

HASSOCKS PARISH COUNCIL

You are summoned to a meeting of the **Parish Council** on 11th July 2017
at 7.30 pm in the Council Chamber, Parish Centre, Adastra Park, Hassocks.

Parish Clerk 5 July 2017

Members of the public are encouraged to come to the meetings and there is an opportunity for them to address the Council relating to the non-confidential items on the published agenda.

AGENDA

1. APOLOGIES

- 1.1 To Accept Apologies for Absence.

2. DECLARATIONS OF INTEREST

- 2.1 Disclosure by Councillors of personal interests in matters on the agenda, and whether the Councillor regards their interest as prejudicial under the terms of the Code of Conduct.

3. MINUTES

- 3.1 To accept the minutes of the:

Parish Council meeting 13th June 2017

4. PUBLIC PARTICIPATION

*Up to fifteen minutes will be available to allow for the public to make representations, answer questions or give evidence **in respect of any item of business included in the agenda**, in accordance with Standing Orders.*

5. MINUTES

To accept the following Minutes

- 5.1 **Planning Committee** – 26 June 2017

- 5.2 **Grounds & Environment** – 29th June 2017 (for noting only)

6. Hassocks Green Infrastructure Project - Dusty Gedge/Fred Mailardet (**Appendix 1**)

7. FINANCE

- 7.1 To approve the Financial Report and authorise the list of payments in the sum of £19,642.65 for the period ending 31st May 2017 set out in (**Appendix 2.**)

8. REPORTS

- 8.1 District Councillors' Report
8.2 County Councillor Report

- 8.3 Rail Matters (oral report, Leslie Campbell)
- 8.4 Youth Initiatives (oral report Justine Fisher)
- 8.5 Police matters
- 8.6 Report from Councillors on meetings of outside bodies where the Council is represented.

9. **CHAIRMAN'S REPORT**

- 9.1 Development of the HPC Business Plan.

10. **Urgent Matters** at the discretion of the Chairman for noting and/or inclusion on a future agenda.

- 11 To note that the date of the next Council meeting is Tuesday 12th September 2017

EXCLUSION OF PUBLIC AND PRESS

In view of the confidential nature of the business about to be transacted Councillors will be referred to the Confidential Agenda. If any members of the public or press are in attendance they will be requested to withdraw from the meeting in the public interest.

12. **CONFIDENTIAL** Neighbourhood Plan Working Group meeting minutes held on the 25th May 2017.

FILMING, RECORDING OF COUNCIL MEETINGS AND USE OF SOCIAL MEDIA

During this meeting members of the public may film or record the Committee and officers from the public area only providing it does not disrupt the meeting. The Confidential section of the meeting may not be filmed or recorded. If a member of the public objects to being recorded, the person(s) filming must stop doing so until that member of the public has finished speaking. The use of social media is permitted but members of the public are requested to switch their mobile devices to silent for the duration of the meeting

Please Note

All members of the public are welcome to attend to attend meetings of the Parish Council and its Committees.

Item 4 – a period of 15 minutes will be set aside for the public statements and questions relating to the published non-confidential business of the Meeting.

It may be necessary to consider particular items in confidential session and where this arises, these items will be considered at the end of the agenda

Hassocks Parish Council New 2017/18				
List of Payments made 01/05/2017 and 31/05/2017				
Date Paid	Payee Name	Reference	Amt Paid £	Transaction Detail
03/05/2017	Ian Cumberworth	5399	10.47	Travel Expenses
03/05/2017	Southern Water	5400	32.66	Re-issue B/G water Mar17
05/05/2017	Petty Cash	5401	76.57	Petty Cash Top Up
08/05/2017	Society of Local Council Clerk	5402	38.00	SLCC Membership Feb-Dec 2017
08/05/2017	Close Invoice Finance/TSS	5403	114.66	Legionella check Pavilion
08/05/2017	Foster Landscapes Ltd	5404	42.00	April Safety Inspection
08/05/2017	Christine Chilmaid-reimburse	5405	37.41	6 x Cisa Pavilion Keys
19/05/2017	Salaries May 17	5409,10,11,12		
19/05/2017		5413	6,945.31	Total Salaries May 17
19/05/2017	HMRC/PAYE	5414	2,151.43	PAYE/NI May 2017
17/05/2017	Greenscene Landscapes	5415	156.00	Allotment Planting
19/05/2017	Screwfix Direct Ltd	5416	19.99	Allotment Padlock
17/05/2017	Burgess Hill Town Council	5417	547.20	Bus Shelter Clean Apr-Sept17
17/05/2017	Sussex Environmental Pest Solutions	5419	400.00	Japanese knotweed treatment
19/05/2017	Void Cheque	5420	0	void cheque
17/05/2017	Mark Mulberry	5421	333.42	Internal Audit May 17
18/05/2017	Tracy Bates-reimburse	5422	47.99	Kaspersky Software 2017
23/05/2017	Biffa Waste Services Ltd	5423	373.58	Biffa waste 22.4 - 19.5.17
23/05/2017	Kaycee Roofing Ltd	5424	48.00	Gutter repair. Parish Office
23/05/2017	Grimshaw Kinnear Ltd	5425	88.80	Moss killer for tennis courts
23/05/2017	Zurich Municipal	5426	4,280.91	Insurance/Inspection 17/18
25/05/2017	Net World Sports Ltd	5427	246.93	2 tennis nets - tennis courts
25/05/2017	Mid Sussex District Council	5428	480.00	500 - Parking Discs
30/05/2017	Petty Cash	5429	67.79	Petty Cash Top Up
05/05/2017	Barclays Bank	BARCLAYS	25.00	Stopped Cheques 5328&5337
10/05/2017	Barclays Bank	BARCLAYS	51.65	Charges 13.3-12.4.17
16/05/2017	British Telecom	D/D BT	4.80	Parish Centre telephone
02/05/2017	edf energy	D/D EDF	86.00	Electricity - Parish Centre
02/05/2017	edf energy	D/D EDF	228.00	Electricity Pavilion
30/05/2017	Public Works Loan Board	D/D PWLB	2,356.38	Burial Ground Loan repayment
02/05/2017	Southeast water	D/D SE WAT	22.70	Water Supply Burial Ground
02/05/2017	Southeast water	D/D SE WAT	17.00	Water Supply Parish Centre
02/05/2017	Southeast water	D/D SE WAT	32.00	Water Supply Pavilion
02/05/2017	Southeast water	D/D SE WAT	23.00	Water Supply Allotments
02/05/2017	Mid Sussex District Council	D/D MSDC	257.00	Business Rates - May 2017
	Total		19642.65	

Date: 05/06/2017

Hassocks Parish Council New 2017/18

Page 1
User: TRACY

Time: 17:10

Bank Reconciliation Summary as at 05/06/2017 for
Cashbook 1 - Current Bank A/C 2114

<u>Bank Statement Account Name (s)</u>	<u>Statement Date</u>	<u>Page No</u>	<u>Balances</u>
Current Bank A/C 2114	31/05/2017	4	29,682.36
			29,682.36
Unpresented Cheques (Minus)		Amount	
Total			7,913.43
Amount			<u>21,768.93</u>
Receipts not Banked/Cleared (Plus)			
Total amount		4,790.92	
			4,790.92
			<u>26,559.85</u>
		Balance per Cash Book is :-	26,559.85
		Difference is :-	0.00

Date: 05/06/2017

Hassocks Parish Council New 2017/18

Time: 17:11

Receipts and Payments Summary - Cashbook 1

Current Bank A/C 2114

	<u>Receipt Totals</u>	<u>Payment Totals</u>	
Total Year to Date	76,878.21		
Total Year to Date		69,134.81	
Total Receipts / Payments	76,878.21	69,134.81	Closing Trial Balance
Opening Balance	18,816.45		
Closing Balance		26,559.85	<u>26,559.85</u>
	<u>95,694.66</u>	<u>95,694.66</u>	

Date: 05/06/2017

Hassocks Parish Council New 2017/18

Time: 17:12

Receipts and Payments Summary - Cashbook 2

Tracker A/C 3548

	<u>Receipt Totals</u>	<u>Payment Totals</u>	
Total Year to Date	115,880.00		
Total Year to Date		60,000.00	
Total Receipts / Payments	115,880.00	60,000.00	Closing Trial Balance
Opening Balance	359,460.88		
Closing Balance		415,340.88	415,340.88
	<u>475,340.88</u>	<u>475,340.88</u>	



HASOCKS GREEN INFRASTRUCTURE PROJECT

Community and Neighbourhood Sustainable Urban Drainage Project

June 2017

Hassocks Green Infrastructure Project
Community and Neighbourhood Sustainable Urban Drainage Project
June 2017



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This report has been prepared by Green Infrastructure Consultancy Ltd and the Ecology Consultancy, with all reasonable skill, care and diligence within the terms of the Contract with the client and taking account of the resources devoted to us by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

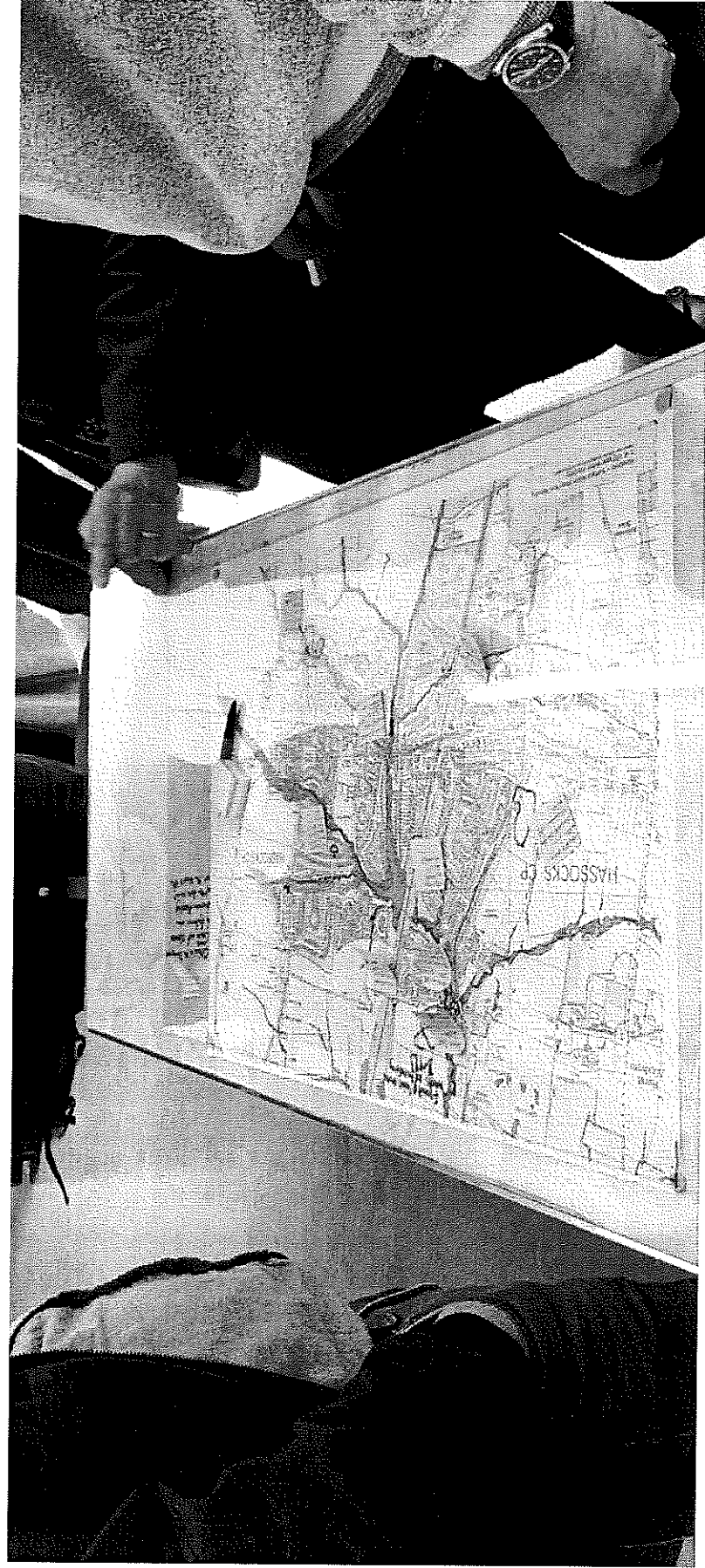
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1 Introduction

This report has been commissioned by Hassocks, Hurspierpoint, Keymer and Ditchling Transition (HKD) and funded by West Sussex County Council's Operation Watershed fund. The aim of the project was:

- to digitally map areas for potential green infrastructure (GI) interventions in Hassocks
- to engage with the public of Hassocks to map areas of where surface flooding and river flooding have historically happened in the town
- to map areas of where surface flooding is a current concern
- Assess the potential impact of the green infrastructure interventions in Hassocks
- To work with the public to identify areas where GI could be installed in the village of Hassocks
- To engage the public and promote green infrastructure to the wider public in Hassocks and beyond
- To create one green infrastructure intervention in the town in 2017



Community mapping

The outputs as outlined in the funding bid to Operation Watershed are as follows:

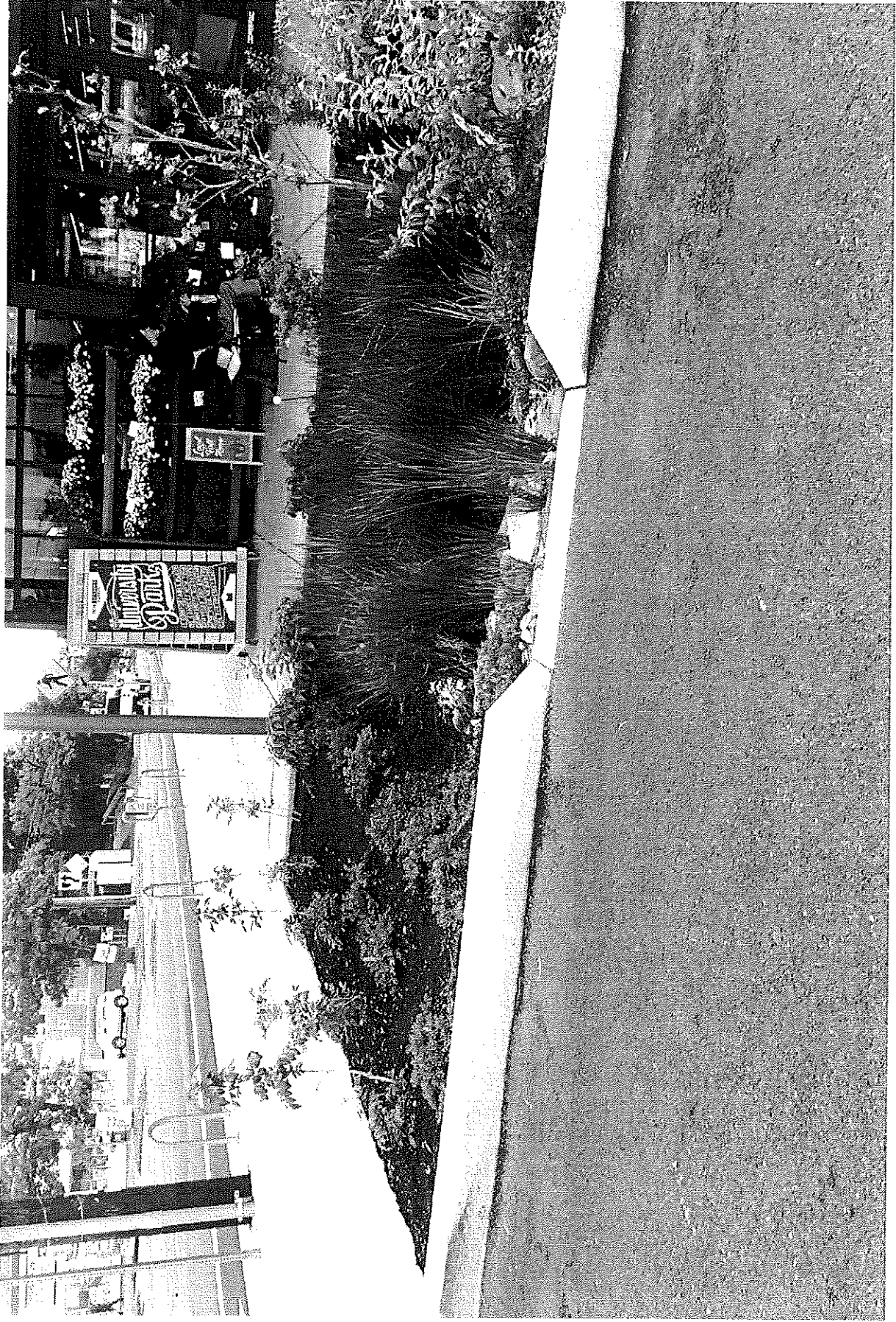
1. An initial set of maps will be produced by the consultants showing Hassocks village (google maps) overlaid with maps for surface water flooding, geological amp and water table.
2. Community Mapping Day: in the workshop, local people will be asked to review the initial set of maps and indicate where they know there has been flooding, and also potential green spaces that could be turned into rain gardens, swales or bio-retention basins. The process will harness local knowledge and local concerns, alongside the relevant specialist information. Maps and appropriate materials will be provided to delegates who will spread out across the town to map these locations.
3. The maps will be collated and mapped on google maps and a shape file will be created.
4. An online map then will be generated looking at spaces and potential areas overlooked and not considered during the mapping day. Focus will be specifically on known flooding hotspots and will include: roofs, gardens, verges, parks and other green spaces, and car parks
5. The final map will also identify two or three sites to take forward as a demonstration. One such site will be selected and a green infrastructure intervention be implemented in the village.

A

The mapping project is one part of a larger effort to manage flooding in Hassocks, led by two village organisations (HKD Transition and the Hassocks Amenity Association) with the Ouse and Adur Rivers Trust (OART) over the last two years. As one of the 'springline' villages at the foot of the South Downs, Hassocks is crossed by numerous streams, many of which have a long history of flooding. Climate change, increasing the frequency of extreme weather events, is likely to exacerbate this. The groups began by developing natural flood management plans for the largest of the tributaries of the Herring stream, including building debris dams to slow the flow of water, and seasonal ponds to store water and release it slowly in winter. That work is underway, and planning is beginning on a second tributary, using similar natural flood management techniques.

In addition, and part funded by Hassocks Parish Council, the two village organisations started a project designed to broaden knowledge of Sustainable Urban Drainage Systems (SuDS). Two training days were planned and executed and a large rain planter was constructed and installed at the United Reform Church in Hassocks.

The Hassocks Green Infrastructure project aims to complement the above work in the wider landscape by promoting green infrastructure within the village of Hassocks and implementing a scheme within the urban fabric of Hassocks.

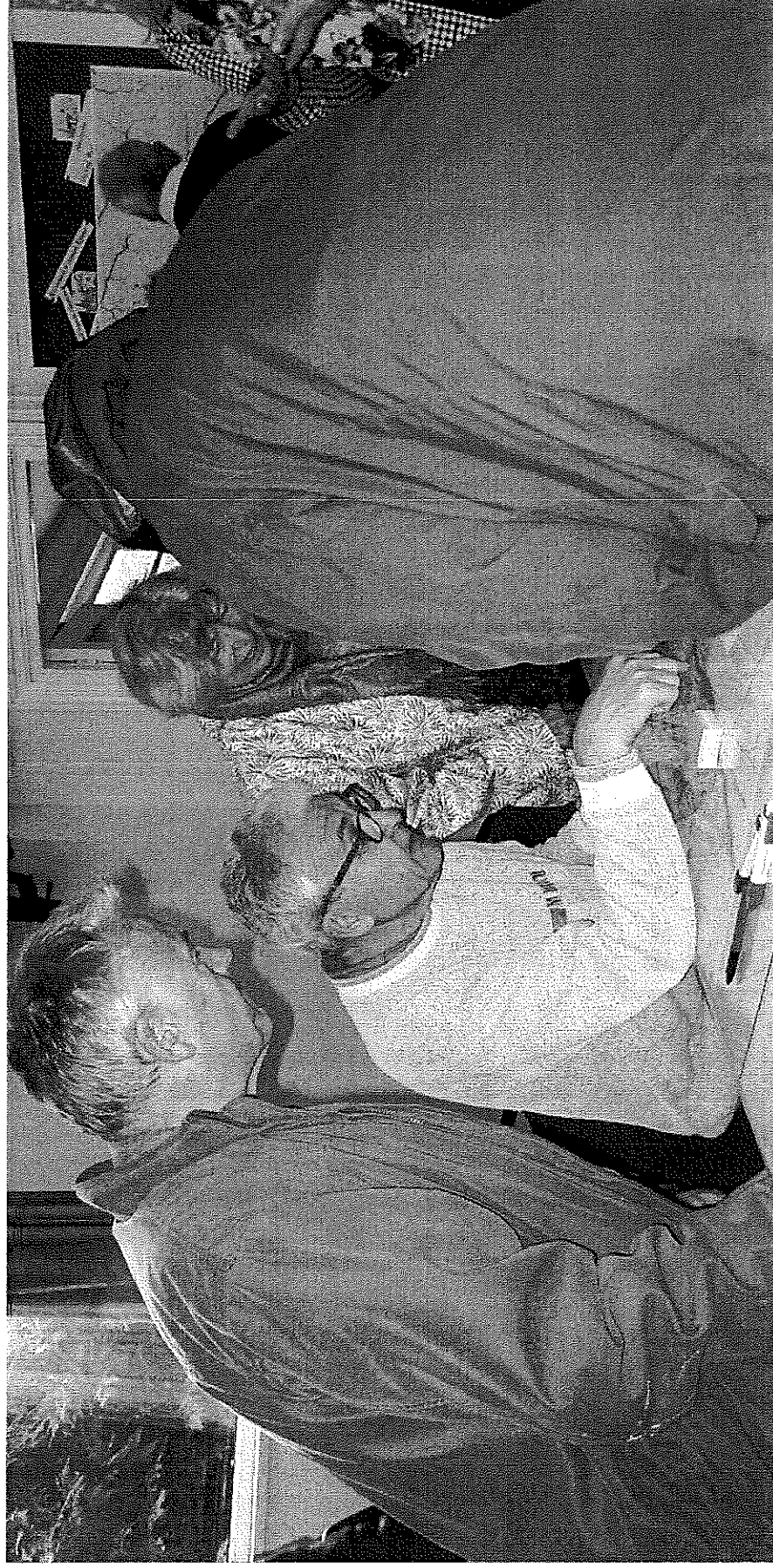


Rain garden in car park, Portland, Oregon

2 Background/Timeline

In July 2016, the Green Infrastructure Consultancy's Dusty Gedge presented a talk at a public meeting convened by the Hassocks Amenity Association, HKD Transition and the Ouse and Adur River Trust (OART). The meeting was deemed a success and HDK Transitions applied for funding to create a community green infrastructure project from West Sussex County Council's Operation Watershed fund.

The project started in February 2017, the first phase of which was online mapping of the town. On April 1st, a community mapping day was undertaken and on 9th May a meeting was held to identify potential sites for a green infrastructure intervention. At the time of writing the report several possible GI Interventions are being investigated to take forward to implementation.



Community mapping day

3 Green Infrastructure

Green infrastructure is using nature-based solutions to deal with a multitude of environmental issues. The benefits of a nature-based approach can help with:

- Water quality and quantity (particularly excess rain fall events)
- Air quality
- Climate resilience
- Biodiversity
- Healthier and greener urban environments

And many other environmental factors.

Although in some incidences, new developments are starting to implement GI, the existing urban fabric can cause major environmental issues, especially due to climate change in the form of more intense storms. Flooding is already a major issue within the village.

Retrofitting green infrastructure into the existing urban fabric has the potential to ameliorate surface flooding and reduce the flow of rain water to the rivers during intensive storms (particularly in the summertime). Although there are many different types of green infrastructure interventions, in this report, the focus is on three main types:

- Rain gardens and swales
- Small green roofs
- Rain garden planters

Rain gardens and Swales

In the UK, Susdrain, the leading information portal for sustainable urban drainage (SUDS) defines rain gardens as 'relatively small depressions in the ground that can act as infiltration points for roof water and other 'clean' surface water – i.e. water that is low in contamination levels. Rain gardens are most likely to be implemented on private property close to buildings. For roof water to reach a rain garden, property downpipes are often disconnected from the drainage system and redirected.' Where rain gardens are used along roads and parking areas, they are technically referred to as bioretention areas. However, for this report they will be referred to as rain gardens.

Swales are similar to rain gardens. Susdrain defines swales as 'shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants.'



QC rain garden at social housing estate, London

Green roofs

Susdrain defines a green roof as 'multi-layered systems that covers the roof of a building or podium structure with vegetation cover/landscaping. The roof is likely to consist of an impermeable layer, a substrate or growing medium and a drainage layer (although not all green roofs require a drainage layer)'. In Hassocks, there are a few opportunities on small scale buildings (garages, sheds and extensions) that could potentially be retrofitted with green roofs depending on the structural capacity of the given buildings.



Green roof on bin store

Rain Garden Planters

Rain garden planters are planting boxes that can be used in areas where there is little space for more conventional landscaping approaches. Although they do not allow water to infiltrate into the ground and therefore store only minimal rain water, they can help to take out the first flush of rain water and slow the run off rate. Essentially, they are planting boxes that are connecting to roof down pipes. Most rain garden planters consist of an area below the soil and vegetation that stores rain water.



Example of rain garden planter

4 Hassocks and Green Infrastructure

Green infrastructure could help meet several objectives as laid out in the Hassocks Parish Neighbourhood Plan (2014).

Flooding

Although the Surface Water Management Plan prepared for West Sussex County Council¹ states:

'Flooding in this catchment primarily originates from the watercourses, which receive the majority of their flow from the upstream rural catchment. Therefore, measures which tackle urban surface water runoff are unlikely to be effective.'

Small scale GI interventions could help ameliorate some of the issues associated with surface run off. The Local Flood Risk Management Plan highlights the number of properties affected by flooding in the town:

'The Local Flood Risk Management Strategy² was published by WSCC in 2014 as the Lead Local Flood Authority. This document notes that Mid Sussex contains six significant clusters of properties that are at risk of flooding, including Hassocks. Figure 6 identifies a number of 'wet spots' which indicate that a total of 685 residential properties and businesses in Hassocks are susceptible to flood risk. Of these, 525 properties are identified as at risk of surface water flooding; 105 are identified as at risk of river and flooding; and 55 are at risk of flooding from a combination of both surface water and river and sea.'

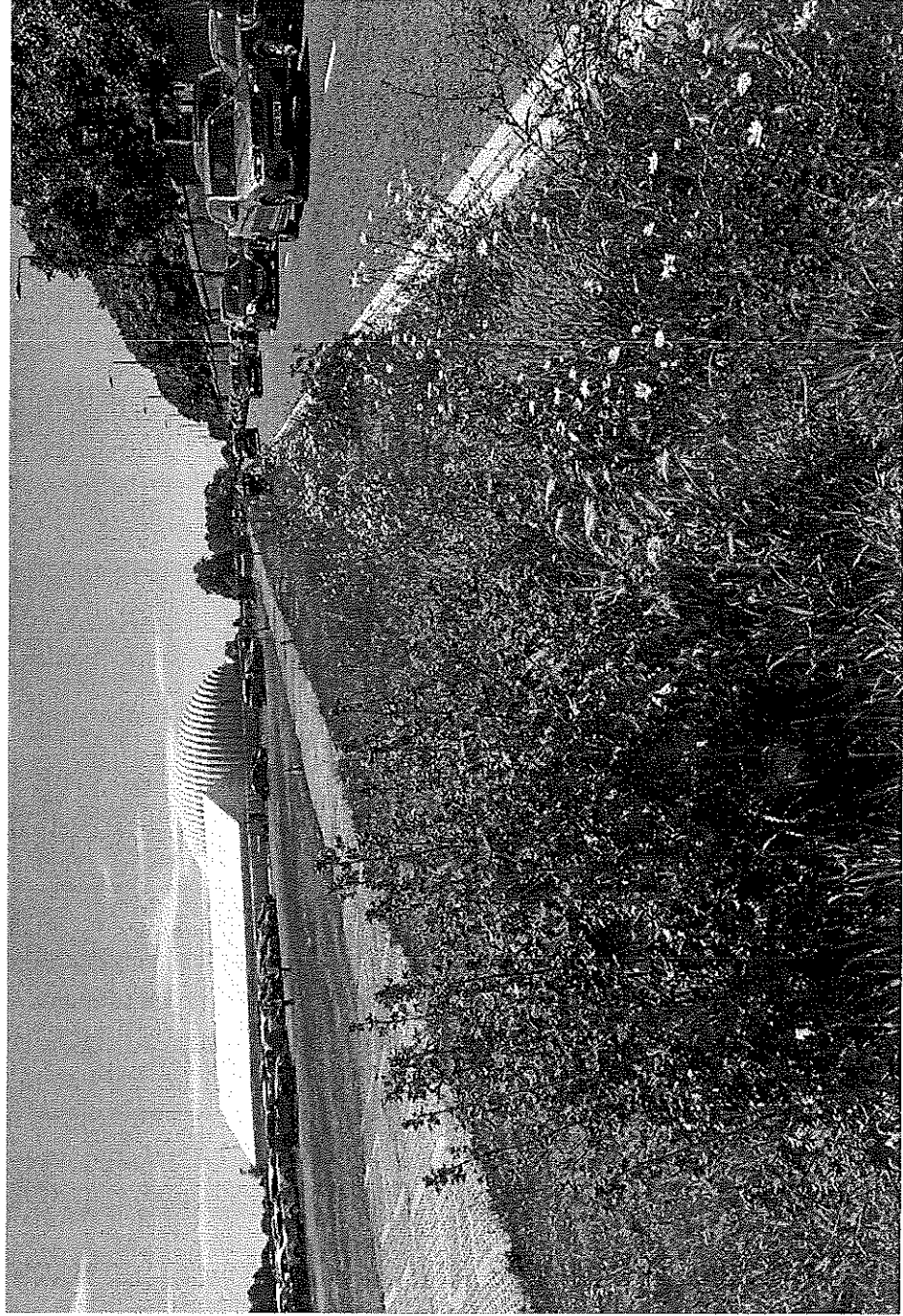
Green infrastructure designed into the townscape using sustainable urban drainage elements could ameliorate some of the impacts of surface flooding experienced by 525 properties within the neighbourhood. This report aims to promote the potential to retrofit such features into the townscape, but only provides an overview of the likely impact. The real measurable impact would need to be assessed by qualified drainage engineers.

1. Final Technical Report' Hassocks Surface Water Management Plan. Prepared for West Sussex County Council by CH2M, July 2016, page 6-2.

2. Mid Sussex District Council (2015), Strategic Flood Risk Assessment Level 1, page 52

Biodiversity

CI interventions can be or should be designed to benefit biodiversity. Rain gardens, swales and green roofs can all be planted with vegetation that provides good provision for pollinators. Currently much of the areas mapped or highlighted during the community mapping day are traditional amenity grass areas. If, and when, interventions are taken forward there should be some consideration of changing the traditional amenity grass approach to one that includes wildflowers, or where required, formal planting that benefits biodiversity.



Wildflower roadside verge

5 Digital Mapping Exercise - Green Infrastructure (GI) Audit

GIC undertook a digital mapping exercise of the whole of Hassocks in February and March. GIC has undertaken over 10 GI Audits in London. The purpose of the GI Audits is to identify potential sites to retrofit the various GI retrofit options. In the case of Hassocks, the focus of the audit was along the streets and road verges of the village. Hassocks is graced with extensive grass verges. Although many of these do have street trees planted in the verges, a good proportion do not. Because of the nature of online maps, small roof spaces for green roofs are difficult to identify. However, physical visits to Hassocks did identify several such roofs and additional roofs were identified on the community mapping day. The aim was to identify as many potential rain garden/swales and green roofs via satellite images as possible. This would then be verified and or added to during the community mapping and investigation at ground level.

Road Verges and Swales

The digital mapping identified over 512 number of road verge units that could be either converted into rain gardens or swales along the roads of Hassocks. Most these are not in the immediate centre of the town but in residential areas surrounding the central area.

The average size of these units was calculated by measuring 25% of the units randomly. The average size of each unit is 15m². A calculation made for a rain garden/swale in Pulborough West Sussex calculated the total volume of water stored in 30m² rain garden at 200mm in depth as storing 3000litres of rain water (3m³). Therefore, each unit in Hassocks is likely to store 1500litres or 1.5m³ of rain water. Therefore, with over 512 units a total of 768,000 litres of rain water is likely to be able to be stored.

Although GIC are not drainage engineers. However, in consultation with The Environment Protection Group, who have designed many such schemes, it is likely that refurbishment of road verges by transforming them into rain gardens could have a significant effect on amount of run-off from roads entering the storm water system.

In our experience, from calculations we have made on a number of schemes across the country, that rain gardens on streets have the potential to provide betterment of between 85-90%. This kind of reduction of storm water run-off can have significant positive impacts on surface flooding in neighbourhoods. **Steve Wilson** The Environmental Protection Group (One of SuDS Manual authors)

Although there is often a focus on the quantity of water stored, in terms of green infrastructure, the rate of run-off is also important, especially in intense summer storms. This is important as good GI interventions should not only store volume but reduce the rate of run-off.

Green roofs

The digital mapping did not identify any large flat roofs in Hassocks. However, on physical visits to Hassocks during the project, a few flat roofs were noted to the East of the station and these were mapped as part of digital mapping access.

Surface Flooding Areas of Hassocks

Areas of historic flooding were also mapped from data provided by the West Sussex's Operation Watershed.

Standard Calculation of Greenfield Run off Rates for Drains

Area (a) of runoff in Hectares (HA) = 0.12 ha
assumed Highway runoff including Footway

2.78 = constant

i runoff rate = 50mm/hr (worst case scenario)

c = coefficient assume 0.9)

$0.12 \times 2.78 \times 50 \times 0.9$

= 15 litres/sec/ha

VOLUME OF RAIN GARDEN/SWALE

Length = 15m

Width = 2m

$0.4/2$ (slope) = 0.2

Depth = 0.2

Volume = 3000litres $3m^3$

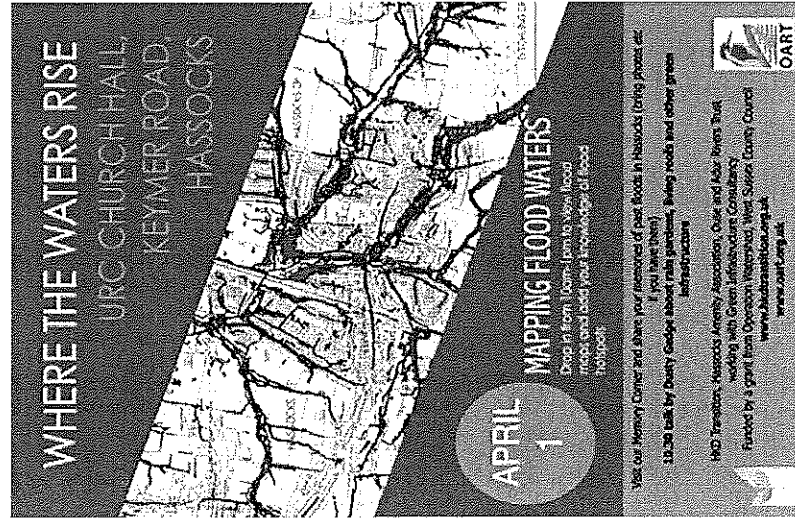
OVERFLOW = 50mm pipe = 5/litres (Greenfield runoff rate

6 Public Mapping Workshop and Day

The projects next stage was to hold a public meeting and workshop to engage the residents of the Hassocks in the issue of flooding and surface water. The public workshop and mapping day was organised by HKD Transition and Hassocks Amenity Association and held on 1st April. The purpose of the event was to:

- Engage the public
- Collect stories and images of historic flooding events in Hassocks
- A workshop where participants physically map areas of surface flooding and identified potential sites for interventions

The public were asked to place post-it notes on maps of Hassocks. These post-its identified historic flooding and specific areas of concern to the public in terms of surface flooding and or river flooding.



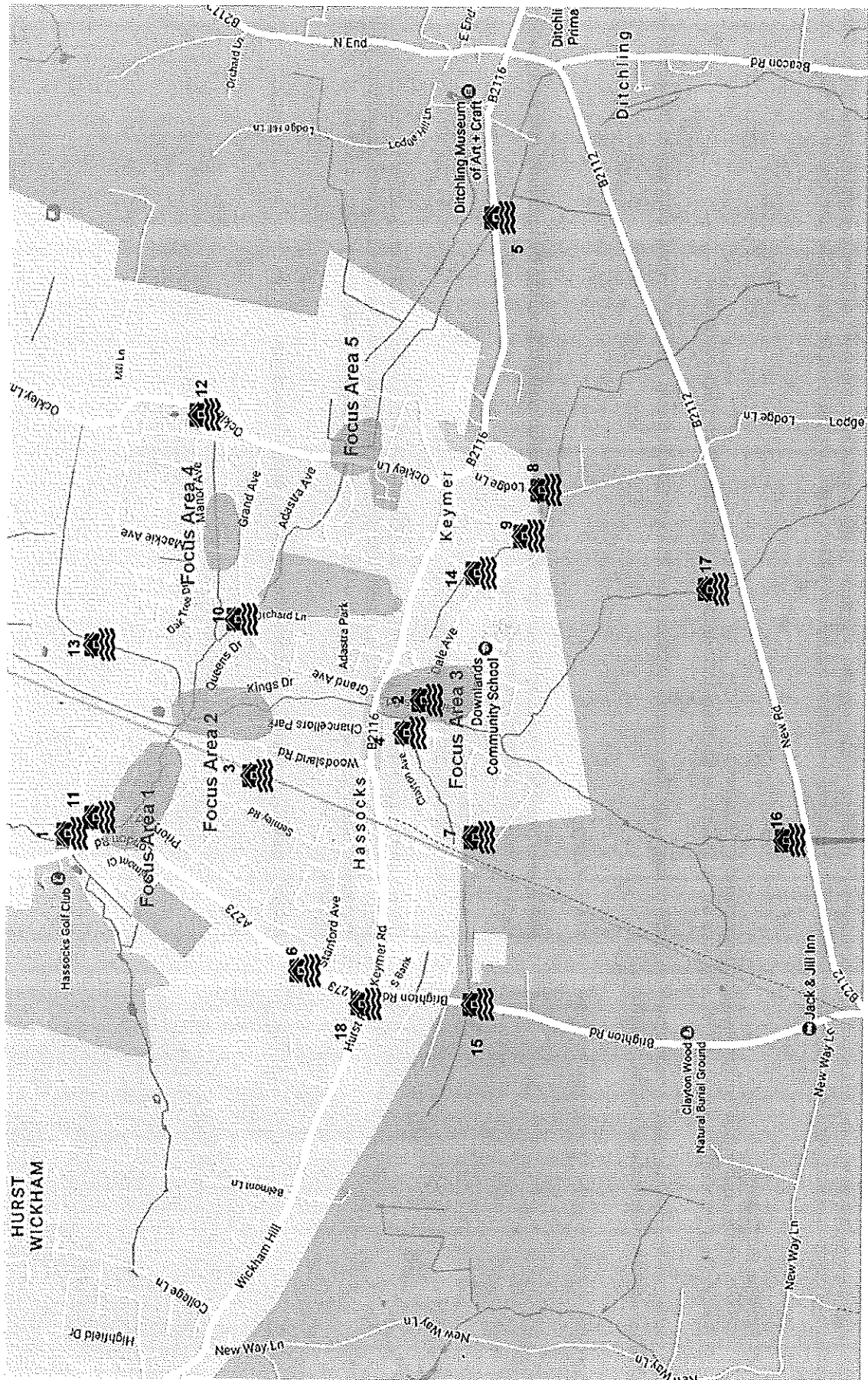
The workshop

Maps were provided and in small groups of 3 -5, each group walked around a distinct area and using their local knowledge and experience to map

- Surface flooding areas
- Potential sites for interventions

On returning the mapping process was discussed by each group, highlighting areas of concern and potential interventions. After the workshop, these were mapped onto a google map and shared with HDK Transition. HDK Transition then added the information gleaned from the public consultation in the morning.

Both the public consultation and the workshop generated two maps.



Map 1

Community Flooding Information

Information gathered during the public consultation in the morning was mapped onto google maps. This combined historic information on flooding and areas of current concern identified by residents. Map 1 shows this areas of concerns and Table1 provides details for each site highlighted by the public.

It was generally agreed, though, that Focus area 1 was of least importance currently as it is downstream from the main areas of habitation. Although it floods, any potential work there, would have limited impact on the main part of the town and therefore the main part of the population in Hassocks.

Focus areas for amelioration of flooding

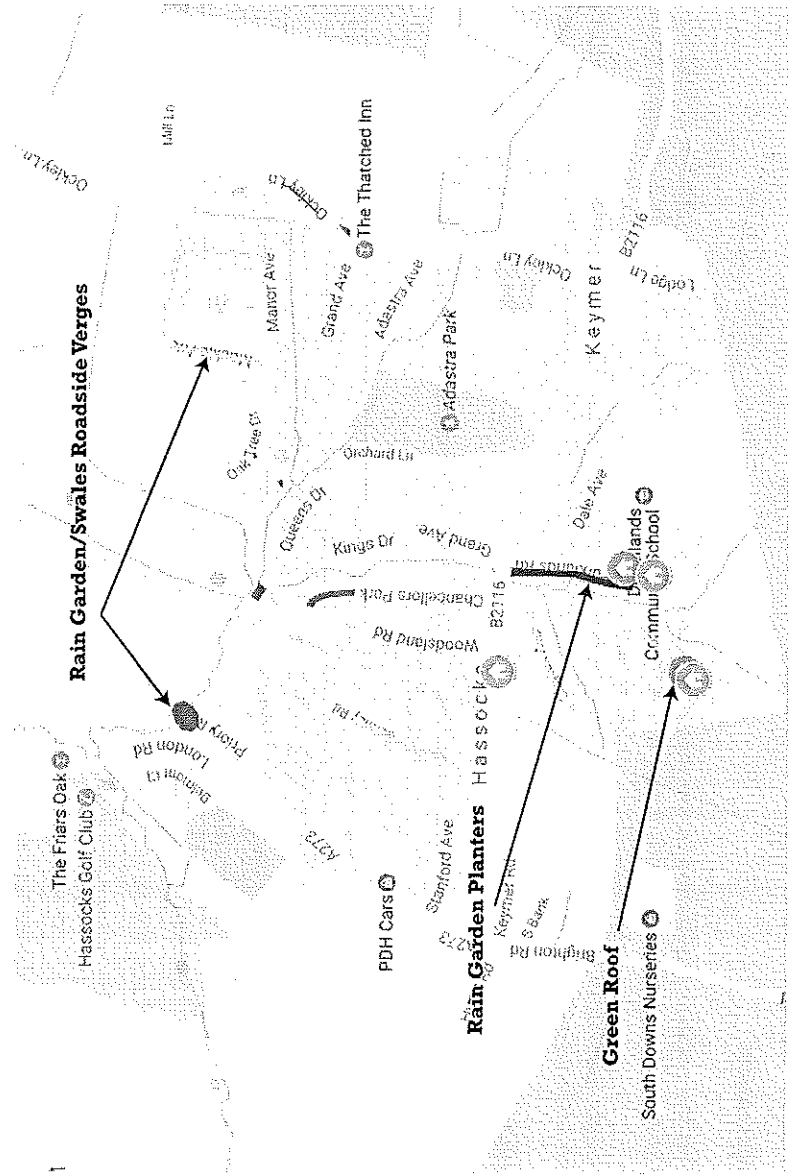
Table 1 – Information on individual sites where historic flooding and/or where there are current concerns - Considering the views of residents and workshop participants, a map was also produced to designated the most important.

LOCATION/MAP NO	COMMUNITY COMMENT
1 Friars Oak Fields	Area of flooding extends to Roman Road and whole area is very wet
2 West side of Parklands Rd	Gardens flood up to back doors annually. Flood water entered houses in 1947, 1963, 2000
3 Twitten under railway	Floods regularly in winters
4 Downs View Rd	Stream water unable to pass through culvert in times of high flow, overflows into Downs View Road and floods gardens
5 Keyner Rd	Stream on south side is almost level with road, very bad road flooding here
6 London Road	Floods every other year. Planned site for 97 houses,
7 Bonny Wood Rd	Fast runoff with heavy rainfall along road and along Cinder track
8 Lodge Lane	Every time it rains heavily there is flooding on east side of lane.
9 Dale Avenue	Site of the old 'boating lake' of the Downs Hotel is clay and floods regularly
10 Grand Avenue	When heavy rain gardens flood, slow to drain away
11 Shepherds Walk green	This area floods during periods of heavy rain. Not on flood maps.
12 Ockley Way	Service road floods regularly
13 Footpath to Woodbourne	Fractured water main causing flooding of footpath
14 Dale Avenue	Streams being fenced by new residents and some brickwork now causing 'whirlpool' effect in stream and flooding.
15 South Downs Nurseries	The road is often partially flooded because the drains cannot now take the amount of rainwater. They are often blocked.
16 B2112 near Weavers	Pond overflows across road.
17 B2112 near Lodge Lane	Since new culvert built for stream road floods between it and Lodge Lane.
	Critical problem that leaves are not cleared in autumn, which can increase flooding at the low points

Workshop – mapping of potential green infrastructure interventions

Whilst the digital mapping exercise undertaken by GIC provides an overall picture of the potential, it was important to engage the community in mapping where they felt interventions could be undertaken. During the mapping exercises the most important 'new' element that came out of the workshop was that one street (Parklands Road) was identified as having great potential for rain garden planters. This would have been difficult to assess during the digital mapping exercise. This highlights that community engagement can provide a level of information that may be missed.

The community mapping day, also highlighted several areas for rain gardens/swales, rain garden planters and green roofs. This can be seen above in the map. Although the mapped areas for rain gardens and swales were also identified in the digital mapping exercise, the community mapping did identify several small roofs that could have potential green roofs. These small green roofs on sheds and extensions are difficult to assess digital and further highlights the need for community participation and ground trothing as an exercise alongside digital audits.



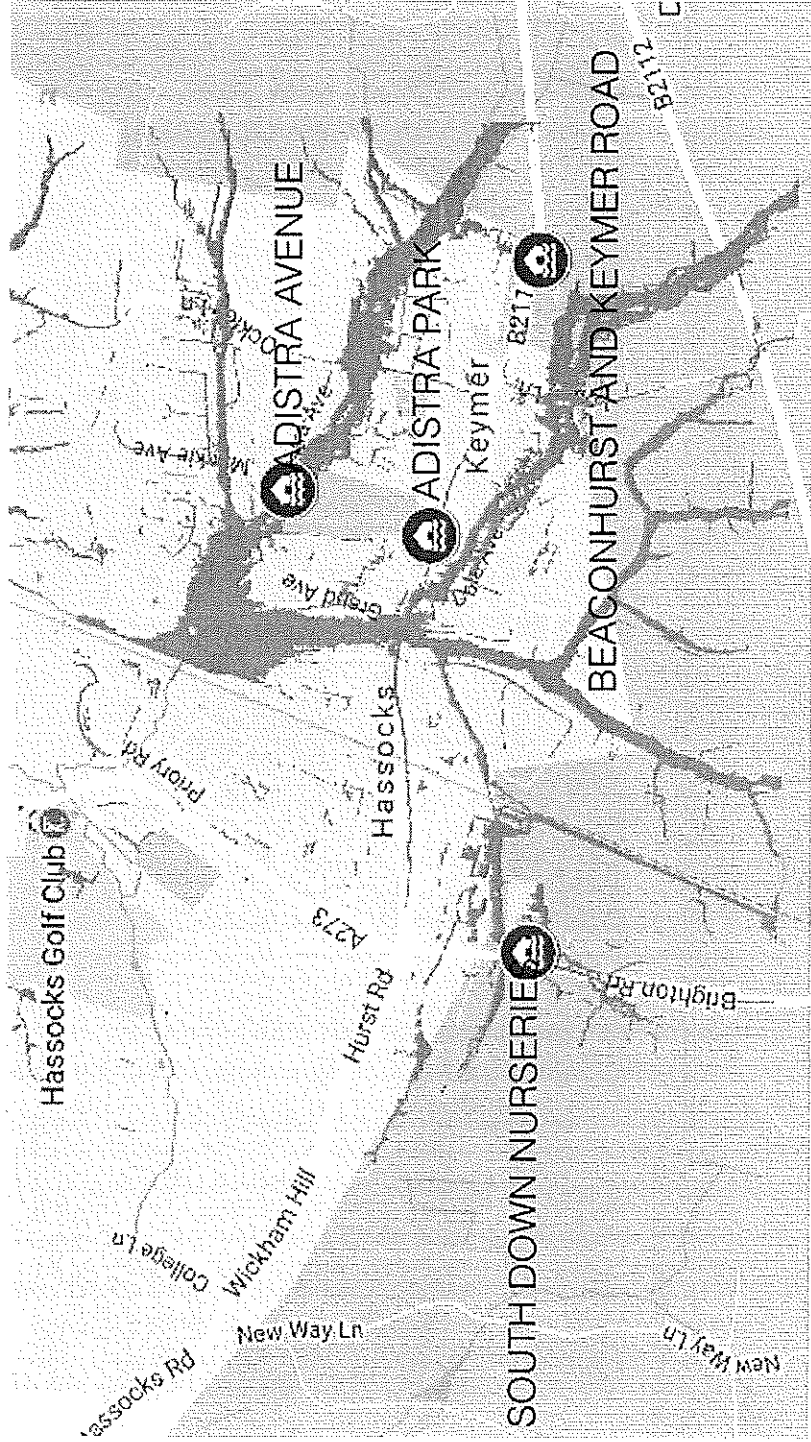
Map 2

7 Identification of Sites for to take forward a funded intervention

Through both mapping exercises and in discussion with the HDK Transitions and Hassocks Amenity Associations several sites have been identified to install a GI intervention. When selecting these sites several factors were taken into consideration. Most importantly is ownership and potential administrative constraints that could either slow the decision-making process and not permit an intervention to be taken forward. The four main sites identified:

- Adastra Car Park
- South Down Nurseries
- Adastra Avenue
- Beaconhurst and Keymer Road

There are several administrative constraints that can become hurdles preventing the implementation of a physical rain garden or swale. These tend to be, in the main, legal permissions and ownership of the land.



Adastra Car Park

A small cobble area of to the right as you enter carpark – under the jurisdiction of the Hassocks Parish Council. This is a well visited site and would therefore provide a lot of publicity within the Parish.



Adastra Car Park - Hassocks Parish Council

South Downs Nurseries

Planted areas in the carpark of the South Down Nurseries – privately owned and therefore easiest to take forward in terms of permissions. Another important factor here, is any intervention would be highly visible to customers visiting the Nursery. This would provide a lot of publicity for the project over a wider area than just Hassocks.



South Downs Nurseries

Adastra Avenue

There is the potential for a large swale on the south side of Adastra avenue leading down to the river. This is in the jurisdiction of the District Council.



Adastra Avenue

Beacon Hurst and Keymer Road

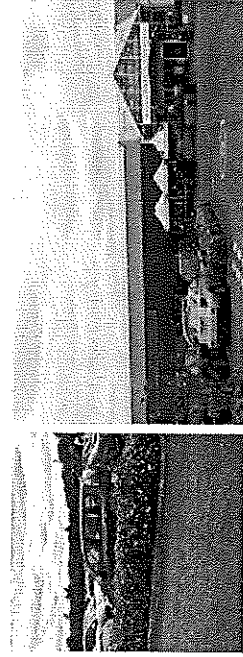
An area of verge where the road regularly floods on the right-hand side leaving Beacon Hurst onto Keymer road. This is within the jurisdiction of the county council.



Beacon Hurst and Keymer Road

Information Leaflets Provided for Owners

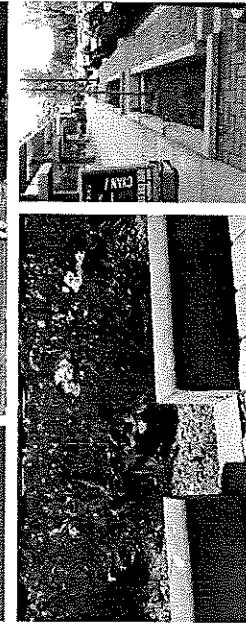
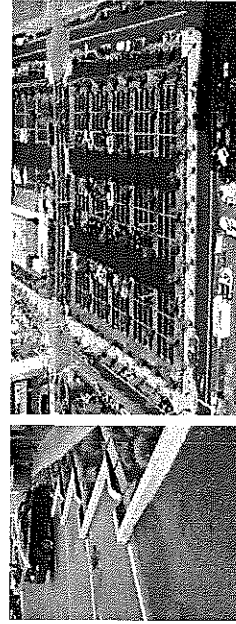
GIC have also produced a series of simple leaflets to be used by HKD Transition and the Hassocks Amenity Association to engage with the various owners of the above sites.



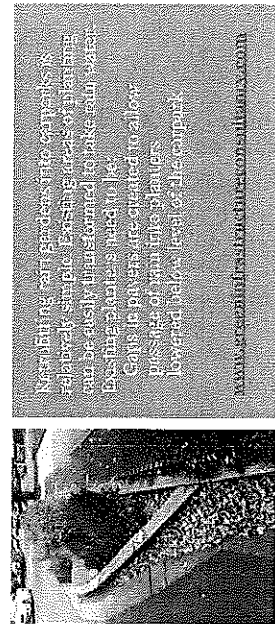
Rain Gardens - storing rain water
South Down Nurseries -
opportunities



Reinstalling rain gardens in to car parks
The rain gardens can be installed in car parks, for example, to store rain water from the roof of the building. The rain gardens can be installed in car parks, for example, to store rain water from the roof of the building. The rain gardens can be installed in car parks, for example, to store rain water from the roof of the building.



Car parks and Rain Gardens -
The Green Infrastructure
Consultancy -



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8 Conclusions and next steps

The most important conclusion from the project is that there is a large area of potential streetscape within the village that could be transformed to both hold and reduced the rate of run-off during heavy storms. This is particularly true in summer. The increase in intense summer storms is recognised to be a major concern in the urban realm due to climate change. As one of the authors of the SuDs Manual is quoted as saying in this report, rain gardens along streets have the potential to increase 'betterment' to between 85 – 90%. Therefore, although this may not stop flooding within the village it should reduce the impact. Slowly transforming the streetscape within the village to retain water will compliment work being undertaken in the wider landscape around the village by the OART and HKD Transitions.

The Community Championing SuDS

Furthermore, the project shows that by involving the community directly in the project there are several important outputs:

- Local knowledge of flooding hotspots and areas engages the community and empowers action
- Local community will take immediate action – as is the case of that during this project one rain garden planter has been installed and more a planned
- The members of the community involved in projects like these can become champions to promote the issue and action to the wider community

The project, it is hoped, will create a culture within the village whereby residents look to take some responsibility on themselves the issue of surface flooding. This does not detract from the necessary work that is within the remit of the County, District and Parish. Importantly it may help focus the authorities' eyes on the potential to consider in depth similar interventions when car parks, road verges and other land within the urban realm comes up for refurbishment or renewal.

Furthermore, it would be hoped that the project and the projects outputs feed into how future developments are designed in the village. A large amount of new housing is planned on the flood plain within the village and SuDs schemes, it would be hoped, will play a significant part in how they are developed.

Next steps 1 – Implementation

At the time of writing this report, the project has not delivered the planned intervention. The next step is to ensure that one single intervention is achieved within the next six months. Once complete this should provide a physical embodiment of the projects aims, acting as an example of how the village could take forward further implementations, whether through future funding or through renewal and refurbishment projects that are planned by the local authorities.

Next steps 2 – Modelling

Modelling the potential impact of rain gardens in detail was not part of the scope of this particularly project. However, as can be seen from the potential amount of interventions that have been mapped, funding for modelling specific streets/areas of the village to ascertain exact figures on what impact rain gardens and swales would have in various rain events, could be useful next step.

Next Steps 3 – Promotion

This report should act as a publicity mechanism to engage the wider community not just in Hassocks but also the surrounding villages in both East and West Sussex. As an output of the project meetings are planned in July 2017 to present the report's findings and hopefully stimulate interest in both the local groups and the authorities to seek further funding to implement further schemes within the village. As has been noted already, more rain garden planters are planned to be installed in the village in the near future, and there is potential for further workshops on how to do small scale SuDS such as these and also small-scale green roofs/ rain gardens in the future, to maintain the momentum.

