



**Sow & Penk**

Internal Drainage Board

**Virtual Meeting**

**Microsoft Teams**

**Log-in Instructions to be issued nearer the date**

### **Meeting Papers**

***Wednesday 18 November 2020***

***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](mailto:info@shiregroup-idbs.gov.uk)**

**[www.shiregroup-idbs.gov.uk](http://www.shiregroup-idbs.gov.uk)**

# Meeting Papers

## Prepared by:

Clerk - Craig Benson BA Business Studies

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

Finance Officer - David Blake BSc (Hons) Accounting

Finance Officer - Mark Joynes BSc (Hons) Mathematics

Rating Officer - Janette Parker

## Purpose

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# 1. Governance

## 1.1 Apologies

## 1.2 Declaration of Interest

## 1.3 Complaints and FOI

## 1.4 Minutes of Meeting 17 June 2020

**Present**

Ray Sutherland (RS)  
Len Bates (LB)  
Frances Beatty (FB)  
Ralph Cooke (RC)  
Andrew Harp (AH)  
Angela Loughran (AL)  
Anthony Parrot (AP)

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

Craig Benson (Clerk to the Board)  
Paul Jones (Engineer to the Board)  
David Blake (Finance Officer to the Board)  
Janette Parker (Rating Officer to the Board)

RS welcomed everyone to the first virtual meeting of the Board.

**Apologies for Absence**

**2020.23** Apologies were received from Jeff Sim, Phil Bates, Mark Winnington and Neil Brown.

**Declaration of Interest**

**2020.24** None.

**Complaints and Freedom of Information Requests**

**2020.25** Clerk confirmed that one complaint had been received.

**Minutes of the Last Meeting**

**2020.26** Minutes of the last meeting held were considered, **approval proposed by RC, seconded AL, All** in favour.

**Matters Arising**

**2020.27** LB referred to item 2020.05 referring to watercourses within the district and asked if RS had received the email sent by AP. RS confirmed had and that had been forwarded to the Eng who was asked for his comments. Eng deferred response until later in the meeting.

**CLERK'S REPORT**

**2020.28** Policies for Adoption – Clerk referred members to the revised Standing Orders provided with the meeting papers. He explained that DEFRA had approved changes to enable IDBs to hold virtual meetings until May 2021 and that Board retrospective approval was required. He confirmed that the normal procedure was for the Board to approve and then submit for ministerial approval but, in the current circumstances, this had been reversed. **FB proposed approval, AP seconded, All in favour.**

**2020.29** KPI – information noted.

**2020.30** Eng referred back to Item 2020.27 and confirmed that as members would see in the Engineering section that proposals had been made for the Board to take on maintenance of additional watercourses some of which were outside the Board's district. He added that it was the Board's decision where money was spent but this should take into account the responsibilities of riparian owners and the benefits and costs and confirmed that the modelling would aid the Board in its decision making process in future. He advised that the County Highways general email was not monitored but that defects should be reported on the My Staffordshire App. RS referred to email from AP and to one received from Andrew Honey regarding Long Compton stating both were similar problems but in different locations. AP advised his issue was with ditch on Acton Hill Road and that 8 or 9 inches of water inside of sharp bend surrounded by hedges which was very dangerous and whilst a Local Council problem enquired if with the Board's expertise works could be undertaken. Eng confirmed that the Board could consider any system but advised that consideration should be given to costs and benefits aligning and that would be beneficial to look at the current programme and maintain a network that was linked rather than isolated systems. He recommended that an attempt should be made to contact Highways via the My Staffordshire App as may get quicker response to reporting of a specific issue and offered to discuss with AP after the meeting to pinpoint the location on a plan. AP agreed and said that needed to put pressure on to resolve the issue but that it was a distance from any levied land. AH stated that it was a County Council issue and if they were not undertaking any works why should the Board take it on. RS stated that it was important to get a member of the County Council on the Board which may help to resolve these issues and suggested that an invitation to join the Board be sent to Jonathan Price. Clerk confirmed would action.

**2020.31** FB advised members that the Stafford Brooks project was going forward as a feasibility study with Highways and that a decision was awaited and hopeful that would receive funding.

**FINANCIAL REPORT**

**2020.32** Rating Report – FO confirmed a balance carried forward of £826.58 from the previous year which related to 13 accounts of which 2 were with Solicitors. He advised that 62% of the drainage rates had been collected to date with the first Levy instalment received from Stafford Borough Council. He added that South Staffordshire District Council were experiencing issues due to the COVID 19 outbreak but that they were working with them to resolve.

**2020.33** Schedule of Payments – AL queried the high bank charges. Clerk advised this related to the overlap in changing the bank accounts and should reduce going forwards. RS queried if fees would be reduced now that the Board had switched to internet banking. Clerk advised that there was a standard charge of £50 but that were trying to see if this could be reduced. He added that with the new provider money could be invested on a short-term basis and the interest received would offset some of the fees. **RC proposed approval of schedule, AL seconded.**

**2020.34** Internal Audit – FO advised that another successful audit had been received with confirmation that the Board had sound management and controls in place. He stated that the Auditors had raised two potential risk areas, the first being the ratio between nominated and elected members and ensuring they were correct for decision making however the Auditor had noted that the Board did comply with this. The other area of risk identified related to Banking and Electronic payments and that whilst risk was always apparent the Boards' current processes worked effectively and the risk was minimal.

- 2020.35** RC asked how many elected members were in attendance at the meeting as he was unable to see everyone on screen. Clerk confirmed just one, AP, advising had discussion with Neil Brown who had logging in issues so given his apologies. RS then referred to John Hilderley who he understood was not well and, as his son had attended a previous Board Meeting, requested that contact be made to see if he wished to be a member of the Board. Clerk confirmed that there was a vacancy and if the Board wished then an approach could be made. **All members in favour.** AL queried how members were elected. Clerk confirmed that an election was held every three years and that agricultural ratepayers nominated members to the Board.
- 2020.36** Annual Governance & Accountability Return (AGAR) Section 1 – FO took members through report. **Approval proposed by FB, seconded AP, all in favour.**
- 2020.37** Accounts for Year Ended 31 March 2020 – FO took members through the Accounts advising a carry forward figure of £92,430.83 which was a healthy balance and well above the Board's reserve level. FB queried if the Board benefited from all the housing growth in the Stafford Borough. Clerk advised that once any developments started within the Board's district then the agricultural land would be transferred to special levy rating which would potentially increase the money the Board generates FB mentioned Marston Brook development and asked when additional monies would be received. Clerk confirmed that transfers were made at the end of the Financial Year. RS confirmed that a lot of development was taking place in the area and mentioned Burley Fields. Eng advised that he had had discussions with both developers for the areas mentioned and that whilst both were outside of the Board's district he had advised the restrictions for surface water run off as both discharged into the Board's district. **Approval proposed by AH, seconded FB, all in favour.**
- 2020.38** Annual Governance & Accountability Return (AGAR) Section 2 – FO took members through the report. **Approval proposed by AH, seconded FB, all in favour.**
- 2020.39** Budget Comparison for Year Ended 31 March 2020 – information noted.
- 2020.40** 5 Year Budget Estimate – information noted.

#### **ENGINEER'S REPORT**

- 2020.41** Hydraulic Modelling – Eng. gave presentation on progress of model advising that he had just received draft baseline results and flood outlines which he needed to check but stated that he intended to issue some examples to members in order to obtain feedback to assist with calibration of the model. Board members happy with proposal. RS then asked members if they believed a copy of the presentation would be beneficial, all agreed and requested via email. Eng confirmed will issue.
- 2020.42** LB then referred to note in papers regarding area of Rickerscote and Penkridge and quotation requested from modelling team asking if those works were progressing. Eng advised that quote only just been received at just under £4,200 and as there were currently no Board maintained drains in the area to survey suggested modelers looked at and reviewed the surface water flood risk and that this would help the Board better understand the critical areas as to date had not received any specific requests to undertake maintenance in those areas. LB stated that the survey needed to extend as far as the A5 as Penkridge village was of particular concern as flooding was particularly bad in that area. Eng advised that the quote was for a desk top study initially and if wanted to study villages in detail this would result in additional survey costs but improved detail. He then asked for Board approval in support of the additional desktop modelling and future survey and that would liaise with the Chair to progress. **Approval proposed by FB, AH seconded, all in favour.**
- 2020.43** Watercourse Maintenance– Information noted.
- 2020.44** Reducing the risk to households off Herbert Road, Silkmore Drain – Eng took members through the report in papers adding that the quotation for initial reconditioning costs was still awaited from Littlehales but that Phil Bates of the Borough Council had indicated that contributions may be available for both initial works and ongoing maintenance. RS concurred that it was a good

proposal. AL stated she was delighted to hear that the area would be maintained. AP queried if there was sufficient fall on the Main River Rising Brook system as the River Penk had been deepened in the 1970's. Eng advised that the EA had recently updated their modelling and would find out if long sections were available. Eng then requested Board approval to fund the reconditioning works and ongoing maintenance, **approval proposed by AL, seconded by FB, All in favour.**

**2020.45** Planning, pre-application advice and Consents – Information noted.

#### **HEALTH & SAFETY REPORT**

**2020.46** Information noted.

#### **ENVIRONMENTAL ADVISER'S REPORT**

**2020.47** Clerk advised information provided was for note adding that Jeff Sim of the Stafford Wildlife Trust was looking forward to working with the Board's environmental adviser to set the targets for 2020-2025 and once agreed, these would be provided to Members.

#### **Any Other Business**

**2020.48** None.

#### **Date of Next Meeting**

**2020.49** 18 November 2020.

## **1.5 Matters arising there from not elsewhere on the Agenda**

## 2. Clerk's Report

### Recommendation:

- Members note information contained in the Report
- Approve production of a new Flood Risk Policy under Specialist Services
- Approve the addition of the Senior Financial Officer as a signatory on the Board's bank account.

### 2.1 Policies for Adoption

The Board's policies will be subjected to their annual review and any proposed changes will be brought to the Board meeting in January 2021.

### 2.2 Legislation

Nothing to report.

### 2.3 Environment Agency - National Flood Risk Management Strategy

Following national consultation to which a response was given on behalf of Boards within the Group, the proposed National Strategy was put before Parliament in the summer. The Strategy sets out what is required of Risk Management Authorities in terms of linking their flood risk management activities including plans and strategies consistently with the National Strategy. A link to the document can be found here:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/899498/National\\_FCERM\\_strategy\\_for\\_England.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899498/National_FCERM_strategy_for_England.pdf).

The Board is recommended to instruct a review of the current approved Flood Risk Management policy and the Clerk to bring to the January meeting any proposed amendments required in line with the new Strategy.

Linked to this is the new National Flood Risk Assessment (NaFRA2). The aim is to produce richer information about flooding from main and ordinary watercourses, the sea and surface water, for now and in the face of climate change. The new information once collated will be available in 2024. The Engineer has responded, on behalf of the Board, to the EA and provided data that is currently available.

#### 2.3.1 DEFRA – Precept and Highland Water Contributions

With DEFRA support, the Environment Agency have recently commenced a project to review how the precept levied is set, raised, spent and reported within the current framework. The review has highlighted regional variations across the country. Consequently, the EA are investigating updating its operation guidance to ensure a more consistent and transparent approach is taken. A similar review is being undertaken on the highland water contributions.

### 2.4 Bank Mandate

With Board approval, it is the intention to add the Senior Financial Officer as a signatory on the Board's bank account.

### 2.5 ADA

The AGM will take place virtually this year using the "zoom" platform. An email has been sent to all members with registration details for those members who wish to take part. It is anticipated that



the Branch meetings will also be held virtually. Information will be circulated to members as and when it is received.

## 2.6 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 2 November 2020: -

	£	£
Balance Brought forward at 1 April 2020		826.58
<b>2020/2021 Drainage Rates and Special Levies</b>		
Drainage Rates		11,359.35
Special Levies		
Stafford Borough Council	106,099.00	
South Staffordshire District Council	3,873.00	109,972.00
<b>Total Drainage Rates Due</b>		<b><u>122,157.93</u></b>
<b>Less Paid: -</b>		
Drainage Rates		11,182.04
Special Levies		
Stafford Borough Council	53,049.50	
South Staffordshire District Council	3,873.00	56,922.50
<b>Total Drainage Rates Paid</b>		<b><u>68,104.54</u></b>
Rate Refunds (overpayments)		<b>294.73</b>
<b>Balance Outstanding as at 2 November 2020</b>		<b><u>54,348.12</u></b>

## 3.2 Schedule of Payments

Payments made since those reported at the previous meeting:

DATE		REF	PAYEE	DESCRIPTION	TOTAL	
2020					£	
May	18th	-	Lloyds Bank plc	Bank Fees	3.69	*
Jun	1st	-	Lloyds Bank plc	Bank Fees	16.25	*
	2nd	-	Lloyds Bank plc	Lloyds Commercial Fees	50.00	*
	4th	5	Towergate Insurance	Insurances	2,515.75	
		41-2	Danvm Drainage Commissioners	Website Hosting Fees, etc.	66.18	
		4	JBA Consulting	Fee Account - Modelling	5,200.80	
	10th	10	EVO Payments International	Fees	70.68	*
	29th	-	Lloyds Bank plc	Bank Fees	10.35	*
Jul	3rd	-	Lloyds Bank plc	Commercial Banking Fees	50.00	*
	9th	6	Brodericks GBC	Internal Audit Fees	774.00	
		7-8	JBA Consulting	Fee Accounts - Modelling	28,480.96	
	13th	-	NatWest	Bank Fees	0.03	*
	19th	11	EVO Payments International	Fees	15.59	*
	28th	-	Lloyds Bank plc	Bank Fees	5.10	*
Aug	3rd	-	Lloyds Bank plc	Commercial Banking Fees	50.60	*
	4th	-	RT Goucher	Rates	127.35	*
		-	Eccleshall Castle	Rates	167.38	*
	5th	9	JBA Consulting	Management Services	5,257.46	
		12	Littlehales Plant Hire Ltd	Maintenance	1,200.00	
	12th	-	EVO Payments International	Fees	15.60	*
	28th	-	Lloyds Bank plc	Fees	2.90	*
		-	Lloyds Bank plc	Fees	6.23	*
Sep	1st		JBA Consulting	Fee Accounts: -		
		14		Modelling	3,244.80	
		15		Penkridge Assessment	3,156.00	
		16	Littlehales Plant Hire Ltd	Maintenance	600.00	
	4th	-	Lloyds Bank plc	Commercial Banking Fees	50.80	*
	10th	-	EVO Payments International	Fees	31.50	*
	30th		JBA Consulting	Fee Accounts: -		
		17		Modelling	1,408.80	
		18		Penkridge Assessment	1,165.20	
Oct	5th	-	Lloyds Bank plc	Commercial Banking Fees	50.40	*
	12th	19-20	Environment Agency	Flood Defence Levy	4,317.50	
		21	Littlehales Plant Hire Ltd	Maintenance	44,483.70	
		-	EVO Payments International	Fees	20.77	*
			<b>Total Amount of all Payments</b>		<b>102,616.37</b>	
			<b>* Total Amount of Cheques sent out signed by the Clerk Only</b>		<b>745.22</b>	

### 3.3 Audit

#### Internal Audit Report

Nothing to report.

### 3.4 External Audit

The External Audit for 2019/20 is complete with no issues giving cause for concern that relevant legislation and regulatory requirements have not been met. A copy of the AGAR can be viewed at:

<https://www.shiregroup-idbs.gov.uk/idbs/sow-penk/asset-management/financial-documents/annual-return/>

### 3.5 Internal Audit Review Meeting

The Internal Audit Review meeting is due to take place on Monday, 23 November 2020 and will commence at 10.00am. It is expected to be a virtual meeting.

### 3.6 Budget Comparison for the Year Ended 31 March 2021

	2020/21				2020/21
Approved Estimate		Actual Todate			
£	£	£	£	04 November 2020	
				<b>INCOME</b>	
				<b>Drainage Rates on Agricultural Land:-</b>	
11,354		10,564		6.5p in £ on AV of £170,848	93.04%
				<b>Special Levy:-</b>	
				Stafford Borough Council	
106,099		56,923		6.5p in £ on AV of £1,595,476	53.65%
				South Staffs District Council	
3,873		3,786		6.5p in £ on AV of £58,240	97.75%
<u>200</u>	121,526	<u>121</u>	36,394	Interest etc	60.74%
				<b>EXPENDITURE</b>	
8,900		6,476		Flood Defence Levy	72.77%
30,730		35,991		Catchment Modelling	117.12%
3,000		0		Biodiversity Action Plan	0.00%
3,000		0		County Show	0.00%
79,739		38,570		Maintenance	48.37%
<u>26,241</u>	<u>151,610</u>	<u>6,902</u>	<u>87,939</u>	Administration	26.30%
	(30,084)		(51,545)	Surplus - (Deficit)	171.34%
	<u>124,300</u>		<u>92,431</u>	Balance Brought Forward	74.36%
	<u>6,000</u>		<u>0</u>	Transfer to Doxey & Tillington Marshes SSSI WLMP ACC	
	<b>88,216</b>		<b>40,886</b>	<b>Balance Carried Forward</b>	46.35%

### 3.7 Five Year Budget Estimate

Sow And Penk IDB	0	0	1	2	3	4	5
Revenue Account	2020/21	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
	App	Estimated Out-turn					
	Budget						
	£	£	£	£	£	£	£
<b>Income</b>							
Drainage Rates	11,354	11,354	11,611	11,952	12,379	12,806	13,233
Special Levies	109,972	109,972	112,453	115,760	119,894	124,029	128,163
Grant In Aid- Catchment Modelling	-	35,000	-	-	-	-	-
Bank Interest, Other Contributions	200	250	200	200	200	500	500
<b>Total Income</b>	<b>121,527</b>	<b>156,577</b>	<b>124,263</b>	<b>127,912</b>	<b>132,473</b>	<b>137,335</b>	<b>141,896</b>
<b>Expenditure</b>							
Flood Defence Levy	8,900	8,900	8,900	8,900	8,900	9,167	9,167
Administration	26,241	24,357	24,601	24,847	25,095	25,346	25,599
Maintenance of Drains	61,739	64,739	66,681	68,682	70,742	72,864	75,050
Additional Maintenance	18,000	15,000	15,450	15,914	16,391	16,883	17,389
Catchment Modelling	30,730	35,991	-				
Biodiversity Action Plan	3,000	3,000	3,000	3,000	3,000	3,090	3,183
County Show Budget	3,000	-	2,500	2,500	2,500	2,500	2,500
Cont To Derrington							
<b>Total Expenditure</b>	<b>151,610</b>	<b>151,987</b>	<b>121,132</b>	<b>123,842</b>	<b>126,628</b>	<b>129,850</b>	<b>132,889</b>
Surplus/(Deficit)	(30,083)	4,590	3,132	4,071	5,845	7,485	9,007
Balance Brought Forward	124,300	92,430	91,019	88,151	86,221	86,067	87,551
<b>Balance</b>	<b>94,217</b>	<b>97,019</b>	<b>94,151</b>	<b>92,221</b>	<b>92,067</b>	<b>93,551</b>	<b>96,558</b>
Transfer to Doxey & Till Marshes Account	6,000	6,000	6,000	6,000	6,000	6,000	6,000
<b>Balance Carried Forward</b>	<b>88,217</b>	<b>91,019</b>	<b>88,151</b>	<b>86,221</b>	<b>86,067</b>	<b>87,551</b>	<b>90,558</b>
<b>Doxey &amp; Tillington Marshes Acc</b>	<b>66,033</b>	<b>66,125</b>	<b>70,925</b>	<b>75,725</b>	<b>80,545</b>	<b>85,365</b>	<b>90,185</b>
<b>Penny Rate in £</b>	6.65p	6.65p	6.80p	7.00p	7.25p	7.50p	7.75p
<b>Penny Rate £18,245</b>	56%	58%	69%	66%	65%	64%	65%
Rate Av £170,744	8.63p	6.73p	6.96p	7.11p	7.26p	7.42p	7.59p
Levy Av £1,653,716							
	2020/21	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Doxey & Tillington Marshes Acc	App	Estimated Out-turn					
	Budget						
	£	£	£	£	£	£	£
<b>Income</b>							
Transfer from I&E	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Interest	30	30	30	30	50	50	50
Contribution to Scheme							
<b>Total Income</b>	<b>6,030</b>	<b>6,030</b>	<b>6,030</b>	<b>6,030</b>	<b>6,050</b>	<b>6,050</b>	<b>6,050</b>
<b>Expenditure</b>							
Capital Expenditure							
Maintenance	1,230	1,230	1,230	1,230	1,230	1,230	1,230
<b>Total Expenditure</b>	<b>1,230</b>	<b>1,230</b>	<b>1,230</b>	<b>1,230</b>	<b>1,230</b>	<b>1,230</b>	<b>1,230</b>
Surplus/(Deficit)	4,800	4,800	4,800	4,800	4,820	4,820	4,820
Balance Brought Forward	61,233	61,325	66,125	70,925	75,725	80,545	85,365
<b>Balance Carried Forward</b>	<b>66,033</b>	<b>66,125</b>	<b>70,925</b>	<b>75,725</b>	<b>80,545</b>	<b>85,365</b>	<b>90,185</b>

## 4. Engineer's Report

### Recommendation(s):

- To note the information contained in this report
- Board consideration on further survey & modelling for Penkridge (Item 4.1.2)
- Board consideration to Unconsented Works on Millian Brook, Seighford Ponds (Item 4.2.3)

## 4.1 Asset Management

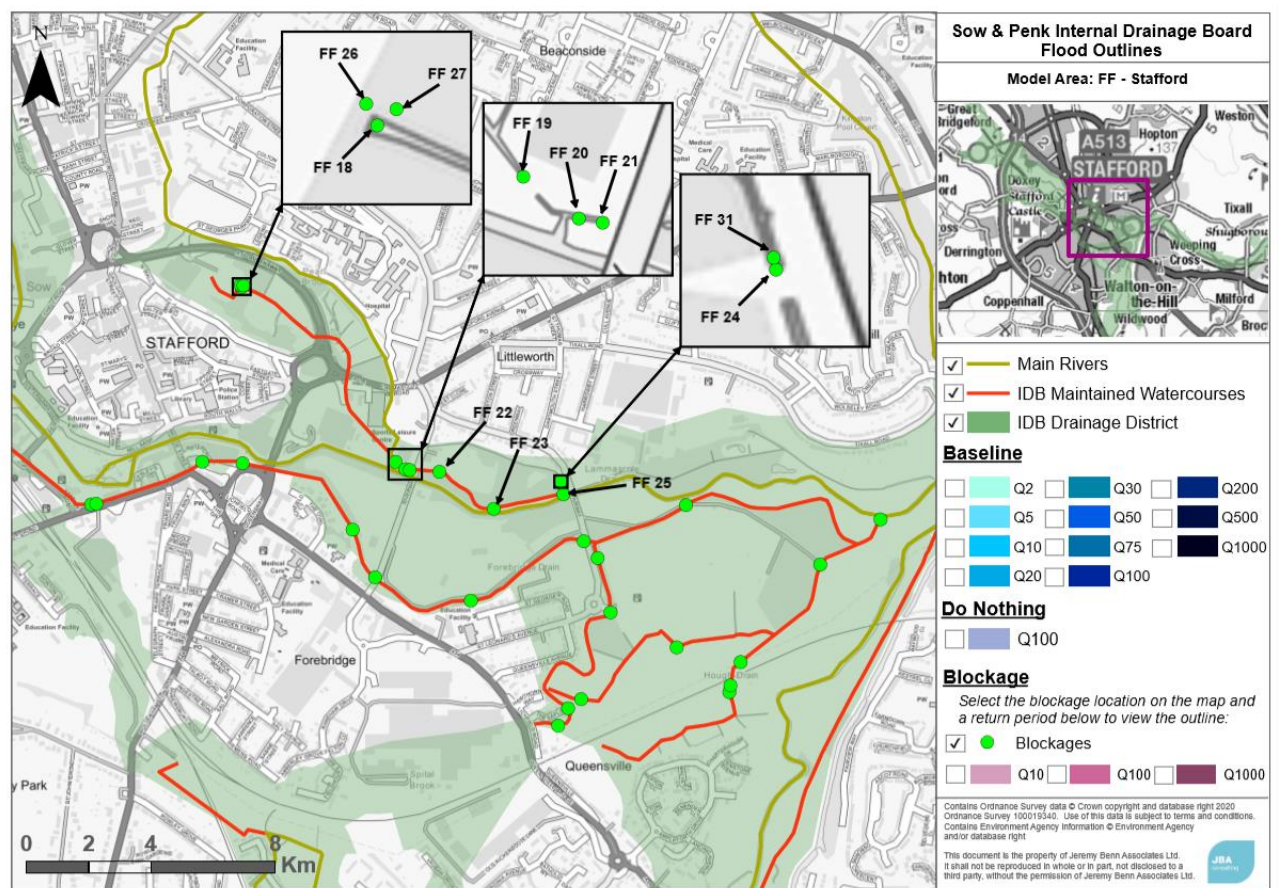
### 4.1.1 Hydraulic Modelling

The hydraulic modelling of the Drainage District related to all currently maintained Ordinary Watercourse has been completed. A copy of the report is included in your meeting pack.

The outputs received include:

- HEC RAS computer model of the watercourses and impact of rainfall events
- GIS shapefiles of all flood outlines
- Cross and longitudinal sections of all maintained watercourses and structures
- Photographs of all cross sections and structures
- Interactive (or SMART) PDFs

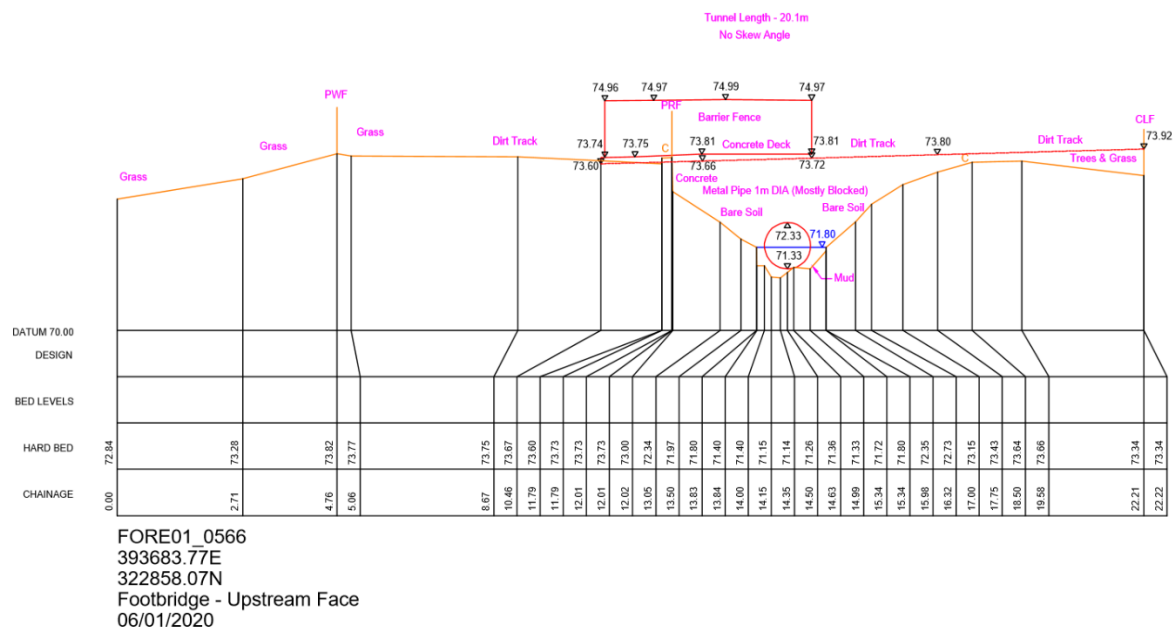
The password-protected SMART PDFs have been securely uploaded to the Board's website and links have been circulated with the papers. Members are asked to review the files and see the outputs of the modelling by 'toggling on or off' the variety of flood outline (1in2 year, 1in10 year, 1in100 year rainfall events, Do Nothing flood outline, Blockages etc) which we hope are useful moving forwards for sharing with flood risk partners.





The study was commissioned to determine the flood risk implications of:

- The present-day condition
- The effects of climate change
- Hydraulic structures becoming blocked
- Additional storage in the drainage district
- Saturated antecedent ground conditions
- A 'Do Nothing' scenario
- A range of in-channel vegetation



JBA built nine detailed hydraulic models using the most up to date understanding of localised hydrology and topography, and modern modelling techniques. The models were simulated for the present day 2, 5, 10, 20, 30, 50, 75, 100, 200, 500 and 1,000-year return periods. These models were used to identify the baseline flood mechanisms, extents and depths across the drainage district for the baseline scenario.

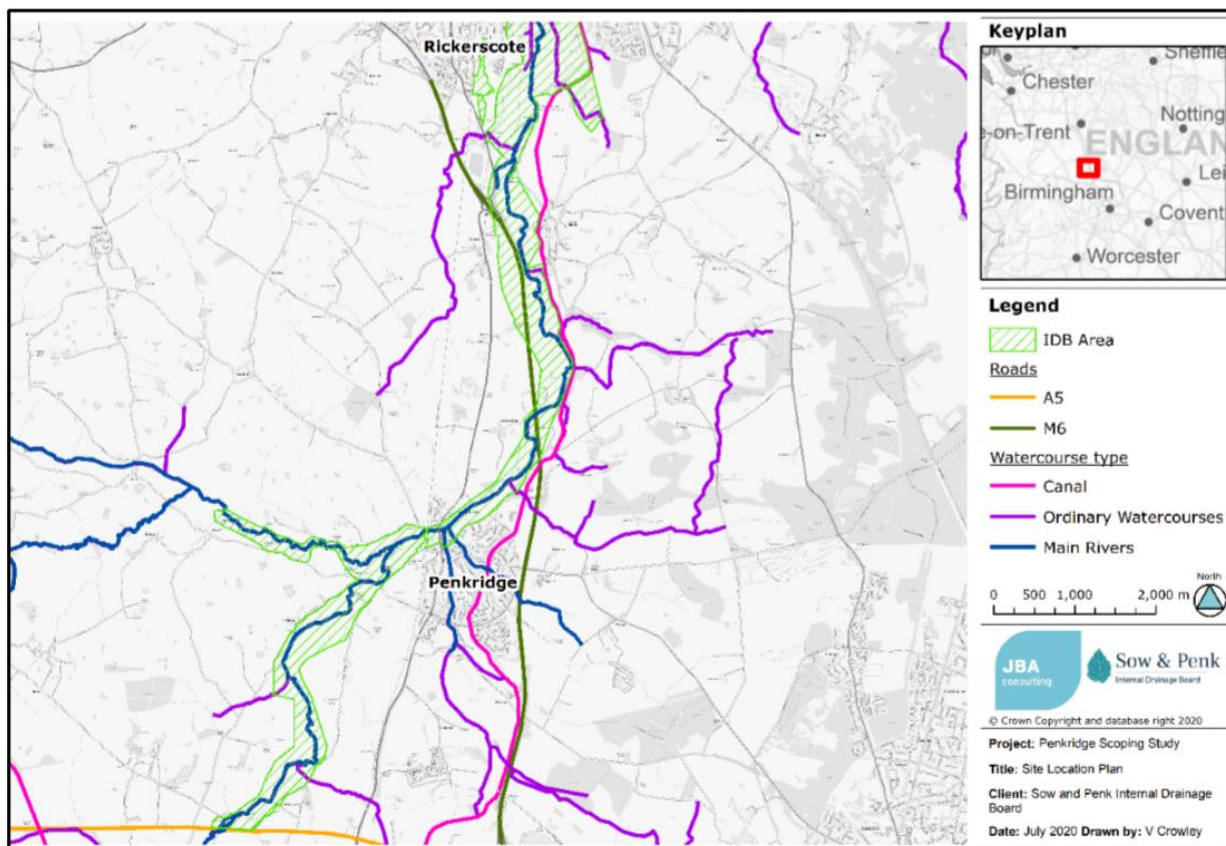
Five scenario tests showed that:

- A considerable increase in flood risk would ensue if all maintenance activities in the drainage district were to cease.
- The intensification of vegetation management practices along drains is likely to cause modest reductions in flood extents. Conversely, a relaxation of the IDB's vegetation management practices would considerably increase flood risk.
- Catchment saturation significantly increases flood risk across the Drainage District.
- Of the potential storage schemes tested, none of the four options proved to provide significant flood risk benefit, although it should be noted no storage optimisation was conducted as part of this project.
- 15 structures were critical for the management of flood risk in the drainage district.

### 4.1.2 Penkridge

The Scoping Study has been completed and sets out the various sources of flood risk around Penkridge. A copy of the report has been included in your meeting pack.

The scoping study covered an area spanning the Main Rivers, Ordinary Watercourses and floodplains of the River Penk between the A5 and Rickerscote.



The purpose of the scoping study was to identify flooding mechanisms and key locations for further investigation with the aim of devising measures to help mitigate against flood risk. According to the available data:

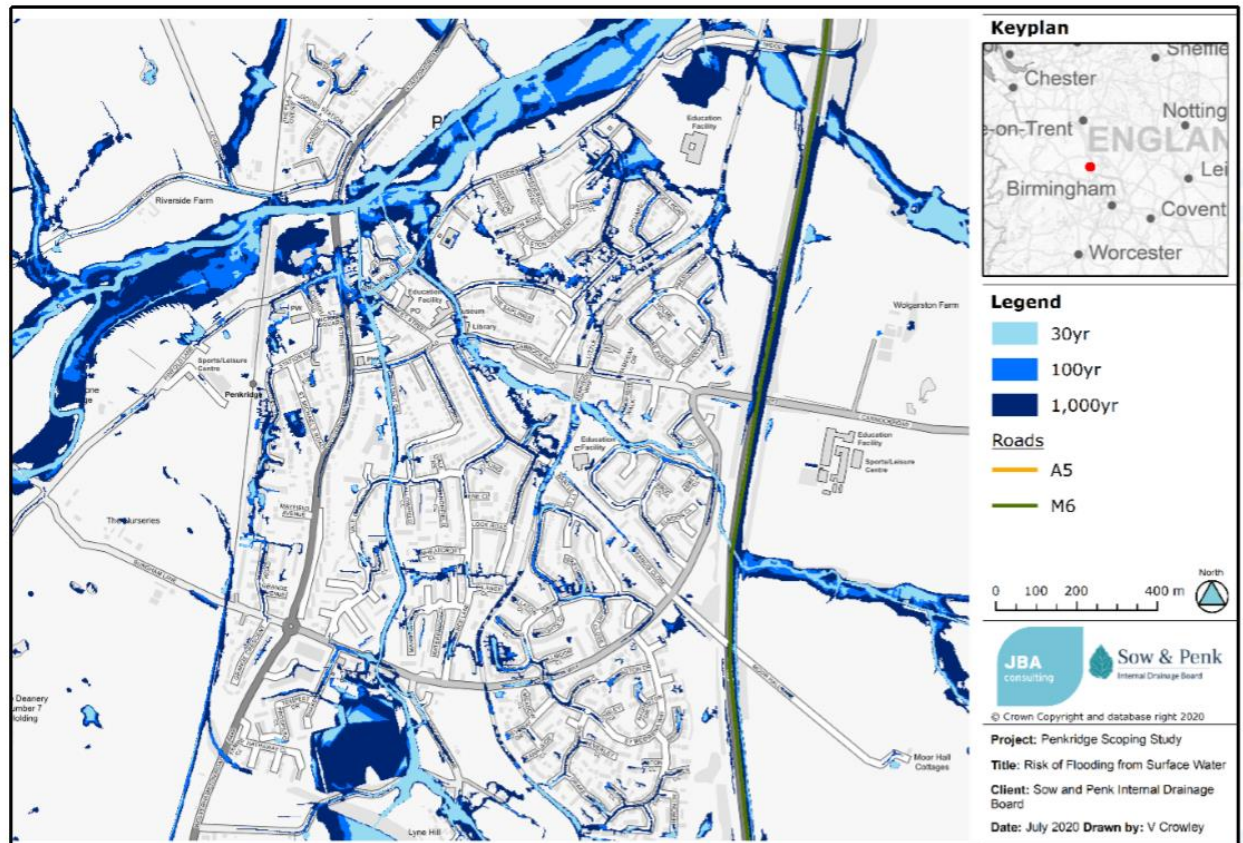
- The Flood Map for Planning shows that, the majority of the predicted flooded areas lie within Flood Zone (FZ) 3, with only a small increase in extents associated with FZ2. FZ3 represents a high risk of flooding from rivers from the 100-year event. The map also shows an area in Penkridge that lies within FZ2, representing a medium risk of flooding between the 100-year and 1,000-year events.
- The Risk of Flooding from Rivers and Sea (RoFRS) map, produced under the Environment Agency (EA) National Flood Risk Assessment (NaFRA), shows that the majority of the flooded area is within the 'Medium Risk' or 'High Risk' zones, indicating that each year there is a chance of flooding from the 100-year event or the 30-year event. In Penkridge itself, some areas of 'Low Risk' are present, representing a risk of flooding between the 100-year and 1,000-year events
- Across the area of interest there is a risk from surface water flooding to land and properties. In multiple areas there is a risk of flooding from at least once in every 30-years, with some of these areas also at risk at least once in every 100-years or once in every 1,000-years. In Penkridge there are several locations where multiple properties are at risk from the 100-year or 1,000-year event.

A detailed model of the River Penk showed that from the shortest return period, 2years, water exceeded the channel capacity and exited onto the floodplains. With lengthening of return period, the flood depths and extents increased across the Penkridge area.



The modelled outputs of the 2-year event likely overestimate risk in the area as significant residential flooding occurs from two tributaries that are not fully represented in the model.

Although the climate change uplifts available in the River Penk model were not representative of the current uplift guidance, the results were still able to give an indication of the anticipated effect of climate change. In this case the 100-year climate change event was closer to the present day 200-year event than the present day 100-year event.



**Figure 2-6: Environment Agency Risk of Flooding from Surface Water Map,**

From the above datasets, several areas within Penkridge were highlighted that display a risk of flooding to properties. These locations included the areas around

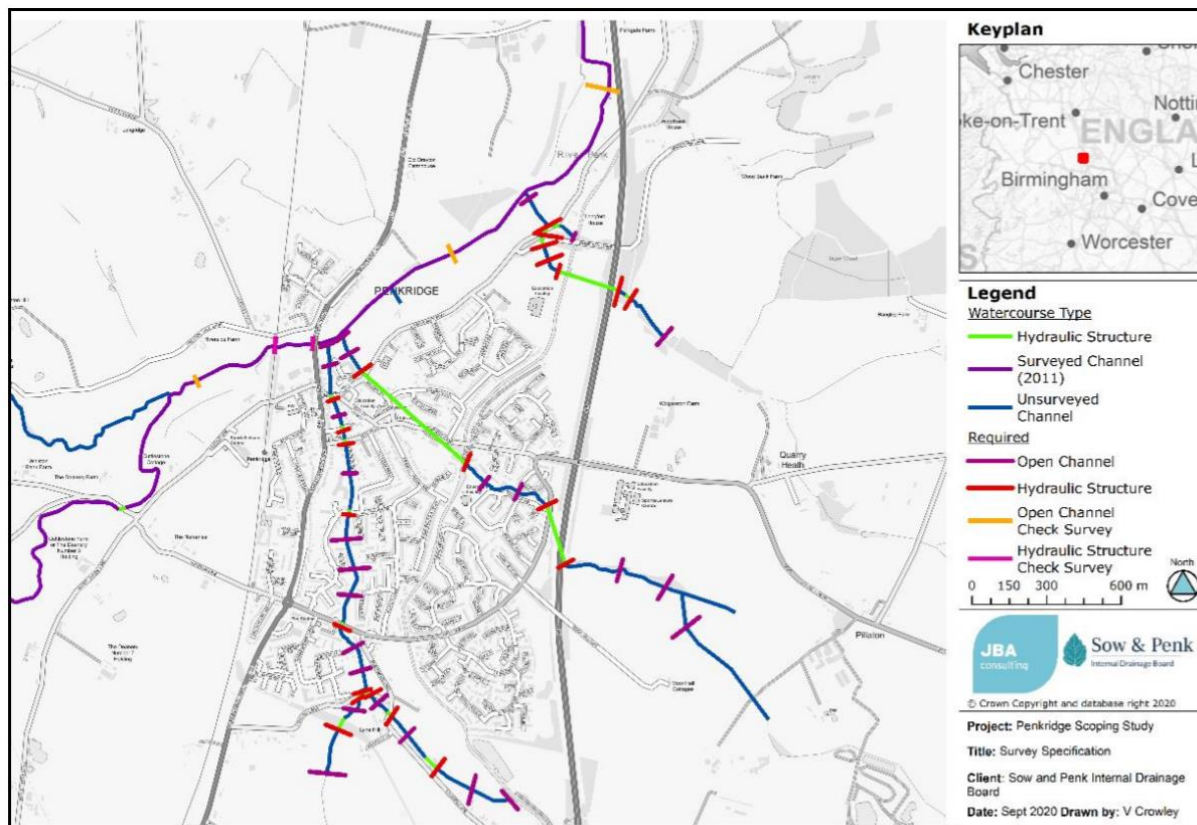
(i) Crown Bridge, (ii) Denefield, (iii) Vale Gardens, (iv) Cannock Road (v) Leacroft Road, (vi) Micklewood Close, (vii) St Michaels Road and (viii) the River Penk and A449.

#### Item 4.1.2 Penkridge

**The Consultants' recommendation** is to develop a more sophisticated understanding of flood risk in the area by creating a new model is produced with a raft of new and updated data. This model would be capable of representing the interaction of the Main Rivers and Ordinary Watercourses.

### Penkridge - Additional Survey

Topographic survey would be collected for the three tributaries shown below, including cross section geometry, structure geometry and long sections. They would collect several cross sections on the River Penk to determine if the existing 2011 survey is still largely representative of the current condition. This check survey will include in-channel cross sections and hydraulic structures. Survey will be completed in line with the EA's National Survey Specification v4.01, and has been quoted at £7,500.



### Penkridge – Additional Modelling

A hydraulic modelling exercise to assess the flood risk and hydraulic behaviour associated with:

- The River Penk, from road bridge at Pinfold Lane (grid reference 391448, 313780) to the M6 road bridge (393414, 315860);
- Two unnamed tributaries that flow in a northerly direction through Penkridge to join the River Penk (starting at approximately 393758, 313241 and 393015, 312611); and,
- A small unnamed tributary that flows into the River Penk to the north east of Penkridge (starting at approximately 393634, 314464).

The modelling would combine the existing EA 2011 Sow and Penk model and reaches of newly built model informed by the provided topographic survey data.

Task	Cost (£)
Project management	2,255
Hydrological estimation	2,803
Design hydraulic modelling	7,066
Model optioneering	2,646
Processing and deliverables	4,889
<b>Total costs</b>	<b>19,659</b>

The above quotation has been received for the modelling in addition to the survey costs and a 4 month delivery estimate.

**Item 4.1.2 Penkridge survey & modelling****Engineer to the Board Recommendation**

It is recommended that the additional survey up to £7,500 and additional modelling up to £19,659 to improve flood risk mapping for the Penkridge area is **submitted as a Variation** to the Environment Agency funding and the **Board consider a contribution** towards the additional Penkridge project.

**4.1.3 Ordinary Watercourses**

Ordinary watercourse maintenance continues to be progressed by Littlehales Plant Hire Ltd. and is currently 80% complete with maintenance moving into the Forebridge, Silkmore and Doxey areas.

Overall completion is expected before Christmas and the reconditioning works on Silkmore Drain adjacent Herbert Road and the Allotments is scheduled for November.

**4.2 Planning, pre-application advice, consents, enforcement****4.2.1 Planning Applications**

Our email address for planning enquiries is [planning@shiregroup-idbs.gov.uk](mailto:planning@shiregroup-idbs.gov.uk)

Officers have reviewed planning applications between May 2020 and October 2020 of which 11 have required comment on behalf of the Board.

**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](mailto:consents@shiregroup-idbs.gov.uk)

2 consents have been issued on behalf of the Board between May 2020 and October 2020.

**4.2.3 Enforcement****Seighford Ponds – Millian Brook**

We have been notified of unconsented works within an ordinary watercourse maintained by the IDB.

The works have been identified as deepening and widening of an ordinary watercourse and the creation of a bund on Millian Brook adjacent Seighford Ponds.

We understand that Seighford Fisheries have undertaken the works.



**Seighford Ponds – Millian Brook**



The Millian Brook system is on an agreed rotation with the Wildlife Trust but the main section of the Brook running through the ponds is maintained in all years down to the M6 and further downstream into the River Sow beneath the railway line.



The overall works are not a contravention of Section 23 of the Land Drainage Act as there is no structure obstructing flow within the watercourse.

However, the bund will obstruct maintenance access which is in contravention of the IDB Byelaws and a criminal offence.

The ability to maintain a deeper and wider watercourse becomes more problematic and may require additional plant and equipment and cost.

Outside the requirements of the IDB and Land Drainage Act 1991 (as amended) there may also be enforcement pursued from other authorities, such as:

- Planning Permission – whether the bund is permitted development or required planning permission and whether the bund increases flood risk to others owner occupiers
- Natural England – in terms of pursuing the owner occupiers under the Wildlife & Countryside Act in relation to any disruption or damage to habitat or species

***Next steps for consideration:***

Contact has been made on site with the owners, but no formal communications have been sent to date.

Should the watercourse continue to be maintained by the IDB then the bund will need to be removed at the owners' cost. However, there is still concern over the depth and width and practicalities of maintaining moving forwards.

The IDB alternative is to revert this section of watercourse to riparian owner maintenance. This would be communicated in writing; noting the contravention of byelaws and setting out the riparian owners responsibility to maintain the watercourse moving forwards, along with all liabilities to permit flow and the responsibility to remove any obstructions from the watercourse.



## 5. Health and Safety Report

**Recommendation:**

- Members note information contained in the Report

### 5.1 Health and Safety Boards Contractor

**Accidents, incidents and near misses**

No accidents, incidents or near misses to report.

**COVID-19**

The area is currently under COVID-19 restrictions, in the medium alert category for England.

JBA offices have continued to remain open during this pandemic and we continue to deliver our services. JBA have adopted flexible working with remote working from home for those staff who can. We will be receiving and reading email as normal but we may not always be available directly on the office number to take calls.

**Board operations**

During this period, the Board's day to day activities have not been adversely affected.

## 6. Environmental Adviser's Report

**Recommendation:**

- Members note information contained in the Report
- To approve the BAP Review and agree production of a BAP for period 2020-2025 associated with the Review example

### 6.1 Legislation

A Policy Paper on the Environment Bill was issued in August, intended to bring about urgent and meaningful action to combat the environmental and climate crises the country faces and acts as a key vehicle for delivering the bold vision set out in the 25 Year Environment Plan. The Government believes it will support the country's desire to build back better after Covid-19 with measures that support both economic growth and the government's manifesto commitments to deliver the most ambitious environmental programme of any country. An important aspect of the Environment Bill is the power to set long-term, legally binding environmental targets. Setting targets will provide a strong mechanism to deliver long-term environmental outcomes. When the legislation has been approved by Parliament, it may have impacts on IDB function.

Anyone interested in further reading, information can be found here:

<https://www.gov.uk/government/publications/environment-bill-2020/august-2020-environment-bill-environmental-targets>

### 6.2 Policy

**Biodiversity Action Plan**

The Environmental Adviser has undertaken a review of the 2015-20 BAP and Members can view the report at Appendix A.

## 7. Any Other Business

## 8. Date of Next Meeting

3 February 2021







## 2.2 2017 surveys

25

Rush which was recorded in some ditches within Doxey & Tillington Marshes but not observed elsewhere through the town. No signs of Water vole were identified at any part of the survey area.

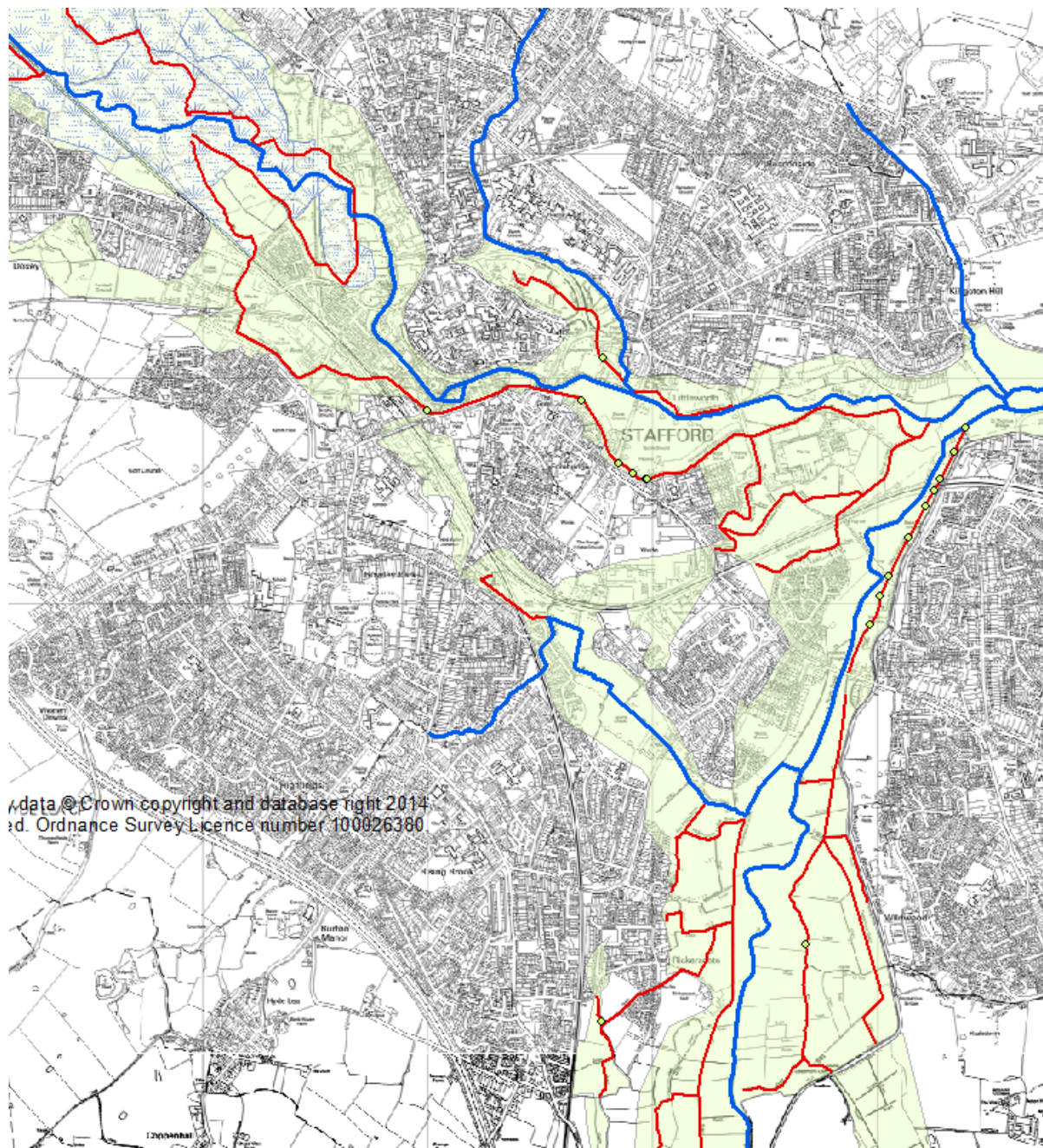


Figure 1.4: 2017 survey area

### 2.3 2018 surveys

13.3km of watercourse around Radford, south of Rickerscote, west of Stafford on Doxey brook and north of Seighford and east of Stafford through Rawbones SSSI was surveyed., concentrating on the presence of Flowering Rush but also scanned for signs of water vole presence. No evidence of the presence of water vole was seen despite suitable conditions on all survey days. Neither was Flowering Rush recorded in any Board maintained ditches however the species has colonised a significant stretch of the River Sow since 2017 surveys and also a stretch along the Penk adjacent to Radford Meadows Nature Reserve which was not identified in 2016/17 surveys. Previous reports of Flowering Rush within



both these areas was back in 1972 and demonstrates the importance of surveys to capture fluctuations in coverage.

During this period Rickerscote Marsh LWS designation was achieved in terms of a site of biological importance for its Fen and Swamp habitats and communities. It also has the priority habitat of Coastal and Floodplain Grazing Marsh, (Figure 1.5).

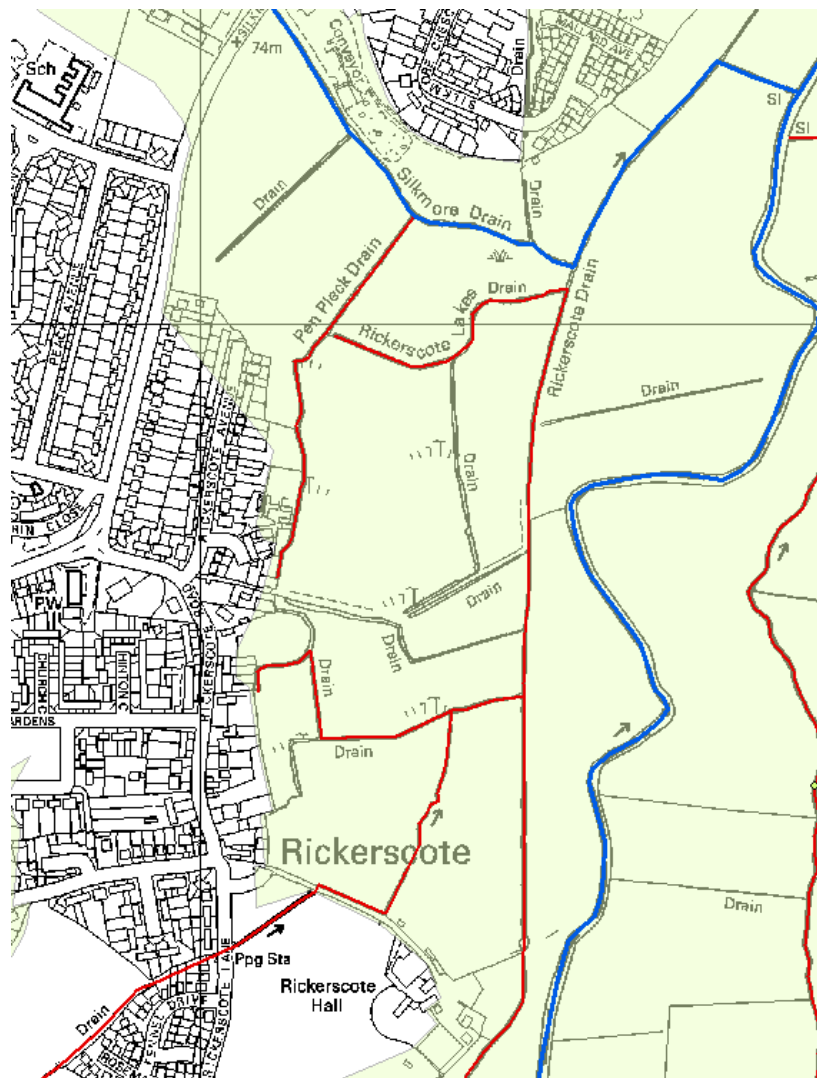


Figure 1.5 Rickerscote Marsh

### 2.3 2019 surveys

Staffordshire Wildlife Trust used experienced volunteers from the Staffordshire Mammal Group to undertake surveys specifically for the presence of water vole in the District. 60% of the Board watercourse network was surveyed, concentrating on sites where historic records of water vole exist. This included Doxey & Tillington Marshes SSSI, Doxey Brook, Seighford Moor, Radford Meadows and Rickerscote. No evidence of the presence of water vole through field signs was recorded. Neither was any evidence of the presence of American mink (a water vole predator) recorded.

### 3. Findings

In terms of the Board's ability to deliver conservations and enhancement of biodiversity within the District, the lack of protected species is disappointing but outside the control of the Board.

The Board's original BAP 2010-2015 had identified the presence of water vole on Pearl Brook, Forebridge Drain East and the River Sow and likely to be present elsewhere in the District. At that time Mink was noted on the Meece Brook with otter (*Lutra lutra*) signs also identified on that watercourse as

well as in Copmere Drain and within Doxey Marshes. No subsequent surveys of the District identified water vole elsewhere.

All is not lost in terms of water vole. In previous decades there is likely to have been good water vole populations within the Board's District and the habitat remains very suitable for the species. As the presence of mink has not been recorded in the period 2015-2020, and otter numbers have increased in the area, small and as yet unknown populations of water vole may move back into the area.

Continual annual survey of Board maintained watercourses for this species is important.

#### **4. BAP moving forward 2020-2025**

##### **4.1 Environmental Land Management Schemes (ELMs)**

Multi decadal records from other IDB areas particularly from the Midlands and further north reveal increasing volumes of rain falling as the climate warms and the atmosphere can hold greater volumes of water vapour. Interestingly, spring is generally becoming a drier month, with winter slightly wetter but the greatest volume of rainfall is in the summer months June-August with autumn Sept-Nov only slightly behind.

The new National Flood Risk Management Strategy identifies the necessity of working with natural processes because the country cannot continue to build its way out of flood protection. The basic farm payments scheme paid through the Commons Agricultural Policy and the Countryside Stewardship Scheme is being phased out and landowners are to be encouraged through new Environmental Land Management Schemes (ELMs) where they will receive payment for delivering public goods. Ian Bateman and Ben Balmford in their paper "Public funding for public goods: A post-Brexit perspective on principles for agricultural policy" through the land, environment, economics and policy institute identified public goods as:

- Improved soil health
- **Water quality improvement**
- **Water quantity regulation**
- **Flood risk reduction**
- Climate change mitigation through reduction and storage of greenhouse gas emissions
- Other air quality improvements such as reduction in ammonia emissions
- **Conservation and enhancement of biodiversity**

Those in bold above are public goods delivery of which could be assisted by the Board in terms of supporting local agricultural ratepayers who wish to be part of future ELMS. The actions taken could include slowing the flow through use of leaky dams or restoration of natural processes which not only regulate water quantity but quantity, reduce flood risk whilst conserving and enhancing biodiversity through creation of wetter areas which may host feeding sites for wading birds such as Curlew (*Numenius*), Lapwing (*Vanellus vanellus*) Snipe (*Gallinago gallinago*) and Red Shank (*Tringa tetanus*). Other likely ELMs targets will be tree planting, habitat creation and restoration or management activities. The Board could assist with delivery through the consenting process.

##### **4.2 Species Action Plans**

###### **4.2.1. Water Vole (*Arvicola amphibus*)**

Continuation of surveys associated with Water vole within the District is important in terms of understanding whether they return to an area from which they previously existed and it appears were likely predated, particularly in the areas where they were last seen on Pearl Brook and Forebridge Drain East.

##### **4.3 Invasive Non-Native Species**

###### **4.3.1 Signal Crayfish (*Pacifastacus leniusculus*)**

Have been identified within the Board District. Signal crayfish, shown Figure 1.6, not only carry a plague which impacts the protected and endangered native White-clawed crayfish (*Austropotamobius*

*pallipes*), it also burrows deep into watercourse banks de-stabilising them and creating additional silt input into the water.



**Figure 1.6: Signal Crayfish within an IDB pump station compound**

Signal crayfish were introduced from America as part of a farmed food programme in Dorset during 1970's. They escaped and their presence now amounts to an infestation of over 80% of rivers and streams through England and Wales and up to Inverness. They are voracious predators, creating an ecologically dead zone, then turning to cannibalism. For those watercourses in which Staffordshire Wildlife Trust volunteers identified the presence of signal crayfish, the Board could consider trapping through licence from the Environment Agency.

## **5. Habitat Action Plans and Species Action Plans 2020-2025**

Overleaf an example is presented of what the Board's future BAP Implementation 2020-2025 could deliver.

All BAPs should be dynamic live documents capable of being altered as soon as a new opportunity to conserve and enhance biodiversity within the Board's District is identified, to which the Board can bring benefit through its function.

Biodiversity 2020 Habitat and Ecosystem	Habitat/Species	Target Ref.	Target	Action Ref.	IDB Actions	Indicators	Reporting
<b>Key Sectors: water management Outcome 1C Habitats and Ecosystems on land and Priority Action 1.1 and 3.12</b>	<b>Eutrophic Standing Open Waters and Canals - formerly Drains &amp; Ditches</b>	1	Maintain and enhance the existing habitat and species diversity of watercourses within the drainage district	1.1	Ensure the appropriate management of the IDB watercourses through an integrated Biodiversity Action Plan and Maintenance regime following best practice guidelines. Provide employee training.	Plan production	ongoing through life of plan
				1.2	Identify and assess potential impacts of all new discharges into IDB maintained waterways	Number assessed	annually
				1.3	Ensure any IDB consents cause minimum environmental damage to the aquatic habitat	Number of consents assessed	annually
		2	Control of non-native invasive species along IDB waterways	2.1	Record and monitor non-native invasive plants and animals, report INNS findings to GB INNS Secretariat	length (m) of channel surveyed	annually
		3	Assess the suitability and accessibility of IDB catchments and watercourses for Eel	3.1	Assess all Board catchments and watercourses for suitability and accessibility for Eel	% of catchments assessed	annually
				3.2	Identify target sites and assess feasibility for improvements in accessibility for Eels	% of catchments assessed	annually

Key Sector: Water Management Outcome 3: Species Priority Action 1.3	Water Vole	4	Maintain and enhance suitable habitat for water vole within Board maintained drains	4.1	Ensure appropriate habitat management of watercourses with known Water Vole populations.	length managed/maintained (m)	Ongoing through life of plan
				4.2	Review maintenance regimes and identify watercourses where the mowing and weed cutting regime can be altered to enhance and increase Water Vole habitat.	Length enhanced (m)	2020 onward
				4.3	Ensure Water Vole surveys are conducted prior to any bank improvement, drainage or other engineering works.	Number of surveys undertaken	Ongoing through life of plan
		5	Monitor populations of Water Vole within the drainage district.	5.1	Submit all Water Vole records from the drainage district to local biological recording centres.	number of records submitted	annually
				5.2	Undertake monitoring of key Water Vole colonies.	Length (m) surveyed	annually
key Sector: water management. Outcome 1A habitats and Ecosystems on land	Common Toad and Common Frog	6	Ensure all Board maintenance work considers the terrestrial and aquatic habitat of Common Frog and CommonToad	6.2	Provide training to Board employees on the lifecycle of Common Toad and the varying types of habitat required	No of employees trained	2020 onward
					Record sightings of all stages of life cycle with local Biodiversity records centre	No of records submitted	2020 onward
				6.2			

<b>Key sector: Water Management</b> <b>Outcome 3: Species</b> <b>Priority Action 1.3</b>	<b>European Eel</b>	7	Maintain and enhance suitable habitat for European Eel within the drainage district	7.1	Review maintenance regimes and identify watercourses where the desilting and weed cutting regime can be altered to enhance and increase European Eel habitat	Length of watercourse surveyed	Annually
				7.2	Where suspected sub-optimal habitat for eel undertake eel habitat suitability assessment for specific catchment	No of catchments assessed	Annually
				7.3	Work with EA, Rivers Trust and others to secure understanding of eel habitat, behaviour at pump stations and weed screens.	No. of projects	Annually
		8	Reduce the impacts of existing barriers to migration on escapement and recruitment	8.1	Secure funding to enable prioritisation of existing barriers to migration for mitigation works	Funding secured	On completion
				8.2	Source funding to enable mitigation works and associated pre- and post-project monitoring programme on existing priority structures	Funding secured	On completion



				8.3	Undertake mitigation works on priority structures	Number of structures improved	On completion
<b>Key sector Water management: Outcome 1A Habitats and Ecosystems on land</b>	<b>Biodiversity general</b>	9	Increase biodiversity as part of Board function	9.1	Provision of nesting material, feeding stations, habitat enhancement	Nesting boxes, feeding stations at frequently visited pump station sites	ongoing
<b>Flood Risk Management</b>	Environmental Land Management Schemes	10	Water Quality Improvement	10.1	Work with landowners associated with new discharge consents	No. of consents	annually
		11	Flood Risk Reduction	11.1	Work with landowners that wish to implement Natural Flood Management techniques that trigger consenting	No. of consents	annually
	<b>Procedural</b>	12	Promote environmental best practice when undertaking all drainage works	12.1	Provide contractor guidance and training	No of staff trained	ongoing
				12.2	Publicise examples of environmental best practice	No of articles released	ongoing

		13	Control culverting of watercourses	13.1	Review land drainage consents and advise appropriately taking into account non-culverting policy	No of consents reviewed	ongoing
		14	Improve understanding of protected and notable species populations present within the drainage district	14.1	Submit all records to local biological recording centres	No of records	ongoing
		15	Maintain biodiversity within the drainage district as part of Board function	15.1	Provision of environmental consideration advice with consenting	No of consents reviewed	ongoing
			Action complete				
			Action ongoing				
			Action not started				



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

**T: 01302 337798  
[info@shiregroup-idbs.gov.uk](mailto:info@shiregroup-idbs.gov.uk)  
[www.shiregroup-idbs.gov.uk](http://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  
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