

## Flood Risk Management Group Action Plan (February 2018)

## i) “Live” capital projects

Table 1: Live Capital Projects

Location	Scheme / Works Description	Funding Source	Funding Allocated	Progress	Target Completion Date
The Grange Field	Diversion of channel to create meandering watercourse with associated wetland and wildflower meadow features.	Tewkesbury Borough Council	£180,000	<p>Working in partnership with Environment Agency (EA) and Gloucestershire Wildlife Trust (GWT). Whilst work has officially started, the substantive works have to coincide with the requirements of the ESIF grant if we are to receive the match funding – details of which are given separately below. However, the tender for the civil engineering work is open, with a closing date of 07/03/2018. This contract is currently programed to begin 19/03/2018.</p> <p>We are realising a cost saving by utilising Ubico for the soft landscaping and planting. We have provisional agreement to engage the services of the more expertise staff that were responsible for creating the wildflower planting at Pittville Park.</p>	Spring 2019

## ii) Tewkesbury Borough Council Programme of Watercourse Maintenance

Tewkesbury Borough Council (TBC) owns various parcels of land across the Borough and some of these have watercourses either running through them or adjacent to them. This means that Tewkesbury Borough Council is a 'riparian owner' with responsibilities to maintain these watercourses in good condition.

In 2009 TBC agreed to increase the land drainage revenue budget; in order to allow for routine maintenance work to be carried out.

**Table 2: Completed Tewkesbury Borough Council owned watercourse maintenance works 2017 – 2018**

	Location	Parish	Works	Estimated Length (m)	Cost
1	Kings Gate	Ashchurch Rural	Flail Cutting (June)	181	£144.80
2	Kings Gate	Ashchurch Rural	Flail Cutting and de silt (October)	181	£325.80
3	Cold Pool Lane (playing fields)	Badgeworth	Flail Cutting (June)	200	£160.00
4	Rhapsody Cl/Symphony Road	Badgeworth	Flail Cutting (June)	400	£320.00
5	Rhapsody Cl/Symphony Road	Badgeworth	Flail Cutting (October)	400	£320.00
6	Trumpeter Road	Badgeworth	Flail Cutting (June)	167	£133.60
7	Trumpeter Road	Badgeworth	Flail Cutting (October)	167	£133.60
8	Trumpeter Road	Badgeworth	Clearance of Reeds & pond	Sum	£1,633.60
9	Bramble Chase	Bishops Cleeve	Flail Cutting (June)	300	£240.00
10	Bramble Chase	Bishops Cleeve	Flail Cutting (October)	300	£240.00
11	Blackberry Grove	Bishops Cleeve	Flail cutting of banks (adjacent Gabions - June)	50	£40.00
12	Blackberry Grove	Bishops Cleeve	Flail cutting of banks (adjacent Gabions - October)	50	£40.00
13	Finlay Way	Bishops Cleeve	Flail Cutting (June)	420	£336.00
14	Finlay Way	Bishops Cleeve	Flail Cutting (October)	420	£336.00
15	Hayfield Way	Bishops Cleeve	Flail Cutting (June)	512	£409.60
16	Hayfield Way	Bishops Cleeve	Flail Cutting (October)	512	£409.60

17	Hayfield Way	Bishops Cleeve	Clearance of box culvert	Sum	£2,287.50
18	Oldacre Drive	Bishops Cleeve	Flail Cutting (June)	250	£200.00
19	Oldacre Drive	Bishops Cleeve	Flail Cutting (October)	250	£200.00
20	Oldacre Drive	Bishops Cleeve	Fallen trees removed	Sum	£1,095.00
21	Oldacre Drive	Bishops Cleeve	Tree works on watercourse	Sum	£1,560.00
22	Tobyfield Close	Bishops Cleeve	Flail Cutting (walk through cut - June)	10	£8.00
23	Tobyfield Close	Bishops Cleeve	Flail Cutting (walk through cut - October)	10	£8.00
24	Stoke Road	Bishops Cleeve	Flail Cutting (June)	55	£44.00
25	Stoke Road	Bishops Cleeve	Flail Cutting (October)	55	£44.00
26	Voxwell Lane	Bishops Cleeve	Flail Cutting (June)	100	£80.00
27	Voxwell Lane	Bishops Cleeve	Flail Cutting (October)	100	£80.00
28	Green Way Road	Brockworth	Fly tipping (Gas Cylinders in pond)	Sum	£85.00
29	Coopers View	Brockworth	Flail Cutting (walk through cut - June)	406	£324.80
30	Coopers View	Brockworth	Flail cutting of banks (walk through cut - October)	406	£324.80
31	Ermin Park	Brockworth	Flail Cutting (walk through cut - June)	100	£80.00
32	Ermin Park	Brockworth	Flail Cutting and De silt (walk through cut - October)	100	£180.00
33	Green Way Road	Brockworth	Flail Cutting (Balancing pond - June)	50	£40.00
34	Green Way Road	Brockworth	Flail Cutting (Balancing pond - October)	50	£40.00
35	Green W/Abbotswood	Brockworth	Flail cutting of banks (June)	20	£16.00
36	Green W/Abbotswood	Brockworth	Flail cutting of banks (October)	20	£16.00
37	Horsbere Brook	Brockworth	Flail Cutting (walk through cut - June)	500	£400.00
38	Horsbere Brook	Brockworth	Flail Cutting and De silt (walk through cut - October)	500	£900.00
39	Grenville Close	Churchdown	Flail Cutting  (June)	250	£200.00

40	Grenville Close	Churchdown	Flail Cutting (October)	250	£200.00
41	Trafalgar Dr/Snowdon	Churchdown	Flail Cutting (walk through cut - June)	375	£300.00
42	Trafalgar Dr/Snowdon	Churchdown	Flail Cutting (walk through cut - October)	375	£300.00
43	Parkside Close	Churchdown	Flail Cutting (walk through cut - June)	66	£52.80
44	Parkside Close	Churchdown	Flail Cutting (walk through cut - October)	66	£52.80
45	Parkside Close	Churchdown	Clearance of blockage	Sum	£85.00
46	Bird Road	Hucclecote	Flail Cutting (June)	300	£240.00
47	Bird Road	Hucclecote	Flail Cutting (October)	300	£240.00
48	Hathorn Road (Pond Area)	Hucclecote	Flail Cutting (June)	50	£40.00
49	Hathorn Road (Pond Area)	Hucclecote	Flail Cutting (October)	50	£40.00
50	Pineholt	Hucclecote	Clearance of blockage	Sum	£134.00
51	Rookery Road	Innsworth	Flail Cutting (walk through cut - June)	8	£6.40
52	Rookery Road	Innsworth	Flail Cutting (walk through cut - October)	8	£6.40
53	Fircroft Road	Longford	Flail Cutting (June)	115	£92.00
54	Fircroft Road	Longford	Flail Cutting and de silt (October)	115	£207.00
54	Chargrove Lane	Shurdington	Flail Cutting (Walk through cut - June)	180	£144.00
55	Chargrove Lane	Shurdington	Flail Cutting and de silt (Walk through cut - October)	180	£324.00
56	Tip Road	Stoke Orchard	Flail Cutting (June)	100	£80.00
57	Tip Road	Stoke Orchard	Flail cutting of banks and de silt - (October)	100	£180.00
58	Cricket Ground	Tewkesbury	Fallen Tree removal	Sum	£480.00
59	Avoncrest Drive	Tewkesbury	Flail Cutting and rubbish removal	37m	£1,605.00
60	Lankett Lane	Tewkesbury	Fly tipping (Sofa in channel)	Sum	£85.00
61	Bloody Meadow	Tewkesbury	Flail Cutting (June)	440	£352.00

62	Bloody Meadow	Tewkesbury	Flail Cutting (October)	440	£352.00
63	Carrant Brook	Tewkesbury	Flail Cutting (June)	500	£400.00
64	Carrant Brook	Tewkesbury	Flail Cutting (October)	500	£400.00
65	Carrant Brook	Tewkesbury	Tree works on watercourse	Sum	£2,580.00
66	Council Offices	Tewkesbury		Flail Cutting (June)	100
67	Council Offices	Tewkesbury	Flail Cutting and de silt (October)	100	£180.00
68	Cricket ground	Tewkesbury	Flail Cutting (June)	265	£212.00
69	Cricket ground	Tewkesbury	Flail Cutting and de silt (October)	265	£477.00
70	Lankett Lane	Tewkesbury	Flail Cutting (June)	180	£144.00
71	Lankett Lane	Tewkesbury	Flail Cutting and de silt (October)	180	£328.00
72	Lincoln Green Lane	Tewkesbury	Flail Cutting (June)	550	£440.00
73	Lincoln Green Lane	Tewkesbury	Flail cutting of banks (October)	550	£440.00
74	Rails Meadow	Tewkesbury	Flail Cutting (June)	395	£316.00
75	Rails Meadow	Tewkesbury	Flail Cutting (October)	395	£316.00
76	St Marys Lane	Tewkesbury	Flail Cutting (Access difficult - June)	50	£40.00
77	St Marys Lane	Tewkesbury	Flail Cutting and de silt (Access difficult - October)	50	£90.00
78	The Vineyards	Tewkesbury	Flail Cutting (June)	446	£356.80
79	The Vineyards	Tewkesbury	Flail Cutting and de silt (October)	446	£802.80
80	Beauchamp Road	Walton Cardiff	Flail Cutting (June)	80	£64.00
81	Beauchamp Road	Walton Cardiff	Flail Cutting & Reed removal (October)	80	£289.00
82	Crown Road	Walton Cardiff	Flail Cutting (June)	180	£144.00
83	Crown Road	Walton Cardiff	Flail Cutting & Reed removal (October)	sum	£1,344.00
84	Collyberry Road	Woodmancote	Flail Cutting  (walk through cut - June)	35	£32.00

85	Collyberry Road	Woodmancote	Flail Cutting and de silt (walk through cut - October)	35	£72.00
86	Collyberry Road	Woodmancote	Willow hedge cutting	35	£164.00
87	Honeybourne Meadow	Woodmancote	Flail Cutting (June)	240	£192.00
88	Honeybourne Meadow	Woodmancote	Flail Cutting and de silt (October)	240	£432.00
89	Honeybourne Meadow (Pond area)	Woodmancote	Flail Cutting (June)	350	£388.50
90	Honeybourne Meadow (Pond area)	Woodmancote	Flail Cutting (October)	350	£388.50
91	Pumping Stations	Deerhurst/Tirley	Service and Inspections (July / December)	sum	£1,480.00
93	Trash Screens	Various (8 screens)	De silt and unblock	sum	£3,620.00
94	Little Acorns (off A435)	Bishops Cleeve	Re-grading / shaping of slipping banks	sum	£1,402.50
95	Bramble Chase	Bishops Cleeve	Repairs to rotting bridge structure. Re grade of bank where eroding.	Sum	£3,567.00
96	Abbotswood Road	Brockworth	Dead and fallen tree removal	Sum	£1,040.00
97	Green Acre (off Abbotswood Rd)	Brockworth	Re-alignment of watercourse to help stop erosion of bank - rear property boundary.	sum	£2,838.00
98	Mill Avon/Lower Lode Lane	Tewkesbury	Collapsed fencing clearance and flail cutting.	sum	£1,350.00
	-	-			<b>£45,444.20</b>

**Table 3: Tewkesbury Borough Council owned watercourse maintenance works proposed 2018 - 2019**

	<b>Location</b>	<b>Parish</b>	<b>Works</b>	<b>Estimated Length (m)</b>	<b>Cost</b>
1	Kings Gate	Ashchurch Rural	Flail cutting of banks	181	£289.60
2	Cold Pool Lane (playing fields)	Badgeworth	Flail cutting of banks and hedgerow	200	£320.00
3	Rhapsody Cl/Symphony Road	Badgeworth	Flail cutting of banks	400	£640.00
4	Trumpeter Road	Badgeworth	Clearance of Reeds & pond	Sum	£1,767.20
5	Bramble Chase	Bishops Cleeve	Flail Cutting and de silt	300	£780.00
6	Blackberry Grove	Bishops Cleeve	Flail Cutting and de silt (adjacent Gabions)	50	£130.00
7	Finlay Way	Bishops Cleeve	Flail Cutting and de silt	420	£1,092.00
8	Hayfield Way	Bishops Cleeve	Flail cutting of banks	512	£819.20
9	Oldacre Drive	Bishops Cleeve	Flail cutting of banks	250	£400.00
10	The Grange	Bishops Cleeve	Flail cutting of banks (walk through cut)	300	£480.00
11	Tobyfield Close	Bishops Cleeve	Flail cutting of banks (walk through cut)	10	£16.00
12	Stoke Road	Bishops Cleeve	Flail cutting of banks	55	£88.00
13	Voxwell Lane	Bishops Cleeve	Flail Cutting and de silt	100	£260.00
14	Coopers View	Brockworth	Flail Cutting and de silt (walk through cut)	406	£1,055.60
15	Ermin Park	Brockworth	Flail cutting of banks (walk through cut)	100	£160.00
16	Green Way Road	Brockworth	Flail cutting of banks (Balancing pond)	50	£80.00
17	Green W/Abbotswood	Brockworth	Flail Cutting and de silt	20	£52.00
18	Horsbere Brook	Brockworth	Flail cutting of banks (walk through cut)	500	£800.00
19	Grenville Close	Churchdown	Flail Cutting and de silt	250	£650.00
20	Trafalgar Dr/Snowdon	Churchdown	Flail Cutting and de silt (walk through cut)	375	£975.00

21	Parkside Close	Churchdown	Flail cutting of banks (walk through cut)	66	£105.60
22	Bird Road	Hucclecote	Flail cutting of banks	300	£480.00
23	Hathorn Road (Pond Area)	Hucclecote	Flail cutting of banks	50	£80.00
24	Rookery Road	Innsworth	Flail cutting of banks (walk through cut)	8	£12.80
25	Fircroft Road	Longford	Flail cutting of banks	115	£184.00
26	Chargrove Lane	Shurdington	Flail cutting of banks (Walk through cut)	180	£288.00
27	Tip Road	Stoke Orchard	Flail cutting of banks and de silt	100	£260.00
28	Bloody Meadow	Tewkesbury	Flail cutting of banks	440	£702.00
29	Carrant Brook	Tewkesbury	Flail Cutting and de silt	500	£1,300.00
30	Council Offices	Tewkesbury	Flail cutting of banks	100	£160.00
31	Cricket ground	Tewkesbury	Flail cutting of banks	265	£424.00
32	Lankett Lane	Tewkesbury	Flail cutting of banks	180	£288.00
33	Lincoln Green Lane	Tewkesbury	Flail cutting of banks	550	£880.00
34	Rails Meadow	Tewkesbury	Flail Cutting and de silt	395	£1,027.00
35	St Marys Lane	Tewkesbury	Flail cutting of banks (Access difficult)	50	£80.00
36	The Vineyards	Tewkesbury	Flail Cutting and de silt	446	£713.60
37	Beauchamp Road	Walton Cardiff	Clearance of reeds	sum	£353.00
38	Crown Road	Walton Cardiff	Clearance of reeds	sum	£1,488.00
39	Collyberry Road	Woodmancote	Flail Cutting and de silt (walk through cut)	35	£228.00
40	Honeybourne Meadow	Woodmancote	Flail cutting of banks	300	£480.00
41	Pumping Stations	Deerhurst/Tirley	Service and Inspections (6 monthly)	sum	£1,480.00
63	Trash Screens	Various (8 screens)	De silt and unblock	sum	To be confirmed
37	Various Sites	Various	Footbridges over watercourses inspection and repairs	sum	£1,000.00
					<b>£22,868.60</b>



All works are subject to current quoted costs.

The contract involves:

- Flail cutting of banks twice yearly – Jun/Jul and Oct/Jan
- De silting where necessary over a 3 year programme.

#### Table 4 – Forward Plan – Future Maintenance Issues

Table 4 shows potential future maintenance issues outside of the general maintenance on our owned watercourses. I.e. collapsing, slipping banks, substantial erosion etc.

Below shows the current known watercourses that potentially will cost monies to fix in the future.

	Location	Parish	Problem	Risks -	Comments
1	Finlay Way	Bishops Cleeve	Banks eroding (very sandy soil)	Low	Monitor. Big open space behind.
2	A435 (rear of Little Accorns)	Bishops Cleeve	Banks eroding	Medium	Significant movement in banks. Collapsing in several places over a 50m length. Proposed re grade and possible tree planting to help support bank.
3	Horsbere Brook	Brockworth	Collapsed gabion basket	Low	Monitor. Very deep and wide watercourse. Access issues.
4	Ermin Park	Brockworth	Steep bank with Trees	Low	Monitor. Very deep and wide watercourse. Access issues.
5	Pineholt	Hucclecote	Banks eroding	Medium	Significant movement in banks. Causing more slippage. Proposed re grade possible willow spilling erosion control
6	Mill Avon	Tewkesbury	Collapsed bank fenced off at Gloucester Road, Tewkesbury	Low	Monitor. Very deep and wide watercourse.

### iii) Update on Grant Applications

**Table 5: Existing Schemes**

Location	Scheme / Works Description	Funding Source	Funding Allocated	Progress	Estimated earliest construction start
Bishops Cleeve, Woodmancote and Southam	Surface Water Management Plan (SWMP) outputs. SWMP has identified range of measures including diversion, storage and property protection	FDGiA, local levy and GCC contribution	£728k FDGiA £16k Local Levy £150k GCC	GCC is the lead authority for this scheme. Parish Council consulted in 2014 on the broad outline of an initial package of measures. GCC has commissioned Atkins to prepare inception scheme design and estimated costs. Landowners and the Parish Council will then be consulted on these proposals before detailed design and invitation of tenders in 2018.	2018/19
Churchdown	Surface Water Management Plan (SWMP) outputs. SWMP has identified range of measures including diversion, storage and property protection	FDGiA, local levy and GCC contribution	£71k FDGiA £13k Local Levy £40k GCC	GCC is the lead authority for this this scheme. Unfortunately, it has not been possible to reach an agreement with landowners. It is now proposed to use property level resilience measures only and although doorstep surveys can be carried out this year it is likely that the EA will be asked to defer funding for the implementation of the work to 2018/19.	2017/18/19

Location	Scheme / Works Description	Funding Source	Funding Allocated	Progress	Estimated earliest construction start
Prestbury / Whaddon	Two distinct but nearby flood storage areas with targeted Property Level Protection measures	FDGiA, local levy and GCC contribution	£2m FDGiA £50k Local Levy £243k GCC	GCC is the lead authority for this scheme. Planning permission has been granted and pre commencement archaeology mitigation work has been carried out. The main civil engineering work started in January 2018 and is expected to be completed by the autumn weather permitting.	2017/18
Brockworth	Surface Water Management Plan (SWMP) outputs. SWMP has identified range of measures including diversion, storage and property protection	FDGiA, local levy and GCC contribution	£142k FDGiA £15k Local Levy £40k GCC	GCC is the lead authority for this scheme. Unfortunately it has not been possible to reach an agreement with landowners. It is now proposed to use property level resilience measures only and although doorstep surveys can be undertaken this year the EA will be asked to defer the funding for the implementation of the works to 2018/19.	2017/18/19

**Table 6: Funding Bids in progress**

<b>Location</b>	<b>Scheme / Works Description</b>	<b>Funding Source</b>	<b>Funding Allocated</b>	<b>Progress</b>	<b>Target Completion Date</b>
Various	Priority Axis 6: Preserving and Protecting the Environment and Promoting Resource Efficiency	European Structural and Investment Funds (ESIF) - European Regional Development Fund (ERDF)	Notional allocation for Gloucestershire ~ £3M	<p>Our project, as part of the wider consortium bid surrounding Green Infrastructure in the JCS area, is still awaiting the grant funding agreement. DCLG have stated we are 'in the queue' and they are looking to get it finalised by the end of February.</p> <p>As you will recall; the project surrounds the betterment of areas of public open space of low ecological value, into a network of vibrant mini-meadow areas. This will provide significant multiple benefits in the way of flood risk, biodiversity, water quality, amenity and anti-social behaviour (dog fouling and inconsiderate parking issues have been reported). In addition we will be creating solutions that can be simply and effectively maintained and adapted over time. The Grange Field project would act as the match funding and as such are intrinsically linked.</p>	One of the criteria of the call is that all projects need to be completed by 2020