

An introduction to Internal Drainage Boards



Published by:



Representing Drainage
Water Level & Flood Risk
Management Authorities

What is an Internal Drainage Board?

An Internal Drainage Board (IDB) is a type of local public authority that manages water levels in England where there is a special need for drainage. IDBs undertake works to reduce flood risk to people, property and infrastructure, and manage water levels for agricultural and environmental needs.

Each IDB has permissive powers to manage water levels within their drainage district, carefully maintaining rivers, drainage channels, culverts, sluices, weirs, embankments and pumping stations.

They also play an important regulatory role, using powers to keep watercourses clear of obstructions. They set byelaws to ensure the watercourse network works efficiently, and they scrutinise planning and development in their area to mitigate its impact on the water environment and flood risk. They have statutory duties with regard to the environment and recreation when exercising their functions.



(Stan Pywell)

IDBs are defined as a Risk Management Authority within the Flood & Water Management Act 2010 working alongside the Environment Agency, local authorities and water companies to actively manage and reduce the risk of flooding. Their activities and responsibilities are principally governed by the Land Drainage Act 1991 as amended by subsequent legislation.

How old are IDBs?

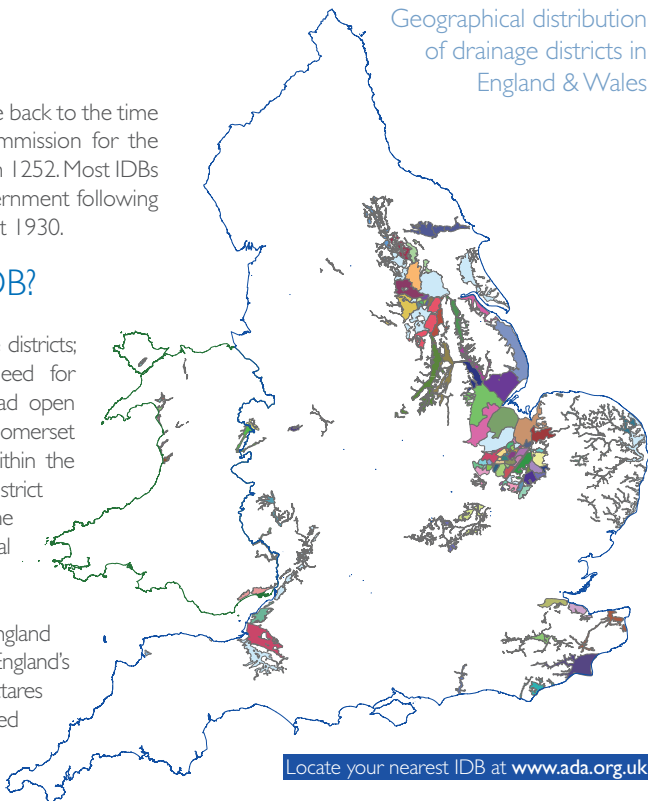
The forerunners of today's IDBs date back to the time of Henry III who established a commission for the drainage of Romney Marsh in Kent in 1252. Most IDBs today were established by the Government following the passing of the Land Drainage Act 1930.

Where can I find an IDB?

IDBs manage water levels in drainage districts; areas where there is a special need for drainage. They either occur in broad open areas of lowland such as the Fens, Somerset Levels or Humberhead Levels or within the floodplains of rivers. The drainage district each IDB covers is determined by the local hydrology and not by political boundaries such as those of counties.

In 2017 there are 112 IDBs in England covering 1.2 million hectares (9.7% of England's land area). Wales also has 28,500 hectares of drainage districts that are managed by Natural Resources Wales through local Advisory Groups.

Geographical distribution of drainage districts in England & Wales



Locate your nearest IDB at www.ada.org.uk

What are IDBs responsible for?

IDBs' primary role is to manage water levels and reduce the risk from flooding within their districts. Much of their work involves the maintenance and improvement of watercourses and related infrastructure. Collectively they operate over 22,000km of watercourse and manage over 500 pumping stations.

Under the Land Drainage Act 1991, each IDB exercises a general power of supervision over all matters relating to water level management within its district. In pursuance of this role they can prohibit the obstruction of watercourses within their district. Thus, anyone constructing or altering a weir, bridge, embankment, culvert or similar obstruction must first seek the consent of the IDB before undertaking works.

IDBs also set a series of bylaws relating to the management of watercourses and can designate key features and structures within their district which relate to managing flood risk.

IDBs scrutinise new development in their drainage districts and input into the planning system to ensure developments suitably mitigate their environmental and flood risk impacts on the drainage network. IDBs can advise on planning applications, specifically the use of sustainable drainage systems (SuDS).

IDBs conduct their work in accordance with a number of general environmental duties and promote the ecological wellbeing of their districts. They have a specific duty to further the conservation and enhancement of all designated environmental sites within their districts, such as sites of species scientific interest (SSSI).

Some IDBs may also have other duties, powers and responsibilities under specific legislation. For instance the Middle Level Commissioners and Witham Fourth District IDB are both navigation authorities. During drought, IDBs play a key role in keeping water levels higher and facilitating the transfer of water.

IDBs co-operate and share information with other relevant risk management authorities in the exercise of their flood and coastal erosion risk management functions, including the Environment Agency, local authorities and water companies. Defra is the Government department responsible for IDBs.

IDBs are not responsible for watercourses designated as main rivers within their drainage districts; the supervision of these watercourses is undertaken by the Environment Agency. However, an IDB may undertake works on main river and coastal defences on behalf of the Environment Agency through a Public Sector Co-operation Agreement (PSCA). They may also use a PSCA to undertake work for a local authority or seek assistance themselves from such bodies.



(Ian Moodie)



(Martin Reading)



(Cliff Carlson)



(Ian Moodie)



(Ian Moodie)

Why are IDBs important?

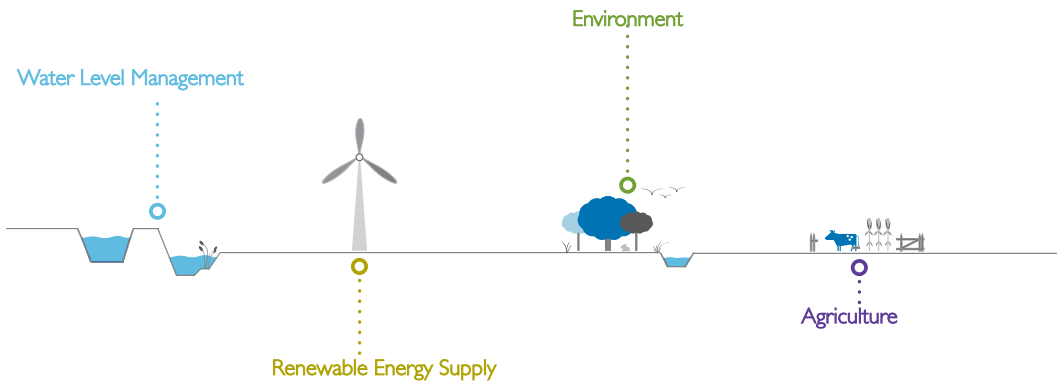
Covering **1.2 million hectares** of England (**9.7% of England's total land area**) and over **22,000km** of **watercourses** the **water level management** undertaken by IDBs benefits the following areas:

PEOPLE & COMMUNITIES

IDBs play a key role in directly reducing flood risk to over **600,000 people** who live and/or work within IDB boundaries, and around **880,000 properties** (domestic and commercial). Notwithstanding this, the total infrastructure that complements these communities would also be greatly affected. Local Authorities pay a 'special levy' to IDBs for people, property and infrastructure, benefiting from their work.

ENVIRONMENT

IDBs have a specific duty to further the conservation and enhancement of all designated environmental sites within their districts, including around **400 SSSIs**. They conduct their work in accordance with a number of environmental duties, and aim to promote sustainability and the ecological wellbeing of their districts. Each IDB has a **Biodiversity Action Plan** setting out its contributions to conserving important habitats and species within their drainage district. Over **1000 barn owl chicks** have fledged from boxes installed by IDBs on pumping stations in Lincolnshire. IDBs strive to maintain watercourses as sympathetically as possible, whilst ensuring they retain the necessary capacity to convey and store water:



UTILITIES

Within England and Wales there are around 250 major power generation sites in operation, supplying the country's high demand for electricity. Over **40 of the major electricity generation sites** are located within drainage districts, equating to around **50% of the installed capacity** (potential maximum power output) in England and Wales. Water supplies (both domestic and commercial) rely on effective water level and quality management, and hundreds of water treatment and sewage works sit within IDB districts.

INDUSTRY & COMMERCIAL ASSETS

Although primarily rural, some IDB districts also contain several other significant industrial or commercial assets. There are over **40 caravan/leisure parks** and around **70 major industrial premises** (including the Port of Grimsby & Immingham in the Humber Estuary, which is the UK's largest port by cargo tonnage – importing 20 million tonnes of oil and 10 million tonnes of coal per annum).

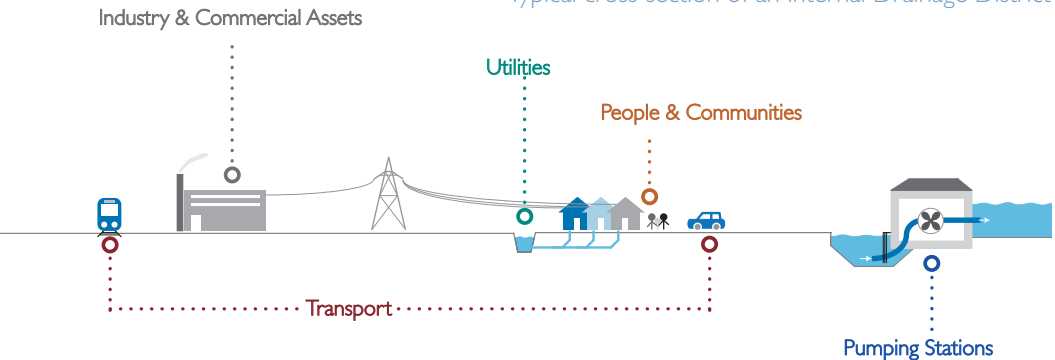
AGRICULTURE

There are approximately **50,000 farms** and land-holdings within IDB districts in England growing crops and raising livestock for food. Collectively those farms contributed about **20% of England's arable production** in 2010. This is due to the highly productive nature of the land within drainage districts, which includes around **60% of all the Grade 1 agricultural land** in England. There are also a number of important food processing hubs, including **three of the four British Sugar factories**, which process around seven million tonnes of sugar beet annually. These statistics highlight how much of an essential component the water level management by IDBs is to UK food security.

RENEWABLE ENERGY SUPPLY

Over **30 wind farms, 20 solar parks** and **10 biomass power stations** are located within IDB districts. Each with an installed capacity greater than 10MW. This includes England's largest onshore wind farm (68MW) at Keadby, near Scunthorpe within the Isle of Axholme & North Nottinghamshire WLMB. Such sites will need careful water level management to avoid flooding or damage to associated infrastructure. A number of IDBs are investigating renewable energy sources to power pumping stations. For instance, Black Sluice IDB has installed photovoltaic cells on its depot and 13 pumping stations.

Typical cross-section of an Internal Drainage District



TRANSPORT

Approximately **210km of motorway** and **1,450km of railway** runs through IDB districts. Including major commuter links, such as the A1, M4, M5 and the East Coast Mainline connecting London to the South West, Wales, North East and Scotland. Without efficient and continuous water level and land management from IDBs, and communication with other transport authorities, loss of these transport routes would affect millions of commuters every year.

PUMPING STATIONS

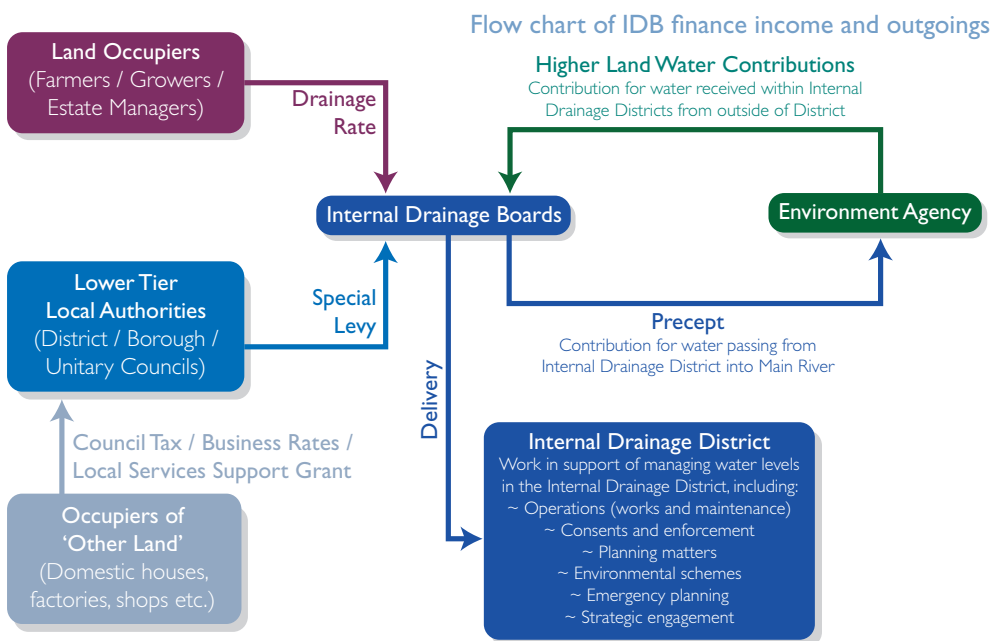
Over **half of the total area covered by IDBs (more than 635,000 hectares)** are reliant on pumping to manage water levels and reduce the risk from flooding, and around 50 IDBs have more than 95% of their area dependent on pumping. This is facilitated by at least **500 pumping stations**, including the UK's largest, **St German's Pumping Station**, operate by the Middle Level Commissioners. It is **capable of pumping 100 cubic metres of water per second**. The remainder of drainage districts are reliant on gravitational flows to main rivers and estuaries, but still require careful management.

How are IDBs funded?

IDBs annually invest over £60 million in managing water levels and reducing flood risk. The cost of undertaking their essential functions are predominantly funded by the local beneficiaries of the water level management work they provide.

Each IDB sets a budget for its planned work in the forthcoming year and any investments it needs to make for future projects. Section 36 of the Land Drainage Act 1991 determines that these expenses of an IDB shall be met by:

- Drainage rates collected from agricultural land and buildings within the Internal Drainage District;
- Special Levies issued on District and Unitary Authorities within the Internal Drainage District;
- Contributions from the Environment Agency (see Higher Land Water Contributions).



Drainage Rates and Special Levies

All land and properties within a Drainage District are deemed to derive benefit from the activities of an IDB and therefore subject to contributions to the expenses of the IDB paid annually to the Board. For the purposes of rating, properties are divided into:

- a) Agricultural Land and Buildings (fields, farmhouses, barns, glasshouses, stables, silos etc.)
- b) Other Land (such as domestic houses, factories, shops etc.)

Occupiers of all "Other Land" pay Council Tax, Business Rates or Local Services Support Rates to the District or Unitary Authority who then are charged a Special Levy by the Board in proportion to the annual value of this "Other Land". The Board, therefore, only demands Drainage Rates direct on Agricultural Land and Buildings.

The division of the expenses of the IDB raised via drainage rates versus special levy is determined by the relative proportions of the total annual value of all agricultural land and buildings in the Drainage District versus the total annual value of all other non-agricultural land and buildings within the Drainage District.

Changes owing to development

As land moves out of agricultural production and is built on so the appropriate rates and levies are adjusted proportionately. The IDB can be informed of such changes either directly by the land occupier/owner or by the respective Council's District Valuer.

Differential Rates

Section 38 of the Land Drainage Act 1991 enables the division of Drainage Districts for the purposes of setting different drainage rates and special levies in each sub-district. In principle, Differential Rates are only used to reflect differential levels of service from an IDB. This may occur where a part of the District is pumped and another part drains under gravity, or where some parts of the District receive a reduced or enhanced level of benefit from IDB activity (e.g. significantly higher land within the District, or coastal land within the District). For more information, see the ADA briefing paper on Differential Rating Orders at www.ada.org.uk.

Higher Land Water Contribution (from EA to IDB)

Higher land water contributions (also known as highland or upland water contributions) are enabled under Section 57 of the Land Drainage Act 1991. An IDB may make an application to the Environment Agency for a contribution in relation to the quantity of water which that district receives from lands at a higher level outside of the Board's district.

It provides funding to contribute to additional water management pressures and therefore additional pumping/maintenance required to manage water from higher in a catchment entering an IDB's Drainage District. Applications for HLWC are made on an annual basis, and their payment are at the discretion of the Environment Agency.

Partnership funding and grants

IDBs can secure grants to assist with the funding of capital and environmental works projects. As a risk management authority, IDBs can apply for a grant-in-aid (GIA) to fund flood and coastal erosion risk management (FCERM) projects. How much GIA a project receives depends on the public benefits it delivers, such as the number of households better protected from flooding. IDBs can also secure grants from the lottery funding agencies, charitable trusts and the European Union where appropriate. IDBs may also secure funding by local agreement from developers to manage sustainable drainage systems.

Environment Agency Precept (from IDB to EA)

Section 141 of the Water Resources Act 1991 enables the Environment Agency to issue precepts to IDBs requiring payment of any amount required to be contributed by those Boards towards the expenses of the Environment Agency.

The Precept allows local funds raised by an IDB to finance works essential to the Main River (statutory designated watercourses which are the responsibility of the EA) within, adjacent or flowing from or into an IDB's Drainage District. In principle the money is raised by the EA from the IDB for the benefit of the respective District or Districts served. The payment of an EA Precept is compulsory, however an IDB may appeal this precept if they feel it unfair, and may request details of how it has been spent by the Agency.

Financial Security

Long-term certainty of finance is essential to sound water level and flood risk management. Water level management is a daily job, requiring regular action, which must be planned well in advance. In contrast, flood risk mechanisms may only be tested infrequently but must meet the standards demanded of them on these critical occasions. Both activities transcend political and spending periods as currently set out by the Government.

Who governs an IDB?

An IDB is governed by its Board that consists of members, who are either elected for periods of 3 years from the agricultural drainage rate payers ('elected members'); or appointed for periods of up to 3 years by levy-paying local authorities ('appointed members').

The number of appointed members relates to the proportion of an IDB's total income derived from special levy but appointed members may not exceed by more than one the number of elected members. In this way IDBs retain strong local accountability to those within their drainage district that they serve.

Find out more / Get involved

If you are interested in the management of water in your local area you can find and contact your local IDB via www.ada.org.uk. From them you can find out more about their work, how to get involved and/or become a Board Member.

Address: ADA, Rural Innovation Centre, Avenue H, Stoneleigh Park, Warwickshire, CV8 2LG

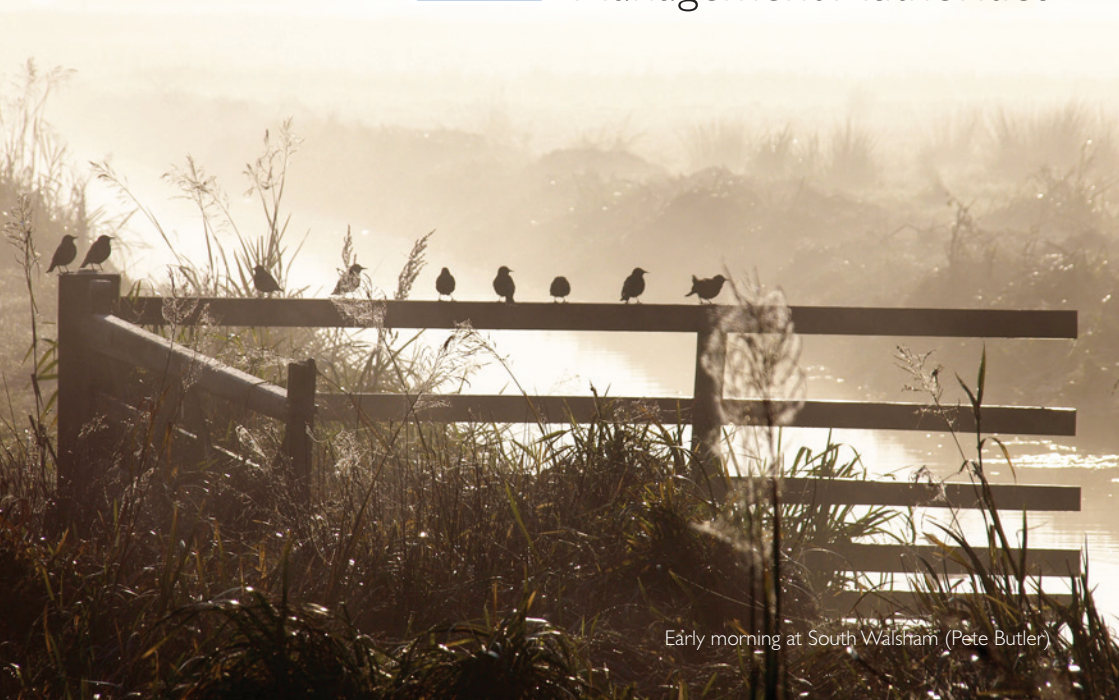
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First published: 2013 | Revised: September 2017



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Early morning at South Walsham (Pete Butler)