



Sow & Penk

Internal Drainage Board

**Tonge Suite
County Showground
Weston Road
Stafford
ST18 0BD**

Meeting *Papers*

***Wednesday 20 November 2019
Meeting at 11:00am***



Shire

Group of IDBs

**Epsom House
Malton Way
Adwick le Street
Doncaster DN6 7FE**

T: 01302 337798

**info@shiregroup-idbs.gov.uk
www.shiregroup-idbs.gov.uk**

Meeting Papers

Prepared by:

Clerk - Ian Benn - PG Dip H&S & Env Law, Dip. NEBOSH, Grad IOSH, MCQI
CQP

Engineer - Paul Jones ONC, HNC, BSc (Hons) MSc (Eng) GMICE

Environment Officer – Alison Briggs BSc (Hons), MSc, CEnv. MIEMA

Asset Manager - Martin Spoor BSc (Hons) Engineering, Geology, and
Geotechnics

Finance Officer - David Blake BSc (Hons) Accounting

Finance Officer - Mark Joynes BSc (Hons) Mathematics

Rating Officer - Janette Parker

Purpose

These meeting papers have been prepared solely as a record for the Internal Drainage Board. JBA Consulting accepts no responsibility or liability for any use that is made of this document other than by the Drainage Board for the purposes for which it was originally commissioned and prepared.

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1. Governance

1.1 Clerk opening address

1.1.1 Election of Chairman

1.1.2 Election of Vice-Chairman

1.2 Apologies

1.3 Declaration of Interest

1.4 Complaints and FOI

1.5 Minutes of Meeting 28 May 2019

Present

Ray Sutherland (RS)
Frances Beatty (FB)
Ralph Cooke (RC)
John Hilderley (JH)
Neil Brown (NB)
Andrew Harp (AH)
Anthony Parrot (APt)

Also in attendance Robert Hilderley Member of public

In attendance on behalf of JBA Consulting, Clerk, Engineer and Environmental Adviser:

Ian Benn (Clerk to the Board)
Paul Jones (Engineer to the Board)
Craig Benson (Finance Officer to the Board)

Apologies for Absence

Apologies were received from Jeff Sim, Mark Winnington, Angela Loughran, Phil Bates, Lucy Hogarth and Thomas Lea.

It was noted that south Staffordshire District Council would be sending a new representative to replace Royston Wright, who had retired.

Declaration of Interest

2019.25 There was none given.

Complaints and Freedom of Information Requests

2019.26 None had been received.

Minutes of the Last Meeting

- 2019.27** Minutes of the last meeting held on 6 February 2019 copies of which had been previously circulated to members with the meeting papers were taken as read, proposed by AH, seconded by JH, approved by the Board and signed by the Chairman.

Matters Arising

There were none.

Clerks Report

- 2019.28** The Clerks Report, copies of which had been circulated to members with the last meeting papers, was considered and adopted.

Matters Arising

2019.29 **County Show**

CEO gave an update on this year's show including the location of the Board's stand and that both the Environment Agency and Staffordshire Wildlife Trust would be in attendance. Members were encouraged to attend.

2019.30 **ADA Governance Workshops**

CEO informed members that there was a link on the Board's website to the presentation given at the workshops. The CEO was also attending a feedback workshop on the 3rd May.

2019.31 **DEFRA Policy Advisory Group (PAG)**

DEFRA's PAG is looking to IDBs to define potential for:

- Boundary Changes
- Amalgamation
- Reconstitution

The Board agreed that boundary changes would be the one item that may have potential to change in future looking toward district expansion. There was no appetite for amalgamation (having been looked into several years earlier). It was felt that the size of the current Board operated efficiently.

2019.32 **Election Year**

The CEO informed members that this year since the end of the three-year term of office of the elected members. The Board approved the following: -

1. JBA are appointed as the Returning Officer,
2. Approved the Register of Electors,
3. The last date to receive nomination papers is Friday 4 October 2019 and
4. The date of the election (if required) is Friday 25 October 2019.

2019.33 FCERM Strategy

The CEO advised members that the draft FCERM strategy document was out for consultation and that this was available on the Board's website. Members were asked to review the document and leave appropriate comments.

2019.34 Humber Flood Steering Group

Members were informed that the Environment Agency were preparing for a 4°C rise in temperature over the next 100 years and a rise in sea levels between 4-7metres.

2019.35 Asset Management

The Clerk and Engineers would be producing a template corporate plan, asset management plan and strategic asset management plan for the next meeting.

2019.36 KPI Indicators – Members noted the KPIs.

Financial Report

2019.37 The Financial Report, copies of which had been circulated to members with the last meeting papers, was considered and adopted.

Matters Arising

2019.38 Rating –

Members noted the current position.

2019.39 Schedule of Payments

The Board approved payments totalling £38,637.92, of which £1,708.45 were approved by the Officers only.

2019.40 Audit – Internal Audit

The internal audit report that had been emailed to members was reviewed and accepted by the Board.

2019.41 Annual Governance and Accountability Return (AGAR) Section 1

Members reviewed Section 1 of the AGAR and RC proposed, AH seconded and the Board approved that the document should be accepted and signed by the Chairman and CEO.

2019.42 Accounts for the Year Ending 31 March 2019

The FO reviewed the Board's accounts for the year and took questions on them from Members. AP proposed and AH seconded that the accounts as presented should be accepted by the Board. The Board approved this proposal.

2019.43 Budget Comparison for the Year Ending 31 March 2019

The budget comparison that was circulated to members was noted.

2019.44 Five Year Budget Estimate

The Board noted the five-year forecast that included provision for the Catchment Modelling of the district.

2019.45 Annual Governance and Accountability Return (AGAR) Section 2

Members reviewed Section 2 of the AGAR and JH proposed, FB seconded and the Board approved that the document should be accepted and signed by the Chairman.

2019.46 Draft Reserve Policy

It was agreed that the FO would issue the Draft Reserve Policy to members for their comments.

Engineers Report

2019.47 The Engineer's Report, copies of which had been circulated to members with the last meeting papers, was considered and adopted.

Matters Arising**2019.48 Asset Management – Upkeep Asset Management System**

The new asset management system would allow the Board to maintain better records of works in and around their district and evidence what has been done on the ground.

2019.49 Asset Management – Hydraulic Modelling – The Engineer confirmed that JBA Consulting submitted the successful tender. The estimated cost of the works was £65k and members noted the tender submission was just below this figure. The Board approved the appointment of JBA Consulting to undertake the modelling. The Engineer confirmed that he would undertake work to approach the Environment Agency for Grant in Aid to support the Board.

2019.50 Watercourse Maintenance Contract– The Engineer informed members that he was working with the Procurement Specialist with regard to the watercourse maintenance contract. He was looking to award a five year contract with the option to include five annual reviews, therefore potentially a ten year contract. Members agreed that this was a sensible option.

2019.51 Eccleshall Flood Action Group – The Engineer reviewed the documents that had been circulated with the papers.

Health and Safety Report

2019.52 The Health and Safety Report, copies of which had been circulated to members with the last meeting papers, was considered and adopted with no accidents or incidents to report since the last meeting. The CEO advised elected members to review the link to the HSE guidance note on Hedge Cutting activities.

Environmental Adviser's Report

2019.53 The Environmental Adviser's Report, copies of which had been circulated to members with the last meeting papers, was considered and adopted.

Any Other Business

None.

Date of Next Meeting

2019.54 The next meeting will be held on Wednesday 20 November 2019 at County Showground.

1.6 Matters arising there from not elsewhere on the Agenda

2. Clerk's Report

Recommendation:

- Members note information contained in the Report

2.1 Election Year

2.1.1 Appointment of Chairman

2.1.2 Appointment of Vice-Chairman

2.1.3 Changes following Local Elections

The Board is pleased to welcome back Cllr A Loughlan and Cllr M Winnington to the Board as nominees of Stafford Borough Council.

2.2 Legislation

2.2.1 Environment Bill

Includes clauses which will be incorporated into the Land Drainage Act if passed. Changes are associated with the creation of new IDBs and the ability for IDBs to extend boundaries to include areas from which water flows into catchments. ADA has lobbied Defra for amendments to the ways in which annual values are calculated which ADA believes will reflect a fairer approach to collection of drainage rates.

2.3 ADA

2.3.1 ADA Conference 2019

Conference took place on Wednesday 13th November 2019.

2.4 Board Key Performance Indicators

		Key Performance Indicators				
		Inadequate	Work to be done	Adequate	Good	Very Good
SOW & PENK INTERNAL DRAINAGE BOARD	Management of the Board	Compliance with Audit Requirements				
		Health & Safety				
		Partnership Working				
		Overall				
	Reduction of waterlogging & Flood risk to assets	Asset Management				
		Flood Risk management strategy				
		Flooding- Learning Outcomes				
		Overall				
	Environment	Water Framework Directive				
		Invasive Species/Designated Sites				
		Conservation & Biodiversity				
		Biodiversity Action Plan				
		Overall				
	Supporting	Financial Statements				
		Receipt of Drainage Rates				
		Governance Documentation				
		Overall				
	Overall Performance					

3. Financial Report

Recommendation:

- To note the information contained in this report
- To approve the schedule of payments

3.1 Rating Report

Details of the Rates and Special Levies issued and payments received up to and including 4 November 2019: -

	£	£
Balance Brought forward at 1 April 2019		946.28
2019/2020 Drainage Rates and Special Levies		
Drainage Rates		11,108.93
Special Levies		
Stafford Borough Council	103,706.00	
South Staffordshire District Council	3,786.00	107,492.00
Total Drainage Rates Due		<u>119,547.21</u>
Less Paid: -		
Drainage Rates		10,432.26
Special Levies		
Stafford Borough Council	51,853.00	
South Staffordshire District Council	3,786.00	55,639.00
Total Drainage Rates Paid		<u>66,071.26</u>
Balance Outstanding as at 4 November 2019		<u>53,475.95</u>

3.2 Schedule of Payments

Payments made since those reported at the previous meeting:

DATE		REF	PAYEE	DESCRIPTION	TOTAL	
2019					£	
Apr	1st	-	Lloyds Bank plc	Bank Fees	1.03	*
	30th	-	NatWest	Bank Fees	5.00	*
May	15th	-	NatWest	Bankline Fees	20.45	*
w	20th	4	TG Hughes & Son Ltd	Stafford County Show - Electricity Supply	90.00	*
	31st	-	NatWest	Bankline Fees	38.85	*
Jun	3rd	5	Brodericks GBC	Internal Audit Fee 2018-19	774.00	
		6	Towergate Insurance	Insurances	2,299.60	
		7	Environment Agency	Flood Defence Levy	2,158.75	
	17th	-	NatWest	Bankline Fees	20.45	*
	21st	8	Derrington Social Club	Meeting Expenses	50.00	
		9	North Lincolnshire Council	Procurement Services - Hydraulic Modelling	2,124.00	
	28th	-	NatWest	Bank Fees	14.70	*
Jul	15th	-	Bankline Fees	Bankline Fees	20.00	*
	24th	10	JBA Consulting	Management Services	7,746.38	
	31st	-	NatWest	Bank Fees	9.45	*
Aug	15th	11	ADA Trent Branch	Conference Fees	40.00	*
		-	NatWest	Bankline Fees	20.00	*
	21st	12	JBA Consulting	District Modelling	2,960.08	
	30th	-	NatWest	Bank Fees	5.60	*
Sep	4th	-	Lloyds Bank plc	Commercial Online Fees	48.38	*
	16th	-	NatWest	Bankline Fees	20.00	*
	30th	-	NatWest	Bank Fees	5.00	*
Oct	1st	-	Lloyds Bank plc	Bank Fees	3.77	*
	4th	-	Lloyds Bank plc	Commercial Online Fees	50.00	*
	15th	17	Environment Agency	Flood Defence Levy	2,158.75	
		15-6	JBA Consulting	Fee Accounts: -		
				Management Services	5,566.58	
				District Modelling	6,124.80	
		18	Littlehales Plant Hire Ltd	Maintenance	33,500.14	
		-	NatWest	Bankline Fees	20.00	*
	31st	-	NatWest	Bank Fees	5.00	*
Total Amount of all Payments					65,900.76	
* Total Amount of Cheques sent out signed by the Clerk Only					437.68	

3.3 Audit

3.3.1 Internal Audit

Nothing to report

3.3.2 Internal Audit Review Meeting

The Internal Audit Review meeting will take place on Monday 25 November 2019 at Epsom House and will commence at 10.00am.

3.3.3 External Audit

The External Audit for 2018/19 is complete with no issues giving cause for concern that relevant legislation and regulatory requirements have not been met. The following item was listed under 'other matters':

The AGAR was not accurately completed before submission for review and has been amended for the correct treatment of deferred income and the year-end grant balance.

3.4 Budget Comparison for the Year Ended 31 March 2020

Is shown on the next page.

	2019/20 Totdate £	2019/20 Budget £	2019/20 Outturn £	2020/21 Next Year £
INCOME				
Drainage Rates	10,143.38	11,105.00	11,105.12	11,361.00
Special Levies - Stafford BC	51,853.00	103,706.00	103,706.00	106,099.00
Special Levies - South Staffs DC	3,786.00	3,786.00	3,786.00	3,873.00
Interest	140.60	200.00	201.11	200.00
Consents	<u>150.00</u> 66,072.98	<u>0.00</u> 118,797.00	<u>150.00</u> 118,948.23	<u>0.00</u> 121,533.00
EXPENDITURE				
Flood Defence Levy	6,476.25	8,900.00	8,635.00	8,900.00
Management Services	7,949.64	15,880.00	15,880.00	16,356.00
Specialist Services	0.00	750.00	750.00	750.00
Insurance	2,299.60	2,500.00	2,299.60	2,500.00
Audit	(20.00)	1,200.00	1,200.00	1,200.00
ADA	40.00	1,200.00	1,200.00	1,200.00
Room Hire/Meeting expenses	225.00	1,200.00	1,200.00	1,200.00
Data Protection Registration	0.00	35.00	35.00	35.00
Health and Safety	0.00	400.00	400.00	400.00
Travel Costs	188.30	500.00	500.00	500.00
Bank Charges	257.98	500.00	500.00	500.00
Provision for Bad Debts	0.00	500.00	500.00	500.00
Website Mapping	0.00	100.00	100.00	100.00
Consents	150.00	0.00	0.00	0.00
Office Expenses - Photocopies, telephone etc	<u>500.00</u> 3,640.88	<u>1,000.00</u> 9,885.00	<u>1,000.00</u> 9,684.60	<u>1,000.00</u> 9,885.00
County Show	2,256.20	2,000.00	2,500.00	3,000.00
Biodiversity Action Plan	0.00	3,000.00	3,000.00	3,000.00
Catchment Modelling	9,340.73	32,500.00	34,270.00	32,500.00
Additional Maintenance	0.00	18,000.00	18,000.00	15,000.00
Contract Maintenance	<u>29,092.78</u> 58,756.48	<u>59,967.00</u> 150,132.00	<u>59,967.00</u> 151,936.60	<u>64,340.00</u> 152,981.00
Surplus/(Deficit)	7,316.50	(31,335.00)	(32,988.37)	(31,448.00)
Credit Balance Brought Forward	<u>128,280.52</u>	<u>126,135.00</u>	<u>128,280.52</u>	<u>89,292.15</u>
	135,597.02	94,800.00	95,292.15	57,844.15
Transfer to Tillington & Doxey Marshes Account	0.00	<u>6,000.00</u>	<u>6,000.00</u>	<u>6,000.00</u>
Credit Balance Carried Forward	135,597.02	88,800.00	89,292.15	51,844.15

3.5 Five Year Budget Estimate

Sow And Penk IDB	0	0	1	2	3	4	5
Revenue Account	2019/20	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	App	Estimated Out-turn					
	Budget						
	£	£	£	£	£	£	£
Income							
Drainage Rates	11,105	11,105	11,361	11,618	11,959	12,386	12,814
Special Levies	107,492	107,492	109,972	112,453	115,760	119,894	124,029
Bank Interest, Other Contributions	200	351	200	200	200	200	500
Total Income	118,797	118,948	121,534	124,270	127,919	132,481	137,342
Expenditure							
Flood Defence Levy	8,900	8,635	8,900	9,167	9,442	9,725	10,017
Administration	25,765	25,564	26,241	26,503	26,768	27,036	27,306
Maintenance of Drains	59,967	59,967	64,340	66,270	68,258	70,306	72,415
Additional Maintenance	18,000	18,000	15,000	15,450	15,914	16,391	16,883
Catchment Modelling	32,500	34,270	32,500	-			
Biodiversity Action Plan	3,000	3,000	3,000	3,000	3,000	3,000	3,090
County Show Budget	2,000	2,500	3,000	1,000	1,000	1,000	1,000
Total Expenditure	150,132	151,936	152,981	121,391	124,382	127,458	130,711
Surplus/(Deficit)	(31,335)	(32,988)	(31,447)	2,880	3,537	5,023	6,631
Balance Brought Forward	126,135	128,280	89,292	51,845	48,725	46,262	45,284
Balance	94,800	95,292	57,845	54,725	52,262	51,284	51,915
Transfer to Doxey & Till Marshes Account	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Balance Carried Forward	88,800	89,292	51,845	48,725	46,262	45,284	45,915
Doxey & Tillington Marshes Acc	45,722	60,004	64,804	69,604	74,404	79,224	84,044
Penny Rate in £	6.50p	6.50p	6.65p	6.80p	7.00p	7.25p	7.50p
Penny Rate £18,245	57%	57%	33%	38%	35%	34%	34%

	2019/20	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Doxey & Tillington Marshes Acc	App	Estimated Out-turn					
	Budget						
	£	£	£	£	£	£	£
Income							
Transfer from I&E	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Interest	30	30	30	30	30	50	50
Contribution to Scheme							
Total Income	6,030	6,030	6,030	6,030	6,030	6,050	6,050
Expenditure							
Capital Expenditure							
Maintenance	1,230	1,230	1,230	1,230	1,230	1,230	1,230
Total Expenditure	1,230	1,230	1,230	1,230	1,230	1,230	1,230
Surplus/(Deficit)	4,800	4,800	4,800	4,800	4,800	4,820	4,820
Balance Brought Forward	40,922	55,204	60,004	64,804	69,604	74,404	79,224
Balance Carried Forward	45,722	60,004	64,804	69,604	74,404	79,224	84,044

4. Engineer's Report

Recommendation(s):

- To note the information contained in this report
- Award of Watercourse Maintenance Contractor (4.1.2)

4.1 Asset Management

4.1.1 Hydraulic Modelling

JBA Consulting were awarded the Contract and survey of all ordinary watercourses is underway. The surveyors are following Littlehales through the District to obtain the best data possible after maintenance.

The Environment Agency continue to present the Modelling project to the Trent RFCC to attract Local Levy funding of upto £35,000 towards the Project.

A copy of the report can be seen at Appendix A.

4.1.2 Ordinary Watercourses

Watercourse Maintenance Contract

Returned Tenders have reviewed by the Evaluation Panel consisting of the Chairman, Vice Chairman, Clerk, Engineer and North Lincolnshire Council Procurement Officer on 16th October.

A copy of the award recommendation is included in your meeting pack.

Watercourse Maintenance 2019/20

Due to weather conditions maintenance delivery is being impacted this season, however, Littlehales are progressing as and when ground conditions permit.





Eccleshall Flood Action Group

Further letters have been received from owner/occupiers seeking reimbursement of the costs associated with desilting River Sow which was undertaken by Contractors on behalf of owner/occupiers without Environment Agency Permit.

We continue to confirm that there was no order agreed with the IDB for reimbursement and that responsibility for Main River lies with the riparian owner/occupiers and the Environment Agency.

4.2 Planning, pre-application advice and consents

4.2.1 Planning applications

Our email address for planning enquiries is planning@shiregroup-idbs.gov.uk

Officers have reviewed planning applications between April and October of which 2 have required comment on behalf of the Board.

Proposal	Address	Applicant	Work in, on, under or within 9m (7m SAIDB) of an Ordinary Watercourse?	Alteration to surface water discharge or discharge structure?	Consent Form and Information provided?
Planning application no S.16/10 D3 - submission of details in compliance with conditions 2A (date of commencement), 3 (Development Phasing) and 4 (construction environmental management plan (CEMP) of planning permission S.16/10 - The Stafford Western Access Route	Land between A34 Foregate Street, and Martin Drive, Castlefields, Stafford	Staffordshire CC	no details	yes	yes
Variation of conditions 2 (plans) and 6 (flood mitigation) on permission 16/25009/FUL for Renovation of Victoria Park	Victoria Park, Tenterbanks, Stafford	Stafford Borough Council	no	yes	yes

4.2.2 Land Drainage Act 1991 Section 23 and 66 (Byelaw) Consents

Our email address for consent applications is consents@shiregroup-idbs.gov.uk

2 no. consents have been issued on behalf of the Board between April and October 2019.

Staffordshire County Council David Singer	Stafford Western Access Road near Pans Drain, Broad Meadow Drain, Doxey Drain, Timberfields Road, Martin Drive, Castlefields	S&P IDB	proposed SWAR access route working near watercourse and discharge into Doxey Drain	Both	PJ requested further information 18.06.19. No permanent impact within 9m but temporary works. Doxey Drain diversion and culvert and discharge 5l/s to be Consented. Location 7 Discharge deferred for further Consent.
Strawson Holdings Ltd - Beverley Batty (email from agent Matt Bridges)	Dike The Darling, Land south of Creswell Grove & West of M6 Motorway (J14), Stafford	S&P IDB	attenuated surface water discharge & construction of headwall	Permanent	NW acknowledged 29.07.2019

5. Health and Safety Report

Recommendation:

- Members note information contained in the Report

5.1 Health and Safety Boards Contractor

5.1.1 Accidents and Incidents

Nothing to report.

6. Environmental Adviser's Report

Recommendation:

- Members note information contained in the Report
- Resolution to review BAP 2015-2020 to inform next 5-year period (Item 6.1.1)

6.1 Policy

6.1.1 Biodiversity Action Plan

BAP implementation undertaken by Staffordshire Wildlife Trust delivered water vole surveys within the District and at the same time sought to identify the presence of Flowering Rush. Copies of both the 2018 and the 2019 reports are included in your meeting pack. It appears water vole is not present within the Board District, although Flowering Rush is, associated with parts of main river.

The current BAP period 2015-2020 will conclude next year. Following field sightings identified by the Wildlife Trust associated with the presence of Otter and Badger, and further information on dragonfly, bird species, bi-valves, amphibians.

Surveys also identified the presence of Signal Crayfish, an Invasive Non-Native Species. There is therefore the need to ensure Board Contractors operate biosecurity measures in a proactive manner.

It is recommended a review of the BAP is undertaken by the Board's Environment Officer and a new BAP produced for period 2020-2025 which can incorporate new targets and actions to reflect findings.

7. Any Other Business

8. Date of Next Meeting

5 February 2020

27 May 2020

18 November 2020

9. APPENDIX A – Hydraulic Modelling Progress Report

A copy of the report can be found over the following pages.

PROGRESS REPORT

JBA Project Code
Contract
Client
Day, Date and Time
Author
Reviewer / Sign-off
Subject

2019s0674
Sow and Penk Internal Drainage Board modelling
Sow and Penk IDB
1 November 2019
Victoria Crowley
Stuart Marshfield
Progress Report 1: to date 1 November 2019

JBA
consulting

1 Introduction

This document provides a summary of progress up to 1 November 2019 for the Sow and Penk Internal Drainage Board (IDB) hydraulic modelling study.

2 Data acquisition

The existing models and downstream boundary data have been acquired from the Environment Agency (EA) and EA Light Detecting and Ranging (LIDAR) data has been downloaded and processed ready for use in the 2D domain of the models. Discussions have been had with the Internal Drainage Board (IDB) and an understanding of flood history and mechanisms has been acquired.

We have also acquired survey covering the North Staffordshire SSSIs at Doxey and Tillington Marshes.

3 Hydraulic modelling

We have derived a modelling method statement covering each of the drains included in the IDB area. We divided the drains into 10 discrete modelling areas, based on the locations of the outfalls to the main rivers.

HEC-RAS' one-dimensional (1D) and two-dimensional (2D) solvers will be used to complete the modelling. Most of the discrete areas will be modelled using a 1D/2D linked (hydro-dynamic) approach, this allows both the detail in the low-lying topography (from LIDAR) and watercourse structures to be well represented.

The design simulations will be run for: 2, 5, 10, 20, 30, 50, 75, 100, 200, 500 and 1,000-year scenarios. All the design events will be re-run to account for climate change.

The next phase of the hydraulic modelling is dependent on acquisition of the survey (see section 5). The survey is to be delivered in phases, in accordance with the modelling areas, to allow progress to be made with modelling whilst survey is being collected and processed.

4 Hydrology

For each of the ten discrete modelling areas the following tasks have been completed:

- Flood Estimation Handbook (FEH) 2013 catchment descriptors purchased and downloaded from the FEH web service.
- Inflow locations and intervening areas located, and their catchments determined and drawn in GIS.
- Catchment descriptors amended for every inflow/intervening area to reflect its catchment.
- XML file amended for each inflow/intervening area ready to be processed in ReFH2.

We are currently using ReFH2 to produce the hydrographs for input into the hydraulic models. The catchments drawn for each inflow/intervening areas are illustrated in Figure 1.

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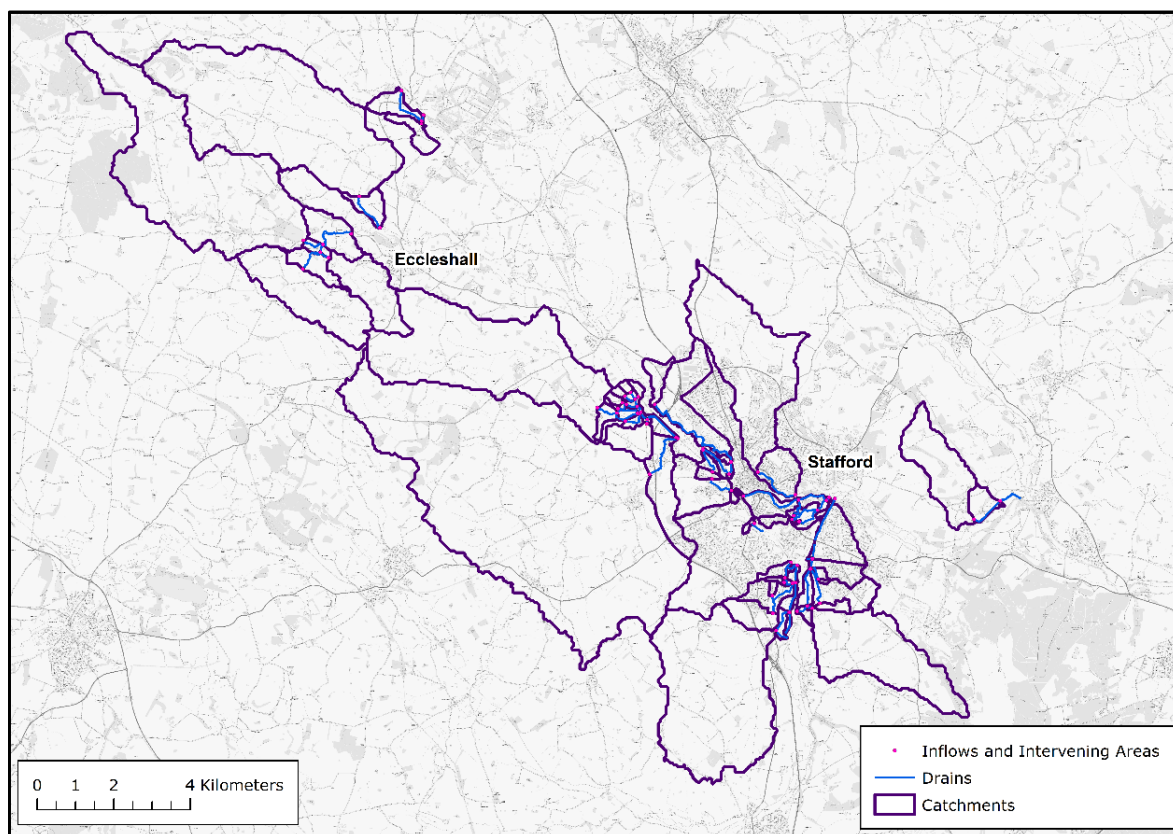


Figure 1 – Inflow and intervening area catchments

5 Survey

At the project outset, a decision was made between the Engineer for the Sow and Penk IDB and JBA to delay survey acquisition while annual maintenance works were carried out. Although this survey will not indicate the worst-case for the drains (which can be tested through sensitivity analysis), this greatly improves the quality of the survey data collected in order to appropriately illustrate the current condition of the drains and structures. Specifically, any photographs collected will be far more informative following clearance of vegetation. There are also health and safety implications. If the drains have been de-vegetated, it will be easier and safer for the surveyors to gain access and carry out effective survey of the watercourses.

A survey plan was obtained from Sam Littlehales, of Littlehales Plant Hire Ltd, in August 2019 outlining the proposed maintenance schedule for the Sow and Penk IDB area. The works were estimated to be carried out between August and December. Due to recent bad weather, the maintenance has been delayed and works have been set back by approximately 4 weeks.

To date, survey has been completed for the modelling domains of Rickerscote and Wildwood, this included survey of 14 drains (29% of total survey work), see Figure 2.

Survey work of the 34 outstanding drains (the remaining 71% of total survey work) has been on hold to allow Littlehales to move through more of the watercourses. As the

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surveyors can cover ground faster than the plant machinery to clear vegetation, we have been on hold to allow for the works to progress. We will re-visit site in November to collect the additional areas as far as possible.

As indicated above, the survey is to be delivered in phases, in accordance with the modelling areas, to allow progress to be made with modelling whilst survey is being collected and processed.

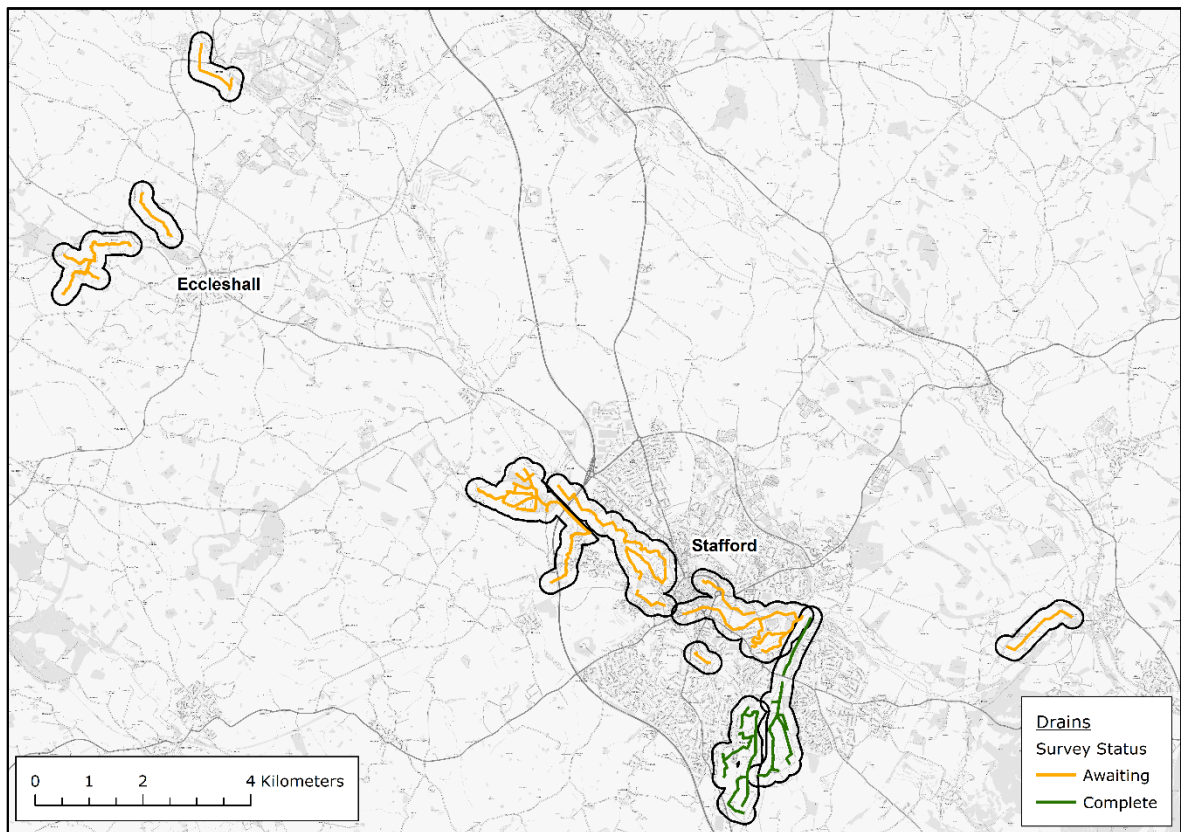


Figure 2 – Survey Drains

**Shire Group of IDBs
Epsom House
Malton Way
Adwick le Street
Doncaster DN6 7FE**

**T: 01302 337798
info@shiregroup-idbs.gov.uk
www.shiregroup-idbs.gov.uk**

JBA Consulting has offices at

**Coleshill
Cork
Doncaster
Dublin
Edinburgh
Exeter
Glasgow
Haywards Heath
Isle of Man
Leeds
Limerick
Newcastle upon Tyne
Newport
Peterborough
Saltaire
Skipton (Belle Vue Mills)
Skipton
Tadcaster
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Warrington**

