JBA consulting





Drainage District

presentation for

Selby & Ainsty Area Constituency Committee

Drainage District







Drainage District



Why are IDBs so Important to the UK (ADA, 2013)



IDB Overview



- IDB's formed through Constitution Orders under the Land Drainage Act.
- Purpose is to protect people and property against river and surface water flooding through water level management within the Drainage District.
- Roles and responsibilities under LDA, Flood & Water Management Act, Flood Risk Regulations, Public Bodies Bill, FCERM, Water Framework Directive
- They fulfil their role through maintaining Ordinary
 Watercourses and pumping stations to convey
 rainfall to Main River.
- Funded through *drainage rates* and *special levies*.
- **Report to** *Defra*, and *EA* has a **supervisory** role.













Relationship with NYC





Drainage District Catchment





South East of Drainage District

Catchment





Little Airmyn / Newland

Catchment





Little Airmyn Pumping Station

IDB maintained using permissive powers





Eskamhorn Ings

Catchment



Selby Area

Ings Pumping Station IDB maintained using permissive powers





Newland / Rusholme

Gravity Catchment





Drax Catchment





Lendall Pumping Station

IDB maintained using permissive powers





Carr Dyke Origin





Brayton Catchment





Catchment adjacent Barlby

Great Clough Catchment





Catchment adjacent Barlby Great Clough Catchment

PEATURES | als guess ACTUMN 2010

Partnership Success: Great Clough Pumping Station TALL JOINT, DARRAM TO THE BOARD (SHART GROUP OF 10(Rd), State Anna RUS



close public sector cooperation and the Area ID8. The works have improved both the management of day-to-day flows and the In 1983 by the Yorkshine Water Authority in costs of the asset.

north-east of Selby, North Vorkshine and service Davial Easting a catchment of c 1,900 hars, 695 admit Including low lying agricultural land, residential and commercial properties, and infrastructures.

Recent refurbishment of Great Clough. The station permits areface water flow into a freely discharge surface water into ordinary Panging Station has been achieved through the ElverQuee how a mining-sub-sided hasin, watercourses, and artificially lowering the It was originally operated by the IDB until it transfer of operational responsibility from was designated as Main River by the EA in the understrained to accommodate the Environment Agency (EA) to the Selby 2000. Within the pumped eatchment lies the starm events with a lower probability (greater Whetew Barrier Barle, which was constructed volume) (1 m 10 year / Lin 100 year). By keeping safe passage for sels, reducing the whole life advance of mining subsidence. This bunds an provides a longer-term standard of protection active workland/wearwar adjacent to the fliver to households, property, and intrastructure Great Cleugh Pumping Station lies 2.5km Oose that helps defend the town of Selby from

a 1 in 10 year ratefull event on the catchment, Chalfield between 1997 and 2004. To periodiate

groundwater table in the area. It also enables storm softer within the banks of the scatencisurs?

However, the available storage within these waterominers was reduced by ground The station is designed to accommodate subsidence as a result of moving, within the Selby permitting under-field drainage systems in the damage caused, the IDS engaged with the







nemes prevale mining company (RJB Mining) - Faasihility endlies. Sustains cases and tenders UK Coal Mining) under the Mining Subsidence Act 1991. This notatiled in the station's structure and its mechanical and electrical equipment having re-constructed to a lower level irons 2004.

In 2006, following a rational review of critical andinary watercourses the EA decided to designate the Holmos Dyke and Cockrett henefit cost ratio of 10:1. Dyke as main threes. As a result, the section of watercourse between the bank of the Kiver - the principal contractive Bedford Pumpe Ltd. - the station's energy use, meaning significant Ouse and the Wolaw, furrier Bank were also commenced sorts on site on 19 April, replacing sormained and the EA took responsibility for

However, in 2014 the IDS were made assars of changes in Government funding rules or the EA that would make it challenging for the EA to continue to hand the operation of the pumping of the station (2.7m/someons that it could all an station. At the same time, investigations had identified a need to replace the pumps."

The IOB and the EA were already working ingether and had entered into a Public Sector Cooperation Agreement (PSCA) for Main (VTD) that were included in the new control River maintenance, so the addresser of the ID6 panel abow for greater operational flexibility. maintaining the primpleg station on behalf of conditing the speed of the pumps to be reduced the FA was acread as a logical progression.

for works were then prepared and approved through the IDB and EA, based upon an investmeane approach. This approach stillard a contribution from the EA that was based upon the value of the asser and the estimated cost of decommissioning. This approach provided a

The PROA was signed in Mann 2019 and the existing time it ston 35 submershife centster

the july 2010 the presented ad station size successfully commissioned. The overall capacity This capacity exceeds normal daysto-day requirements of the catchment and is designed. for storm events. The variable mediancy drives to markete day to-stay firms.

initially run at full speed to achieve a sypheric discharge before automatically reducing to a lower running speed. The control penal is then set to gradually 'mmp up' the pumps to full speed dependant on the water level upstream. The ingroved impeller design, which is similar to those within an Archimedes screw pump, and the reduced new of the pumps, both assist in the passage of eels through the station. In short, the introduction of these new

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pumps and the VFDs will enhance water level magement and reduce flood risk within the catchment in the future. It will also reduce reductions in the station's whole life costs.

The pumps incorporate a number of enhancements over the previous design. This includes a start procedure where the pumps

I would like to thank and acknowledge the operation of Great Clough Pumping Station. pumps with 'set friendly' pump served the same all partners and contributors, soundwed in this project including: Selby Area IDB, the Internet Agency, Selby District Council JBA Consulting (Project Managers), Beditord Pumps Ltd (Principal Contractor), Daners DC MERCA Team, Inter-lee Ltd, ABB Ltd. Controlitar Systems Ltd. Inv Russell (EA) AUA), Irogs Thomson (ADA), the former Floods Minister Kory Stewart MP, Nigel Adams MP and land owner/occupiers.

For further information plasses contact paid and derer have been all or should not be been



Infrastructure Benefit from IDB activity







Incident Response















Obstruction to Flow

Examples



ioto: 2_1_12_10012019_144159_A.jpg .39m, Roots, mass, 80% cross-sectional area loss





Internal Flood Risk















External Flood Risk







Engagement & Education





Working in Partnership and raising awareness of riparian responsibilities









Managing Water from a Catchment Perspective

further information from www.shiregroup-idbs.gov.uk

You Tube : What is an Internal Drainage Board?