

INTRODUCTION

Association of Drainage Authorities (ADA)

The Association of Drainage Authorities (ADA) is the membership organisation for water level management authorities in the United Kingdom, with over 230 members and associate members. ADA is recognised as the national representative for Internal Drainage Boards (IDBs) in England and Wales. Established in 1937, ADA was created to watch over and support the interests of drainage authorities at a national and parliamentary level, providing a forum for the exchange of ideas and discussions, and to disseminate information of common interest.

Internal Drainage Boards (IDBs)

Today, there are 121 IDBs in Great Britain, 120 in England and 3 in Wales (2 IDBs cross the border). IDBs cover 1.2 million hectares of England (9.7% of the total land area of the country) and 28,500 hectares of Wales (1.4% of the total land area of the country).

Facts & figures

IDBs play a key role in reducing flood risk to:

- over 600,000 residents
- 900,000 properties (commercial and residential)
- 50,000 farms (over 50% Grade 1) and land-holdings
- 500 pumping stations
- 22,000 km of watercourse
- 398 SSSIs
- 129 miles of motorways and 910 miles of railway
- 175 automatic weed screen cleaners and numerous sluices and weirs
- 30 onshore windfarms, 1 bio-energy power plant
- 56 of the UK's 201 operational major power stations (equating to 53% of installed capacity).

[SOURCE: ADA's 'Why are Internal Drainage Boards so Important to the UK?' poster – See APPENDIX]

PARTNERSHIPS IN FLOOD RISK MANAGEMENT

IDBs have been at the forefront of partnership working in flood risk management. Co-operative management of water levels has reduced flood risk to a large number of people and businesses in IDB areas (almost 10% of the area in England). Many IDB activities have societal benefits to areas beyond IDB boundaries, for instance in reducing flood risk to urban areas. IDB activity has ensured that the 53% of the UK's total installed electricity generating capacity within IDB areas has continued to function under recent extreme conditions, and significant transport links have remained open.

As well as new legislative roles and responsibilities, flood risk management in the UK is facing the pressures of austerity and reduced public spending. Revenue budgets for the Environment Agency are set to fall by around 18% by 2015, local authority budgets are at best static, and Government investment in capital flood relief schemes was reduced from £354 million in 2010/11 to £259 million in 2012/13. Authorities are feeling the strain; the Environment Agency is having to more tightly prioritise the sections of river which it maintains and find efficiency savings in operations such as pumping. This could have impacts for those abstracting or discharging water into main rivers.

The Government has rebranded its capital investment in flood risk management as 'Partnership Funding'. Schemes from the EA, IDBs or LLFAs will now only gain funding for specific outcomes, meaning that capital projects are usually more likely to go forward if they have financial support from external partners, either the authorities themselves, communities, water companies or other businesses. Price Review 14 (PR14) provides the platform to position water companies to assist in partnership schemes, combining benefits for water supply or sewerage with those of flood risk management and physical and ecological quality requirements of the Water Framework Directive. Ofwat has recognised that sewer flooding can be tackled in a number of ways. A water company could increase its underground assets to store more run-off during storms. It could work with customers or local authorities to introduce sustainable drainage systems and approaches that manage rainfall close to where it falls. Or water companies could help customers to reduce the impact of flooding. Partnership Funding will provide opportunities to develop joint solutions that manage both flooding from rivers and surface runoff before water enters sewers – reducing overall costs.

Case studies

Lincolnshire is a good example. Here, the LLFA sat down with other partners to look at sharing resources, and collectively managing flood risk across the county. To assist the LLFA, IDBs are delivering Lincolnshire County Council's consenting and enforcement role by joining up what is happening across their districts, covering the whole county. This role prevents new developments, culverts, bridges or other structures from obstructing the conveyance of water in ordinary watercourses which may lead to flooding. At the same time, a working group of all the partners concerned are prioritising critical projects needed to reduce the county's flood risk.

Eastrington & Laxton and Gilberdyke & Blacktoft Flood Management Schemes: Working in partnership with East Riding of Yorkshire Council, local parish council, local residents and the Environment Agency, two flood alleviation schemes are to be constructed by the Board, reducing flood risk to 1,100 properties and creating over 10ha of new habitat. At a cost of £904,000 and with 66% FDGiA contribution, work on the Eastington & Laxton scheme is about to start. Approval in principle has been given for the Gilberdyke & Blacktoft scheme and at a cost of £1,445,000 and a FDGiA contribution of 90%, it is hoped that work will commence later this year.

Broomfleet Washlands: OHDB lead a group of stakeholders consisting of; the tenant farmer, Natural England, Environment Agency, Yorkshire Wildlife Trust, RSPB and East Riding of Yorkshire Council to develop an integrated management plan for 38ha of flood washland on Market Weighton Canal. The site was at risk of serious habitat degradation resulting in the loss of an important and regionally rare wet fenland. The project aim was to create a sustainable land and water level management plan that would: deliver 39ha of SSSI standard habitat, preserve flood storage capacity; and allow viable livestock farming. It involved the redirection of pumped waters from two adjacent IDB pumping stations. OHDB would be responsible for the WLMP with on-going land and habitat management being funded through an HLS agreement. Total scheme cost £308,000 including £50,000 contributions/in kind funding.

In spring 2012 an application was made for WFD funding made available by Defra via NE for habitat improvements, unfortunately this was unsuccessful due to an over subscription of currently designated sites. The partnership has obtained a number of small grants to undertake various ground clearance and habitat works and the washlands are now subject to an HLS agreement. Alternative options are to be investigated to deliver a WLMP. The site has also been designated as a site of local importance by ERYC.

Whilst this project had limited success, recent experience from our members is that this project highlights the difficulties of attracting funding faced by these types of integrated projects.

Upper Witham IDB: The Board has successfully completed a catchment study which has been assisted financially through the FCERM GiA and with technical assistance from the EA specialists in the modelling field. The Board has also refurbished a pumping station, which has had a significant impact on reducing flood risk as, although in an isolated rural location, its position within washland protection areas means that it assists in the protection of the larger urban area.

Bedford Group of IDBs: Under Section 14(3) of the Flood and Water Management Act, the Bedford Group of IDBs has entered into a Memorandum of Understanding with 3 LLFAs, Central Bedfordshire Council, Milton Keynes Council and Northamptonshire Council, to carry on their behalf Consenting on Ordinary watercourses, which was transferred by the EA in April 2012. This provides the framework and experienced engineering resources that the IDB has for the benefit of the local authority areas. A total of 104 Consents have been reviewed and issued during April 12 to April 13 on behalf of the 3 LLFAs.

The Bedford Group of IDBs has secured £290k funding for flood risk management works to the flood vulnerable village of Lower Weald, Milton Keynes, from the Milton Keynes drainage Tariff mechanism.

Additional to securing funding for projects, the Executive Officers of the Board support and engage with Cambridgeshire County Council, Buckinghamshire County Council and Northamptonshire County Council, and have been actively integrated in developing these Local Flood Risk Strategies. In addition, the Executive Officers are key individuals in Central Bedfordshire Council, Bedford Borough Council and Milton Keynes Councils LLFA's strategic Flood Groups, striving for combined working arrangements across political boundaries for the benefit of catchment hydraulics. Experience and knowledge from the Bedford group of IDBs is also shared with Hertfordshire County Council and (to a lesser degree) in Cherwell Valley.

The Bedford Group of IDBs has also sought its local water and sewerage undertaker to include joint schemes at Bedford and Brampton into its PR14 process, such that joint flood risk management schemes can be included in future programmes.

CHALLENGES

Weather events/extremes

Flooding

Following the wettest nine months to December 2012 (wettest on records since records began in 1800s), IDBs have seen a significant increase in damage and landscape failings within their districts from the heavy rainfall. This has caused many banks to collapse from oversaturated soils, and IDBs have had to respond accordingly; vastly increasing their Board's maintenance costs. Districts reliant upon pumping stations have had to keep their stations pumping for extended periods to cope with the flood waters at the time of year when these facilities are usually not required to operate and subject to planned maintenance. In consequence, maintenance and operating costs have been severely increased. Hence, as seen in the case study below, Boards have had to take the excess costs from their own reserves as drainage rates have not been able to fund this year's flood risk management. This has put pressure on Boards to increase contributions.

Farmers were also affected as crops were unable to grow under such wet conditions, and so the rural economy has suffered. Livestock have been relying upon feed bought by farmers instead of the natural grasses in the area – adding more financial pressures on rural businesses.

Drought

Previous to the wettest nine months ever, the UK experienced drought conditions. IDBs have been proactive in responding to the naturally low water levels by pumping water into their watercourses to 'summer levels' to offset the unusually low winter levels. This has benefitted both farmers and the environment, particularly in safeguarding SSSIs. Likewise, this has also led to increases in operation costs for pumping stations.

Case studies

Witham Fourth IDB: During the wettest ever period, the Board has faced a significant impact on energy costs and bank slips caused by heavily saturated ground (38 bank slips in the period of December 2012-February 2013; repairs costing £412,750). The District's 40,000 hectare catchment is 100% pumped, hence when there is a long period of heavy rainfall, energy costs will be significantly larger than usual. The energy costs have risen from £105,000 in 2011-2012 to £162,500 in 2012-2013 (a 53.8% increase from the previous year). Comparing the increased energy costs to this year's drainage rate increase of 1.25% (equivalent to £40,000), the £20,000 difference in expenditure, together with the slip repairs costs, are being borne from their reserves.

"Whilst extremes of weather will always lead to fluctuations in cost, no recognition is given for those Risk Management Authorities such as IDBs, who exercise skill, judgment and rapid response, to ensure that people's

homes are protected from flooding. We pumped the equivalent of the whole of Rutland water in 2012 and only one property flooded in our district.

IDBs are unable to make use of the Belwin Formula to deal with the aftermath of extreme weather events such as slips, to ease the burden on our ratepayers, where other RMAs are able to. This is an uneven playing field that DEFRA should consider levelling.” – Board’s Clerk.

Somerset Levels: The worst affected areas from the 2012 floodings were the Parret, Tone, Yeo and Isle catchments, with Currymoor and Haymoor in the lower Tone catchment particularly affected. Here, over 1,000 ha flooded for several weeks, in some places over 2.5 deep. Across the Levels, over 5,000 ha were affected by flooding, causing several roads to be closed and isolating parts of the area. In response, the Environment Agency installed four extra 24 inch portable pumps at Currymoor, increasing pumping capacity from 4.4 to 8 metres per second, to cope with the excess water.

Not only were residents affected by the flooding, but the rural economy was affected. The impacts of flooding added to other pressures currently facing farm business on the Levels, as areas affected for more than four weeks will have affected soil structures: affecting productivity in the next few years.

The Levels also experienced the end of the Somerset Levels and Moors Environmental Sensitive Area (ESA) scheme in 2012. The end of the ESA means that many farmers with land outside SSSIs will not be able to get their land into Higher Level Stewardship; leading to further financial and ecological repercussions.

Bedford Group of IDBs: The Group has many years of implementing water level and flood risk management, and has adapted and evolved to accommodate the local need, which includes operating a system that includes the growth areas of Milton Keynes (68,000 new houses between 2001 and 2031) and Bedford (35,000 new houses between 2001 and 2031), existing conurbations and rural areas, that are integrated to work as a complete sub-catchment. The Bedford Group of IDBs has a long established history of advising, approving and adopting SuDS working in close partnership with Local Authorities. The IDB was instrumental in the Marston Vale Surface Waters Plan, the Milton Keynes Drainage Supplementary Planning Document, and Anglian Water’s SuDS approval guidance policy. During 2012/13, the Group has commented and advised on 300 planning applications, advising on planning conditions appropriate to controlling SuDS, prior to the introduction of the SAB. During the same period, the Group has adopted a range of strategic and integrated SuDS to ensure that they are managed and maintained to ensure they continue to perform as designed and do not increase flooding. This includes SuDS schemes in and around Bedfordshire, at Cardington, Wixams, Potton, Stotfold. A further 10 legal agreements are in draft pending completion, at Marsh Leys, Kempston, A421 dual carriageway, Wootton, Cardington airfield, Milton Keynes Eastern expansion areas, Cranfield and Biggleswade East.

SuDS & Biodiversity

SuDS components provide an array of amenity, recreational and biodiversity benefits but will only fulfil their ecological potential if they include ecology, flood risk and water quality management together. Whilst SuDS should include biodiversity, unless it is designed into the scheme at the onset, the presence of protected species cause significant risk to the performance of an asset to manage flood risk. Where assets are provided by developers, they

are often optimised to minimise land take, and as a consequence have to be in as-new condition. This requires extensive maintenance. However, maintenance can be significantly compromised if a protected species is present, as it is a criminal offence to disturb or destroy a protected species or its place of rest.

Revenue budgets

Reductions in EA revenue budgets are likely to have a significant impact on future maintenance programmes. The current focus of flood risk management policy has resulted in the KPIs used by the Agency to assess the benefits of revenue spend being heavily weighted towards reducing the risk to residential properties – which has increased the pressure on maintenance of rural or low risk areas (as defined under current guidance). Further reductions detailed in the recent Budget Announcement are likely to further exacerbate this issue. In order to improve the situation greater partnership working based upon cost effective ‘**He who is best placed – does**’ and ‘**getting more for less**’ by pooling resources is required. One solution is for IDBs, local communities or other FMAs to adopt ‘low risk’ assets. However there are a number of potential obstructions:

- The ability of the adopting body to fund an appropriate level of on-going maintenance.
- The ability of either the transferring or adopting body to fund the raising of the asset to an acceptable operational standard.
- The impact and sustainability of the accompanying capital liability of an adopted asset.
- Managing the wider stakeholder expectation of what the adopting body will be able to deliver in the medium and long term.
- Demonstrating the benefits and cost of maintenance of a transferred asset in sufficient detail to enable a robust case to be presented if/when audited.

To overcome the above, then the following is required:

- Accurate and realistic valuation of the benefits. Which, in addition to the flood risk benefits, should include the wider economic, infrastructure, environmental and health and wellbeing benefits.
- Early and engaged consultation with all parties involved/impacted.
- Effective and efficient use of Section 13(4) to enable transfer of duties etc.
- A willingness to discuss and clear understanding of how transfers might impact precept contributions and the knock on effect on wider catchment/regional maintenance activities.
- Given the constraints of public sector spending, when there are potential impacts (i.e. increases) upon their Special Levy and Parish Precepts contributions to cover unforeseen factors (such as weather extremes over a long period of time) the Local Authority needs to acknowledge and fully support the new level of contribution to IDBs.

Case studies

Bedford Group of IDBs: At the CIWEM conference on 10th April, it was stated that FCERM funding has steadily increased over the last decade, and currently is about £750M per year. However, revenue funding has significantly decreased year on year, indeed the Great Ouse RFCC had a maintenance budget request for £6M cut to £2M. We experienced significant flooding in the Great Ouse catchment across the functioning flood plain as a direct result from the lack of conveyance in the main river network, a network that had been improved in past decades by MAFF funding to reduce flood risk. Whilst 2012 was the wettest year on record, rarely did we experience intense rainfall events, events which the system should have coped with in channel.

Capital funding

Rural/low risk projects with minimal residential flood risk find it difficult to attract FDGiA, therefore larger partner contributions are required. There is a potential for significant levels of complementary funding via WFD, NIA, etc. . These funding streams are generally much more dynamic and immediate than FDGiA and if better synchronised could make major contributions if better synchronised could make major contributions. However the lengthy process for development of an FDGiA submission can result in these potential contributions being missed. Also the process and complexity of applying for funding from a number of different sources can be daunting for communities or small groups of individuals.

The lack of a definite % contribution value that can be expected from the GiA application could mean that what is already a complex application process takes longer and at the end of the day the available budgets are not set high enough to cover the potential increased administrative costs thereby wasting money, stopping or slowing projects, and increasing flood risk. Lack of certainty about level of grant makes partner organisation budget setting processes volatile.

Medium Term Plan (MTP) for 2013 is now 240 columns wide; in 2012, the MTP was 220 columns wide; MTP 2011 was 99 col wide, and back in 2010 it was a manageable 62 columns wide. The process of applying for funding is becoming over complicated and further out of reach to those Boards with minimal staff resources. Projects that could save capital in the long-run have potential barriers to entry before the funding application process begins. The Agency, however, is keen for similar projects to be packaged together for approval to deliver scales of economy. However, this can potentially create a significantly more bureaucratic approvals process; the Project Appraisal Report guidance does not lend itself to packaging projects together, and Project Appraisal Board process is onerous.

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APPENDIX: List of other materials/resources

- **Poster:** 'Why are Internal Drainage Boards so important to the UK?' ([click here to view](#)) – released February 2013
- **Document:** 'Vision for Internal Drainage Boards' ([click here to view](#)) – updated in early 2013 to match current legislation and aims of the industry
- **Document:** 'Introduction to Internal Drainage Boards' ([click here to view](#)) – released February 2013
- **News:** 'ADA appears before the House of Commons EFRA Select Committee' to give evidence as part of the Committee's [Flood Funding Inquiry](#) ([click here to view summary](#)) – 6 February 2013, ADA [provided evidence](#) to the Committee highlighting the need for further revenue investment in flood management in order to significantly increase main river maintenance operations.
- **News:** '100 new flood defences to start in 2013' – [click here to read article](#) (p.9)
Ten IDBs have been allocated £2.42M in FDGiA towards schemes including: pumping station refurbishments, channel and urban drainage improvements.
- **News:** 'Defra proposes streamlining IDB restructuring procedures' – [click here to read article](#) (p.14)
- **News:** 'Partnerships: The Future of managing flood risk in England' – [click here to read article](#) (p.59-60)
- **News:** Ouse and Humber Drainage Board receive £10,000 funding via Defra's IDB Grant Scheme to carryout work on the 39 hectare site of Broomfleet washlands – [click here to read article](#) (p.17)