a commercial basis are still maintained. Other raw results are available, although these are not part of this request for data – other raw result samples shall need to be approved for access.

Attribute Name	Attribute Description	
	Shellfish Flesh Results	
Country	Country sample taken in.	
EA Region	Environment Agency Region.	
Shellfish Water reference	Shellfish water identifier.	
Shellfish Water name	Shellfish water name.	
Easting	National Grid Reference - Easting	
Northing	National Grid Reference – Northing	
Sample Date	Date the sample was taken.	
Species	Shellfish species.	
Qualifier	Qualifier i.e. if less than 20.	
Faecal foliform result no/100g	Faecal foliform result.	
Shellfish Flesh Compliance Summary		
Country	Country sample taken in.	
EA Region	Environment Agency Region.	
Shellfish Water reference	Shellfish water identifier.	
Shellfish Water name	Shellfish water name.	
Number of samples	Number of sample taken in shellfishery.	
Number of failing samples	Number of non-compliant sites as defined by the Shellfish waters Directive.	
Percent of samples failing	Percentage of non-compliant sites in the shellfishery.	
Guideline Compliance	I.e. Pass/Fail	
Shellfish Water Results		
Country	Country sample taken in	
EA Region	Environment Agency Region	
Shellfish Water reference	Shellfish water identifier	
Shellfish Water name	Shellfish water name.	
Sample Date	Date sample taken.	
Sample Time	Time of the sample.	
Qualifier	Qualifier i.e. if less than 20.	



Attallanta Nama	Attailente De conintien
Attribute Name	Attribute Description
Faecal foliform result no CFUs / 100ml	Sampled faecal foliform result.
Shellfish Water Compliance Summary	
Country	Country sample taken in
EA Region	Environment Agency Region
Shellfish Water reference	Shellfish water identifier
Shellfish Water name	Shellfish water name.
Easting	National Grid Reference - Easting
Northing	National Grid Reference – Northing.
Guideline EQS (Max)	Environmental quality standard maximum.
Number of samples	Number of samples taken within the shellfishery.
Number of failing samples	Number of non-compliant sites as defined by the Shellfish Waters Directive.
Min	Summary Statistics.
Max	
Mean	
Standard Deviation	
Guideline Compliance	I.e. Pass/Fail



# **Seagrass Taxa and Abundance (AfA128)**

## **Dataset Description**

Information regarding the presence, and percentage cover, of seagrass species at specific marine monitoring points held within the Environment Agency's BIOSYS database (our main database for storing, manipulating and reporting data from freshwater and marine biological surveys at any taxonomic level).

These data represent ground-truthing monitoring for the ecological assessment of seagrasses within transitional and coastal waters of England and Wales.

Seagrass data on BIOSYS are updated as new monitoring data are made available. Monitoring for seagrass occurs June to September with records being updated after the sampling season.

The extracted data is a subset of the full dataset and only includes data collected/owned by the Environment Agency.

Attribute Name	Attribute Description
Comple type	Specifies the biological element extracted from BIOSYS. In
Sample type	this case, seagrass.
Site/Station Name	Name of sampling station – refers to waterbody and to
Site/Station Name	specific seagrass bed within the waterbody
Site Id	BIOSYS site ID code
Sample Date	Date when field monitoring done
Percentage Cover	Percentage cover of seagrass in the quadrat
Zostera Marina Present?	Presence/absence of specified seagrass species in quadrat
Zostera Noltii Present?	Presence/absence of specified seagrass species in quadrat
Zostera Augustifolia present?	Presence/absence of specified seagrass species in quadrat
Ruppia Present?	Presence/absence of specified seagrass species in quadrat
NGR	National Grid Reference of central point of seagrass bed



# WFD Rocky Shore Macroalgal Species (AfA129)

# Dataset Description

Information regarding the presence of macroalgal species on rocky shores monitored for the Water Framework Directive ecological assessment of transitional and coastal waters of England and Wales.

Monitoring follows the Reduced Species List method outlined in the UK Technical Advisory Group method statement. Data are from intertidal rocky shores. The shore is searched for a set time period and the presence of identified algae, from the WFD Reduced Species List, recorded.

Rocky Shore Macroalgal Species data are updated as new monitoring data are made available. Monitoring occurs June to September with records being updated after the sampling season.

The extracted data is a subset of the full dataset and only includes data collected/owned by the Environment Agency.

Attribute Name	Attribute Description
Owner	Owner of the data (the EA for these data)
Site	Unique Site ID from the WFD rocky shore macroalgal database
Name	Site name of area/shore (note not WFD waterbody names)
Species Name	Macroalgal species identified as present
Easting	Easting of shore (central point) which has been surveyed
Northing	Northing of shore (central point) which has been surveyed
Month	Month of shore survey
Year	Year of shore survey
Purpose	Driver for survey – in this case WFD



# Marine Benthic Invertebrate Species (AfA130)

## **Dataset Description**

Information regarding the presence, and abundance, of benthic invertebrate species at specific marine monitoring points held within the Environment Agency's BIOSYS database (our main database for storing, manipulating and reporting data from freshwater and marine biological surveys at any taxonomic level) and Water Framework Directive marine benthic invertebrate database.

Data are laboratory assessed and quality assured following the National Marine Biological Analytical Quality Control (NMBAQC) scheme.

National databases are continually being updated as a result of ongoing benthic invertebrate monitoring programmes.

The extracted data is a subset of the full dataset and only includes data collected/owned by the Environment Agency.

Attribute Name	Attribute Description
Name	Name of biological quality element – in this case 'macrobenthic'
	(which is a term that describes benthic invertebrates)
Survey code	Unique survey code
Title	Free text field used to describe the survey
Details	Free text field that can be used to make further notes re the survey
Source Name	Owner of the survey. (As these data are all EA data, this is used to indicate which EA Area or Region initiated the survey)
Station Code	Unique station code
bmk_SeaArea	Code to identify the sea area in which sites are located
Area Name	Name of Sea Area in which the sites are located (text to match
Alea Name	bmk_SeaArea code)
Latitude	Location of sampling point as Easting or Latitude
Longitude	Location of sampling point as Northing or Longitude
Sample Code	Identifies replicate (eg A, B, C) taken at the station at that
Sample Code	sampling occasion
Date Taken	Date that sample was taken in the field
SampleFull	Description of sample method type eg Day Grab used to take the
Campler dii	sample
Sieve Mesh	Defines size of mesh used to sieve biological sample
Taxon name	Species found in the sample (identified in the laboratory)
NumInd	Abundance of each identified species from sample



# Saltmarsh Species (AfA131)

#### **Dataset Description**

Information regarding the presence, and percentage cover, of saltmarsh angiosperms (flowering plants) at specific marine monitoring points held within the Environment Agency's BIOSYS database (our main database for storing, manipulating and reporting data from freshwater and marine biological surveys at any taxonomic level).

These data represent ground-truthing monitoring for the ecological assessment of saltmarsh within transitional and coastal waters of England and Wales.

Saltmarsh data on BIOSYS are updated as new monitoring data are made available. Monitoring for saltmarsh occurs June to September with records being updated after the sampling season.

The extracted data is a subset of the full dataset and only includes data collected/owned by the Environment Agency.

Attribute Name	Attribute Description
Water Body	Name of water body in which saltmarsh bed monitored is located
Site/Station Name	Name of site (often the saltmarsh bed name)
Site/Station ID	Unique site (often saltmarsh bed) ID generated by BIOSYS
Site/Station Location	National Grid Reference for location of site (generally mid point)
Sample Date	Date of field monitoring
Replicate	Replicate ID of quadrat from the saltmarsh bed
Sample ID	Unique sample ID for sample (monitored quadrat)
Sample type	Biological Element being reported – in this case saltmarsh
Sample type	angiosperms
Sample Method	Sample method ie quadrat of specified size
Survey Code	Unique survey code for field monitoring
Analysis Type	Identifies that these samples are analysed in the field or
Allalysis Type	laboratory
Taxa	Lists the taxa found in the quadrat
Percentage cover	Percentage cover in the quadrat for each of the taxa identified
Quadrat Easting	Specific location (easting) of monitored quadrat within site/station
Quadrat Northing	Specific location (northing) of monitored quadrat within
	site/station



# Large Raised Reservoirs (AfA134)

#### **Dataset Description**

The Environment Agency collects and maintains data on all reservoirs designed or capable of holding more than 25,000 cubic metres of water above the natural level of any part of the land adjoining them defined as "large raised reservoirs" under the Reservoirs Act 1975. The register contains detail on the type on the physical characteristics, inspection details and information on the reservoir undertaker and Panel Engineer overseeing their operation and maintenance. Under the Water Act 2003 the role of the Reservoirs Act 1975 enforcement authority was transferred to the Environment from Local Authorities in 2004.

Three types of reservoir are maintained within the register:

- Impounding (Dammed);
- Non-Impounding (Pumped/unimpeded); or
- Service Reservoir (Potable Water Storage) [not within this AfA see note below]

Currently Service Reservoirs and reservoirs where the MOD is undertaker are withheld from the Public Register as instructed by CPNI due to national security. The data has been filtered to exclude these reservoirs and therefore are not considered part of this dataset. Summaries of certificates and reports are also collated and held for each reservoir but are not part of the electronic database.

Attribute Name		Attribute Description
Reservoir Name		Name of reservoir
Physical Status		Status of reservoir e.g. In operation
Situation		Nearest locality e.g. Bristol
NGR		National grid reference
Undertaker Name		Individual or organisation that is tasked with the responsibility of managing the reservoir
	Name	
ಕ ಜ	Position	
nta res	Primary Name	
jo B	Secondary Name	
A A	Street Name	Undertaker Contact Details
a ke	Locality	Undertaker Contact Details
Outed Position Primary Name Secondary Name Street Name Locality Town Post Town County		
	Post Town	
	County	
	Postcode	



# Flood Warnings (AfA136)

#### **Dataset Description**

Flood Warnings are provided by the constant monitoring of stations and forecasting flooding from rivers or the sea:

- A Flood Alert means: Flooding of low lying land and roads is expected. Be aware, be prepared, watch out!
- A Flood Warning means: Flooding of homes and businesses is expected. Act now!
- A Severe Flood Warning means: Severe flooding is expected. There is extreme danger to life and property. Act now!
- An All Clear will be issued when Flood Alerts or Warnings are no longer in force for this
  area.

Flood Warnings are available on our website and as a Live Feed. The live feed provides a summary of flood warnings (Alert, Warning and Severe) that are sent externally. The Flood Warnings Live Feed provides current status update of every Flood Warning Area in England and Wales. This is updated on the FWIS service every minute although it is presented for external users every 15 minutes via the Data Distribution Hub where the XML can be securely downloaded (sFTP feed).

## **Price Category: High**

Attribute Name	Attribute Description
'fwacode'	Unique Target Area Code e.g. 101WAFDF10
'fwakey'	Unique code created by FWIS
'region'	Environment Agency Region
'area'	Environment Agency Area
'description'	Target Area Name e.g. "Blyth and Walpole Rivers and the Bramfield Watercourse".
t' or 'f'	Identifier whether a Tidal or Fluvial Alert or Warning.
'Flood Alert', 'Flood Warning', 'Severe Flood Warning' or 'Warning no Longer in Force'	Severity.
'1', '2', '3', or '4'	Severity Value = '1' = Severe Flood Warning, '2' = Flood Warning, '3' = Flood Alert, '4' = Warning no Longer in Force.
'warning key'	Unique code created by FWIS
'time raised'	Time the Alert or Warning was raised. i.e. 29 10 2010 19 13
'severity_changed'	Date and time of most recent severity change.
<rim_english></rim_english>	Internet Situation Message also known as Real Time Commentary.
<rim_welsh></rim_welsh>	Welsh Translation of the above where applicable.



## Saltmarsh Extents (AfA137)

## **Dataset Description**

Polygon data layer showing the extent of Saltmarsh in Coastal and Transitional waters for use by both Flood and Coastal Risk Management and the implementation of Water Framework Directive. Saltmarsh extent has been interpreted from 10cm by 10cm digital aerial imagery.

The demarcation of the landward extent is the point at which the upper most zones gives way to terrestrial plants (often at the foot of a seawall). The mark is where saltmarsh plants become ≤5% of the predominantly terrestrial community.

At the seaward end of the transect, the final demarcation will be where the saltmarsh vegetation cover has become so sparse it only covers 5% % whether it is Upper, Mid, Lower or Pioneer saltmarsh.

Attribute Name	Attribute Description
ID	Name of site (often the saltmarsh bed name)
Area_Ha	Unique site (often saltmarsh bed) ID generated by BIOSYS
Area Km	National Grid Reference for location of site (generally mid point)



# **Environmental Pollution Incidents [England] (AfA138)**

## **Dataset Description**

Details of all pollution incidents reported to the Environment Agency are held on the National Incident Reporting System. This may include some sensitive information i.e. personal details of individuals reporting the incident etc. and therefore needs to been carefully assessed. There are, however, a number of fields, which have been approved for access and are therefore ok to release. Additional fields would need to be assessed on a case-by-case basis.

These should only include substantiated and closed environmental protection incidents, where the environment impact level is either category 1 (major) or category 2 (significant) to at least 1 media (i.e. water, land or air).

**Price Category: Medium** 

Attribute Name	Attribute Description
Event identification number	-
Date of notification	-
Region	-
Area	-
Public area face	-
County authority	-
Unitary authority	-
District authority	-
National Grid Reference	-
Easting	-
Northing	-
Y/N – Environmental Protection	-
Environmental Impact Levels – Air, Land	
and Sea	-
Pollution/pollutant type	-



# 10cm – 50cm Colour (CR) Digital Aerial Photography (AfA141)

#### **Dataset Description**

Digital aerial photography is an airborne mapping technique, which measures reflected light in the red, green, blue and near infra-red spectrum. Images of the ground are captured at resolutions between 10cm and 50cm, and ortho-rectified using LIDAR and GPS to a high spatial accuracy.

The Environment Agency's airborne data archive contains digital photography from airborne surveys carried out by the Environment Agency during flood response work by a specialist remote sensing team based in Bath and Coventry. Aerial photography (true colour and/or Infra-red) is available for those areas where flights have been commissioned for flood response work.

The photography is available at resolutions varying between 10cm to 50cm and can be supplied as a digital image in JPEG format (or GEOTIFF on request). Photography is available as true colour (CR) imagery and / or near infra-red (NIR) imagery depending upon what is collected during the flood response. Flood outlines derived from the photography is also available, where it has been requested and interpreted post flood response event.

Attribute Name	Attribute Description		
	Tile Attribution		
FILENAME	Environment Agency file name (incl. unique #)		
TILENAME	Ordnance Survey tile name		
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g. Dec 06 – Jan 07)		
PERCENTAGE_CO	Percentage of the tile covered by Aerial Photography data (0 – 100%)		
RESOLUTION	Resolution in centimetres (e.g. 10, 25, 50)		
Raster Attribution			
Band 1	Red 0 - 255		
Band 2	Green 0 -255		
Band 3	Blue 0 - 255		



# 10cm - 50cm Near Infrared (NIR) Digital Aerial Photography (AfA142)

## **Dataset Description**

Digital aerial photography is an airborne mapping technique, which measures reflected light in the red, green, blue and near infra-red spectrum. Images of the ground are captured at resolutions between 10cm and 50cm, and ortho-rectified using LIDAR and GPS to a high spatial accuracy.

The Environment Agency's airborne data archive contains digital photography from airborne surveys carried out by the Environment Agency during flood response work by a specialist remote sensing team based in Bath and Coventry. Digital Photography (true colour and/or Infra-red) is available for those areas where flights have been commissioned for flood response work.

The photography is available at resolutions varying between 10cm to 50cm and can be supplied as a digital image in JPEG format (or GEOTIFF on request). Photography is available as true colour (CR) imagery and / or near infra-red (NIR) imagery depending upon what is collected during the flood response. Flood outlines derived from the photography is also available, where it has been requested and interpreted post flood response event.

Attribute Name	Attribute Description	
	Tile Attribution	
FILENAME	Environment Agency file name (incl. unique #)	
TILENAME	Ordnance Survey tile name	
DATE_FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g. Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by Aerial Photography data (0 – 100%)	
RESOLUTION	Resolution in centimetres (e.g. 10, 25, 50)	
Raster Attribution		
Band 1	Red 0 - 255	
Band 2	Green 0 -255	
Band 3	Blue 0 - 255	



# High Frequency Real-time and Near-real-time Raingauge Data (AfA147)

## **Dataset Description**

The Environment Agency's real time rain gauge network measures rainfall in real time with the information made available via the telemetry and the Data Distribution server. Measurements of the amount of precipitation (mm) are captured in tipping bucket gauges. Each gauge provides event rainfall data (time of tip) as it happens.

The real time gauges, approximately 160, are a subset of the Tipping Bucket Raingauge (TBR) network and are available through the Data Distribution Server. The full dataset, where updates are provided at an hourly frequency or longer, is available in AfA236 Real-time and Near-real-time Raingauge Data.

Continuous rainfall information is also stored on WISKI and can be provided in non-real time. This is provided to the Met Office for quality control along with all the data from our registered daily storage gauges. It is therefore not covered by this AfA. The quality controlled dataset is covered in AFA148 Quality Controlled Daily and Monthly Raingauge Data from Environment Agency Gauges.

#### **Price Category: Medium**

Attribute Name	Attribute Description
Date	Date file created
Time	Time file created
Flags/comments	Comment or flag code (e.g. code for QC)
Identifier	e.g.NWRFHSCXAS1
Station reference	Reference based on combination of letters and numbers [unique identifier]
Region	Agency Region in which site is located
Station name	Name of station from WISKI system
NGR	British National Grid reference
Catchment	Name of river catchment in which site is located
Values/Parameters	i.e. storage rainfall
Qualifier	More detailed meta data relating to the value/parameter
Qualifier	above i.e. tipping bucket rain gauge
Data type	Definition of data i.e. event
Period	Time interval of measurement i.e. every day
Units	Measurement units i.e. mm
Start Date	Date of first parameter in file
Start Time	Time of first parameter in file
End Date	Date of last parameter in file
	Time of last parameter in file (may be identified as 'last
End Time	collected result' on the screen if transferred data is
	uploaded to the web-site automatically)



# **Quality Controlled Daily and Monthly Raingauge Data from Environment Agency Gauges (AfA148)**

#### **Dataset Description**

The Environment Agency's storage raingauge network (currently approximately 2,400) measures rainfall at a daily or a monthly time step. This excludes all rain gauges that do not comply with the relevant British Standards. Measurements of the amount of precipitation (mm) are captured in storage rain gauges which are mainly read by volunteers. At the end of each month the data is returned to the Environment Agency where it is manually entered into the WISKI archive. Data from these gauges is then sent to the Met Office (MO) for quality control along with daily totals from the Environment Agency's Tipping Bucket Raingauges (TBRs). The Met Office append the data from the Environment Agency with daily/monthly data from a smaller number of their own storage and TBRs. They then undertake the Quality Control checks and provide the checked dataset back to the Environment Agency, typically 4 months after collection, for historic storage on WISKI.

The dataset covered here comprises only checked historic time daily and monthly series data from the EA storage and TBR rain gauges (85% of the total).

#### **Price Category: Zero**

Attribute Name	Attribute Description
Date	Date file created (date of data extraction)
Time	Time file created (time of data extraction)
Flags/comments	Comment or flag code (e.g. code for QC)
Station reference	Reference based on combination of letters and numbers [unique identifier]
Region	Agency Region in which site is located
NGR	British National Grid reference
Catchment	Name of river catchment in which site is located
Station name	Name of station from WISKI system
Values/Parameters	i.e. storage rainfall
Qualifier	More detailed meta data relating to the value/parameter above i.e. logged, or type of gauge
Data type	Definition of data i.e. storage
Period	Time interval of measurement i.e. every day
Units	Measurement units i.e. mm
Start Date	Date of first parameter in file
Start Time	Time of first parameter in file
End Date	Date of last parameter in file
End Time	Time of last parameter in file (may be identified as 'last collected result' on the screen if transferred data is uploaded to the web-site automatically)



# 25cm Bathymetry Sidescan (AfA149)

## **Dataset Description**

25cm Bathymetry Sidescan data is collected through the EA Geomatics Group Swath Bathymetry system. The Swath system uses a sonar pulse to measure the distance between the survey vessel and the seabed. Each sonar pulse returned to the instrument yields both a depth and a reflectance value. Sidescan data is a grey scale image showing the reflectance values of the sea bed.

The Environment Agency's Sidescan Bathymetry data archive includes image data from bathymetry surveys carried out by the Environment Agency for a range of applications and locations where surveys have been previously commissioned.

Sidescan data is available at 25cm resolution and supplied as a digital image in geoTIFF or JPEG.

Attribute Name	Attribute Description	
	Tile Attribution	
FILENAME	Environment Agency file name (incl. unique #)	
TILENAME	Ordnance Survey tile name	
DATE_SURVEYED	Single date (e.g. 7th Jan 2003) or date range (e.g. Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by Sidescan data (0 – 100%)	
RESOLUTION	Resolution in centimetres (25)	
Raster Attribution		
Band 1	Intensity (grey scale)	



# **Swath Bathymetry (AfA150)**

#### **Dataset Description**

Swath Bathymetry uses sonar pulses to measure the distance between the survey vessel and the seabed, producing elevation data of the seabed at resolutions between 0.5m and 2m, with swath widths of up to 10 times the water depth.

The Environment Agency's Swath Bathymetry data archive includes point data from surveys carried out by the Environment Agency for a range of applications and locations where surveys have been previously commissioned.

Swath bathymetry data is available at 0.5m, 1.0m and 2.0m resolution and supplied as a digital image in ASCII or JPEG format. All data values are elevation, relative to Ordnance Survey Newlyn datum.

Attribute Name	Attribute Description		
	Tile Attribution		
FILENAME	Environment Agency file name (incl. unique #)		
TILENAME	Ordnance Survey tile name		
DATE_SURVEYED	Single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g. Dec 06 – Jan 07)		
PERCENTAGE_CO	Percentage of the tile covered by Sidescan data (0 – 100%)		
RESOLUTION	Resolution in centimetres (25)		
Raster Attribution			
X-COORDINATE	X-Coordinate of the point		
Y-COORDINATE	Y-Coordinate of the point		
ELEVATION	Elevation of the point		



# 25cm MultiBeam Bathymetry (AfA151)

#### **Dataset Description**

Multibeam echo sounders, for Bathymetric survey, use sonar pulses to measure the distance between the survey vessel and the seabed. This instrument collects point data at a resolution of 25cm or better, depending on water depth, vessel speed and bed topography and produces a high resolution elevation of the underwater terrain.

The Environment Agency's Bathymetric survey Multibeam data archive includes point data from bathymetric surveys carried out by the Environment Agency for a range of applications and locations where surveys have been previously commissioned.

Multibeam data is available at 25cm resolution and supplied as a digital image in ASCII or JPEG format. All data values are elevation, relative to Ordnance Survey Newlyn datum.

Attribute Name	Attribute Description	
	Tile Attribution	
FILENAME	Environment Agency file name (incl. unique #)	
TILENAME	Ordnance Survey tile name	
DATE_SURVEYED	Single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g. Dec 06 – Jan 07)	
PERCENTAGE_CO	Percentage of the tile covered by Sidescan data (0 – 100%)	
RESOLUTION	Resolution in centimetres (25)	
Raster Attribution		
X-COORDINATE	X-Coordinate of the point	
Y-COORDINATE	Y-Coordinate of the point	
ELEVATION	Elevation of the point	



# **CASI Multispectral VNIR Imagery (AfA152)**

## **Dataset Description**

The Compact Airborne Spectrographic Imager (CASI) is an airborne imaging system used to provide imagery in visible and near infra-red (NIR) wavelengths of the electromagnetic spectrum. This is done by detecting and measuring reflected radiation in the 400 nm (blue) – 1000 nm (NIR) range. Within this range data are acquired in discrete wavelength ranges known as bands.

The Environment Agency's CASI data archive includes imagery from airborne surveys carried out by the Environment Agency for mapping purposes, generally to map intertidal and terrestrial habitats. Digital imagery is available for those areas where flights have been commissioned for survey work.

Image data can be supplied in a variety of formats that are geo-referenced and directly compatible for input in a GIS including geoTIFF, geoJPEG (limited to 3 bands only) and ERDAS Imagine .img. Image data is supplied as flightline image strips (and / or additionally mosiaced tiles where available.)

Attribute Name	Attribute Description
Tile Attribution	
FILENAME	Environment Agency file name (incl. unique # (yr/mm/date/time))
DATE FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g.
DATE_FLOWN	Dec 06 – Jan 07)
TIME_FLOWN	Time flown in UTC
RESOLUTION	Resolution in metres (e.g. 1, 4)
MODE	Description of bands used
PROJECTION	OSGB36
Raster Attribution	
Band 1 to n total number of bands	Radiance (amount of VNIR light detected by the sensor)



# **TABI Thermal Airborne Imagery (AfA153)**

## **Dataset Description**

The thermal airborne imager is a sensor that is used for airborne mapping to distinguish temperature differences as small as one tenth of a degree. This is done by detecting and measuring emitted radiation in the 8 to 12 micron range of the Electromagnetic Spectrum, resulting in an indicative surface temperature map of the land below the aircraft. Images of the ground are captured at resolutions between 1m and 4m.

The Environment Agency's thermal airborne data archive includes imagery from airborne surveys carried out by the Environment Agency to map the relative heat loss from rooftops, which have been used to inform local authorities where to target climate change mitigation strategies. Digital imagery is available for those areas where flights have been commissioned for survey work.

Image data can be supplied in a variety of image formats that are directly compatible for input in a GIS including geoTIFF, geoJPEG and ERDAS Imagine .img. Image data is supplied as a grey-scale image or colour-coded classification and in flightline image strips.

Attribute Name	Attribute Description
	Tile Attribution
FILENAME	Environment Agency file name (incl. unique # (yr/mm/date/time))
DATE FLOWN	Date flown as single date (e.g. 7 <sup>th</sup> Jan 2003) or date range (e.g.
DATE_TEOWN	Dec 06 – Jan 07)
TIME_FLOWN	Time flown in UTC
RESOLUTION	Resolution in metres (e.g. 1, 4)
MODE	Description of TABI operation mode (Mode 0 : -5 to +45 degrees
	centigrade)
PROJECTION	OSGB36
Raster Attribution	
Band 1 to n total number of bands	Thermal: -5 to +45 degrees centigrade relative



# Waste Electrical and Electronic Equipment Contacts (Corporate Entities Only) (AfA154)

#### **Dataset Description**

This dataset contains details of:

- WEEE producers who have registered with the Environment Agency under the Producer Responsibility Regulations for Waste Electrical and Electronic Equipment. This includes company names, addresses, contact details and SIC code.
- Compliance schemes, contact details etc.
- Reprocessors and exporters of WEEE contact details.

Only Corporate Entities are included.

Some entries may be removed for reasons of National Security or Commercial Confidentiality.

Attribute Name	Attribute Description
Producer Name	
Producer Trading Name	
Producer Obligation Type	
Address	
Town	
Post Code	
Country	
Registration Number	
Compliance Scheme	
Scheme name	
Scheme Address	
Compliance Year	
Producer contact details	Contact name
Producer contact details	Contact company email address,
Producer contact details	Contact company telephone number
Producer contact details	Contact company correspondence address
SIC Code	Sector Industry Code for producer
Scheme Contact details	Contact name
Scheme Contact details	Contact company email address
Scheme Contact details	Contact company telephone number
Scheme Contact details	Contact company correspondence address
UK Reprocessor contact details	Contact name
UK Reprocessor contact details	Contact company email address
UK Reprocessor contact details	Contact company telephone number
UK Reprocessor contact details	Contact company correspondence address
Exporter contact details	Contact name
Exporter contact details	Contact company email address,
Exporter contact details	Contact company telephone number
Exporter contact details	Contact company correspondence address
WEEE IT Code	WEEE IT Code



# Waste Electrical and Electronic Equipment Contacts Designated Collection Facilities (anonymised) (AfA155)

#### **Dataset Description**

Details of WEEE collected according to 13 categories of WEEE individual Designated Collection Facilities (DCF) that collect Household Waste Electrical and Electronic Equipment. This data was supplied voluntarily by Schemes.

This data is anonymised so that DCF is not identifiable to protect the commercial interests of the site operators.

Attribute Name	Attribute Description
Producer Name	
Producer Trading Name	
Producer Obligation Type	
Address	
Town	
Post Code	
Country	
Registration Number	
Compliance Scheme	
Scheme name	
Scheme Address	
Compliance Year	
Producer contact details	Contact name
Producer contact details	Contact company email address,
Producer contact details	Contact company telephone number
Producer contact details	Contact company correspondence address
SIC Code	Sector Industry Code for producer
Scheme Contact details	Contact name
Scheme Contact details	Contact company email address
Scheme Contact details	Contact company telephone number
Scheme Contact details	Contact company correspondence address
UK Reprocessor contact details	Contact name
UK Reprocessor contact details	Contact company email address
UK Reprocessor contact details	Contact company telephone number
UK Reprocessor contact details	Contact company correspondence address
Exporter contact details	Contact name
Exporter contact details	Contact company email address,
Exporter contact details	Contact company telephone number
Exporter contact details	Contact company correspondence address
WEEE IT Code	WEEE IT Code



# **WEEE Reprocessors and Exporters (AfA156)**

# **Dataset Description**

Contact details of approximately 420 reprocessors and exporters of WEEE approved under the Waste Electrical and Electronic Regulations. Complete details are available for registered companies etc.

Some data is omitted for other reprocessors and exporters for data protection reasons.

Attribute Name	Attribute Description
Reprocessor name	Official name of company holding permit
Reprocessor address	Head Office address of company holding permit
Reprocessor site address	Site address of each approved reprocessing site
Reprocessor contact details	Contact name (for limited companies only)
Reprocessor contact details	Contact company email address, (for limited companies only)
Reprocessor contact details	Contact company telephone number (for limited companies only)
Reprocessor contact details	Contact business telephone number (for limited companies only)
Reprocessor contact details	Contact company correspondence address (for limited companies only)
Exporter name	Official name of exporter
Exporter address	Head Office address of exporter
Exporter contact details	Contact name (for limited companies only)
Exporter contact details	Contact company email address, (for limited companies only)
Exporter contact details	Contact company telephone number (for limited companies only)
Exporter contact details	Contact company correspondence address (for limited companies only)



# **End of Life Vehicles – Authorised Treatment Facilities – Public Register (AfA158)**

## **Dataset Description**

Permitted End-of-Life Vehicle (ELV) sites that can meet the required standards in the ELV Directive for de-polluting vehicles. Authorised sites can have access to the DVLA Certificate of Destruction (CoD) scheme.

Omission from this dataset does not necessarily mean that a site does not meet the End of Life Vehicle (ELV) Directive standards for an Authorised Treatment Facility (ATF). Omission could mean

- the Site Operator does not wish to seek accreditation for access to formal accreditation schemes through ELV Directive assessment, or
- the Agency may not yet have assessed this site, or
- the site may have been assessed and failed to meet the required standards even though the site may be fit for other purposes

Attribute Name	Attribute Description
Licence holder	Licence holder (and trading name if known)
Site address	Full site address and postcode
Site telephone number	Site telephone number (where given)
EAWML number	EAWML number
e-mail address	e-mail address (if known)



# Waste Carriers, Brokers and Dealers (AfA159)

## **Dataset Description**

This dataset contains details of currently permitted waste carriers, brokers and dealers. Historical details are not included.

#### Carrier

A person who transports controlled waste in the course of a business or otherwise with a view to profit.

#### **Broker**

Waste brokers are people who make arrangements, on behalf of others, to recover or dispose of waste, regardless of whether or not they handle the waste themselves.

#### **Dealer**

Waste dealers are people who use an agent to buy then sell wastes, regardless of whether they handle the waste themselves or not.

#### **Exempt activities**

People who do not need to register because of a specific exemption in the regulations:

- the operator of certain vessels and vehicles where the activity of waste carriage is for the purpose of a specified marine operation and the activity requires a marine licence or can be carried out under a marine exemption
- any lower tier carrier who does not normally and regularly transport controlled waste
- until after 2013, the existing exemption for carriers who only transport their own waste (unless it is construction and demolition waste) will remain in place.

#### **Excluded persons**

People who are excluded from the requirement to register. These include:

- Any person who carries controlled wastes but not as part of their business or otherwise for profit
- Ferry operators carrying vehicles that are carrying waste
- Any person carrying waste between different places of the same premises
- Any person carrying waste by air or sea, from a place in Great Britain to any place outside Great Britain
- Any person carrying waste from a country outside of Great Britain to the first point of arrival

Waste Carriers, Dealers and Brokers are a combined dataset. Operators shift between categories frequently, and so separate datasets could be misleading. Extracting a single type would be extremely time consuming and cost-prohibitive.

#### **Price Category: Medium**

Attribute Name	Attribute Description
Type of applicant	Type of applicant: Individual, Partnership, Limited Company or Public Body



Registration Number Date of Registration Date of Registration Date of Registration Individuals: Title Individuals: First Name Individuals: First Name Individuals: Last Name Individuals: Business Trading Name Individuals: Business Trading Name Individuals: Business Trading Name Individuals: Business Trading Name Individuals: Previous Name (If any) Individuals: Country Individuals: Country Individuals: Telephone Number Individuals: Fax Individuals: Hobitation (Individuals: Fax Individuals: E-mail address Individuals: E-mail address Individuals: E-mail address Individuals: E-mail address Partnership: Name Partnership: Name Partnership: Address Partnership: Postcode Partnership: Postcode Partnership: Country Partnership: Postcode Partnership: Telephone Number Partnership: Telephone Number Partnership: Telephone Number Partnership: Fax Partnership: Fax Partnership: Boolite Telephone Number Partners: First Name Partners: Last Name Limited Company: Full Company Name Limited Company: Trading Name Limited Company: Trading Name Limited Company: Trading Name Limited Company: Previous Name Limited Company	Attribute Name	Attribute Description
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- Position Limited Company: Company Officers – Position		Limited Company: Company Officers – Position
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- Title Limited Company: Company Officers - Title		Limited Company: Company Officers - Title
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- First Name Limited Company: Company Officers - First Name		Limited Company: Company Officers - First Name
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- Last Name Limited Company: Company Officers - Last Name	Public Body: Name	Public Body: Name



Attribute News	Attuibute Deceription
Attribute Name	Attribute Description
	Public Body: Type
	Could be English County Council; English District Council;
	English Unitary Authority; English Metropolitan Council;
	London Borough Council; Welsh Unitary Authority; Town
	Council, Other Government Authority; NHS Trust; Primary
Dublic Body: Type	Care Trust, Welsh Local Health Board, Other Health Body,
Public Body: Type	Fire Authority; Other Public Body
Public Body: Specified Public Body	Public Pody: Specified Public Pody not on given list
not on given list	Public Body: Specified Public Body not on given list Public Body: Address
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Public Body: Telephone Number	Public Body: Telephone Number
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- Last Name	Public Body: Chief Executive Details - Last Name
Lastivanie	Application Contact: Position (Is the contact on the
	Application itself or a covering letter or separate part of the
	documentation. – It is integral to the Application itself. It is
	stated as the address to which questions on this
	applications will be directed, and to which all
	correspondence including formal correspondence about
Application Contact: Position	future registrations will be sent).
Application Contact: Title	Application Contact: Title
Application Contact: First Name	Application Contact: First Name
Application Contact: Last Name	Application Contact: Last Name
Application Contact: Organisation	
Name	Application Contact: Organisation Name
Application Contact: Address	Application Contact: Address
Application Contact: Postcode	Application Contact: Postcode
Application Contact: Country	Application Contact: Country
Application Contact: Telephone	
Number	Application Contact: Telephone Number
Application Contact: Fax	Application Contact: Fax
Application Contact: Mobile	
Telephone Number	Application Contact: Mobile Telephone Number
Application Contact: E-mail Address	Application Contact: E-mail Address
Principal Place of Business: Address	Principal Place of Business: Address
Principal Place of Business:	
Postcode	Principal Place of Business: Postcode
Principal Place of Business: Country	Principal Place of Business: Country
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Telephone Number	Principal Place of Business: Mobile Telephone Number



Attribute Name	Attribute Description
	Attribute Description
Principal Place of Business: E-mail	
Address	Principal Place of Business: E-mail Address
Convictions: Individuals - Title	Convictions: Individuals - Title
Convictions: Individuals - First Name	Convictions: Individuals - First Name
Convictions: Individuals - Last Name	Convictions: Individuals - Last Name
Convictions: Individuals - Position	Convictions: Individuals - Position
Convictions: Individuals - Name of	
Court	Convictions: Individuals - Name of Court
Convictions: Individuals - Offence	Convictions: Individuals - Offence
Convictions: Individuals - Penalty	
Imposed	Convictions: Individuals - Penalty Imposed
Convictions: Corporate Bodies -	
Name	Convictions: Corporate Bodies - Name
Convictions: Corporate Bodies -	
Name of Court	Convictions: Corporate Bodies - Name of Court
Convictions: Corporate Bodies -	
Offence	Convictions: Corporate Bodies - Offence
Convictions: Corporate Bodies -	
Penalty Imposed	Convictions: Corporate Bodies - Penalty Imposed



# **GQA Headline Indicators of Water Courses - Biology (AfA161)**

#### **Dataset Description**

The General Quality Assessment (GQA) Headline Indicator scheme or GQAHI (previously known as GQA) is the Environment Agency's national indicator for water quality in rivers and canals. It is designed to provide an accurate and consistent assessment of the state of water quality and how it changes over time as a national picture. These assessments are made for Biological, Chemical and Nutrients and undertaken for discrete river stretches. 4978 river stretches are included in the biology assessment which represent approximately 22,773km.

The Biology assessment gives an indicator of the overall 'health' of rivers. It describes water quality in terms of 83 groups of macroinvertebrates. Macroinvertebrates are small animals that can be seen with the naked eye. Some of these are pollution sensitive so their presence suggests better water quality. The assessment is made by carrying out a bi-yearly (Spring/Autumn) three minute active sampling with a pond net and a one-minute visual search for animals living on the surface or attached to rocks or vegetation. The number of taxa present are recorded and the Biological Monitoring Working Party score calculated. These values are then compared with values expected at a site in a similar, but totally unpolluted river. The mathematical model RIVPACS (the River Invertebrate Prediction and Classification System) is used to predict fauna in the absence of pollution. A category is then assigned to the river stretch the monitoring point is located:

- A Very Good: Biology similar to that expected for an average and unpolluted river of this size, type and location. High diversity of groups, usually with several species in each. Rare to find dominance of any one group.
- B Good: Biology falls a little short of that expected for an unpolluted river. Small reduction in the number of groups that are sensitive to pollution. Moderate increase in the number of individuals in the groups that tolerate pollution
- C Fairly Good: Biology worse than expected for an unpolluted river. Many sensitive groups absent, or number of individuals reduced. Marked rise in numbers of individuals in groups that tolerate pollution.
- D Fair: Sensitive groups scarce and contain only small numbers of individuals. A range of
  pollution tolerant groups present, some with high numbers of individuals.
- E Poor: Biology restricted to pollution tolerant species with some groups dominant in terms of the numbers of individuals. Sensitive groups rare or absent.
- F Bad: Biology limited to a small number of very tolerant groups (such as worms, midge larvae and leeches), present in very high numbers. In the worst case, there may be no life present.

Sample points represent one or many stretches, there are approximately 3270 biology sample points.

Attribute Name	Attribute Description
REGION	EA Region
KEY	Unique identifier of stretch
RIVER	Name of river sampled
REACH	Name of river stretch
DISTANCE	Length of stretch (km)
UPSTREAM_NGR	National Grid Reference for start of stretch
DOWNSTREAM_ NGR	National Grid Reference for end stretch
BIOL_ID	Biology sampling point ID (null if no longer sampled)
Class_90_bias	Bias-adjusted biological quality grades for 1990



Attribute Name	Attribute Description
Class_95_bias	Bias-adjusted biological quality grades for 1995
Class_00_bias	Bias-adjusted biological quality grades for 2000
Class_00_02_bias	Bias-adjusted biological quality grades for 2000/02
Class_00_02_03_bias	Bias-adjusted biological quality grades for 2000/02/03
Class_02_03_04_bias	Bias-adjusted biological quality grades for 2002/03/04
Class_03_04_05_bias	Bias-adjusted biological quality grades for 2003/04/05
Class_04_05_06_bias	Bias-adjusted biological quality grades for 2004/05/06
Class_05_06_07_bias	Bias-adjusted biological quality grades for 2005/06/07
Class_06_07_08_bias	Bias-adjusted biological quality grades for 2006/07/08
FLOW	Estimate of long term average natural flow at the end of the
	stretch (cubic metres per second). ***
FLOW_GROUP	Category of long term average natural flow
FLOW_TYPE	C=Canal; R=River; D=Drain



## **GQA Headline Indicators of Water Courses – Chemistry (AfA162)**

#### **Dataset Description**

The General Quality Assessment (GQA) Headline Indicator scheme or GQAHI (previously known as GQA) is the Environment Agency's national indicator for water quality in rivers and canals. It is designed to provide an accurate and consistent assessment of the state of water quality and how it changes over time as a national picture. These assessments are made for Biological, Chemical and Nutrients and undertaken for discrete river stretches.

The Chemistry GQAHI scheme has over 3000 sampling sites which provide information for approximately 22500 km of watercourses. In Wales we maintained the full GQA network based on 800 sampling sites which provides information for approximately 4700km. Chemistry GQAHI/GQA sites are sampled twelve times a year, the samples being taken at the same spot on each sampling occasion to ensure consistency. In England each chemical sample is measured for ammonia and dissolved oxygen. In Wales each chemical sample is measured for biochemical oxygen demand (BOD), ammonia and dissolved oxygen (the most common types of organic pollution from sewage treatment works, agriculture and industry). A category is assigned using three years worth of samples for each sampled chemical and assigned a category assessed against chemical standards expressed as percentiles The data collected over three years are used to determine average nutrient concentrations. So the classification for the year 2008 includes the results for 2006 and 2007. Subsequently a category is assigned to each length of river according to the lowest standard achieved by any of the two or three measurements:

The Chemistry GQA as used in Wales describes quality in terms of three chemical measurements that detect the most common types of organic pollution from sewage treatment works, agriculture and industry. The chemistry GQAHI scheme as used in England uses the same methods however the biochemical oxygen demand (BOD) component of the assessment has been removed.

Grades of river quality for the chemical GQA

Chemical	
grade	Likely uses and characteristics*
Very A good	All abstractions, Very good salmonid fisheries, Cyprinid fisheries, Natural ecosystems
B Good	All abstractions, Salmonid fisheries, Cyprinid fisheries, Ecosystems at or close to natural
Fairly C good	Potable supply after advanced treatment, Other abstractions, Good cyprinid fisheries, Natural ecosystems, or those corresponding to good cyprinid fisheries
D Fair	Potable supply after advanced treatment, Other abstractions, Fair cyprinid fisheries, Impacted ecosystems
E Poor	Low grade abstraction for industry, Fish absent or sporadically present, vulnerable to pollution**, Impoverished ecosystems**
F Bad	Very polluted rivers which may cause nuisance, Severely restricted ecosystems

<sup>\*</sup>Provided other standards are met

Attribute Name	Attribute Description
GQAHI (England)	
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
AREA	Area name
LENGTH	Stretch length (km)
UPNGR	Start of Stretch NGR

<sup>\*\*</sup>Where the grade is caused by discharges of organic pollution



Attribute Name	Attribute Description
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
HI 1990	HI 1990 result
HI 1993	HI 1993 result
HI 1994	HI 1994 result
HI 1995	HI 1995 result
HI 1996	HI 1996 result
HI 1997	HI 1997 result
HI 1998	HI 1998 result
HI 1999	HI 1999 result
HI 2000	HI 2000 result
HI 2001	HI 2001 result
HI 2002	HI 2002 result
HI 2003	HI 2003 result
HI 2004	HI 2004 result
HI 2005	HI 2005 result
HI 2006	HI 2006 result
HI 2007	HI 2007 result
HI 2008	HI 2008 result
HI 2008	HI 2009 result
	GQA (Wales)
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
AREA	Area name
LENGTH	Stretch length (km)
UPNGR	Start of Stretch NGR
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
GQA 1990	GQA 1990 result
GQA 1993	GQA 1993 result
GQA 1994	GQA 1994 result
GQA 1995	GQA 1995 result
GQA 1996	GQA 1996 result
GQA 1997	GQA 1997 result
GQA 1998	GQA 1998 result
GQA 1999	GQA 1999 result
GQA 2000	GQA 2000 result
GQA 2001	GQA 2001 result
GQA 2002	GQA 2002 result
GQA 2003	GQA 2003 result
GQA 2004	GQA 2004 result
GQA 2005	GQA 2005 result
GQA 2006	GQA 2006 result
GQA 2007	GQA 2007 result
GQA 2008	GQA 2008 result
GQA 2009	GQA 2009 result



## **GQA Headline Indicators of Water Courses - Nutrients (AfA163)**

#### **Dataset Description**

The General Quality Assessment Headline Indicator scheme (GQAHI) is the Environment Agency's national method for creating a water quality indicator based on rivers and canals in England. This is a reduced network compared to the original GQA network used in England from 1990 to 2006. The Nutrients GQAHI scheme has over 3000 sampling sites which provide information for approximately 22500 km of watercourses. In Wales we maintained the full GQA network based on 800 sampling sites which provides information for approximately 4700km.

The GQAHI/GQA scheme is designed to provide an accurate and consistent assessment of the state of water quality and how it changes over time. The Nutrients GQA describes quality in terms of two nutrients: nitrates (mg NO3 /l). and phosphates (mg P/l) and graded from 1 to 6. Grades are allocated for both phosphate and nitrate, they are not combined into a single nutrients grade. There are no set 'good' or 'bad' concentrations for nutrients in rivers in the way that we describe chemical and biological quality. Rivers in different parts of the country have naturally different concentrations of nutrients. 'Very low' nutrient concentrations, for example, are not necessarily good or bad; the classifications merely

Classification for phosphate		
Grade	Grade limit (mgP/l) Average	Description
1	<0.02	Very low
2	>0.02 to 0.06	Low
3	>0.06 to 0.1	Moderate
4	>0.1 to 0.2	High
5	>0.2 to 1.0	Very high
6	>1.0	Excessively high

Classification for nitrate		
Grade	Grade limit (mg NO3/I) Average	Description
1	<5	Very low
2	>5 to 10	Low
3	>10 to 20	Moderately low
4	>20 to30	Moderate
5	>30 to 40	High
6	>40	Very high

states that concentrations in this river are very low relative to other rivers.

Attribute Name	Attribute Description	
nitrate GQA grades 2009 (England)		
REGION	Region name	
RNAME	River name	
SNAME	Stretch name	
KEY	Unique identifier	
LENGTH	River stretch length (km)	
UPNGR	Start of Stretch NGR	
DOWNNGR	End of Stretch NGR	
CHEMNGR	Sample Point NGR	
N_GQA_90	Nitrate GQA Grade 1990	
N_GQA_95	Nitrate GQA Grade 1995	
N_GQA_00	Nitrate GQA Grade 2000	
N_GQA_01	Nitrate GQA Grade 2001	
N_GQA_02	Nitrate GQA Grade 2002	
N_GQA_03	Nitrate GQA Grade 2003	
N_GQA_04	Nitrate GQA Grade 2004	
N_GQA_05	Nitrate GQA Grade 2005	
N_GQA_06	Nitrate GQA Grade 2006	
N_GQA_07	Nitrate GQA Grade 2007	



Attaile vite Nome	Attaileute Decemention
Attribute Name	Attribute Description
N_GQA_08	Nitrate GQA Grade 2008
N_GQA_09	Nitrate GQA Grade 2009
	ate GQA grades 2009 (Wales)
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
LENGTH UPNGR	River stretch length (km) Start of Stretch NGR
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
N_GQA_90	Nitrate GQA Grade 1990
N_GQA_95	Nitrate GQA Grade 1995
N_GQA_00	Nitrate GQA Grade 2000
N_GQA_01	Nitrate GQA Grade 2001
N_GQA_02	Nitrate GQA Grade 2002
N_GQA_03	Nitrate GQA Grade 2003
N_GQA_04	Nitrate GQA Grade 2004
N_GQA_05	Nitrate GQA Grade 2005
N_GQA_06	Nitrate GQA Grade 2006
N_GQA_07	Nitrate GQA Grade 2007
N GQA 08	Nitrate GQA Grade 2008
N GQA 09	Nitrate GQA Grade 2009
	nate GQA grades 2009 (England)
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
LENGTH	River stretch length (km)
UPNGR	Start of Stretch NGR
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
P_GQA_90	Phosphate GQA Grade 1990
P_GQA_95	Phosphate GQA Grade 1995
P_GQA_00	Phosphate GQA Grade 2000
P_GQA_01	Phosphate GQA Grade 2001
P_GQA_02	Phosphate GQA Grade 2002
P_GQA_03	Phosphate GQA Grade 2003
P_GQA_04	Phosphate GQA Grade 2004
P_GQA_05	Phosphate GQA Grade 2005
P_GQA_06 P_GQA_07	Phosphate GQA Grade 2006
	Phosphate GQA Grade 2007
P_GQA_08	Phosphate GQA Grade 2008
P_GQA_09	Phosphate GQA Grade 2009
phospha	ate GQA grades 2009 (Wales)
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
LENGTH	River stretch length (km)
UPNGR	Start of Stretch NGR
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
P_GQA_90	Phosphate GQA Grade 1990
P_GQA_95	Phosphate GQA Grade 1995



Attribute Name	Attribute Description
P_GQA_00	Phosphate GQA Grade 2000
P_GQA_01	Phosphate GQA Grade 2001
P_GQA_02	Phosphate GQA Grade 2002
P_GQA_03	Phosphate GQA Grade 2003
P_GQA_04	Phosphate GQA Grade 2004
P_GQA_05	Phosphate GQA Grade 2005
P_GQA_06	Phosphate GQA Grade 2006
P_GQA_07	Phosphate GQA Grade 2007
P_GQA_08	Phosphate GQA Grade 2008
P_GQA_09	Phosphate GQA Grade 2009



## **River Quality Objectives (AfA164)**

## **Dataset Description**

The RQO classification was used for planning water quality improvements until 2006 when the scheme ended. RQOs were assigned to all significantly sized rivers (based on river flow). RQOs were based on the River Ecosystem (RE) Classification Scheme which was introduced in 1994 to replace the National Water Council's methodology. The RE system consists of five classes (1-5) and is based on the same determinands used in GQA chemistry assessment of BOD, ammonia and dissolved oxygen but also includes the additional determinands of (free (or un-ionised) ammonia, pH, hardness, dissolved copper and total zinc) that reflect the requirements of a river ecosystem.

Chemical samples were taken 12 times a year. Any river quality failures, their reasons and actions to be taken, were stored in separate tables.

The national RQO classification scheme ceased at the end of 2006, it is now a fixed table which will not be updated. RQO compliance figures are available for 1997-2006.

Attribute Name	Attribute Description
REGION	Region name
RNAME	River name
SNAME	Stretch name
KEY	Unique identifier
AREA	Area name
LENGTH	Stretch length (km)
UPNGR	Start of Stretch NGR
DOWNNGR	End of Stretch NGR
CHEMNGR	Sample Point NGR
RQO	River Quality Objective for stretch
1993 compliance	Compliance with RQO grade for 1993
1994 compliance	Compliance with RQO grade for 1994
1995 compliance	Compliance with RQO grade for 1995
1996 compliance	Compliance with RQO grade for 1996
1997 compliance	Compliance with RQO grade for 1997
1998 compliance	Compliance with RQO grade for 1998
1999 compliance	Compliance with RQO grade for 1999
2000 compliance	Compliance with RQO grade for 2000
2001 compliance	Compliance with RQO grade for 2001
2002 compliance	Compliance with RQO grade for 2002
2003 compliance	Compliance with RQO grade for 2003
2004 compliance	Compliance with RQO grade for 2004
2005 compliance	Compliance with RQO grade for 2005
2006 compliance	Compliance with RQO grade for 2006



## Potential Sites of Hydropower Opportunity (AfA175)

#### **Dataset Description**

These data show the location of opportunities for hydropower and the basic environmental sensitivity associated with exploiting them in England and Wales. A total of 25,935 'barriers' are identified and assessed in this project. The term 'barriers' is used to describe sites with sufficient drop to provide a hydropower opportunity. They are mostly weirs, but could also be other manmade structures or natural features, such as waterfalls. The average maximum power generation capacity on a barrier was 45Kw, with a total potential capacity of 1178Mw.

Environmental sensitivities were assessed. This assessment considered the presence of fish species and whether the site has been designated as a Special Area of Conservation (SAC). Almost half (46%) of these barriers are classified as highly sensitive, mostly because of the presence of migratory fish species such as salmon and eel. 27% are medium and high sensitivity, and the remainder are unclassified due to a lack of data. When it is assumed that a new scheme has a fish pass built into it, the environmentally compatible opportunities increase considerably.

A filtered dataset is also available based on potential power output and environmental sensitivity (AfA206 'Potential Sites of Hydropower Opportunity - filtered').

Attribute Name	Attribute Description
	Geometry type = Point
Geometry	Spatial Reference = British National Grid
OBSTRÚCTID	Obstruction unique identifier
TEXTSTRING	Description of type of barrier e.g. Weir
TOID	Topographic Identifier
FEATURE	Feature type
TYPE	Barrier type
DRN_ID	Detailed River Network identifier
HEADSTAT	River Head status code
USELEV	Upstream elevation
DSELEV	Downstream elevation
Z	Head from barriers height (USELEV, DSELEV)
P_US_Z	Upstream point height from LIDAR or SAR
P_DS_Z	Downstream point height from LIDAR or SAR
P_HEAD	Head value calculated from P_US_Z and P_DS_Z
P_ZTYPE	Source of the height extraction (LIDAR or SAR)
Obs_height	Height at barrier from LIDAR or SAR
Z_MIN	Min height from within 5m of barrier
Z_MAX	Max height from within 5m of barrier
CHANGED	If the min max is different from height at barrier
DS_Z_Min	Downstream min height within 5m radius
DS_Z_Max	Downstream max height within 5m radius
US_Z_Min	Upsteam minimum height within 5m radius
US_Z_Max	Upstream max height within 5m radius
USDS_Head	Head calculated from 5m radius extraction method (US_Z_Max - DS_Z_Min)
Z_Head	Head calculated from max and min height within 5m from barrier (Z_MAX - Z_MIN)
25m_DS_Min	Downstream min height within 5m radius using the 25m US/DS method
25m_DS_Max	Downstream maximum height within 5m radius using 25m US/DS Method



Attribute Name	Attribute Description
25m_US_Min	Upstream min height within 5m radius using 25m US/DS Method
	Upstream maximum height within 5m radius using 25m US/DS
25m_US_Max	Method
	Head calculated using the 25m US/DS Method (25m_US_Max -
25m_Head	25_DS_MIN)
Flow_Meth	Method used to calculate flow
Power	Calculated power
Power_Cat	Calculated Power category
MaxHeight	Method used to calculate head at barrier
MaxHead	Maximum head at barrier calculated from maximum height.
Sens_Cat	Environmental sensitivity category
HMWB	Heavily Modified Waterbody Designation
Region	Region in which the barrier is located
L_Authority	Local Authority in which the barrier is located
	Catchment in which the barrier is located based on the 1:50,000
Cmt_50k	dataset
X	X Coordinate of Barrier
Υ	Y Coordinate of Barrier



# UK Water Quality Sampling Harmonised Monitoring Scheme Summary Data (AfA178)

#### **Dataset Description**

The UK Water Quality Sampling Harmonised Monitoring Scheme (HMS) data contains statistics for a series of water quality sampling sites including annual means, maximum and minimum values for each Region for specified determinands from 1975 onwards.

The sampling network includes 230 sites, which are mainly located at the tidal limits of major rivers or at the points of confluence of significant tributaries. The information held within the HMS includes data on: Oxygen and ammonia, Nutrients, List II metals and Pesticides. Annual mean concentrations have been calculated for each HMS site. The data show the annual averages of the site means in each region, with each site given equal weight irrespective of the number of samples taken - an average of all the samples would give a greater weight to the sites at which samples are most frequently taken. In order to give an indication of the range of values at different sites within each region, figures are also given for the maximum and minimum site mean for each region. The data also includes for the UK average, the 10th percentile and the 90th percentile of the site means for the whole of the UK. For each determinand in each year and the 10-percentile and the 90-percentile of the site means in each region.

The Harmonised Monitoring Scheme (HMS) was established to provide an archive of water quality data for the UK. It is used to provide information for international obligations, including the long-term trends of some determinands and the estimation of riverborne input of selected determinands to the sea.

The detailed dataset is covered in AfA255 UK Water Quality Sampling Harmonised Monitoring Scheme detailed data.

#### **Price Category: EA Open Data**

Attribute Name	Attribute Description  Dissolved Oxygen	
Average (mgl/O <sub>2</sub> )	Average of all annual site means in the region, each being given equal weight, irrespective of the number of samples taken. Values below the limit of detection have been equated to one half the detection limit.	
Highest site mean (mgl/O <sub>2</sub> )	Highest annual site mean of all sampling sites in the region.	
Lowest site mean (mgl/O <sub>2</sub> )	Lowest annual site mean of all sampling sites in the region.	
Biological Oxygen Demand		
Average	Average of all annual site means in the region, each being given equal weight, irrespective of the number of samples taken. Values below the limit of detection have been equated to one half the detection limit.	
Highest site mean	Highest annual site mean of all sampling sites in the region.	
Lowest site mean	Lowest annual site mean of all sampling sites in the region.	



Attribute Name	Attribute Description
	Ammoniacal nitrogen
Average (mgl/O <sub>2</sub> )	Average of all annual site means in the region, each being given equal weight, irrespective of the number of samples taken. Values below the limit of detection have been equated to one half the detection limit.
Highest site mean (mgl/O <sub>2</sub> )	Highest annual site mean of all sampling sites in the region.
Lowest site mean (mgl/O <sub>2</sub> )	Lowest annual site mean of all sampling sites in the region.
Concentrations of nit	rates and orthophosphates by landscape type
Annual averages - mg/l (NO3)	Average of all annual site means in the landscape type (Lowland Arable/Lowland Pastural), each site being given equal weight, irrespective of the number of samples taken.
Annual averages - mg/l (P)	Average of all annual site means in the landscape type (Lowland Arable/Lowland Pastural), each site being given equal weight, irrespective of the number of samples taken.
Number of Sites	Number of sampling sites by regions
	Concentration of nitrates
Average mg/I (NO <sub>3</sub> )	Average of all annual site means in the region, each being given equal weight, irrespective of the number of samples taken. Values below the limit of detection have been equated to one half the detection limit.
Highest site mean mg/l (NO <sub>3</sub> )	Highest annual site mean of all sampling sites in the region.
Lowest site mean mg/l (NO <sub>3</sub> )	Lowest annual site mean of all sampling sites in the region.
Conc	entration of orthophosphates
Average mg/I (P)	Average of all annual site means in the region, each being given equal weight, irrespective of the number of samples taken. Values below the limit of detection have been equated to one half the detection limit.
Highest site mean mg/l (P)	Highest annual site mean of all sampling sites in the region.
Lowest site mean mg/l (P)	Lowest annual site mean of all sampling sites in the region.
Determinands of river water	quality, by river location: 1980, 1990 and 1995 - 2005
Temperature	Average annual temperature (Degrees C)
рН	Annual mean pH. Values below the limit of detection have been equated to one half the detection limit. (pH Units)
Conductivity	Annual mean conductivity. Values below the limit of detection have been equated to one half the detection limit. (US/cm)
Suspended solids	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l)
Ash (from suspended solids)	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l)
Dissolved oxygen	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l O)
Biochemical Oxygen Demand	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l O)
Ammoniacal nitrogen	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l N)



Attribute Name	Attribute Description
Nitrite	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l N)
Nitrate	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l NO <sub>3</sub> )
Chloride	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l Cl)
Total alkalinity	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l CaCO <sub>3</sub> )
Chlorophyll alpha	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l)
Orthophosphate	Annual mean concentrations. Values below the limit of detection have been equated to one half the detection limit. (mg/l P)
	oncentrations of certain heavy metals in rivers: 1980 – 2005
	er, Lead, Nickel, Chromium, Arsenic]
90th percentile	Annual site mean concentrations with values below the limit of detection equated to 0.
Median	The number of HMS sites in each year monitoring each respective metal.
10th percentile	For each metal shown the 90 percentile, median, and 10 percentile of the annual site means of all HMS sites monitoring the metal in that year.
Number of HMS Sites	Number of Harmonised Monitoring Scheme Sites



# Catchment Abstraction Management Strategy (CAMS) Reference Boundaries (AfA182)

#### **Dataset Description**

The CAMS Abstraction Management Strategy Reference Boundaries are an external reference dataset giving an indication of where technical assessments have been undertaken.

CAMS helps to look at the balance between society, the economy and the environment. The technical assessment helps identify where water may be available for future use but also where water resource demands may be impacting the water balance. The CAMS boundaries should be used on a national (England and Wales) scale to show the geographical distribution of CAMS and are not suitable for detailed technical assessments.

"These boundaries should not be used for detailed technical assessment or identifying precisely which CAMS permits may fall into. The boundaries may be subject to change based on the Environment Agency's technical and catchment understanding."

**Price Category: Zero** 

Attribute Name	Attribute Description
Shape	Geometry type = Polygon;
Snape	Spatial Reference = British National Grid.
Name	CAMS name
Area	CAMS area (sq metres)
Lenath	CAMS (parameter metres)



## **Consented Discharges to Controlled Waters with Conditions (AfA184)**

#### **Dataset Description**

These data provide details of all permit details as required under the Environmental Permit Regulations. Information is held for all permit holders and covers all substances that are controlled. These data are a taken from the Environment Agency's Public Register and contains three tiers of data for all active permits.

#### Tier 1 - Site and General

Information on the consent holder that has a consent to discharge into controlled waters. Consent holder and the discharge address and type. The date of permit issue, effective and revocation. Information where the effluent enters the environment (such as sewage disposal works) for each holder that has been granted a permit. Data is also held on the effluent type e.g. Sewage effluent, Overflow. The location of the grid reference is supplied for the effluent and the outlet location in OS Nation Grid Reference format.

#### Tier 2 - Effluent

Further detail is provided on the amount that can be discharged and in which time period in months. This is stored as Dry Weather Flow, Maximum Daily, Mean, Maximum Rate. Further data about the permit type and treatment type from lookup lists are provided.

#### Tier 3 – Determinand Limits

Determinands are the substances and numerical limits that make up the effluent. This could include chemical, biological, and physical limits. Textual conditions are not included. The permitted limits are included for each determinand type. Data is provided for each effluent and may contain one or more determinands depending on the complexity of the discharge.

Attribute Name	Attribute Description		
	Site and General		
COMPANY_NAME	Consent holders name		
DISCHARGE_SITE_NAME	Discharge site name		
DISCHARGE_SITE_TYPE_CODE	Discharge site type code		
DSI_TYPE_DESCRIPTION	Discharge site type description		
ADD_OF_DISCHARGE_SITE_LINE_1	Address data		
ADD_OF_DISCHARGE_SITE_LINE_2	Address data		
ADD_OF_DISCHARGE_SITE_LINE_3	Address data		
ADD_OF_DISCHARGE_SITE_LINE_4	Address data		
ADD_OF_DISCHARGE_SITE_PCODE	Address data		
DISCHARGE_NGR	Location of the discharge site		
DISTRICT_COUNCIL	District council		
CATC_NAME	Catchment name		
CATCHMENT_CODE	Catchement code		
EA_REGION	Environment agency region code		
REGION	Environment agency region name		
PERMIT_REF	Consent number		
VERSION	Consent version		
RECEIVING_WATER	Name of the receiving environment		
RECEIVING_ENVIRON_TYPE_CODE	receiving environment type code		
REC_ENV_CODE_DESCRIPTION	receiving environment type description		
ISSUED_DATE	Date the permit was issued		
EFFECTIVE_DATE	Date the permit became effective		
REVOCATION_DATE	Date the permit will be revoked		



Attribute Name	Attribute Description	
STATUS_OF_PERMIT	Code for relevant section/schedule of act of Parliament	
STATUS_DESCRIPTION	Text describing relevant section/schedule of act of Parliament	
OUTLET_NUMBER	ID for the outlet	
OUTLET_TYPE_CODE	Code for outlet type	
OUTLET_TYPE_DESCRIPTION	Description of type of outlet	
OUTLET_GRID_REF	Outlet grid reference	
EFFLUENT_NUMBER	ID for the effluent	
EFFLUENT_TYPE	Code for effluent type	
EFFLUENT_GRID_REF	Effluent Grid ref	
PERMIT_TYPE	Consent type code	
PERMIT_TYPE_DESC	Consent type description	
	Effluents	
SPT_DESC	Sample point type	
EFF_SAMPLE_POINT	Effluent sample point	
eff_tmen_code	Consented treatment code	
tmen_desc	Consented treatment description	
Month_from	Seasonal limit start	
Month_to	Seasonal limit end	
DWF	Dry weather flow limit	
MAX_DAILY	Max flow daily limit	
MEAN	Mean flow rate	
MAX_RATE	Max flow rate	
	Determinands	
CODE_1	Determinand limit code 1	
VAL_1	Limit value 1	
CODE_2	Determinand limit code 2	
VAL_2	Limit value 2	
CODE_3	Determinand limit code 3	
VAL_3	Limit value 3	
DETE_CODE	Determinand code	
UNITS	Determinand Unit	
DETE	Determinand description	



## Daily Mean River Flows [WISKI] (AfA186)

### **Dataset Description**

Daily Mean River Flows is an extract from the WISKI database. Daily Mean River Flows is an extract from the WISKI database. WISKI holds hydrometric time series data (river level, flow, groundwater, rainfall and climate together with some water quality) including quality controlled 15 minute measurements of river flow for approximately 1400 open gauging stations in England and Wales with some records dating back as far as 1903. Automatic measurements of level (m) or flow (m3/s) are transferred from the field via telemetry and other means, to internal and external systems. The 15 minute measurements of flow are archived in WISKI where they are used to generate Daily Mean River Flows, as well as other summary time series.

**Price Category: High** 

Attribute Name	Attribute Description
Md:Publisher	Who is transferring the data, in this case "Environment Agency". [This field is included since it adheres to the
	standard used in WISKI, the field may be updated if
	supplied externally].
Source	System from which the data originates i.e. WISKI
Description	Description of process i.e. test
Date	Date file created
Time	Time file created
Identifier	Server name
Station reference	Reference based on combination of letters and numbers
Station reference	[unique identifier]
Region	Agency Region in which site is located
NGR	British National Grid reference
River Name	Name of river on which site is located
Station name	Name of station from WISKI system
Values/Parameters	i.e. flow
Qualifier	More detailed meta data relating to the value/parameter above i.e. logged, or type of gauge
Data type	Definition of data (equals mean in this instance)
Period	Time interval of measurement i.e. day
Units	Measurement units i.e. m3/s
Start Date	Date of first parameter in file
Start Time	Time of first parameter in file
End Date	Date of last parameter in file
	Time of last parameter in file (may be identified as 'last
End Time	collected result' on the screen if transferred data is
	uploaded to the web-site automatically)



## Monthly Maximum Instantaneous River Flows [WISKI] (AfA187)

#### **Dataset Description**

Monthly Maximum Instantaneous Flows is an extract from the WISKI database. WISKI holds hydrometric time series data (river level, flow, groundwater, rainfall and climate together with some water quality) including quality controlled 15 minute measurements of river flow for approximately 1400 open gauging stations in England and Wales with some records dating back as far as 1903. Automatic measurements of level (m) or flow (m3/s) are transferred from the field via telemetry and other means to internal and external systems. The 15 minute measurements of flow in WISKI are used to generate Monthly Maximum Instantaneous River Flows, as well as other summary time series.

#### **Price Category: High**

Attribute Name	Attribute Description	
Md:Publisher	Who is transferring the data, in this case "Environment Agency". [This field is included since it adheres to the standard used in WISKI, the field may be updated if supplied externally].	
Source	System from which the data originates i.e. WISKI	
Description	Description of process i.e. test	
Date	Date file created	
Time	Time file created	
Identifier	Server name	
Station reference	Reference based on combination of letters and numbers [unique identifier]	
Region	Agency Region in which site is located	
NGR	British National Grid reference	
River Name	Name of river on which site is located	
Station name	Name of station from WISKI system	
Values/Parameters	i.e. flow	
Qualifier	More detailed meta data relating to the value/parameter above i.e. logged, or type of gauge	
Data type	Definition of data (equals maximum in this instance)	
Period	Time interval of measurement i.e. month	
Units	Measurement units i.e. m3/s	
Start Date	Date of first parameter in file	
Start Time	Time of first parameter in file	
End Date	Date of last parameter in file	
End Time	Time of last parameter in file (may be identified as 'last collected result' on the screen if transferred data is uploaded to the web-site automatically)	



## **Carbon Reduction Commitment Performance Data (AfA191)**

#### **Dataset Description**

The CRC Energy Efficiency Scheme (CRC) Performance Data contains Performance League Tables (PLT) that have been compiled under the CRC Energy Efficiency Scheme from data submitted by organisations in their Annual Reports. CRC requires the highest UK parent organisation to register for CRC and to list all of its significant group undertakings (SGUs), available as an aggregated dataset. SGUs are undertakings that would qualify for CRC in their own right if they did not have a higher parent organisation. The qualification criterion is that the undertaking was supplied with 6000MWh of qualifying electricity during 2008 (some supplies do not qualify for CRC). The CRC Order requires that we show in the PLT the undertakings that "belong" to a parent, together with a total emissions figure in tonnes/CO<sub>2</sub> for that SGU and are presented in a league table based on carbon emissions. SGU's only apply to the private sector; the public sector will not have SGUs.

- Participant Data Detail of each participating organisation, carbon emissions, carbon reduction achievements, energy generated from renewable source and aggregated data.
- **Performance** This is the position in the Overall Performance League Table for a participant. This is calculated from their performance in each of the individual achievement tables (Early Action; Growth Metric; and Absolute Emissions) after the application of any weighting factors as defined below:

#### Phase 1

	Early Action Weighting (EAW)	Growth Weighting (GW)	Absolute Weighting (AW)
Year 1	1.00	0.00	0.00
Year 2	0.40	0.15	0.45
Year 3	0.20	0.20	0.60

#### Phase 2

	Growth Weighting (GW)	Absolute Weighting (AW)
Phase 2 onwards	0.25	0.75

**Achievement tables -** For each participant the Registry will calculate their Early Action Achievement Table Score based on the following data that has been recorded in the Annual Report for the participant.

Price Category: EA OpenData

Attribute Name	Attribute Description
Table 1:	Main Performance League Table
Overall Ranking	Organisations will be listed in the PLT in order of ranking.
CRC Registration Number	Unique reference number assigned to registration by Environment Agency.



Attribute Name	Attribute Description	
Name (Parent)	UK parent or nominated UK parent.	
Trading/known as name (Parent)	Trading name as provided by the participant. This will be the trading name associated with the UK parent or nominated UK parent. If there is an overseas parent with no incorporated subsidiaries in the UK this will be blank.	
CRC emissions tCO2	CRC emissions reported by the participant for the annual reporting year (for the whole participant organisation/group)	
Total Weighted Score		
Absolute Metric Absolute change %	Schedule 8, para 1 The percentage change in the CRC emissions compared to the historic average of CRC emissions (where it exists).	
CRC emissions per unit turnover tCO2	CRC emissions divided by turnover or revenue expenditure figure (£) provided by the participant as part of the annual report.	
Growth Metric relative change (%)	Schedule 8, para 2.  The percentage change of CRC emissions per unit turnover compared with the historic average per unit turnover (where it exists)	
Early Action Metirc – combined EAM score %	Schedule 8, para 5. Average of percentages set out in para 5(2)	
Voluntary Tick box questions [1] [2] [3] [4]	<ol> <li>Does your CRC organisation disclose long-term carbon emission reduction targets in its annual reporting in respect of the majority of its CRC energy use?</li> <li>Does your CRC organisation disclose carbon emissions performance against these targets, in its annual reporting in respect of the majority of its CRC energy use?</li> <li>Does your CRC organisation name a Director with responsibility for overseeing carbon performance, in respect of the majority of its CRC energy use, in its annual reporting?</li> <li>Do you actively engage employees to reduce energy use?</li> </ol>	
Table 2: Signifi	cant Group Undertakings (SGU) Table	
Name (PARENT)	UK parent or nominated UK parent. If an overseas parent has no incorporated subsidiary undertakings in the UK overseas parent will be shown.	
List of SGUs in each parent registration	Significant Group Undertakings (SGUs) registered by the participant as part of his registration. These are undertakings within the parent group structure that were supplied with 6000MWh or more of qualifying electricity in 2008	
Identification of disaggregated SGUs associated with each parent.	At registration the parent organisation is allowed to identify SGUs for disaggregation from the parent.	
	Corporate Score Card – top level	
Name (PARENT)	UK parent or nominated UK parent. Where an overseas parent has no incorporated subsidiary undertakings in the UK the overseas parent will be shown.	
Trading/known as name (PARENT)	Trading name as provided by the participant. This will be the trading name associated with the UK parent or nominated UK parent. Where an overseas parent has no incorporated subsidiary undertakings in the UK this will be left blank.	
SIC code (private sector)	United Kingdom Standard Industrial Classification of Economic Activities (SIC) is used to classify business establishments and other standard units by the type of economic activity in which they are engaged. Provided by participant for parent organisation.	
Description - public sector	Sector categorisation selected by participant at registration.	
CRC emissions tCO2	CRC emissions reported by the participant for the annual reporting year	
Tick box questions		
Table 4: Corporate Scorecard SGU		
List of SGUs in each parent registration	Significant Group Undertakings (SGUs) registered by the	



Attribute Name	Attribute Description	
Attribute Name	Attribute Description participant as part of his registration. These are undertakings	
	within the parent group structure that were supplied with	
	6000MWh or more of qualifying electricity in 2008	
Trading name for each SGU	Trading name as provided by the participant.	
SIC code for each SGU	Trading name as provided by the participant.	
CRC emissions for each SGU (tCO2)	This information is provided by the participant as part of his	
CITO ethissions for each 500 (1002)	annual report for the previous annual reporting year	
Table 5: Cor	porate scorecard – performance table	
Overall Ranking	This is the position in the Overall Performance League Table for a participant. This is calculated from their performance in each of the individual achievement tables (Early Action; Growth Metric; and Absolute Emissions) including the application of any weighting factors.	
Scores for each achievement table (Score for the early action metric)	The achievement tables are (i) absolute metric (ii) growth metric and (iii) early action metric (EAM). Performance in each is scored and the scores are weighted to provide a total weighted score (below).	
Score for the absolute metric	As above	
Score for the growth metric	As above	
Total weighted score	As above	
Table 6: Cor	porate scorecard – achievement table	
Scores for each achievement table	The achievement tables are (i) absolute metric (ii) growth metric and (iii) early action metric (EAM). Performance in each is scored and the scores are weighted to provide a total weighted score (below).	
Early action - CTS%	(i) Early action metric  Awards participants who have taken action before or at the start	
	of CRC to reduce emissions. Made up of two elements - (i) certification under the Carbon Trust Scheme (or an equivalent) (ii) % of supplies made through AMR meters etc.  Note: Article 78(3)(e), refers to Article 75 (achievement tables) which refers in Art 75(1) to Schedule 8.	
Early Action - AMR%		
Early action metric ranking		
•	(ii) Absolute metric	
Historic average of CRC emissions (t/CO2)	Note: Article 78(3)(e), refers to Article 75 (achievement tables) which refers in Art 75(1) to Schedule 8	
Absolute change % %change in annual CRC emissions compared to historic average Absolute metric ranking		
<u> </u>	(iii) Growth metric	
Annual emissions per unit turnover (CO2/£) (absolute/turnover) Historic average of emissions per unit	Note: Article 78(3)(e), refers to Article 75 (achievement tables) which refers in Art 75(1) to Schedule 8	
turnover (CO2/£)		
Relative change % % change in CRC emissions per unit turnover compared to the historic average.		
Growth metric ranking		
	rate scorecard - Renewables generation	
Electricity generated using renewables for which Renewables Obligation Certificates (ROCs) have been issued	This data is reported by the participant as part of the annual report.	



Attribute Name	Attribute Description
	Attribute Description
Electricity generated using renewables	This data is reported by the participant as part of the annual
for which FITs have been issued	report.
amount of electricity generated using	This data is proported by the postisional as next of the approal
renewables that has been self supplied	This data is reported by the participant as part of the annual
for which ROCs/FITs have been issued	report.
kWh covered by Electricity Generating	
Credits claimed for electricity generated	<del>-</del>
from renewables which is self-supplied to	This data is reported by the participant as part of the annual
the premises at which it is generated.	report.
Percentage of emissions covered by on-	(ie Total Tonnes of CO2 covered by Renewables Generation
site renewables ie this is just self-	(TTRG+TTEGCR)
supplied electricity.	
Percentage annual change in	Based on a five year rolling average
TTRG+TTEGCR (onsite renewables) -	
Percentage of emissions covered by	(ie TTROC + TTFIT)
subsidised electricity, ie electricity for	
which ROCs/FITs have been issued, but	
could have been self-supplied or	
exported	
Percentage annual change in subsidised	Based on a five year rolling average
electricity	
Amount of electricity generating credits	
claimed (kWh)	
	Participant Data
CCA exemptions claimed	In order to avoid double regulation, organisations that have some
	of their emissions covered by a Climate Change Agreement
	(CCA) do not have to report these emissions under CRC. If
	greater than 25% of an undertaking's emissions are covered by a
	CCA that undertaking can be fully exempted from CRC. If the
	participant is a group, some of the undertakings under the parent
	can be exempted on the above basis whilst the remainder
	continues to participate in CRC. Note that if an entire
	organisation is exempt it will not be a full participant in CRC and
0 10 0 10 10	will not appear in the PLT
Corporate Score Card SUG	
List of SGUs in each parent registration	Significant Group Undertakings (SGUs) registered by the
	participant as part of his registration. These are undertakings
	within the parent group structure that were supplied with
	6000MWh or more of qualifying electricity in 2008
Trading name for each SGU	Trading name as provided by the participant.
SIC code for each SGU	
CRC emissions for each SGU (tCO2)	This information is provided by the participant as part of his
	annual report for the previous annual reporting year
Corporate scorecard - Renewables	CRC emissions divided by turnover or revenue expenditure figure
generation	(£) provided by the participant as part of the annual report.
Electricity generated using renewables	This data is reported by the participant as part of the annual
for which ROCs have been issued	report.
Electricity generated using renewables	As above
for which FITs have been issued	
amount of electricity generated using	As above
renewables that has been self supplied	
for which ROCs/FITs have been issued	
kWh covered by Electricity Generating	As above
Credits claimed for electricity generated	
from renewables which is self-supplied to	
the premises at which it is generated.	
Percentage of emissions covered by on-	(ie TTRG+TTEGCR)
site renewables ie this is just self-	
supplied electricity.	



Attribute Name	Attribute Description
Percentage annual change in	Based on a five year rolling average
TTRG+TTEGCR (onsite renewables) -	Based off a five year forming average
	Performance
Percentage annual change in subsidised electricity	Based on a five year rolling average
Scores for each achievement table	The achievement tables are (i) absolute metric (ii) growth metric and (iii) early action metric (EAM). Performance in each is scored and the scores are weighted to provide a total weighted score (below).
Total weighted score	As above
	Achievement tables
Early action	Awards participants who have taken action before or at the start of CRC to reduce emissions. Made up of two elements - (i) certification under the Carbon Trust Scheme (or an equivalent) (ii) % of supplies made through AMR meters etc.
Absolute change (absolute metric)	Already given above
Relative change (growth metric)	Already given above
Ranking for each achievement table	The ranking of each achievable table based on a weighted score.
Danamaklaa	Renewables
Renewables	Organisations that generate electricity from renewable sources may be able to claim Renewables Obligation Certificates (ROCs) or Feed-In Tariffs (FITs). DECC have committed publicly to publishing data to compare participants for any increases in onsite renewable electricity generation and self supply.
ROCs	s/FITs (related to renewables)
kWh for which ROCs issued.	This data is reported by the participant as part of the annual report.
kWh for which FITs issued.	As above
Renewables	generation (related to renewables)
kWh of covered by renewables generation	As above
kWh generated from renewables (self supplied) covered by EGCs	As above
	m R2 formulae doc9) (related to renewables) ulate their Renewables League Table Score based on the following
data that has been re-	corded in the Annual Report for the participant:
Total Tonnes of CO2 covered by Renewables Obligation Certificates (ROC)	TTROC - Total Tonnes of CO2 covered by Renewables Obligation Certificates (ROC)
Total Tonnes of CO2 covered by Feed In Tariffs (FIT)	TTFIT - Total Tonnes of CO2 covered by Feed In Tariffs (FIT)
Total Tonnes of CO <sub>2</sub> covered by Renewables Generation which is self- supplied and is covered by a ROC/FIT	TTRG – Total Tonnes of CO2 covered by Renewables Generation which is self-supplied and is covered by a ROC/FIT
Total Amount (tonnes CO2) of CRC emissions covered by Renewables	The Registry will then combine together the data entered into each field to create a Total Amount (tonnes CO2) of CRC emissions covered by Renewables (TAR).  TAR = TTROC+TTFIT+TTRG
% emissions covered by renewables tCO2	The PECR (Percentage Emissions Covered by Renewables) for each Participant is then calculated as follows:
	$PECR = \left(\frac{TAR}{AEFP}\right) * 100$
Ranking based on % emissions covered by renewables tCO2	Once all PECR have been calculated the Registry will use these to generate the Renewables League Table as follows. Each participant is allocated a place in the Renewables League Table based on their PECR. The highest position will be awarded to the participant(s) with the highest PECR and the lowest position



Attribute Name	Attribute Description
	awarded to the participant(s) with the lowest PECR.
change in % covered by renewables	Percentage change in total CRC covered by Rewewables.
	the league tables, fully exempt organisations will not appear n
and the second s	these tables)
CCA exemptions claimed	In order to avoid double regulation, organisations that have some of their emissions covered by a Climate Change Agreement (CCA) do not have to report these emissions under CRC. If greater than 25% of an undertaking's emissions are covered by a CCA that undertaking can be fully exempted from CRC. If the participant is a group, some of the undertakings under the parent can be exempted on the above basis whilst the remainder continues to participate in CRC. Note that if an entire organisation is exempt it will not be a full participant in CRC and will not appear in the PLT
Co	orporate Score Card SUG
List of SGUs in each parent registration	Significant Group Undertakings (SGUs) registered by the participant as part of its registration. These are undertakings within the parent group structure that were supplied with 6000MWh or more of qualifying electricity in 2008
Trading name for each SGU	Trading name as provided by the participant.
SIC code for each SGU	
CRC emissions for each SGU (tCO2)	This information is provided by the participant as part of its annual report for the previous annual reporting year
-	scorecard - Renewables generation
Electricity generated using renewables for which ROCs have been issued	This data is reported by the participant as part of the annual report.
Electricity generated using renewables	This data is reported by the participant as part of the annual
for which FITs have been issued	report.
amount of electricity generated using renewables that has been self supplied for which ROCs/FITs have been issued	This data is reported by the participant as part of the annual report.
kWh covered by Electricity Generating Credits claimed for electricity generated from renewables which is self-supplied to the premises at which it is generated.	This data is reported by the participant as part of the annual report.
Percentage of emissions covered by on- site renewables ie this is just self- supplied electricity.	(ie TTRG+TTEGCR)
Percentage annual change in TTRG+TTEGCR (onsite renewables) -	Based on a five year rolling average
Percentage of emissions covered by subsidised electricity, ie electricity for which ROCs/FITs have been issued, but could have been self-supplied or exported	(ie TTROC + TTFIT)
Percentage annual change in subsidised electricity	Based on a five year rolling average



## **UKCMF Surge Model Output Data (AfA193)**

#### **Dataset Description**

**UKCMF Surge Model Output Data** feed data is available in the standard data exchange format (GRIB1) which has been defined by the World Meteorological Organization (WMO). The **UKCMF Surge Model Output Data** contains information on the depth averaged currents, along with the water level. The models are run twice. Once with full met forcing; once without for the tides. The tidal values are subtracted from the "total" values to give the residual "surge" elevation and current. This is output to the surge model fieldsfile. The surge model surface forcing is hourly 10m winds and PMSL taken from the mesoscale NWP model. In the surge model this surface forcing is not passed through to the fieldsfile, so to see the winds and pressure that generated the surge you have to look in the UK scale atmospheric model fieldsfile.

The surge model output of the suite of surge models CS3X (Surge Model), BCM (Bristol Channel), SRM (Severn) which also includes the Total Waters level turning points for the Bristol Channel. This is primarily a deterministic surge residual value available at 15 minute resolution out to T+36 hours for every grid point within the model domain (48N 13W to 63N 05E) at circa 12km resolution. Mean depth current is also available in m/s and deg.

This approval covers live data, forecasting 36 hours ahead. Historic archive data is not covered.

Creation of the data is done by the Met Office under contract to the Environment Agency.

The information on surge and tide are updated every six hours and delivered via Netlink Met Office message.

Attribute Name	Attribute Description
Surge height	Surge model height (m)
Surge current speed	Surge model current speed (m/s)
Surge current direction	Surge model current direction (Degrees)
Tide water level	Tidal model water levels (m)
Tide current speed	Tidal model current speed (m/s)
Tide current direction	Tidal model current direction (Degrees)



## Water Quality Samples (AfA194)

#### **Dataset Description**

Water quality sampling is taken for the purpose of compliance monitoring for licences under Environmental Permit Regulations or other regulation. 'Water Quality Samples' hold the actual sampled result and do not show the compliance of a permit without further assessment and cross reference of the permit conditions.

This data is provided in calendar year cuts. Data on sampling site name, location and types are included for identification of sites and their type. Sample dates identify when the site was taken. Data on the purpose, determinand and sample material are provided in both code and descriptive formats

The results are provided to the greatest resolution as stored in our systems. There are instances where the result is greater or less than the limit of detection, these results are identified with greater or less than brackets.

The limitation of this data is that there may be other information such as site visits and other monitoring information taken in to consideration when assessing compliance, this is not included in this dataset.

Attribute Name	Attribute Description
LONG_NAME	Sample point name
REGION	Environment Agency Region
SMPT_REF	Sample point reference
X	Easting
Υ	Northing
SMPT_TYPE	Sample Point Type code
SPT_DESC	Sample point type description
SIGN	Result sign
RESULT	Measurement result
UNITS	Result unit
SAMPLE_DATE	Sample date
SAMPLE_TIME	Sample time
STATUS	Sample point status
PURP_CODE	Purpose code for the sample
PURP_DESCRIPTION	Purpose description for the sample
SAMP_ID	Sample ID
DET_CODE	Determinand Code
DETE_DESC	Determinand description
MATERIAL_CODE	Sample material code
MATERIAL_DESCRIPTION	Sample material description



## Monitoring of Pesticides and Trace Organics in Water (1992 -2008) (AfA197)

#### **Dataset Description**

A pesticide is defined under the Food and Environment Protection Act (1985) as "any substance, preparation or organism prepared or used for destroying any pest". Pesticides include herbicides, fungicides, insecticides, molluscicides, rodenticides, growth regulators and masonry and timber preservatives. They are not confined to agriculture, but are also used on roads and rail tracks, in homes and gardens, as sheep dips, for the protection of public health, and for many other purposes.

The Agency's monitoring for pesticides is guided by statutory requirements to monitor concentrations of specific pesticides listed in certain Directives.. We also undertake non-statutory monitoring of pesticides, when investigating known or predicted local problems and pollution incidents,

Trace Organics are organic compounds (including pesticides) detectable at low levels. As with pesticides, our monitoring of these substances is guided by statutory requirements.

The dataset contains information on all pesticides and trace organics monitored by the Environment Agency. Monitoring frequency varies between sites and years. Monitoring covers fresh and saline surface waters, groundwater, discharges, sediments and biota. Please note: Limits of detection vary between laboratories. The data is extracted from the Environment Agency's Water Information Management System (WIMS).

Data is available for monitoring between 1992 and 2008. The dataset holds each year's pesticides and trace organics monitoring data. Some sites are identified as being monitored for known or suspected contamination issues, so that they can be excluded for analysis of background levels. The layout of fields and tables varies from year to year.

Data for 2009 onwards is not available as a standalone dataset. It can be requested as an export from WIMS from the National Customer Contact Centre.

Attribute Name	Attribute Description	
	Data	
Region Code	Environment Agency Region responsible for the sample.	
SPNT_CODE	Unique identifier for a sampling point.	
Samp_Date	Date on which a sample was taken.	
Samp_Time	Time at which a sample was taken.	
Samp_Type	Code for the type of sample (fresh water, ground water, marine water, sewage water effluent, trade effluent, sediment, biota).	
WIMS_Purpose	Code categorising reason for taking the sample, such as Compliance Audit (Permit), Planned Investigation (Operational Monitoring), etc.	
Unique_ID	Unique identifier for each site	
Det_Code	Determinand sampled.	
Sign	Operator to identify "less than" results ('<' or null).	
Concn	Concentration of the determinand	
Site Details		



Attribute Name	Attribute Description
SiteID	Unique identifier for a site.
Region	Environment Agency Region responsible for the sample.
Loc_Title	(e.g. R SEVERN (TIDAL) 250M D/S LYDNEY OUTFALL)
	Ten figure grid reference but typically to eight figure
NGR_MapRef	accuracy and padded (ten metre square). e.g.
	SO8486044490. Some at higher or lower precision.
Eastings	Six figure Eastings, typically to five figure accuracy
Northings	Six figure Northings, typically to five figure accuracy
EDMSID	Primary key for table. Compound of SiteID and Region
	terminands Conversion
DETE CODE	Determinand code (from WIMS system)
DET NAME	Name of determinand.
_	Class of determinand. Either P (pesticide) or O (trace
CLASS	organic).
	Determinands
DETE CODE	Determinand code (from WIMS system)
_	Full determinand name. e.g. 4-CHLORO-2-
DET_DESC	METHYLPHENOL {P-CHLORO-O-CRESOL}
CLASS	Class of determinand. Either P (pesticide) or O (trace
CLASS	organic).
	Dirty Locations
SPNT_CODE_DIRTY	WIMS sampling point code
Region_Code	EA Region code (abbreviation of Region name)
	Dump Codes
	The presence of this record indicates that the Sample point
	is a 'dump code'.
	Sample reference points in this table refer to an area
SPNT_CODE_DUMP	sampled rather a point. Grid references for these usually
SI IVI_CODE_DOMI	represent a complete grid square (e.g. 'SP') but will be
	recorded as a ten figure reference (e.g. SP0000000000).
	Some more specific NGRs are also present for some dump
	codes.
Region_Code	EA Region code (abbreviation of Region name)
	TAPS Reason Codes
PURP_CODE	Reference code for why a sample was taken.
	Look up table identifying why the sample was taken (e.g.
	'Routine control Monitoring', 'Formal Sample', 'Potential
TAPS Reason_codes	Legal Proceedings'. Includes 'Potential Legal Proceedings'
_	code, although there are no actual occurrences in the
	dataset. In combination with NGR, is this something we
	should release?
DUDD CODE	Purpose codes
PURP_CODE	Reference code for why a sample was taken.
PURP_DESC	Standard description of why a sample was taken. Examples: 'MONITORING (NATIONAL AGENCY
	POLICY)',
	WASTE MONITORING (OPERATOR SELF-MONITORING
	DATA)',
	'UNPLANNED REACTIVE MONITORING FORMAL
	(POLLUTION INCIDENTS)',
	'MONITORING (NATIONAL AGENCY POLICY)'
	(



## **Groundwater Vulnerability (AfA199)**

## **Dataset Description**

Groundwater Vulnerability consists of two polygon spatial layers available at a scale of 1:100,000. The data broadly define areas relevant to the protection of groundwater. The approach considers the vulnerability of the groundwater resources as a whole; and the specific importance of areas which for the catchments main sources of supply.

Groundwater resources are assigned a vulnerability class [Groundwater Vulnerability 100K], based on soil type and the underlying geology only (e.g. depth to groundwater is not considered):

- Variably permeable groundwater with low leaching potential
- Variably permeable groundwater with intermediate leaching potential
- Variably permeable groundwater high leaching potential
- Highly permeable groundwater with intermediate leaching potential
- Highly permeable groundwater with high leaching potential
- Highly permeable groundwater with low leaching potential

The Groundwater Vulnerability data is intended to be used to indicate where groundwater resources may be vulnerable from activities carried out on the surface land. Other information, such as depth of groundwater and thickness and type of overlying cover will always be required for a site-specific assessment.

An assessment of the vulnerability of groundwaters to diffuse pollution is also included as the Groundwater Vulnerability Drift 100K spatial layer ('Drift' is transported rock debris overlying the solid bedrock) – it shows the distribution of low permeability drift deposits and should be used in conjunction with Groundwater Vulnerability 100K.

**Note**: These data have been mostly superseded by the Aquifer Designation Maps (AfA124&AfA125), however, these maps do not provide information on surface soils. Aquifers previously designated as major and minor now become principal and secondary respectively.

Users will still need to refer to the Groundwater Vulnerability maps if you are assessing activities on undisturbed natural soils (e.g. agricultural land) and need the soil classes. In this case you should disregard the old geological classes and combine the soils information with the new aquifer designations.

#### **Price Category: Very Low**

Attribute Name	Attribute Description
Groundwater Vulnerability 100K	
Geometry	Polygon
	British National Grid
AQ_TYPE	Aquifer Type – Minor or Major
VULN CL	Vulnerability Classification either Minor (low – high) or
VOEI1_OE	Major (low – high) leaching potential.
FULL_CL	Full Vulnerability Classification containing more detailed
	information on the underlying geology and vulnerability.
	Soil Classification contain information on leaching potential
SOIL_CL	of pollutants or whether urban areas/restored mineral
	workings.
Groundwater Vulnerability Drift 100K	
Geometry	Polygon
	British National Grid
ID	Polygon identifier





## **Environmental Permitting Regulations – Waste Sites (AfA200)**

#### **Dataset Description**

A waste management licence is a legal document issued under the Environmental Protection Act 1990. A licence authorises the treatment, keeping or disposal of waste in or on the land. Once we have issued a licence, neither the activities nor the area of land may be changed unless the licence is modified.

The Environmental Permitting Regulations, regulating waste sites, came into force on 6 April 2008. The new regime combines a number of earlier permitting / licensing regimes.

Other related datasets available are:

- Pollution Prevention and Control (IPPC)
- Authorised Treatment Facilities (End of Life Vehicles)
- Water Quality and Pollution Control (Discharge Consents)
- Waste Electrical, Electronic Equipment (WEEE)

EPR Waste is the table for granted permits.

**EPR Waste Applications** holds details of applications that did not, or have not yet, resulted in a permit or permit variation.

Attribute Name	Attribute Description
	EPR Waste (permits)
LIC AREF	Area reference used only in Environmental Permitting
LIC AREF	Regulations – Waste system
LIC NMBR	Reference code used only in Environmental Permitting
	Regulations – Waste system
LIC OTHID	Other licence number
LIC WML	Waste Management Licence number
LIC LTYPE	Type of site (links to look-up table 'LIC LTYPE')
	e.g. A1, A2, S0813
SITE ADD NAME	Site location details – Site name
SITE ADD BUILD	Site location details – Building
SITE ADD HOUSE	Site location details – House number
SITE ADD STRT	Site location details – Street
SITE ADD AREA	Site location details – Area
SITE ADD TOWN	Site location details – Town
SITE ADD CNTY	Site location details – County
SITE ADD PCODE	Site location details – Postcode
SITE ADD TEL	Site location details – Telephone number
SITE ADD FAX	Site location details – Fax number
SITE ADD EMAIL	Site location details – Email address
LIC NAME	Licence holder's name
LIC TRADE	Licence holder's trading name, where appropriate
LIC SITE	Site name
	Six, eight or ten figure National Grid Reference, typically of
NGR	site entrance
EASTING	Six-figure Eastings, padded with zeros from NGR field.
NORTHING	Six-figure Northings, padded with zeros from NGR field.



Attribute Name	Attribute Description
Attribute Name	Licence status, for example
	-
	Modified
	<ul><li>Issued</li></ul>
	Transferred
STAT SDESC	<ul> <li>Surrendered</li> </ul>
	<ul> <li>Expired</li> </ul>
	Closure
	Revoked
	Suspended
LIC TARD	Target date for processing application
LIC DETD	Date licence was decided
LIC ISSD	Date licence was decided  Date licence was issued
LIC SUBD	Date from which subsistence is charged
LIC MODD	Date licence was modified
LIC TRAD	Date licence was modified  Date licence was transferred
LIC FRAD	Date licence was transferred  Date licence transfer came into effect
LIC EFFD	Date licence transfer came into effect  Date licence was surrendered
LIC SUKD	Date licence was surrendered  Date licence was revoked
LIC SUSD	
	Date licence was suspended
LIC EXPD	Date licence expired
LIC REND	Date licence was renewed
LIC CAND	Date licence was cancelled
LIC AMND	Date licence was amended
LICTONG	Annual tonnage permitted (where entered on database). A
LIC TONS	zero indicates that tonnage information was not entered in
Design	this field.
Region	Environment Agency Region
Area	Environment Agency Area
	Categorisation of permitted waste volume per year. This is derived from the same information as LIC TONS. It links to
Size	the charge code look-up table. Size range:
0.20	<ul> <li>small = 0 − 25000 tonnes per annum</li> </ul>
	<ul> <li>medium = 25000 – 75000 tonnes per annum</li> </ul>
	<ul><li>large = &gt; 75000 tonnes per annum</li></ul>
LIC PPCARD	Date IPPC application received
LIC IPPCD	Date of transfer to IPPC
LIC IPPCR	IPPC reference
LIC EPR	EPR permit reference
Waste Categories (identifies which was	ste categories apply to a permit)
	Reference for National REGIS compilation (indicates that
CAT REF	record refers to linked record in field LIC AREF in 'EPR
	Waste' table.
CAT CCDE	Reference for National REGIS compilation (indicates that
	classification code applies to the record)
CATTREE	Reference for National REGIS compilation (indicates that
CAT TREF	classification category applies to the record)
Waste Categories Descriptions	,
	European Waste Catalogue category (links to 'CAT CCDE'
CAT CODE	in 'Waste Categories' table)
CAT DESC	UK Waste Classification Scheme description of waste.
CAT TREF	Special Waste Regulations 1996 category. (links to 'CAT TREF'
OF CE TIME	Special frusto regulations 1770 category. (IIIIIO to O/TI TITE!



Attribute Name	Attribute Description
	in 'Waste Categories' table)
Look up table. License Types and De	finitions (LIC LIVDE)
Look up table - Licence Types and De	, , ,
Type Code	Code indicating type of licence
	(e.g. A07, A08, A09, S0813)
T 5 14	Description of type of licence Industrial Landfills
Type Description	e.g. 'Industrial waste landfills', 'Lagoons', 'Special waste
	transfer stations'
EPR Waste Applications	
LIC NMBR	Reference code used only in the REGIS system
LIC OTHID	Other reference number
LIC WML	Waste Management Licence number
LIOLTYDE	Type of site (links to look-up table 'LIC LTYPE')
LIC LTYPE	e.g. A1, A2, \$0813
SITE ADD NAME	Site location details – Site name
SITE ADD BUILD	Site location details – Building
SITE ADD HOUSE	Site location details – House number
SITE ADD STRT	Site location details – Street
SITE ADD AREA	Site location details – Area
SITE ADD TOWN	Site location details – Town
SITE ADD TOWN	Site location details – Town  Site location details – County
SITE ADD CIVIT	Site location details – County  Site location details – Postcode
SITE ADD TEL	Site location details – Telephone number
SITE ADD FAX	Site location details – Fax number
SITE ADD EMAIL	Site location details – Email address
LIC NAME	Licence applicant's name
LIC TRADE	Licence applicant's trading name, where appropriate
LIC SITE	Site name
NGR	National Grid Reference, typically of site entrance
Corr ADD NAME	Correspondence address – Site name
Corr ADD BUILD	Correspondence address – Building
Corr ADD HOUSE	Correspondence address – House number
Corr ADD STRT	Correspondence address – Street
Corr ADD AREA	Correspondence address – Area
Corr ADD TOWN	Correspondence address – Town
Corr ADD CNTY	Correspondence address – County
Corr ADD PCODE	Correspondence address – Postcode
Corr ADD TEL	Correspondence address – Telephone number
Corr ADD FAX	Correspondence address – Fax number
Corr ADD EMAIL	Correspondence address – Email address
STAT SDESC	Licence status
LIC RECD	Date application received
LIC CONSD	Bato application received
LIC CONCD	
LIC APPD	
LIC TARD	Target date for applications to be processed by
LIC ISSD	Date licence issued
LIC MODD	Date licence was modified
LIC TRAD	
LIO TRAD	Date licence was transferred
LIC EFFD	



Attribute Name	Attribute Description
LIC EXPD	Date licence expired
LIC REND	Date licence was renewed
LIC CAND	Date licence was cancelled
LIC AMND	Date licence was amended
LIC TONS	Annual tonnage permitted
Region	Environment Agency Region
Area	Environment Agency Area



## iPhone Bathing Waters Application (AfA201)

# **Dataset Description**

iPhone Bathing Waters Application informs the public of bathing water quality for England and Wales. The application has the ability to provide the following information:

- 1. Date of the most recent water quality sample for chosen sample point and the water quality status of chosen sample point;
- 2. Annual rating for chosen sample point;
- 3. Yearly water quality trend for chosen sample point.

## Price Category: Zero / EA Open Software

Attribute Name	Attribute Description
iApp for bathing waters	Software application for iphone



# Mapping All Sources Tool (MAST) (AfA202)

## **Dataset Description**

MAST is a piece of prototype software that has been developed to combine sets of flood mapping data representing flooding from different sources (coastal, fluvial, surface water, with and without asset failure, dam break etc) to produce a flood map for multiple sources.

**Price Category: Zero / EA Open Software** 

Attribute Name	Attribute Description
MAST	Software tool



# Extractive Materials Management Statement Summaries – Corporate Entities Only (AfA203)

#### **Dataset Description**

Extractive Materials Management Statements are sent in by operators of mines and quarries to demonstrate that extractive materials produced on site are not extractive waste and therefore do not require a permit under the Environmental Permitting Regulations (EPR) to manage this material as would otherwise be required under the Mining Waste Directive. Specific information is required in an EMMS, to include what type of materials are produced, how the material is incorporated in the final site restoration and an estimate of the total quantity of materials produced during the lifetime of the operation. This can be given by referencing existing information required under other legislation, for example Planning Permission.

EMMS are not submitted under any legislative framework, but are submitted as a result of an agreement between ourselves and the mines and quarries sector as a way of stating what materials are not extractive waste due to European Court of Justice rulings that define extractive waste in a more restrictive way that the Directive.

The EMMS spreadsheet holds summary details of all EMMS submitted to us since September 2010.

Subsequent requests for individual EMM Statements themselves will be treated on an individual basis, and will be checked for relevant confidentialities, in accordance with normal procedures.

#### **Price Category: Very Low**

Attribute Name	Attribute Description	
Environment Agency Details		
Reference Number	Reference number allocated within spreadsheet	
Environment Agency Region	Environment Agency Region	
Environment Agency Area	Environment Agency Area	
Site Details		
Operating Company Name	Name of company carrying out extraction activity - only corporate details	
	Name of site	
Site Address	Address of site	
	NGR of site	
Grid reference	Ten figure grid reference (AA 99999 99999), with	
Gna reference	occasional text clarification (e.g. Extraction Area - AA	
	00000 00000. Plant Site - BB 11111 11111)	
Contact Name	Principal contact for site	
email	Email address of principal contact	
EMMS Notification		
date of verification	Date of verification report	
date notification of EMMS received	Date that report was received by the Environment Agency	
date response letter sent	Date that receipt was sent by the Environment Agency	
Assessment as Summarised on the EMMS		
	Main mineral extracted	
primary mineral produced at the site	(e.g. 'Sandstone/ Gritstone (Upper Millstone Grit Group)', null)	
Quantity of extractive material	Amount of non-waste material extracted. Often quoted in	



Attribute Name	Attribute Description
assessed as not waste (tonnes)	volume (cubic metres) (e.g. 'Upto 2,000,000' or '89,550 cu metres', null)
mayimum ataraga tima hafara final	(e.g. Opto 2,000,000 or 69,550 cu metres , nuii)
maximum storage time before final deposit (years)	e.g. 'upto 2 years', 'max 15 yrs', 'no detail', null
expected date for completion of operations at the site	Date e.g. '30th June 2012', null, '28th February 2042'



# **Manual River Flow Measurements (AfA205)**

# **Dataset Description**

Manual River Flow Measurements (also referred to as spot or instantaneous flows) is a dataset of flow measurements carried out by visits to river sites. This output contains the calculated flow for each gauging, rather than the detailed measurements and calculations used to produce it. The most common techniques measure velocities across a river's cross-section either with impellor-based current meters, or using Acoustic Doppler Current Profilers.

#### Data is held for:

- **Primary sites.** These are gaugings at permanent, continuous monitoring sites. Their main purpose is to check that the permanent site is calculating flows correctly.
- **Secondary sites.** These are gaugings at otherwise ungauged sites. They are intended as a record in themselves, where no other information is available). They may be one-off measurements or part of a planned programme.

Both primary and secondary gaugings provide a valuable spatial and temporal description of river flows across England and Wales

There are approximately 27,000 open sites. A few primary sites will have data from the 1960s to the present day.

High resolution (typically 15-minute) river flow information, from a network of permanent, continuous sites is held separately.

All requests can be difficult to extract, but we will not refuse any requests for fewer than 20 sites. Larger requests will be assessed against our normal procedures for refusals and charging.

#### **Price Category: High**

Attribute Name	Attribute Description
Site Name	Name of station from BIBER system
Site Number	Reference based on combination of letters and numbers [unique identifier]
Grid reference	British National Grid reference
River	Name of river on which site is located
Status	Confirmed /Unconfirmed. This is a Boolean field denoting whether data entry has been checked.
Quality	I.e. Good, Fair, Poor . This is an on-site assessment of the conditions during measurement. It is a subjective categorisation of confidence in the result by the gauger. Weed fouling an impellor, complex adjustments, turbulent flow etc would be reflected in a lower category.
Date Time	Time of gauging
Stage Start	Stage in stilling well (if relevant) at start of gauging
Stage End	Stage in stilling well (if relevant) at end of gauging
Mean Stage	Mean Stage in stilling well (if relevant) during gauging
Flow [m3/s]	Calculated flow in m3/sec
Width of River	Width of River at Gauging Point
Gauging Deviation [%]	Difference between manually gauged flow and calculated flow at gauging station for equivalent time. (Primary gaugings only).
Cross section[m2]	Channel cross section at gauging point
Mean Velocity [m/s]	Mean velocity in cross section



Attribute Name	Attribute Description
Wetted Perimeter [m]	Total wetted perimeter at gauging point
Mean Depth	Mean depth of cross section
Measurement Type	Gauging Technique, e.g. multi point or dilution
Calculation Method	Number of depth measurements at which velocity is recorded.
Parameter	Flow



# Potential Sites of Hydropower Opportunity - Filtered (AfA206)

#### **Dataset Description**

These data show the location of hydropower opportunities that appear to have a lower risk of environmental sensitivity and a higher potential for power generation associated with exploiting them in England and Wales.

A filter has been applied to a total of 25,935 'barriers' identifying a total of 4195 where environmental sensitivity appears to be low and potential power generation high. The term 'barriers' is used to describe sites with sufficient drop to provide a hydropower opportunity. They are mostly weirs, but could also be other man-made structures or natural features, such as waterfalls.

#### The filters applied are both:

- Within one of 2708 heavily modified water bodies. These are water bodies which have been identified as being at significant risk of failing to achieve good ecological status under the Water Framework Directive, because of modifications to their hydromorphological characteristics, resulting from past engineering works, including impounding works.
- Medium to high power potential, which includes opportunities of greater than 10kW.

Be aware that this filtering is based only on these statistics and does not indicate that a hydropower opportunity is necessarily feasible at any given location.

Given the scale of the project and the data used, the results are not intended to replace any part of an individual site assessment. Instead, the dataset gives national and regional level overviews of the potential opportunities available, their locations, and their relative environmental sensitivity to exploitation.

The unfiltered dataset, 'Potential Sites of Hydropower Opportunity', is covered by AfA175.

Attribute Name	Attribute Description
	Geometry type = Point
Geometry	Spatial Reference = British National Grid
OBSTRUCTID	Obstruction unique identifier
TEXTSTRING	Description of type of barrier e.g. Weir
TOID	Topographic Identifier
FEATURE	Feature type
TYPE	Barrier type
DRN_ID	Detailed River Network identifier
HEADSTAT	River Head status code
USELEV	Upstream elevation
DSELEV	Downstream elevation
Z	Head from barriers height (USELEV, DSELEV)
P_US_Z	Upstream point height from LIDAR or SAR
P_DS_Z	Downstream point height from LIDAR or SAR
P_HEAD	Head value calculated from P_US_Z and P_DS_Z
P_ZTYPE	Source of the height extraction (LIDAR or SAR)
Obs_height	Height at barrier from LIDAR or SAR
Z_MIN	Min height from within 5m of barrier
Z_MAX	Max height from within 5m of barrier
CHANGED	If the min max is different from height at barrier
DS_Z_Min	Downstream min height within 5m radius
DS_Z_Max	Downstream max height within 5m radius



Attribute Name	Attribute Description
US_Z_Min	Upsteam minimum height within 5m radius
US_Z_Max	Upstream max height within 5m radius
	Head calculated from 5m radius extraction method (US_Z_Max -
USDS_Head	DS_Z_Min)
	Head calculated from max and min height within 5m from barrier
Z_Head	(Z_MAX - Z_MIN)
	Downstream min height within 5m radius using the 25m US/DS
25m_DS_Min	method
	Downstream maximum height within 5m radius using 25m US/DS
25m_DS_Max	Method
25m_US_Min	Upstream min height within 5m radius using 25m US/DS Method
	Upstream maximum height within 5m radius using 25m US/DS
25m_US_Max	Method
	Head calculated using the 25m US/DS Method (25m_US_Max -
25m_Head	25_DS_MIN)
Flow_Meth	Method used to calculate flow
Power	Calculated power
Power_Cat	Calculated Power category
MaxHeight	Method used to calculate head at barrier
MaxHead	Maximum head at barrier calculated from maximum height.
Sens_Cat	Environmental sensitivity category
HMWB	Heavily Modified Waterbody Designation
Region	Region in which the barrier is located
L_Authority	Local Authority in which the barrier is located
•	Catchment in which the barrier is located based on the 1:50,000
Cmt_50k	dataset
X	X Coordinate of Barrier
Υ	Y Coordinate of Barrier



# **Tonnages from Waste Returns (AfA207)**

#### **Dataset Description**

The Environment Agency collects, stores and reports information about the types and quantities of waste handled by permitted waste management facilities. The type of waste is usually recorded using the European Waste Classification. The origin or destination of the waste can be recorded to district authority level. Information on what finally happens to the waste can also be recorded.

The information is extracted from returns provided by operators holding a permit for waste operations. Some returns may be withheld from the register if commercial confidentiality of National Security claims are agreed by us.

The information stored includes:

- types, quantities and origins of waste brought into a site
- types, quantities, destinations and fate of (what finally happens to) waste removed from a site.

Some older permits do not have the requirement to provide this data although some permit holders supplied information voluntarily. All licences issued or renewed after 2002 are required to provide returns, and we are actively replacing any remaining old permits.

Data is held for 1996 onwards but the data quality for those early years may be poor. Data quality has consistently improved since 2005. Approximately 330000 records, covering approximately 5000 live permits, are added per year.

A published dataset is produced annually and is available in an interrogable database format for non-commercial and commercial access.

Attribute Name	Attribute Description
	Indicates whether waste is received or removed. Two categories:
	Waste received
Waste Flow	Waste removed
WML / PPC No	Waste Licence / PPC / Environmental Permit number
Site Name	Name of site as on permit
Operator	Name of operator as on permit
Grid Ref	Grid reference of site (from permit application on PAS/REGIS)
	Indicates whether site is set to Nil Return (0 = no, 1 = yes). This
	field is set to '1' if the operator has indicated that nil returns
Nil Status	should be expected
	Date site was set to Nil Return (if applicable). The date from
N/R Date	which nil returns are anticipated.
EA Region	EA region in which site is situated
EA Area	EA area in which site is situated
EM Team	EM team covering site
Gov Office Region	Government Office region in which site is situated
Sub Region	Government Office sub- region in which site is situated
District	District council in which site is situated
RATS A code	Code for site description e.g. 'A12'
	Broad description of site - e.g., transfer station (look up from
Site Category	'RATS A Code').
Site Type	More detailed description of site - e.g., clinical waste transfer



Attribute Name	Attribute Description
	(look-up from RATS A Code').
EWC Code	Code identifying waste, according to European Waste Catalogue, e.g. '191201'.
EWC Desc	Detailed description of waste, according to European Waste Catalogue, e.g. 'plastic and rubber'.
EWC Chap	Code identifying waste category, according to European Waste Catalogue, e.g. '17'.
EWC Chap Desc	Description of waste category, according to European Waste Catalogue, e.g. 'CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)'.
·	Broader description of waste category (from permit), e.g.:  • Inert
Waste Cat	• HIC
State	Whether waste is solid, liquid, gas etc.
Cal Year	Calendar year in which reporting period falls
Period Name	Reporting period (either a quarter-year, calendar year or financial year?)
PeriodStart	Date reporting period starts (derived from Period Name)
PeriodEnd	Date reporting period ends (derived from Period Name)
	Whether permit is live, superseded, surrendered etc (from REGIS/ PAS)
Permit Status	e.g.
FaF	Did waste come 'from another (waste management) facility'? - e.g. 'from a transfer station'. (Boolean)
Mun	Is the waste municipal? (Boolean)
Bio	Is the waste biodegradable? (Boolean)
FD	Does this return report the 'final disposal' of the waste? (As opposed to 'it will move on from here to somewhere else') (Boolean)
UoS	Was the waste 'used on site'? (Boolean)
Tonnes	Tonnage of waste
Waste Origin	Where waste came from (geographic),e.g 'Cheshire', or 'Manchester'.
vvaote Origin	Where waste is going (geographic) ,e.g 'Cheshire', or
Waste Destination	'Manchester'.
Waste Fate	What will happen to the waste once it's left here - e.g., reprocessing



# Surface Water Temperature Archive up to 2007 (AfA214)

#### **Dataset Description**

Water temperature data is collected and stored by the Environment Agency for different reasons and in different locations. Time series of surface water temperatures can provide indicators of climate change and associated ecological responses. An archive was created in 2007 as part of a research project (SC070035), and is a unique collation of the Environment Agency's water temperature data from more than 30,000 sites across England & Wales. The archive contains water temperature data (up to 2007) and site metadata. Most sites have records starting from the 1980s. The water temperature data are available in two main types; spot samples from routine monitoring (e.g. monthly) and high resolution samples (e.g. every 15 minutes). The database was created using Microsoft Access 2003 but has a simple query based front end. As part of the science project about 1 in 10 sites were analysed to assess trends, and images of these graphs are embedded within the archive and linked to sites for information. The archive can be interrogated to find out where water temperature data exist, how frequently sampling occurs and the length of each record. In addition, sites have information about water body type e.g. river, lake or canal.

This dataset is available on DVD.

Attribute Name	Attribute Description
	SiteInfo (Site Information)
siteID	unique site code
siteName	site name (descriptive of site location)
siteX	OS easting (m) (read off map by sampler or similar)
siteY	OS northing (m) (read off map by sampler or similar)
siteZ	site elevation (m) source unclear, but third party ip avoided.
	unique code for the monitoring organisation (always EA,
operatorCode	except for three references to third parties for which we
	hold no address details or data.)
siteType	site type (river, canal, drain, lake, transitional (estuaries and
Site i ype	saline lagoons), coastal etc)
	site comment (there is only one type which is 'TIMS
siteComment	FWSITE' which indicates a freshwater rather than salt
	water site on the Thames)
	sations which monitor water temperature)
operatorCode	operator code
operatorDesc	operator description
	f the contacts who provided information)
sourceCode	unique code for source
	description of source(four ea sources, three external where
sourceDesc	metadata was provided for a few sites ) details sent by
	email
sourceURL	URL for source
regionInfo (Basic reference details of EA Regions)	
regionCode	unique region code
regionName	EA region name (at the time information supplied)
regionAddr	EA regional office (at the time information supplied)
metaData (Detailed info on each monitoring site and its data)	
siteID	unique site ID
startDate	start date of site data
endDate	end date of site data



Attribute Name	Attribute Description
dataCount	number of data records
detCode	determinand code
sourceCode	source code
WIMS_REGION	region according to WIMS
_	site type according to WIMS e.g.
WIMS_SPT_DESC	<ul> <li>FRESHWATER - UNSPECIFIED</li> <li>FRESHWATER - NON CLASSIFIED RIVER POINTS</li> <li>FRESHWATER - CANALS - NON CLASSIFIED</li> <li>FRESHWATER - LAKES/PONDS/RESERVOIRS</li> <li>FRESHWATER - COMPARATIVE INLET POINTS</li> </ul>
EA_REGION	EA admin region (at the time information supplied)
EA_AREA	EA admin area (at the time information supplied)
EA_WM_REGION	EA water management region (at the time information
	supplied)
EA_WM_AREA	EA water management area (at the time information supplied)
EA RBD	EA River Basin District no (at the time information supplied)
EA_WB_ID_COAST	EA coastal waterbody code
EA WB ID TRANS	EA transitional waterbody code
EA WB ID LAKES	EA lakes waterbody code
EA_WB_ID_RCATS	EA river catchment waterbody code
	EA groundwater waterbody code (reference to underlying
EA_WB_ID_GWATR	aquifer)
10KM_SQ	OS 10KM grid square
EA_BFI_ID	BFI record ID
EA_SALMON	EA salmon river (Y/N)
detInfo (	Basic info for determinands)
detCode	determinand code (always 76, i.e. water temperature)
detDesc	determinand description
detComment	determinand comment (only 7 comments e.g. "Automatic station data (EA WISKI data) (usually 15 minute), SONTEK sonde" comments only provided where samples are more frequent than fortnightly)
Da	ata0 (Main results data)
id	unique record ID
siteID	site ID
sampleID	sample ID where given
sampleDate	sample date
sampleTime	sample time
detCode	determinand code
detResult	determinand value
sampleComment	sample comment (nearly all lines are blank a few say: "RIVER / RUNNING SURFACE WATER") (custodian has
sourceCode	checked through) source code
sampleFlag	sample flag (WISKI)
	baseflow index information for each subcatchment)
BFI ID	unique record ID
-	site ID
siteID	סוו אוט



MinOfBFISUB minimum BFI value (what MaxOfBFISUB maximum BFI value MaxOfBFISUB average BFI value (what maximum BFI value)  AvgOfBFISUB average BFI value used (minor of BFI value)  File (details of embedded pdf timeseries plots for some sites)  ID File D F	Attribute Name	Attribute Description	
MaxOfBFISUB AvgOIBFISUB AvgOIBFISUB AvgOIBFISUB AvgOIBFISUB  AvgOIBFISUB  File (details of embedded pdf timeseries plots for some sites)  ID File ID File ID Site (details of embedded pdf timeseries plots for some sites)  ID EA Region SiteID Site ID Site ID Site ID Site ID Site ID Image file of timeseries plot Image file of limeseries plot Image file of model plot Image file of timeseries plot Image file of timese			
AvgOIBFISUB average BFI value CountOfBFISUB number of BFI values used  files (details of embedded pdf timeseries plots for some sites)  ID File ID ea region EA Region  siteID Site ID  Itime series png Image file of timeseries plot level plot png Image file of level plot model plot png Image file of level plot model plot png Image file of level plot model plot png Image file of model plot level plot pdf PDF file of model plot model plot pdf PDF file of model plot model plot pdf PDF file of level plot model plot pdf PDF file of level plot model plot pdf PDF file of model plot pDF file of model plot pDF file of model plot pDF file of level plot model plot pdf PDF file of model plot pdf pdf pdf pdf pdf pdf pdf pdf pdf		1	
CountOBFISUB   number of BFI values used			
File   File   D			
ID File ID ea_region			
Site ID time_series_png			
Site ID time_series_png	ea_region	EA Region	
Image file of level plot			
Image file of model plot	time_series_png	Image file of timeseries plot	
time_series_pdf         PDF file of timeseries plot           level_plot_pdf         PDF file of level plot           model_plot_pdf         PDF file of model plot           Typology_coastal (typology information)           EA_WB_ID         EU_CD           NAME         MS-CD           MS-CD         typology_coastal –REGION_CD           Typology_coastal –BASIN_CD         INS_WHEN           INS_WHEN         INS_WHEN           INS_BY         STATUS_YR           RDA_CD         EA_REG_CD           EA_AREA_CD         PROT_AREAS           PARENTAGE         MAJOR           LONGITUDE         LATITUDE           LATITUDE         SYSTEM_CD           MODIFIED         ARTIFICIAL           SALINITY         DEPTH_CAT           TIDAL         TYPE           Typology_groundwater (typology information)           as above lines         as above lines           HORIZON         AQUIFER           Typology_lakes (typology information)           as above lines         Typology_lakes (typology information)			
Evel_plot_pdf			
Typology			
Typology_coastal (typology information)   EA_WB_ID			
EA_WB_ID  EU_CD  NAME  MS-CD  typology_coastal -REGION_CD  PRINC_CD  typology_coastal -BASIN_CD  INS_WHEN  INS_BY  STATUS_YR  RDA_CD  EA_REG_CD  EA_AREA_CD  PROT_AREAS  PARENTAGE  MAJOR  LONGITUDE  LATITUDE  SYSTEM_CD  MODIFIED  ARTIFICIAL  SALINITY  DEPTH_CAT  TIDAL  TYPE  Typology_groundwater (typology information)  as above lines HORIZON  AQUIFER  Typology_lakes (typology information)  as above lines  GW_WB_LINK  DSTREAM_WB  ALT_CAT			
EU_CD  NAME  MS-CD  typology_coastal -REGION_CD  PRINC_CD  typology_coastal -BASIN_CD  INS_WHEN  INS_BY  STATUS_YR  RDA_CD  EA_REG_CD  EA_AREA_CD  PROT_AREAS  PARENTAGE  MAJOR  LONGITUDE  LATITUDE  SYSTEM_CD  MODIFIED  ARTIFICIAL  SALINITY  DEPTH_CAT  TIDAL  TYPE  Typology_groundwater (typology information)  as above lines  HORIZON  AQUIFER  Typology_lakes (typology information)  as above lines  GW_WB_LINK  DSTREAM_WB  ALT_CAT	7. 07-	coastal (typology information)	
NAME MS-CD typology_coastal -REGION_CD PRINC_CD typology_coastal -BASIN_CD INS_WHEN INS_BY STATUS_YR RDA_CD EA_REG_CD EA_REG_CD EA_REAS_CD PROT_AREAS PARENTAGE MAJOR LONGITUDE LATITUDE SYSTEM_CD MODIFIED ARTIFICIAL SALINITY DEPTH_CAT TIDAL TYPE Typology_groundwater (typology information) as above lines HORIZON AQUIFER Typology_lakes (typology information) as above lines GW_WB_LINK DSTREAM_WB ALT_CAT			
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Attribute Name	Attribute Description	
GEOL_CONF		
DEPTH_CAT		
DEPTH_CONF		
WB_ID		
TYPE		
Typology_rive	r -catchments (typology information)	
as above lines		
ALT_CAT		
GEOL_CAT		
SIZE_CAT		
CATCH_SIZE		
TYPE		
Typology_transitional (typology information)		
as above lines		
WIDTH		
AREA		
TIDAL		
TYPE		



# **UKCMF Surge Ensemble Output (AfA217)**

#### **Dataset Description**

UKCMF Surge Ensemble Output feed data is available in the standard data exchange format (GRIB2) which has been defined by the World Meteorological Organization (WMO). The UKCMF Surge Ensemble Output contains surge residual levels only. The CS3X surge model is run twice each run. Once with full met forcing; once without for the tides. The tidal values are subtracted from the "total" values to give the residual "surge" elevation. The surge model surface forcing is hourly 10m "surface" winds and PMSL taken from the 24 runs of the Met Office MOGREPS ensemble models. The system then outputs 24 versions of the surge residual value available at hourly resolution out to nearly 7 days for every grid point within the model domain (48N 13W to 63N 05E) at circa 12km resolution. This approval covers live data, output twice per day to nearly 7 days.

Creation of the data is done by the Met Office under contract to the Environment Agency. The information on surge and tide are updated every twelve hours and delivered via Met Office message switch.

This is complex technical data, and is only likely to be usable be people with the appropriate technical skills.

Attribute Name	Attribute Description
Surge height	Surge model height (m)
Surge current speed	Surge model current speed (m/s)
Surge current direction	Surge model current direction (Degrees)
Tide water level	Tidal model water levels (m)
Tide current speed	Tidal model current speed (m/s)
Tide current direction	Tidal model current direction (Degrees)



# **GB Lakes Inventory (England and Wales) (AfA220)**

#### **Dataset Description**

A geodatabase of lake polygons covering England and Wales, at 1:50k. Extracted from OS data.

This a subset of an inventory of standing waters (freshwater lakes and lochs) derived from Ordnance Survey digital map data at a scale of 1:50 000 and represents the most comprehensive survey of its kind for Great Britain. The inventory includes 43 738 water bodies in England, Scotland, Wales and the Isle of Man and contains basic physical data such as location, surface area, perimeter and altitude.

Catchment areas were computed for water bodies with a surface area larger than 1 ha from a digital terrain model (DTM) using customised routines in a geographical information system (GIS). The resulting polygons were then used to derive catchment-related information from a variety of national datasets including population density, livestock density, land cover, solid and drift geology, meteorological data, freshwater sensitivity status, acid deposition and conservation status. Using data derived from the inventory a risk-based prioritisation protocol was developed to identify standing waters at risk of harm from acidification and eutrophication. This information is required by the Environment Agency, Scottish Environmental Protection Agency and the U.K. statutory conservation bodies to co-ordinate actions and monitor change under international, European and national legislation.

The data for Scotland is available from the Scottish Environmental Protection Agency (SEPA).

Attribute Name	Attribute Description	
	Lake_Inventory_GM	
SHAPE	Geometry: Polygon. Spatial Reference: British National Grid.	
OBJECTID	Reference number	
WBID		
WBEAST		
WBNORTH		
GR100KM		
WBALT		
WBSAREA		
WBPERIM		
OSNAME		
EA_REGION		
WBIS_STRIN		
AREAM2		
SHAPE_Length		
SHAPE_Area		
Inventory_GM_SHAPE_Index		
IndexedObjectId		
MinGX		
MinGY		
MaxGX		
MaxGY		





# Impact of Groundwater Abstraction on River Flows spreadsheet tool (IGARF1 v.4) (AfA222)

#### **Dataset Description**

Impact of Groundwater Abstraction on River Flows spreadsheet tool (IGARF1 v.4) and accompanying user manual enables the user to investigate the impact of groundwater abstraction on river flows by means of a variety of calculations. The spreadsheet makes several analytical solutions available to the user, covering simplified representations of a wide range of surface-water groundwater configurations. Data is presented in graphical format allowing the results to be represented easily. In summary, IGARF1 v.4 allows the user to:

- consider the impact of a groundwater abstraction on a single river;
- consider the impact of a no flow boundary on a single river system;
- compare the impact of a groundwater abstraction on each river in a two-river system;
- specify the relative positions of the river(s), boundary and well;
- consider continuous and periodic pumping regimes;
- design a pumping test;
- obtain drawdown predictions;
- obtain river flow depletion predictions in time and space;
- provide an audit trail for their model.

#### **Price Category: Zero**

Attribute Name	Attribute Description
IGARF1 v.4 Excel spreadsheet	Spreadsheet tool for estimating impact of groundwater abstraction on river flows
IGARF1 v.4 user manual	User manual to accompany IGARF1 v.4 spreadsheet tool



# **Waste Infrastructure Data Tables (AfA223)**

#### **Dataset Description**

Environment Agency waste permitting data.

Brings together standard data fields from our permitting systems plus additional information gleaned directly from permits. It also re-categorises current permitting data into more helpful site categories to help our customers.

Details include: Permit Reference, Operator Name, Site Location details (address, postcode, grid reference, EA Region/Area, District, Local Planning Regions/Sub-Regions), Type of site, Maximum permitted throughput (tonnes), Disposal and Recovery codes, Description of site activities, Associated permits and datasets, Production of fuel, Tonnages incinerated (for incinerators only), Separate or co-mingled waste (for MRFs only).

Attribute Name	Attribute Description
Permit Reference	Permit number
Other ID	Other permit reference
PPC Reference	Former PPC permit reference
Main Site Category	Main site type e.g. treatment, landfill, energy from waste
Sub Site Category	Main site sub category e.g. hazardous waste treatment. These categories are explained in the document that accompanies the tables.
Site Category	Specific site category e.g. oil treatment. These categories are explained in the document that accompanies the tables.
Operator Name	Operator name
Operator Trading Name	Operator trading name
Facility Name	Facility name
Facility Address	Facility address including postcode
Facility Type Description	Environment agency site description
Agency Region- Area	Environment agency region and area
District	District council
Planning Sub Region	Former planning geographical sub region
Planning Region	Former planning geographical region
Grid Reference	Grid reference
Permitted Annual Tonnage	Maximum permitted annual throughput in tonnes
D & R Codes	Disposal and recovery codes
Details	Details of site activities specified in the permit.
Multi-Activity	Yes or No – whether site has more than one waste activity
Multi-Activity Details	Details of additional permitted waste activities if there are any
Associated Permits	Other permits on same site
Other Datasets	If site is listed under other tabs on worksheet
Production of Fuel	Whether site produces fuel from activities (based on site category)
Tonnage incinerated in 2006	For incinerators only – tonnage incinerated in 2006
Tonnage incinerated in 2007	For incinerators only – tonnage incinerated in 2007
Tonnage incinerated in 2008	For incinerators only – tonnage incinerated in 2008
Tonnage incinerated in 2009	For incinerators only – tonnage incinerated in 2009
Separate or Co-Mingled Waste	For MRFs only – whether waste taken to site is sorted or co-mingled. These terms are explained in the document that accompanies the tables.



Attribute Name	Attribute Description
Maps of sites	Pdf maps of waste sites with local authority boundaries.



# **Species Surveys – Non-Native Species (AfA226)**

#### **Dataset Description**

Invasive non-native species surveyed and collected during the Environment Agency monitoring activities including location and date of survey. Primarily aquatic and riparian species. Location and date of survey are recorded from 1970 onwards.

Any non-native species present in a sample are recorded when they are of the target group, for example Signal Crayfish (Pacifastacus lenisculus) in a benthic invertebrate sample or Canadian pondweed (Elodea Canadensis) in a plant survey. Other non-native species are recorded when seen at or around Environment Agency monitoring sites. Non-native species do not have a specific monitoring programme. These data are peer reviewed.

The full EA species data holding compromises Non-native species, Protected Species and Native Non-Protected Species ["other" species].

Attribute Name	Attribute Description
RecordKey	Unique record key
SampleKey	Unique sample key
TaxonVersionKey	Taxonomic version key - Unique shared key across UK organisations
Sensitive	Sensitive data flag [e.g. rare species]
StartDate	Start date of the sample survey
EndDate	End data of the sample survey
DateType	Date type resolution
SiteKey	Unique site key
SiteName	Site name
East	Easting
North	Northing
Projection	Projection method spatial reference is recorded e.g. OSGB
Precision	Precision of the spatial reference
Recorder	Organisation taking the sample i.e. Environment Agency
Source	System the data has been extracted from
Taxon Name	Name of species



# Packaging Regulations - Producers - Registered Entities only (AfA228)

#### **Dataset Description**

Contact details of approximately 5250 Packaging producers who have registered with the Environment Agency under the Producer Responsibility Regulations for Packaging.

Owing to data protection concerns we have only included producers who are registered companies etc.

Attribute Name	Attribute Description
Producer Name	Name of Packaging producer
Producer Address	Head Office Address of Packaging producer
Producer contact details	Contact name (Named contact regarding the Packaging Regulations)
Producer contact details	Contact company email address
Producer contact details	Contact company telephone number
Producer contact details	Contact company correspondence address



# **Hazardous Waste Interrogator (AfA229)**

#### **Dataset Description**

The Environment Agency is legally required to monitor all movements of hazardous waste in England and Wales. Hazardous waste producers are required to register with us and the site where the waste is disposed or recovered is required to inform us of the details of the wastes they receive. Hazardous waste producer data is commercially confidential. However a summary of the movements is provided in this Hazardous Waste Interrogator. Only high-level waste classification, geographical locations (where the waste was produced and where the waste management facility is located) and tonnage is included. Individual site names and producers details are not included.

Note: the data on hazardous waste includes all waste movements – this includes where the same waste may have moved between waste management facilities. This element of double counting should be taken into account when using the data.

Attribute Name	Attribute Description
Arising district	District where hazardous waste came from.
Arising WPA	Waste Planning Authority where hazardous waste came from.
Arising SWMA SubReg	Former Government Planning Region sub-region, usually county level, where hazardous waste came from.
Arising Planning Region	Former Government Planning Region where hazardous waste came from.
Consignee District	District of destination waste management facility.
Consignee WPA	Waste Planning Authority of destination waste management facility.
Consignee SWMASubReg	Former Government Planning Region sub-region, usually county level, of destination waste management facility.
Consignee Planning Region	Former Government Planning Region of destination waste management facility.
Waste_fate	Type of destination waste management facility e.g. landfill, treatment etc.
Waste_class	Description of EWC Chapter. This describes high level classification of type of waste e.g. Inorganic Chemical Processes etc
Classification	EWC Chapter number that describes waste – designated by numbers. E.g. 01, 02 etc
Quantity	Tonnage of waste moved



# **Waste Data Interrogator (AfA230)**

#### **Dataset Description**

All operators of regulated waste management facilities have to provide us with details of the quantities and types of waste they deal with i.e. waste received into site and waste sent on from site to other facilities or processes. This data is used to monitor compliance but has historically been used by the EC, DEFRA and local authorities to assist in planning for new waste facilities and for monitoring against statutory targets.

We have provided this data in an interrogatable format since 2006. The dataset is calendar year and holds the data from around 6,000 regulated sites. Operator waste returns are public register information unless a claim for commercial confidentiality has been accepted. In these cases the data is provided but the site details are not. This is so that the data can be included in aggregated figures but cannot be attributed to a particular site.

Data supplied does not include details of waste producers.

Details of operators who have claimed commercial confidentiality are not provided.

Price Category: Medium (5-10% cut)

Attribute Name	Attribute Description
WML/Permit No.	Permit reference of regulated waste facility
Operator	Name of operator of regulated waste facility
AmountTonnes	Tonnage of waste
Permit Type	Lowest level waste management facility type description e.g. Standard Rules permit no 8 etc.
Facility Type	High level waste management facility type description e.g. Landfill, treatment
Facility Category	Sub level waste management facility type description e.g. non hazardous landfill, biological treatment etc
Basic Waste Cat	Basic waste category e.g. hazardous, non hazardous or inert. Describes type of waste.
EWC Chapter	European Waste Code Chapter e.g. 01, 02 etc. High level waste code category.
Waste code	European Waste Code e.g. 010102. Describes lowest level waste code category.
Site Location District	District where waste management facility is located.
Site RPA	Former Planning Region where waste management facility is located.
Site Sub Region	Former Planning Region Sub Region (usually county level) e.g. Bedfordshire where waste management facility is located.
Site WPA	Waste Planning Authority where waste management facility is located.
Origin District	District location where waste originated. Not a mandatory field.



Attribute Name	Attribute Description
Origin WPA	Waste Planning Authority location where waste originated. Not a mandatory field.
Origin Sub Region	Former Planning Region Sub Region location where waste originated. Not a mandatory field.
Origin Region	Former Planning Region location where waste originated. Not a mandatory field.
Destination District	District location where waste was sent to from site. Not a mandatory field.
Destination WPA	Waste Planning Authority location where waste was sent to from site. Not a mandatory field.
Destination Sub Regio	Former Planning Region Sub Region location where waste was sent to from site. Not a mandatory field.
Destination Region	Former Planning Region location where waste was sent to from site. Not a mandatory field.
Destination Facility Type	Description of facility that waste was sent to from site e.g. landfill, recovery, treatment.



# Remaining Landfill Capacity (AfA233)

#### **Dataset Description**

Permitted landfill operators have a condition in their permits to report the remaining landfill void (capacity) of their sites at the end of the calendar year.

This information although used for compliance purposes is also used by the EC, Government, Local Authorities and other interested parties for statutory reporting and waste planning purposes. Data is provided in cubic metres and collated into a national dataset. There are only around 500 operational landfills in England and Wales. Operators can claim commercial confidentiality for their data at time of submission.

Data for sites with a commercial confidentiality in place are not provided.

Attribute Name	Attribute Description
Permit Reference	Permit reference of landfill site
Operator	Operator of landfill site
Site Name	Name of landfill site
Remaining void at end of calendar	Remaining capacity at landfill as reported by the operator at end of
year	calendar year under the permit requirement.
Site Type	Description of type of landfill that refers to waste types accepted e.g.
Site Type	hazardous, non-hazardous, inert.
District	District of location of landfill site.
Waste Planning Authority (WPA)	WPA of location of landfill site.
Sub-Region	Higher level location description of landfill site, usually a county or unitary
	level e.g. Bedfordshire, Tyne and Wear
Planning Region	Former Government Planning Region of location of landfill site.



# **Angling Guide Database (AfA235)**

#### **Dataset Description**

The Angling Guide database comprises approx 5500 records of private fisheries across England and Wales. Each of these private fisheries has public access, i.e. permits are available or club membership is available and there is no waiting list. Each record includes:

- Location;
- Contact information;
- Information on the type of fishery.

Attribute Name	Attribute Description
Pond_ID	Fishery venue reference number
Region_Main	Environment Agency region where the venue is located
Region_Sub	Environment Agency area where the venue is located
Fishery_Name	Name of the venue (provided by owner)
River_Canal_Name	Name of river or canal if applicable (provided by owner)
Nearest_Town	Nearest town to venue (provided by owner)
Nearest_County	County where venue is located (provided by owner)
Fishery_Stocked	Whether the fisheries is actively stocked (provided by owner
size_stillwater_hectares	If a stillwater, the size in hectares (provided by owner)
size_river_kilometer	If a river, the stretch of river the fishery occupies in km (provided by owner)
fishery_NGR	6NGR location grid reference (confirmed with owner)
Description_of_Location	Description of location (provided by owner)
Species_1	Fish species present to catch (provided by owner).
Species_2	Fish species present to catch (provided by owner)
Species_3	Fish species present to catch (provided by owner)
Species_4	Fish species present to catch (provided by owner)
Species_5	Fish species present to catch (provided by owner)
Fishery_Type	Whether coarse or game (provided by owner)
Type_of_Water	Type of water – lake, reservoir, river, canal, etc (provided by owner)
Fac_disabled	Whether the venue has disabled facilities (provided by owner)
Restr_fly_only	Whether fishing is restricted to fly fishing only (provided by owner)
Fac_boat_hire	Whether boats are available for hire (provided by owner)
Permit Avail	The type of permit available – day, week, season permits or membership (provided by owner)
permit_contact_Title	Contact title for permits (if provided by owner)
permit_contact_FN	Contact first name for permits (if provided by owner)
permit_contact_Sur	Contact surname for permits (if provided by owner)
Contact Telephone	Contact telephone number for the fishery (if provided by owner)
Contact Email	Contact email address for the fishery (if provided by owner)
Contact website	Fishery website, if available (if provided by owner)
permit_other	Other information on permit availability (if provided by owner)
	Which angling club grants permits for fishing at the venue, if applicable (if
permit_Angling_Club	provided by owner)
Updated during 2006	Whether record last updated in 2006 (provided by Agency)
Updated 2007	Whether record last updated in 2007 (provided by Agency)
Updated 2008	Whether record last updated in 2008 (provided by Agency)
Updated 2009	Whether record last updated in 2009 (provided by Agency)



Attribute Name	Attribute Description
New 2007	Whether record was produced in 2007 (provided by Agency)
New 2008	Whether record was produced in 2008 (provided by Agency)
New 2009	Whether record was produced in 2009 (provided by Agency)
Updated 2010	Whether record last updated in 2010 (provided by Agency)
New 2010	Whether record was produced in 2010 (provided by Agency)
Updated 2011	Whether record last updated in 2011 (provided by Agency)
New 2011	Whether record was produced in 2011 (provided by Agency)
Date of Creation/Amendment	Data record was created/last amended (provided by Agency)



# Real-time and Near-real-time Raingauge Data (AfA236)

#### **Dataset Description**

The Environment Agency has approximately 1000 real time rain gauges which are connected by telemetry. Measurements of the amount of precipitation (mm) are captured in Tipping Bucket Raingauges (TBR). Each gauge provides event rainfall data (time of tip) every hour if rainfall has been recorded in that hour. Event data is only reported hourly when rainfall events (at least a single 0.2mm tip) are detected. Information is made available externally via an up to 15 min update

The format of the data and the frequency at which the data is updated varies depending on which download route is being used by the customer. A high frequency subset of approximately 160 real time gauges is also available (AfA147 High Frequency Real-time and Near-real-time Raingauge Data).

Continuous rainfall information from these gauges as well as those TBRs that are not on telemetry (c.400) is stored on WISKI and can be provided in non-real time. This is provided to the Met Office for quality control along with all the data from our registered daily storage gauges. It is therefore not covered by this AfA. The quality controlled dataset is covered in AFA148 Quality Controlled Daily and Monthly Raingauge Data from Environment Agency Gauges.

Attribute Name	Attribute Description
Date	Date file created
Time	Time file created
Flags/comments	Comment or flag code (e.g. code for QC)
Identifier	e.g.NWRFHSCXAS1
Station reference	Reference based on combination of letters and numbers [unique identifier]
Region	Agency Region in which site is located
Station name	Name of station from WISKI system
NGR	British National Grid reference
Catchment	Name of river catchment in which site is located
Values/Parameters	i.e. storage rainfall
Qualifier	More detailed meta data relating to the value/parameter
Qualifier	above i.e. tipping bucket rain gauge
Data type	Definition of data i.e. event
Period	Time interval of measurement i.e. every day
Units	Measurement units i.e. mm
Start Date	Date of first parameter in file
Start Time	Time of first parameter in file
End Date	Date of last parameter in file
	Time of last parameter in file (may be identified as 'last
End Time	collected result' on the screen if transferred data is
	uploaded to the web-site automatically)



# **Hydropower Permits (AfA240)**

# **Dataset Description**

Permits issued for Hydropower Generation sites.

The Agency assesses and licences hydropower schemes for the water they abstract and to protect the local and wider environment; this may require issuing one or a combination of Abstraction, Impoundment and Transfer licences dependant on the scheme/site. This dataset details the permits issued for new, varied or renewed hydropower schemes.

A few, very specific turbine set-ups do not require a licence. These will not appear in this dataset.

# **Price Category: Very Low**

Attribute Name	Attribute Description
Year	Year in which permit was granted
Region	Environment Agency Region in which site is situated
NALD Lic No	Licence number
Licence Type	Abstraction, Impoundment or Transfer
Sub Type	New, Variation, or Renewal
Date Valid	Date valid application received
Applicant / Developer	Licence Holder
Site Name	Name of licensed hydropower site
Date Licensed	Date licence granted
Expiry Date	Date licence is due to expire (for time-limited licences)
Operational Years	No of years licensed
Advertised	Whether EA formally advertised the application (Y/N)
Grid Ref	Grid reference of operating site
Intake Screen Size	Grille spacing
Tail Race Screen Size	Grille spacing
Turbine Type	Type of turbine operating at site, where known.
Low/High Head	Where know, LH indicates a drop of less than 5 metres, HH
	indicates a drop of 5 metres or more.
Flow m3/hr	Licensed flow through turbine per hour.
Flow m3/day	Licensed flow through turbine per day.
Flow m3/year	Licensed flow through turbine per year.
	Predicted power output based on turbine, flow, head etc.
kWh	Indicative figure provided by applicant. May not be accurate
	or complete.
kWh/year	Predicted annual power output based on turbine, flow head
	etc by standard formulae. Indicative figure provided by
	applicant. May not be accurate or complete.
New Fish Pass required?	Y/N - Whether a fish pass was required in the permit
	conditions.
Commissioning Date	Date from which site was first operational, where available.



# Packaging Regulations - Approved Reprocessors and Exporters (AfA243)

#### **Dataset Description**

Contact details of approximately 350 Packaging reprocessors and exporters who have registered with the Environment Agency under the Producer Responsibility Regulations for Packaging. Complete details are available for registered companies etc. Some data is omitted for other reprocessors and exporters for data protection reasons.

Attribute Name	Attribute Description
UK Reprocessor Name	
UK Reprocessor Address	
UK Reprocessor contact details	Contact name (for limited companies only)
UK Reprocessor contact details	Contact company email address (for limited companies only)
UK Reprocessor contact details	Contact limited liability partnership email address
UK Reprocessor contact details	Contact company telephone number (includes partnerships and individuals)
UK Reprocessor contact details	Contact company correspondence address (includes partnerships and individuals).
UK Reprocessor NPWD number	Reference number on EA National Packaging Waste Database
Exporter Name	
Exporter Address	
Exporter contact details	Contact name (for limited companies only)
Exporter contact details	Contact limited company email address, (for limited companies only)
Exporter contact details	Contact limited company telephone number
Exporter contact details	Contact limited company correspondence address
Exporter contact details	Contact business correspondence address (includes partnerships and individuals).
Exporter NPWD Number	



# **Packaging Regulations Approved Schemes (AfA244)**

# **Dataset Description**

Contact details of approximately 24 Packaging schemes who have registered with the Environment Agency under the Producer Responsibility Regulations for Packaging.

Attribute Name	Attribute Description
Scheme Name	
Scheme Operator Name	
Operator Address	Head Office address of Scheme operator
Contact details	Contact name
Contact details	Contact company email address (suggest release, all companies, generic emails offered)
Contact details	Contact company telephone number and fax number
Contact details	Contact company correspondence address and Registered Office Address



# Riparian Shade (AfA245)

#### **Dataset Description**

#### Purpose of riparian shade data set

The Environment Agency needs to understand where trees and land form contribute to water channel shading, potentially to reduce mean stream temperatures and create cooler refuges for fish on hot summer days. In particular, fisheries are keen to know where channels are exposed to heating and where

new tree planting could help reduce this exposure. This is not a direct measure of water temperature but an indication of how effectively the local area provides shading compared to a neighbouring reach.

#### The shade maps

Shade maps are a national data set but do not have full coverage. They have been created for a specific number of areas across England and Wales:

WFD (Water Framework Directive) Management catchments in England and Wales: Hampshire Avon, Wye, Tyne, Ribble, Frome, Adur & Ouse, Don, Irwell, Wear, Welland, Tone, Ecclesbourne, Learn, Lower river Lee. EA Regional boundaries: Midlands, West Thames.

#### Details of output data supplied by Geomatics for insolation 'shade maps'

**Insolation** is a measure of solar radiation energy received on a given surface area in a given time.

Geomatics have produced rasters of Insolation from both the LIDAR Digital Surface Model (DSM) and the Digital Terrain Model (DTM).

Aerial LIDAR uses a laser to measure the distance between the survey aircraft and the ground surface, including buildings and other assets (above ground pipelines, highways, street furniture, power lines, railway tracks), as well as vegetation.

The Insolation rasters have been produced using the ArcGIS function "Area Solar Radiation", with the date parameters set to May, June, July, August and September, with hourly intervals (every 14 days). The product from the function is a raster of incoming solar radiation in Watt Hours per square metre (WH/m2) for both the Digital Terrain Model (DTM) and the Digital Surface model (DSM).

The Relative Shade map is created from the Surface Objects and is a product of the difference between the DSM and DTM.

The Solar Insolation rasters, with units in WH/m2, have then been clipped using Ordnance Survey Mastermap Water Feature polygons, that have themselves been clipped and dissolved using a 25mx25m or 100mx100m grid (depending upon the Area team request at the time).

These clipped water polygons have been attributed with the Ordnance Survey reference code and overlaid on the hillshade of the DTM.

The resultant maps of relative shade are then produced as a series of PDF maps for each catchment (where there is LIDAR data).

The detailed ESRI grid data is being reviewed and may also be released in the future.



Attribute Name	Attribute Description
shading	Relative shading level for river sections only - averaged.
	Red is least shade. Blue is most shade



# LIDAR derived Vegetation Object Maps - JPEG (AfA246)

#### **Dataset Description**

Purpose of LIDAR (Light Detection And Ranging) derived Vegetation Object Map data set

The Environment Agency needs to understand where trees contribute to water channel shading, potentially to reduce mean stream temperatures and create cooler refuges for fish on hot summer days. In particular, fisheries are keen to know where channels are exposed to heating and where new tree planting could help reduce this exposure.

#### The LIDAR derived Vegetation Object Map (objects>2.5m in height)

This is a data set for England and Wales (where LIDAR data is available).

The Environment Agency have produced a vegetation objects data layer based on the LIDAR 2m Composite (dated 2010) which indicates the location of vegetation, and the height of vegetation. The dataset was created using an automated routine that screens out all buildings present within the Ordnance Survey Mastermap Topo layer.

The file format is in Georeferenced JPEG, which is a visual representation of the data.

The data is also available as ESRI Binary Grid format which contains the vegetation object heights.

Attribute Name	Attribute Description
Attribute 1	Colour scale representing height of objects
Attribute 2	Grey scale representing hill shading



# **Sensitive Areas - Eutrophic (AfA249)**

#### **Dataset Description**

This dataset consists of 3 shapefiles showing the extent of UWWTD sensitive areas (eutrophic) in England and Wales.

The Urban Wastewater Treatment Directive describes Eutrophication as 'the enrichment of water by nutrients, especially compounds of ntrogen and/or phosphorous, causing an accelerated growth of alge and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned'.

The Urban Wastewater Treatment Directive (91/271/EEC) regulates the collection and treatment of waste water from homes and from industry. In the UK, the directive is implemented through the Urban Wastewater Treatment regulations 1994.

Under these regulations, water bodies that are (or may soon become) eutrophic should be designated as sensitive areas by Defra or by Welsh Government as appropriate. This applies to still fresh waters, rivers, estuaries and coastal waters.

#### This dataset consists of:

- RiverEutrophicSAs10012012.shp shows rivers currently designated as UWWTD eutrophic sensitive areas
- LakesEutrophic10012012.shp shows lakes currently designated as UWWTD eutrophic sensitive areas
- CoastalEutrophicSAs10012012.shp shows harbours and estuaries currently designated as UWWTD eutrophic sensitive areas.

Attribute Name	Attribute Description
Shapefile of Sensitive Rivers – Eutro	ophic (RiverEutrophicSAs10012012.shp)
Shapefile	
FID	Primary key
Shape	Type of dataset
Type_of_SA	Type of Sensitive Area. SA(e) = eutrophic.
DateDesign	Date of designation of sensitive area
Name	Name of sensitive area
UWWTD_Code	Reference code(s) for sensitive area, as reported under UWWTD Article 15.
Length_KM	Length of sensitive area in kilometres
Shapefile of Sensitive Lakes – Eutro	phic (LakesEutrophic10012012.shp)
Shapefile	
FID	Primary key
Shape	Type of dataset
Type_of_SA	Type of Sensitive Area. SA(e) = eutrophic.
DateDesign	Date of designation of sensitive area
Name	Name of sensitive area
UWWTD_Code	Reference code(s) for sensitive area, as reported under UWWTD Article 15.
shape_Area	Area of sensitive area in square kilometres
Shapefile of Sensitive Coastal Areas – Eutrophic (CoastalEutrophicSAs10012012.shp)	



Attribute Name	Attribute Description
Shapefile	
FID	Primary key
Shape	Type of dataset
Type	Type of Sensitive Area. SA(e) = eutrophic.
DateDesign	Date of designation of sensitive area
Name	Name of sensitive area
UWWTD_Code	Reference code(s) for sensitive area, as reported under
	UWWTD Article 15.
shape_Area	Area of sensitive area in square kilometres



# Sensitive Areas – Bathing Waters(AfA250)

#### **Dataset Description**

This dataset is a shapefile showing the extent of UWWTD sensitive areas (bathing waters) in England and Wales.

The Urban Wastewater Treatment Directive (91/271/EEC) regulates the collection and treatment of waste water from homes and from industry. In the UK, the directive is implemented through the Urban Wastewater Treatment regulations 1994.

Under these regulations, water bodies where treatment more stringent than secondary is necessary to fulfil the requirements of the Bathing Waters Directive should be designated as sensitive areas by Defra or by Welsh Government as appropriate.

This dataset consists of:

 Bwater\_SAs\_04122012.shp - shows areas currently designated as UWWTD bathing water sensitive areas

Attribute Name	Attribute Description	
Shapefile of Sensitive Areas - Bathing Waters (Bwater_SAs_04122012.shp)		
shapefile		
FID	Primary key	
Shape	Type of dataset	
REF	Unique bathing water reference code	
DESIGNATIO	Type of designation	
SITE_NAME	Name of sensitive area	
AGENCY_REG	Environment Agency Region	
AGENCY_ARE	Environment Agency Area	
RBD	River Basin District	
EASTINGS	Eastings	
NORTHINGS	Northings	
DATE_DESIG	Date of designation of sensitive area	



# **Sensitive Areas – Nitrates (AfA251)**

#### **Dataset Description**

This dataset is a shapefile showing the extent of UWWTD sensitive areas (nitrate) in England and Wales.

The Urban Wastewater Treatment Directive (91/271/EEC) regulates the collection and treatment of waste water from homes and from industry. In the UK, the directive is implemented through the Urban Wastewater Treatment regulations 1994.

Under these regulations, water bodies that are used as sources for drinking water and which have high nitrate concentrations (as defined by Council Directive 75/440/EEC of 16th June 1975) should be designated as sensitive areas by Defra or by Welsh Government as appropriate.

This dataset consists of:

 RiverNitrateSAs10012012.shp - shows rivers currently designated as UWWTD nitrate sensitive areas

Attribute Name	Attribute Description
Shapefile of Sensitive Areas – Nitrates (RiverNitrateSAs10012012.shp)	
shapefile	
FID	Primary key
Shape	Type of dataset
Type_of_SA	Type of Sensitive Area. SA_N = Nitrate
DateDesign	Date of designation of sensitive area
Name	Name of sensitive area
Length_KM	Length of sensitive area in kilometres
UWWTD Code	Reference code(s) for sensitive area, as reported under
OVVVID_Code	UWWTD Article 15.
DateDesign	Date of designation of sensitive area
Name	Name of sensitive area
UWWTD_Code	Reference code(s) for sensitive area, as reported under
	UWWTD Article 15.
shape_Area	Area of sensitive area in square kilometres



# LIDAR derived Vegetation Object Maps – ESRI Binary Grid (AfA253)

#### **Dataset Description**

Purpose of LIDAR (Light Detection And Ranging) derived Vegetation Object Map data set

The Environment Agency needs to understand where trees contribute to water channel shading, potentially to reduce mean stream temperatures and create cooler refuges for fish on hot summer days. In particular, fisheries are keen to know where channels are exposed to heating and where new tree planting could help reduce this exposure.

#### The LIDAR derived Vegetation Object Map (objects>2.5m in height)

This is a data set for England and Wales (where LIDAR data is available).

The Environment Agency have produced a vegetation objects data layer based on the LIDAR 2m Composite (dated 2010) which indicates the location of vegetation, and the height of vegetation. The dataset was created using an automated routine that screens out all buildings present within the Ordnance Survey Mastermap Topo layer.

The file format is in ESRI Binary Grid format which contains the vegetation object heights.

The data is also available as Georeferenced JPEG, which is a visual representation of the data.

#### **Price Category: Remote Survey Data charges**

Attribute Name	Attribute Description
Vegetation Map	ESRI binary grid
Value	Height in metres



# UK Water Quality Sampling Harmonised Monitoring Scheme Detailed Data (AfA255)

#### **Dataset Description**

The UK Water Quality Sampling Harmonised Monitoring Scheme (HMS) dataset contains individual determinand results for all sites in the UK Harmonised Monitoring Scheme network from 1974 onwards.

The sampling network includes 230 sites which are mainly located at the tidal limits of major rivers or at the points of confluence of significant tributaries. The information held within the HMS includes data on: Oxygen and ammonia, Nutrients, List II metals and Pesticides.

The Harmonised Monitoring Scheme (HMS) was established to provide an archive of water quality data for the UK. It is used to provide information for international obligations, including the long-term trends of some determinands and the estimation of riverborne input of selected determinands to the sea.

The summary dataset is covered in AfA178 UK Water Quality Sampling Harmonised Monitoring Scheme summary data.

Attribute Name	Attribute Description	
	Table Data	
SampleID	Sample identifier (automated number generated by database).	
DeterminandID	Determinand identifier (refer to Determinand look-up table).	
Qualifier	Symbols < or > used where applicable.	
Result	Determinand value (refer to Unit look-up table).	
Table Sample		
SampleID	Sample identifier (automated number generated by database).	
SiteID	Site identifier (refer to Site look-up table).	
Date	Date on which sample was taken.	
Time	Time at which sample was taken.	
	Table Determinand	
DeterminandID	Determinand identifier.	
Det_Name	Name of determinand e.g. pH, total mercury.	
UnitID	Unit of measurement identifier for each determinand (refer to Unit look-up table).	
Class	Type of determinand e.g. dissolved, microbiological.	
Format	Format of result in decimal places.	
	Is this determinand part of the Environment Agency's National Suite	
National Suite	for HMS? Y/N	
Table Unit		
UnitID	Unit identifier (each unit is assigned a number).	
Units	Description of units e.g. mg/l, °C.	
Table Site		
SiteID	Site identifier (each Site is assigned a number).	
RiverID	River identifier (refer to River look-up table).	



Attribute Name	Attribute Description		
Description	Description of site e.g. Totnes weir, Rhydyfelin.		
RegionID	Region identifier (refer to Region look-up table).		
NGR	National Grid Reference (format SWxxxxxx)		
Easting	Easting		
Northing	Northing		
WatertypeID	Water type identifier (refer to Water Type look-up table).		
LandtypeID	Land type identifier (refer to Land Type look-up table).		
StatusID	Status identifier (refer to Status look-up table).		
GEMSID	Global Environmental Monitoring System (GEMS) identifier.		
EoIID	Exchange of Information Directive identifier e.g. U16, where available.  Table River		
RiverID	River identifier (each river is assigned a number)		
River name	Name of river		
	Table Region		
RegionID	Region identifier (each region is assigned a number)		
Region_Name	Text description of region e.g. South West, SEPA North, Northern Ireland		
	Table Water Type		
WatertypeID	Water type identifier (each water type is assigned a number)		
Watertype	Description of water type e.g. Lake also river, borehole, reservoir		
	Table Land Type		
LandtypeID	Land type identifier (each land type is assigned a number)		
Landtype	Description of land type e.g. Lowland arable		
Table Status			
StatusID	Status identifier (each status is assigned a number)		
Status	Description of status (either active or inactive)		



# Flood Risk Areas (AfA256)

#### **Dataset Description**

Flood Risk Areas have been defined by Lead Local Flood Authorities.

These areas cover surface water flooding only. Groundwater, coastal, reservoir failure, water main and river flooding are not covered.

These are based on combining risk to people, critical services and commercial and public assets, and detailed flood modelling.

The Flood Risk Areas show areas where the risk to flooding has the greatest impact on residential buildings and critical infrastructure i.e. the largest cities where there are the most residential properties and infrastructure in relation to the risk of flooding. Further detail on the methodology is available at:

http://www.environment-agency.gov.uk/research/planning/125459.aspx

These Flood Risk Areas are designed to meet the needs of the European Floods Directive. They are designed for broad planning purposes only, and are not appropriate for any other type of flood mapping. Other flood mapping is available which is more appropriate to showing localised flood risk.

Attribute Name	Attribute Description
Geometry	Polygon
	British National Grid
ID	Grid identifier
FRA_NAME	Flood Risk Area Name
Country	Country Name (England or Wales)
Area_km2	Area of Flood Risk Area in km <sup>2</sup>
RBD	River Basin District Name



# 3 Day Flood Forecast (AfA259)

#### **Dataset Description**

The flood risk forecast is produced by the Flood Forecasting Centre (FFC) for publication on the Environment Agency's website on a daily basis (http://www.environment-agency.gov.uk/homeandleisure/floods/125305.aspx ). It is issued more frequently when serious flooding is forecast.

It provides the indication of the potential for flooding for three days: the day on which it is issued and the subsequent two days ahead. The forecast highlights flood risk on a county by county basis and includes a short commentary on the situation. It covers flooding from rivers, the sea, surface water and groundwater for England and Wales.

#### Price Category: Low

A.(. 11 N.	
Attribute Name	Attribute Description
threeday	Information about the schema for this XML document
issuedatetime	Date and time that the XML file is valid from
issuedatestring	Issue date of the XML file
issuedatestring_cymru	Issue date of the XML file in Welsh
issuetimestring	Issue time of the XML file
day1string	Date of the first day covered by the flood risk forecast
day1string_cymru	Date of the first day covered by the flood risk forecast in Welsh
day2string	Date of the second day covered by the flood risk forecast
day2string_cymru	Date of the second day covered by the flood risk forecast in Welsh
day3string	Date of the third day covered by the flood risk forecast
day3string_cymru	Date of the third day covered by the flood risk forecast in Welsh
day1image	Image for this day converted in Base64 encoded string.
day2image	Image for this day converted in Base64 encoded string.
day3image	Image for this day converted in Base64 encoded string.
summary	Summary text as entered into the flood risk forecast. Contains an overview
	of the risk of flooding as a whole.
CUMMORY CYMRU	Summary text in Welsh as entered into the flood risk forecast. Contains an
summary_cymru	overview of the risk of flooding as a whole.
risk	Tag that is used to organise document. Has no content
level	Risk level being detailed - High, Medium, Low or Very Low
impact	Text to describe impact associated with this level of risk
advice	Text to describe advice associated with this level of risk
forecastday	Tag used to organise document
date	String containing the date of the day in question
listregions	Tag used to organise document
region	Tag used to organise document
regionname	Name of EA region
numberofcounties	Count of the number of counties / local authorities in this region on this date at this level of risk
listcounties	Tag used to organise document
county	Name of county / local authority within this region on this date at this level of risk



# **Inventory of Closed Mining Waste Facilities (AfA260)**

# **Dataset Description**

The European Mining Waste Directive (2006/21/EC) requires Member States to create an inventory of closed or abandoned mine waste facilities causing serious environmental impacts, and to make this inventory available to the public.

A waste facility means any area designated for the accumulation or deposit of extractive waste.

Attribute Name	Attribute Description
FID	Primary Key
SHAPE	Geometry type: Point
URN	Unique Reference Number for site
SITE_NAME	Name of mine waste facility
MINE_TYPE	Type of mineral extracted (i.e. coal, metalliferous, building minerals, industrial minerals
REASON	Reason site is on the inventory (i.e. Water pollution, Human health, Instability hazard, Fire Hazard)
EASTINGS	Site location - Eastings
NORTHINGS	Site location - Northings
LA	Local authority in which the site is located

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\* Approximate call costs: 8p plus 6p per minute (standard landline). Please note charges will vary across telephone providers