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Contents

1 Introduction

1.1 Measures to achieve our objectives

1.1.1.1 It will not be possible to deliver all potential flood risk management measures within the first phase of this Strategy, therefore we have developed a phased approach to implementation. The first LFRMS action plan developed with this Strategy focuses on quick wins and undertaking further investigations to better understand the sources, pathways and receptors of flooding.

1.1.1.2 Table 1 below shows the general measures that we have put in place to achieve our objectives. There are number of measures already being delivered through the Hampshire strategic group that will reduce or manage flood risk, and these have been included in Table 1.

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Table 1 Measures planned to achieve our objectives

Objectives	HCC Actions to deliver the objective
Improve our knowledge and understanding of local flood risk in Hampshire	This Strategy provides clear explanation of the types of local flooding and who is responsible for local flooding. It includes an annex which details what to do in a flood, and how to prepare for a flood. It includes a ward risk assessment that provides a solid evidence base for prioritising future activities. The County Council has developed a reporting and investigation procedure that will ensure future incidents improve the understanding of flooding. The County Council will ensure that the public is aware of this procedure through our public consultation and awareness events. The County Council is developing a consistent approach to the recording and designation of structures.
Work in partnership with other flood risk management authorities to deliver the Strategy and LFRMS Action Plan	All RMAs are part of the LFRMS steering group, and also are represented on the strategic group that provides oversight and scrutiny of this Strategy. The Strategy has been developed through a series of workshops with the RMAs, and with the support of the Regional Flood and Coastal Committees. Hampshire County Council will facilitate the Hampshire Strategic Flood and Water Management Group The LLFA will undertake investigations of significant flooding events following the procedure set out in Annex J, and will share investigation reports with other RMAs and with the public.
Maintain, and improve where necessary, local flood risk management infrastructure and systems to reduce risk	The County Council provides guidance and administers a new process for consenting of new structures and maintenance of existing structures. Hampshire County Council will develop a risk based approach to the maintenance of assets based on the risk assessment undertaken by the Strategy and through the process of preparing the Register and Record as required by the FWMA Hampshire County Council will maintain a database of assets so that responsibility can be established in the case of a problem or a failure to maintain

Objectives	HCC Actions to deliver the objective
Ensure that local planning authorities take full account of flood risk when allocating land and considering permitting development (by avoiding development in inappropriate locations and minimising flood risk wherever possible)	Hampshire County Council is working with Districts/Boroughs to prepare SuDS guidance and developing its SAB procedures that will ensure that new development will not increase runoff entering water bodies. The County Council will ensure that planning authorities are made aware of the risk of local flooding, and will recommend that district and borough councils develop policies that ensure that the type and quantity of development is commensurate with the risk of flooding as determined through this Strategy
Engage with local communities to increase public awareness and reporting of flooding and promote appropriate individual and community level planning and action Improve and support community level flood response and recovery	The Strategy LFRMS Action Plan identifies where risk management authorities will work with local communities in the highest risk areas to promote local capital schemes to reduce the risk of flooding Hampshire County Council will engage with local communities and businesses across the risk envelope to encourage and support them to take appropriate local action to prepare for flooding. This will include encouraging the preparation of flood action plans in high risk areas. The risk management authorities will support the formation of local flood action groups where they do not already exist in the highest risk areas
Identify national, regional and local funding mechanisms to deliver flood risk management interventions.	The Strategy has developed a funding strategy and funding guidance that identifies the primary sources of local flood risk management funding. The Strategy also identifies how to maximise other non flood related outputs to secure contributions from other secondary sources of funding.
Develop strategy, policy and a LFRMS Action Plan to manage these risks, providing balanced social and environmental benefits for the economic investment	The Strategy has developed an LFRMS Action Plan that is based on a detailed assessment of risk from local sources of flooding and considers river and coastal flooding. The LFRMS Action Plan detail is commensurate with the level of risk and the cost of flooding. The actions and measures to reduce risk have been tested through the SEA scoping process to ensure that where possible they achieve multiple benefits and maximise opportunities to deliver social and environmental benefits

1.2 Ward specific action plans

1.2.1.1 We have used the outputs of the risk assessment to rank the wards, 1 being the ward with the highest risk of flooding. Table 4.7 in the main technical report lists the wards identified with the highest ranked combined risk of flooding and identified for each individual data source.

1.2.1.2 Fifteen ward specific action plans have been produced, this represents the 5% of wards with the highest ranked risk. They include the 5 wards with the highest 'combined' risk of flooding, 5 wards with the highest groundwater only flood risk, the 3 wards with the highest ranked risk according to the HCC[1] dataset and the 5 wards with the highest ranked risk calculated from the Environment Agency Flood Map for Surface Water.

1.2.1.3 Section 2 of this document details these ward specific action plans

1.3 Ward summary

1.3.1.1 The Table 2 below shows the full ward ranking, and identifies what actions are required to manage risk. Where these risks are not directly within Hampshire County Council's control, we have identified the third party responsible for the actions.

[1] The annualised costs of flooding for the ward ranked 3 in the HCC database is £17.5k. The ward with the same annualised impact in terms of modelled EA surface water flooding is ranked 162, and the equivalent ward in terms of groundwater flooding is ranked 18. Therefore because of the smaller relative cost of HCC reported incidents, only three wards were selected for ward specific action plans.

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Droxford, Soberton and Hambledon	1	1	62	67	Highest	See specific action plan
Fareham East	2	2	62	137	Highest	See specific action plan
Penton Bellinger	3	12	17	6	Highest	See specific action plan
St Mary's	4	56	34	1	Highest	See specific action plan
Popley East	5	56	62	2	Highest	See specific action plan
Upper Meon Valley	6	3	62	74	High	See specific action plan
Eastrop	7	56	34	3	High	See specific action plan
Ashurst, Copythorne South and Netley Marsh	8	6	12	52	High	Being assessed in GWSWMP
Highclere and Bourne	9	25	61	7	High	See specific action plan
Brookvale and Kings Furlong	10	56	62	4	High	See specific action plan
Abbey	11	7	4	49	High	Being assessed in GWSWMP
Hart Plain	12	45	62	5	High	Monitor and communicate risk - high risk status indicated primarily from modelling
Basing	13	56	13	11	High	Being assessed in Basingstoke SWMP
Cowplain	14	56	27	8	High	Monitor: Reported flooding is recorded as third party asset - Southern Water.
Clanfield and Finchdean	15	7	62	41	High	Being assessed in GWSWMP
Battins	16	4	62	83	High	See specific action plan
Cheriton and Bishops Sutton	17	5	62	75	High	See specific action plan
Aldershot Park	18	56	62	9	High	Being assessed in Rushmoor SWMP
Waterloo	19	56	62	10	High	Monitor and communicate risk - high risk status indicated primarily from modelling
Buckskin	20	56	26	14	High	Being assessed in Basingstoke SWMP
Broughton and Stockbridge	21	15	62	27	Moderate	Being assessed in GWSWMP
Tadley North	22	56	1	140	Moderate	See specific action plan
Fleet Pondtail	23	56	34	12	Moderate	N - HCC measures delivered
Fleet West	24	56	34	13	Moderate	N - HCC measures delivered

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Oakley and North Waltham	25	45	18	20	Moderate	Being assessed in Basingstoke SWMP
Cherrywood	26	56	62	15	Moderate	Being assessed in Rushmoor SWMP
South Ham	27	56	34	17	Moderate	Being assessed in Basingstoke SWMP
Fleet North	28	56	62	16	Moderate	Being assessed in Rushmoor SWMP
Upton Grey and The Candovers	29	13	34	53	Moderate	Being assessed in GWSWMP
St Barnabas	30	56	62	18	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling
Rowlands Castle	31	7	62	123	Moderate	Being assessed in GWSWMP
Purbrook	32	56	27	22	Moderate	Monitor: third party responsibility
Bourne Valley	33	18	62	46	Moderate	Being assessed in GWSWMP
Bishops Waltham	34	21	62	39	Moderate	Monitor and communicate risk
Fernhill NE	35	56	62	19	Moderate	Being assessed in Rushmoor SWMP
Bramshott and Liphook	36	56	62	21	Moderate	Monitor and communicate risk
Wickham	37	11	34	146	Moderate	Being assessed in GWSWMP
Knellwood	38	56	62	23	Moderate	Being assessed in Rushmoor SWMP
Fareham North	39	56	62	24	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling
Chandler's Ford East	40	45	62	26	Moderate	Being assessed in Eastleigh SWMP
Kings Worthy	41	13	62	82	Moderate	Being assessed in GWSWMP
St Michael	42	56	62	25	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling
St Faith's	43	56	14	47	Moderate	Monitor
Alamein	44	56	62	28	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling
Blackwater and Hawley	45	56	27	38	Moderate	Monitor: 3rd party responsibility
Liss	46	56	62	29	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Kings Somborne and Michelmersh	47	21	62	54	Moderate	Monitor: GW
Emsworth	48	35	20	60	Moderate	Monitor: combined sources
Alton Westbrooke	49	56	62	30	Moderate	Monitor and communicate risk - moderate risk status indicated primarily from modelling
Brighton Hill North	50	56	62	31	Moderate	Being assessed in Basingstoke SWMP
Manor Park	51	56	62	32	Low	Being assessed in Rushmoor SWMP
Brighton Hill South	52	56	62	33	Low	Being assessed in Basingstoke SWMP
Fleet Courtmoor	53	56	34	35	Low	LLFA liaison role: third party responsibility - Thames Water.
Fair Oak and Horton Heath	54	56	4	62	Low	Being assessed in Eastleigh SWMP
Lymington Town	55	25	4	110	Low	Combined tidal and surface water impacts. Monitor and communicate risk as overall risk is low
Portchester East	56	56	62	34	Low	Monitor and communicate risk - moderate risk status indicated primarily from modelling
Crondall	57	56	34	43	Low	Small scale capital solution on 3rd party land identified but not costed.
Hartley Wintney	58	56	34	44	Low	Small capital scheme in progress. Monitor progress and performance
Eastleigh North	59	56	4	70	Low	Being assessed in Eastleigh SWMP
Whitchurch	60	56	62	36	Low	Being assessed in Basingstoke SWMP
Downlands and Forest	61	56	62	37	Low	Monitor and communicate risk - low risk status indicated primarily from modelling
St Bartholomew	62	21	62	71	Low	Monitor: Moderate GW risk
Colden Common and Twyford	63	15	62	103	Low	Being assessed in GWSWMP
Norden	64	56	62	40	Low	Being assessed in Basingstoke SWMP
Hedge End St John's	65	56	27	48	Low	Being assessed in Eastleigh SWMP
Westheath	66	56	62	42	Low	Being assessed in Rushmoor SWMP
Fleet Central	67	56	4	78	Low	Investigate: Combined fluvial and surface water flood cause. Capital scheme unlikely to be feasible, therefore consider property level protection. However, risk overall is low.

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Wellington	68	56	62	45	Low	Being assessed in Rushmoor SWMP
Bedhampton	69	56	27	50	Low	
The Alresfords	70	18	62	93	Low	Being assessed in GWSWMP
Stakes	71	25	62	69	Low	
Hiltingbury West	72	56	4	97	Low	Being assessed in Eastleigh SWMP
Bishopstoke East	73	56	14	89	Low	Being assessed in Eastleigh SWMP
Wonston and Micheldever	74	25	62	90	Low	
Dun Valley	75	25	34	99	Low	
Town	76	7	62	244	Low	Being assessed in GWSWMP
Overton, Laverstoke and Steventon	77	56	62	51	Low	Being assessed in Basingstoke SWMP
Barncroft	78	56	34	61	Low	
Alton Whitedown	79	56	20	77	Low	
Winton	80	56	62	55	Low	
Itchen Valley	81	18	62	119	Low	Being assessed in GWSWMP
Chandler's Ford West	82	56	62	56	Low	Being assessed in Eastleigh SWMP
Holybourne and Froyle	83	56	62	57	Low	
Hook	84	56	34	66	Low	
Fordingbridge	85	56	62	58	Low	
Anna	86	56	62	59	Low	
Totton East	87	15	3	231	Low	See specific action plan
Alton Ashdell	88	56	62	63	Low	
Netley Abbey	89	56	62	64	Low	
St John and All Saints	90	56	62	65	Low	
Empress	91	56	20	94	Low	Being assessed in Rushmoor SWMP
Downland	92	56	62	68	Low	
Compton and Otterbourne	93	25	62	112	Low	
St Paul	94	56	62	72	Low	
St Mark's	95	56	62	73	Low	Being assessed in Rushmoor SWMP
Odiham	96	56	62	76	Low	
Eversley	97	56	2	169	Low	See specific action plan
Kempshott	98	56	62	79	Low	Being assessed in Basingstoke SWMP

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Yateley North	100	56	62	81	Low	
Chineham	101	56	27	100	Low	Being assessed in Basingstoke SWMP
Fareham South	102	56	62	84	Low	
Petersfield St Peters	103	56	62	85	Low	
Warren Park	104	56	62	86	Low	
Portchester West	105	56	62	87	Low	
Brockenhurst and Forest South East	106	35	62	118	Low	
Hythe West and Langdown	107	40	62	109	Low	
Winklebury	108	56	62	88	Low	Being assessed in Basingstoke SWMP
Yateley East	109	56	20	113	Low	
Eastleigh South	110	35	62	121	Low	Being assessed in Eastleigh SWMP
Tadley South	111	56	62	91	Low	Being assessed in Basingstoke SWMP
St Luke	112	56	62	92	Low	
Totton North	113	56	34	105	Low	
Popley West	114	56	62	95	Low	Being assessed in Basingstoke SWMP
North Baddesley	115	56	62	96	Low	
Frogmore and Darby Green	116	35	20	165	Low	
Headley	117	56	62	98	Low	
Kingsclere	118	56	62	101	Low	Being assessed in Basingstoke SWMP
Horndean Catherington and Lovedean	119	56	62	102	Low	
Barton	120	56	62	104	Low	
Milton	121	56	62	106	Low	
Milford	122	25	62	153	Low	
Church Crookham West	123	56	62	107	Low	
North Town	124	56	62	108	Low	Being assessed in Rushmoor SWMP
Blackwater	125	40	62	133	Low	
Ropley and Tisted	126	56	34	117	Low	
Rowhill	127	56	62	111	Low	Being assessed in Rushmoor SWMP

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Rowhill	127	56	62	111	Low	Being assessed in Rushmoor SWMP
Lyndhurst	128	56	4	180	Low	Investigate: regular mainetance required. Capital scheme to increase capacity proposed locally.
Denmead	129	45	62	129	Low	
Holbury and North Blackfield	130	56	62	114	Low	
Harewood	131	56	62	115	Low	
West End North	132	56	34	130	Low	Being assessed in Eastleigh SWMP
Grove	133	56	62	116	Low	Being assessed in Basingstoke SWMP
Swanmore and Newtown	134	45	34	141	Low	
Sherborne St John	135	56	62	120	Low	Being assessed in Basingstoke SWMP
Titchfield	136	21	62	186	Low	
Horndean Hazleton and Blendworth	137	56	62	122	Low	
Bransgore and Burley	138	45	34	147	Low	
Totton Central	139	56	19	155	Low	
Warsash	140	56	62	124	Low	
Hatch Warren and Beggarwood	141	56	62	125	Low	Being assessed in Basingstoke SWMP
Dibden and Hythe East	142	56	62	126	Low	
Sarisbury	143	56	62	127	Low	
Horndean Kings	144	56	62	128	Low	
Alton Eastbrooke	145	56	62	131	Low	
Calleva	146	56	62	132	Low	Being assessed in Basingstoke SWMP
Owslebury and Curdridge	147	40	62	158	Low	
Fareham North-West	148	56	62	134	Low	
Forest North West	149	56	62	135	Low	
East Meon	150	56	62	136	Low	
Boldre and Sway	151	25	62	191	Low	
Whitehill Deadwater	152	56	62	138	Low	
Petersfield Bell Hill	153	56	62	139	Low	
Ampfield and Braishfield	154	35	62	178	Low	

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Alton Wooteys	155	56	34	152	Low	
Over Wallop	156	56	62	142	Low	
Bondfields	157	56	16	189	Low	
Littleton and Harestock	158	25	62	196	Low	
Bishopstoke West	159	56	62	143	Low	Being assessed in Eastleigh SWMP
St John's	160	56	62	144	Low	Being assessed in Rushmoor SWMP
Four Marks and Medstead	161	56	62	145	Low	
Cove and Southwood	162	56	62	148	Low	Being assessed in Rushmoor SWMP
Bramshaw, Copythorne North and Minstead	163	45	34	173	Low	
Froxfield and Steep	164	56	62	149	Low	
Becton	165	56	62	150	Low	
Totton South	166	56	34	160	Low	
Harroway	167	56	62	151	Low	
Ringwood North	168	56	34	161	Low	
Hayling West	169	56	20	185	Low	
Valley Park	170	56	62	154	Low	
Locks Heath	171	56	62	156	Low	
Millway	172	56	62	157	Low	
Park Gate	173	56	62	159	Low	
Amport	174	45	34	184	Low	
Yateley West	175	56	62	162	Low	
Hordle	176	56	62	163	Low	
Tadburn	177	56	62	164	Low	
Marchwood	178	25	62	217	Low	
Hamble-le-Rice and Butlocks Heath	179	56	62	166	Low	Being assessed in Eastleigh SWMP
Petersfield Rother	180	56	62	167	Low	
Bashley	181	56	62	168	Low	
Church Crookham East	182	56	62	170	Low	Being assessed in Rushmoor SWMP

Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Binsted and Bentley	183	56	62	171	Low	
Totton West	184	56	62	172	Low	
Pennington	185	56	62	174	Low	
Long Sutton	186	56	62	175	Low	
The Hangers and Forest	187	56	62	176	Low	
Leesland	188	56	4	247	Low	Scheme delivered: Monitor
East Woodhay	189	40	62	201	Low	Being assessed in Basingstoke SWMP
Fernhill SW	190	45	62	188	Low	Being assessed in Rushmoor SWMP
Lee West	191	56	62	177	Low	
Chilworth, Nursling and Rownhams	192	56	62	179	Low	
Botley	193	56	27	203	Low	Being assessed in Eastleigh SWMP
Petersfield Causeway	194	56	62	181	Low	
Butts Ash and Dibden Purlieu	195	56	62	182	Low	
Hedge End Wildern	196	56	62	183	Low	Being assessed in Eastleigh SWMP
Grayshott	197	56	62	187	Low	
Titchfield Common	198	56	62	190	Low	
Petersfield St Marys	199	56	62	192	Low	
Alton Amery	200	56	62	193	Low	
Eastleigh Central	201	56	34	205	Low	Being assessed in Eastleigh SWMP
Whiteley	202	56	62	194	Low	
Fawley, Blackfield and Langley	203	56	62	195	Low	
Selborne	204	56	62	197	Low	
Ringwood East and Sopley	205	56	34	210	Low	
Rooksdown	206	56	62	198	Low	Being assessed in Basingstoke SWMP
Burghclere	207	56	62	199	Low	Being assessed in Basingstoke SWMP
Shedfield	208	45	62	213	Low	
Buckland	209	56	62	200	Low	
Olivers Battery and Badger Farm	210	56	62	202	Low	
Hayling East	211	40	62	230	Low	
Alverstoke	212	56	62	204	Low	
Fareham West	213	56	62	206	Low	

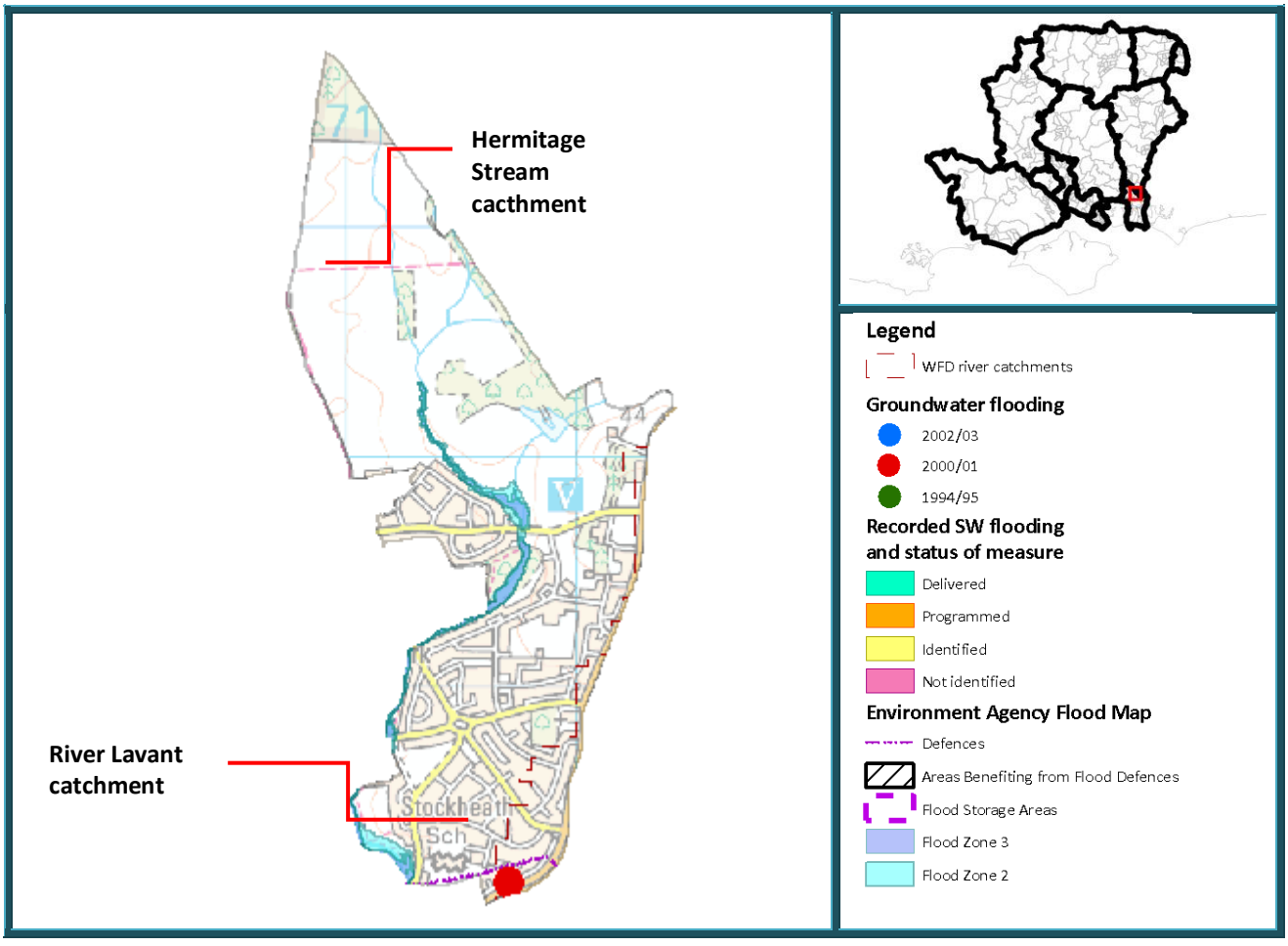
Ward	percentile TOTAL	percentile GW	percentile HCC	percentile EA SW	Overall ranking	Measures
Bursledon and Old Netley	214	56	34	218	Low	
Hiltingbury East	215	56	62	207	Low	Being assessed in Eastleigh SWMP
Whitehill Hogmoor	216	56	62	208	Low	
West End South	217	56	62	209	Low	Being assessed in Eastleigh SWMP
Whitehill Walldown	218	56	62	211	Low	
Whitehill Chase	219	56	62	212	Low	
Hedge End Grange Park	220	56	62	214	Low	Being assessed in Eastleigh SWMP
Horndean Murray	221	56	62	215	Low	
Baughurst	222	56	62	216	Low	Being assessed in Basingstoke SWMP
Stubbington	223	56	62	219	Low	
Lindford	224	56	62	220	Low	
Pamber	225	56	62	221	Low	Being assessed in Basingstoke SWMP
Forton	226	56	34	232	Low	
Romsey Extra	227	56	62	222	Low	
Charlton	228	56	62	223	Low	
Boarhunt and Southwick	229	45	62	237	Low	
Brockhurst	230	56	62	224	Low	
Sparsholt	231	56	62	225	Low	
Cupernham	232	56	62	226	Low	
Furzedown and Hardley	233	56	62	227	Low	
Horndean Downs	233	56	62	227	Low	
Privett	235	56	62	229	Low	
Peel Common	236	56	62	233	Low	
Anglesey	237	56	62	234	Low	
Whitehill Pinewood	238	56	62	235	Low	
Bridgemary North	239	56	62	236	Low	
Hardway	240	56	62	238	Low	
Elson	241	56	62	239	Low	
Rowner and Holbrook	242	56	62	240	Low	
Bridgemary South	243	56	62	241	Low	
Christchurch	244	56	62	242	Low	
Hill Head	245	56	62	243	Low	
Petersfield Heath	246	56	62	245	Low	
Lee East	247	56	62	246	Low	
Grange	248	56	62	247	Low	

2 Ward specific action plans

Ward specific action plan
Battins

About the Ward					
Ward area (km^2)	2.9	**District**	Havant	**Catchment**	Hermitage Stream, River Lavant
No. Residential properties	2954	**No. other buildings**	232	**Critical Infrastructure**	32

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High - wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	High		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Highest	EA surface water	Low
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes



Summary

Battins is a small ward in the south of Hampshire, to the north of Havant. Critical infrastructure within the ward includes infant and junior schools, electricity sub stations, community centres and a medical centre.

Hampshire County Council has no records of internal surface water flooding within the ward. The Environment Agency Flood Map for Surface Water illustrates that there is the potential for surface water flooding to the centre and north of the ward. These areas of the ward may also be at risk from river flooding, as indicated by the Environment Agency Flood Map.

Groundwater flooding occurred to the south of the ward in Havant during the 2000/2001 event.

Current risk

Groundwater flooding was reported in the ward of Battins in 2000/2001. In total 21 properties experienced flooding at ground floor level.

Hampshire County Council has no records of internal surface water flooding within the ward.

Potential Surface Water Flood Risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for Surface Water flooding indicates that small areas to the centre and north of the ward may be at risk from deep (greater than 0.3m depth) surface water flooding with a 1 in 30 and 1 in 200 year return period. This suggests the potential for surface water flooding affecting properties internally in these areas.

The Environment Agency Flood Map for Surface Water indicates that a wider area of the ward could be at risk from shallow (0.1 – 0.3m deep) surface water flooding, and shows the potential for flooding in the south of the ward. Therefore there is some risk of shallow or nuisance flooding to roads, driveways and gardens throughout much of the ward.

The Environment Agency Flood Map indicates potential for river flooding in the centre of the ward in similar locations to the surface water flooding. In addition the flood map indicates the possibility of river flooding on the southern boundary of the ward with between 1% and 0.1% chance of occurring in any year. Surface water and river flooding may therefore interact in the centre of the ward.

Measures already delivered to reduce risk

Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered.

Future measures needed to reduce risk

This ward remains at a high risk of groundwater water flooding. The groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the groundwater flood warning service, and potential capital schemes. However, this risk assessment identifies that there is a risk of combined flooding. Therefore Hampshire County Council should act as coordinating authority for a delivery team, which includes representation from the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding
- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies

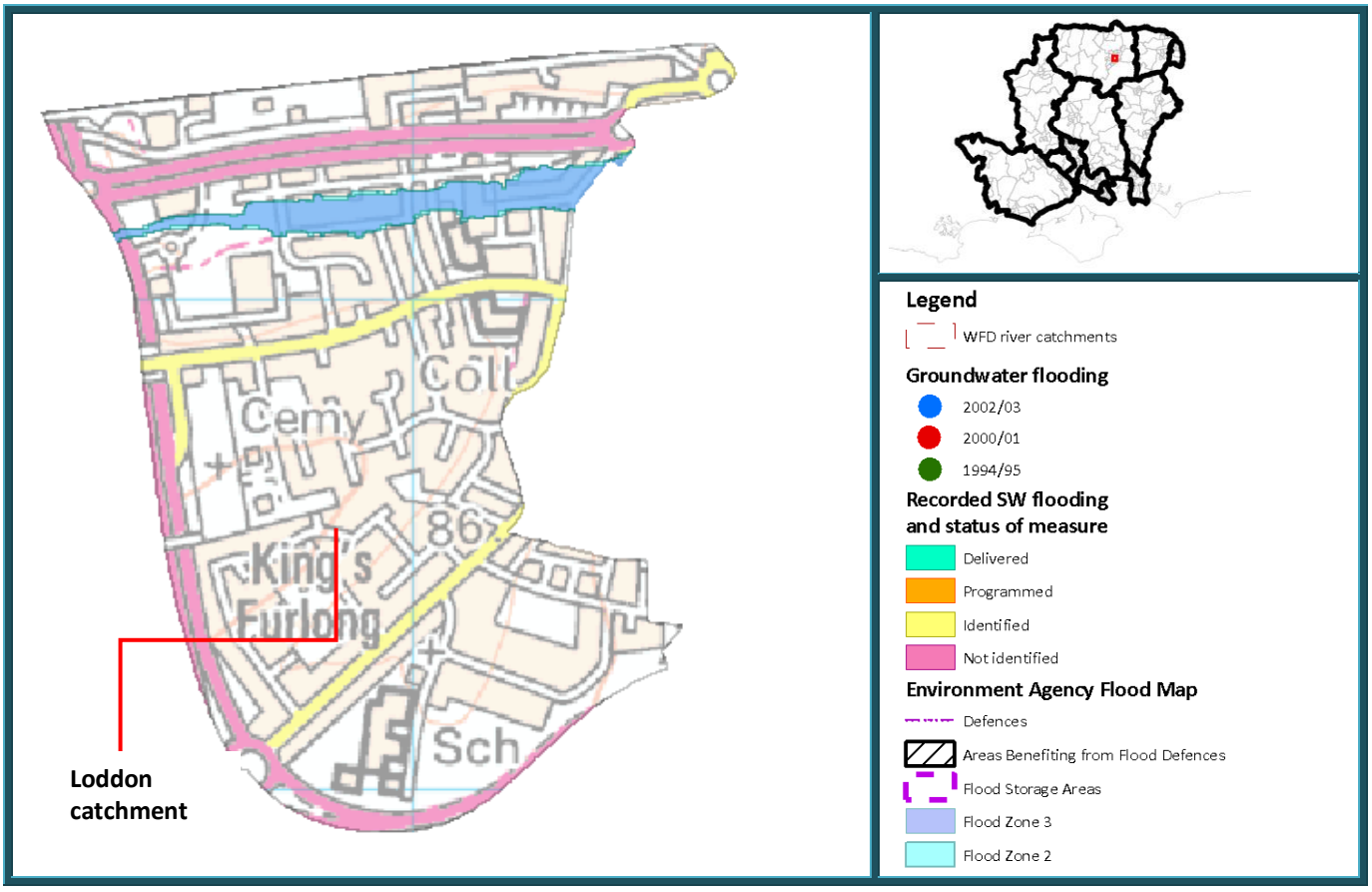
- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.

Ward specific action plan
Brookvale and Kings Furlong

About the Ward					
Ward area (km^2)	1.3	**District**	Basingstoke and Dean	**Catchment**	Loddon
No. Residential properties	3010	**No. other buildings**	229	**Critical Infrastructure**	34

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	High		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	None	EA surface water	Highest
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes

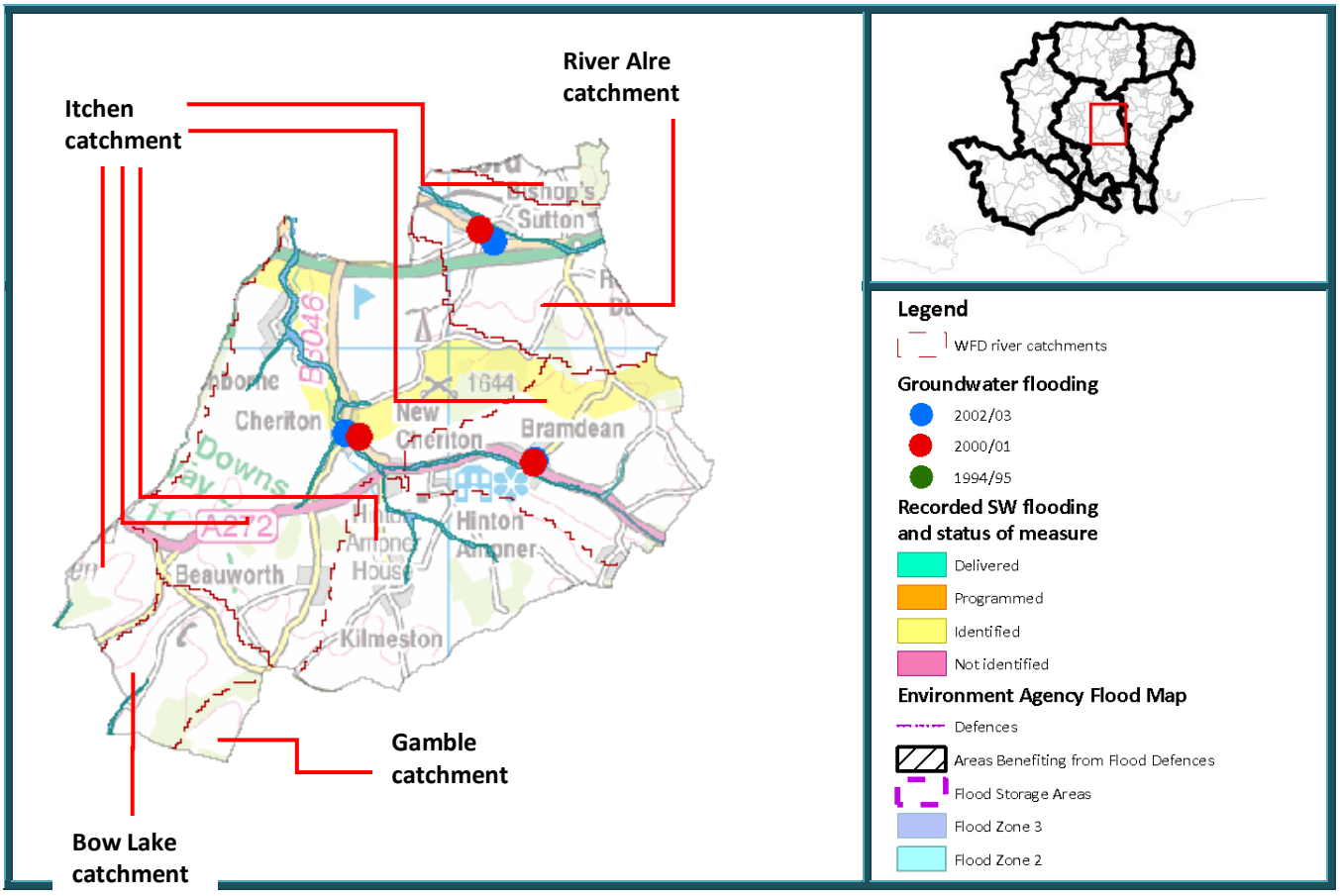


Summary
The ward of Bookvale and Kings Furlong lies in central Basingstoke. Infrastructure within the ward includes a caravan park, electricity sub stations, pumping stations, a college and schools. There are no recorded occurrences of groundwater flooding and Hampshire County Council has no records of surface water flooding affecting properties internally. However the Environment Agency Flood Map for Surface Water indicates that roads and properties throughout the ward could be at risk from surface water flooding. The Environment Agency Flood Map indicates that areas to the north of the ward may also be at risk from river flooding.
Current risk
Hampshire county council has no records of internal property flooding from surface water. In addition groundwater flooding has not been reported within the ward. There therefore appears to be little reported current risk of flooding within the ward.
Potential Surface Water Flood risk
Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding. Despite having no reported current risk of flooding, modelled data suggests that there is a risk of surface water flooding in the ward. The Environment Agency Flood Map for Surface Water indicates small areas at risk of deep (greater than 0.3m deep) flooding with a 1 in 30 year return period in parts of the north and east of the catchment. The areas with a risk of deep flooding increase with a 1 in 200 year return period (less frequent) to cover greater parts of the south of the ward. These areas of deep flooding could be at risk of internal property flooding. The area that may be at risk of shallow flooding (0.1 - 0.3m depth) is slightly larger and these areas have a chance of nuisance flooding affecting roads, driveways and gardens. The Environment Agency Flood Map indicates there is the potential for flooding from rivers in the north of the ward. Surface water and river flooding may therefore interact in this area.
Measures already delivered to reduce risk
Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered.
Future measures needed to reduce risk
The risk assessment for this ward is based entirely on modelled flooding. With no incidents to verify this modelling, we do not recommend that any capital interventions be considered for this ward. Measures to be delivered for this ward therefore are based on monitoring and communication: • Communication of the modelled risk of surface water flooding in this ward to the community • Ongoing monitoring and reporting of incidents to validate the risk

Ward specific action plan
Cheriton and Bishops Sutton

About the Ward					
Ward area (km^2)	64.8	**District**	Winchester	**Catchment**	Itchen, River Itchen, River Alre, Bow Lake, Hamble
No. Residential properties	877	**No. other buildings**	1255	**Critical Infrastructure**	29

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	High		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Highest	EA surface water	Low
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes



Summary

Cheriton and Bishops Sutton is located in the centre of Hampshire, east of Winchester, in the Winchester district. A number of towns and villages lie within the ward including Beauworth, Cheriton, New Cheriton, Kilmeston, Hinton Ampner, Bramdean and Bishop's Sutton.

Critical infrastructure within the ward includes electricity sub stations, sewage works, water pumping houses, a telephone exchange and a school.

In 2002/03 and 2000/01 groundwater flooding occurred in Cheriton, Bramdean and Bishop's Sutton. The 1994/95 dataset has no groundwater flood events in this area.

The HCC database has not recorded any surface water flooding in the ward.

The Environment Agency Flood Map for Surface Waters and Environment Agency Flood Map indicate there may be a risk of surface water and river flooding in Tichborne, Cheriton, New Cheriton, Bramdean, Bishop's Sutton and Kilmeston. Surface Water flooding is also shown in Beauworth. A number of roads are also affected.

Current risk

Hampshire County Council has no recorded incidents of internal surface water flooding to property in the ward. However, the ward is known to be at risk from groundwater flooding.

Flooding from groundwater has been reported at 3 locations within the ward at Bishop's Sutton, Cheriton and Bramdean. Flooding in these areas occurred both in 2000/2001 and 2002/2003. Information about the 2000/2001 flood events indicates that 12 properties flooded in Bishop's Sutton, of which 4 experienced flooding to the ground floor, 7 to the cellar and 1 had external flooding only. In Bramdean 11 properties were flooded, 5 of which experienced internally flooding of the ground floor. In Cheritan 11 properties flooded and all experienced ground floor flooding.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

Although Hampshire County Council has no reports of internal flooding to property from groundwater the Environment Agency Flood Maps for Surface Water indicate the potential for surface water flooding throughout the ward. The 'deep' flood risk extent (showing flooding of 0.3m or deeper) indicates that Bramdean, Hinton Ampner, New Cheriton, Cheriton, Tichborne and Bishop's Sutton could experience internal flooding to properties.

The risk of shallow surface water flooding, modelled by the Environment Agency is greater, indicating that roads, gardens, driveways and paths could be affected by nuisance flooding of 0.1 - 0.3m depth throughout much of the ward.

The Environment Agency Flood Map indicates that those areas at risk from deep surface water flooding may also be susceptible to flooding from rivers. Surface water flooding and river flood could therefore interact in areas around Tichborne, Cheriton, New Cheriton and Bishop's Sutton.

Measures already delivered to reduce risk

Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered.

Future measures needed to reduce risk

This ward remains at a high risk of groundwater water flooding. The groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the ground water flood warning service, and potential capital schemes. However, this risk assessment identifies that there is a risk of combined flooding. Therefore Hampshire County Council should act as coordinating authority for a delivery team, which includes representation from

the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

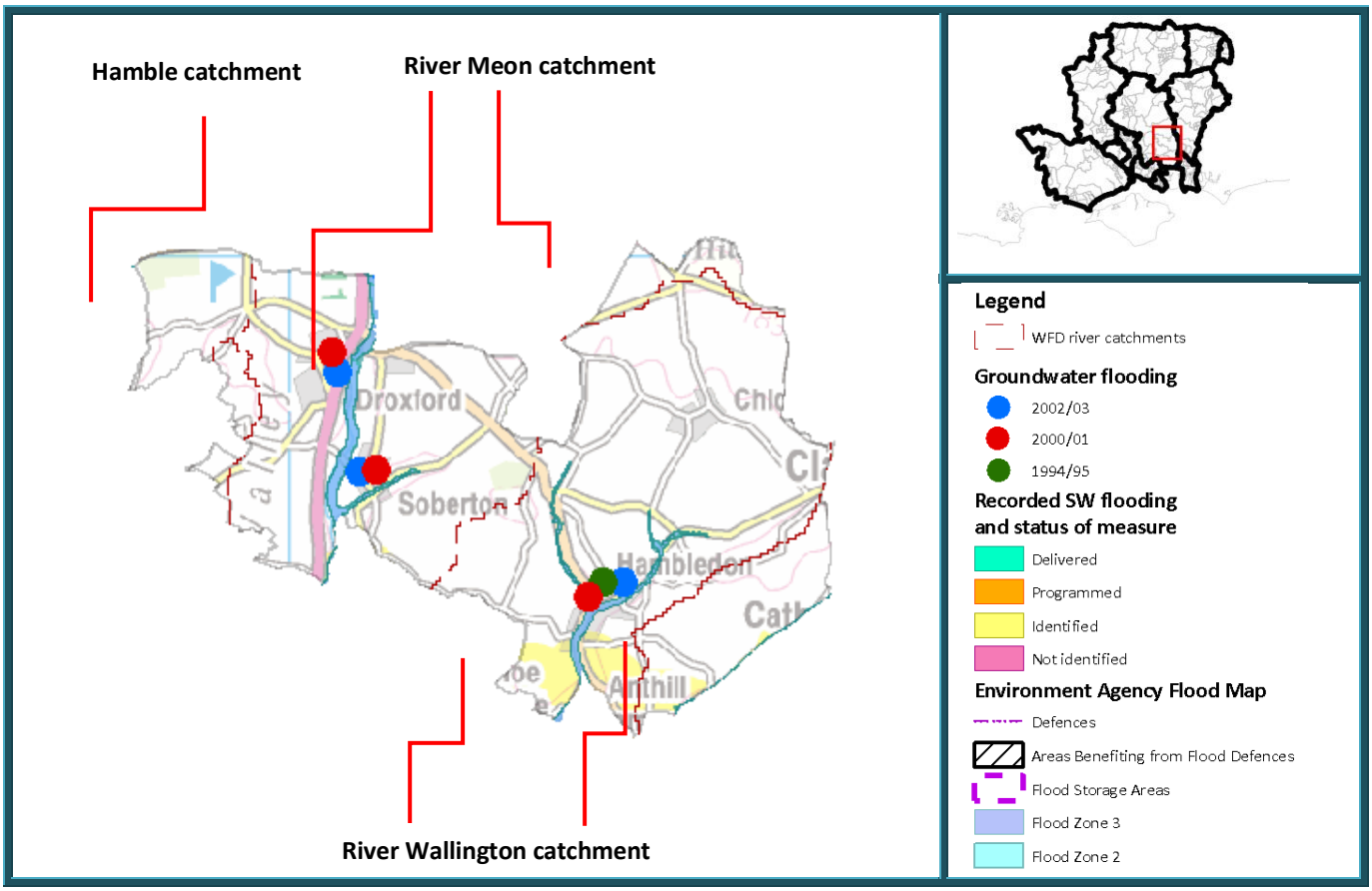
- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding
- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies
- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.

Ward specific action plan
Droxford, Soberton and Hambledon

About the Ward					
Ward area (km2)	40.9	**District**	Winchester	**WFD Catchment**	Hamble, River Meon, River Wallington
No. Residential properties	880	**No. other buildings**	1032	**Critical Infrastructure**	17

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Highest	EA surface water	Moderate
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes



Summary

The ward of Droxford, Soberton and Hambledon lies towards the south of the county. The main towns and villages within the ward are Hambledon, Chidden, Soberton and Droxford.

Critical infrastructure within the ward includes: schools, fire station, electricity sub stations, water pumping stations and telephone exchange.

No reported surface water flooding has been recorded by HCC in this ward. There are however 3 occurrences of groundwater flooding in 1994/95, 2000/01 and 2002/03. About 90 properties were affected in Hambledon, 5 in Soberton and 3 in Droxford

The Environment Agency Flood Map for Surface Waters show the potential for surface water flooding in Hambledon, Soberton and Droxford, with the A32 potentially at risk. The Environment Agency Flood Map, shows the potential for river flooding in similar locations. Therefore the risk of flooding from combined sources is high.

Current risk

The Hampshire County Council incident database does not record of internal property flooding from surface water within this ward. However, groundwater flooding is a known risk within the ward, with reported incidents in Droxford (2000/01 and 2002/03), Soberton (2000/01 and 2002/03) and Hambledon (1994/95, 2000/01 and 2002/03).

Records of the 2000/01 groundwater flooding indicate that 3 properties flooded internally in Droxford, 1 at ground floor level and 2 in cellars. In Soberton, 5 properties were affected by flooding, 4 with internal flooding and 1 with external flooding. Hambledon experienced extensive groundwater flooding in 2000/01, with 96 properties thought to have flooded internally, 50 at a ground floor level and 46 in the cellar.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

Although Hampshire County Council has no reported incidents of internal property flooding from surface water in this ward, the Environment Agency Flood Map for Surface Water indicates a risk of deep flooding (greater than 0.3m) to properties in and around Droxford, Soberton, Hambledon and Chidden. In addition there is a risk of shallow, or nuisance, flooding (between 0.1 and 0.3m deep) that could affect external areas of properties including gardens, driveways and roads.

The Environment Agency Flood Map indicates there could be interaction between flooding from surface water and rivers around Droxford, Soberton and Hambledon and on the roads leading between the villages.

Measures already delivered to reduce risk

Hampshire County Council hold no record of internal property flooding in this ward from surface water, and measures to address flood risk, beyond those identified in the Halcrow 2002 report on groundwater flooding have not been identified or delivered. A surface water drainage scheme to manage groundwater flows was proposed in the Halcrow 2002 report, but this has not been delivered.

Future measures needed to reduce risk

This ward remains at a high risk of groundwater water flooding, with Hambledon being a continued focus for concern. The groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the ground water flood warning service, and potential capital schemes. However, this risk assessment identifies that there is a risk of combined flooding. Therefore Hampshire County Council should act as coordinating authority for a delivery team, which includes representation from the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding
- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies
- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.

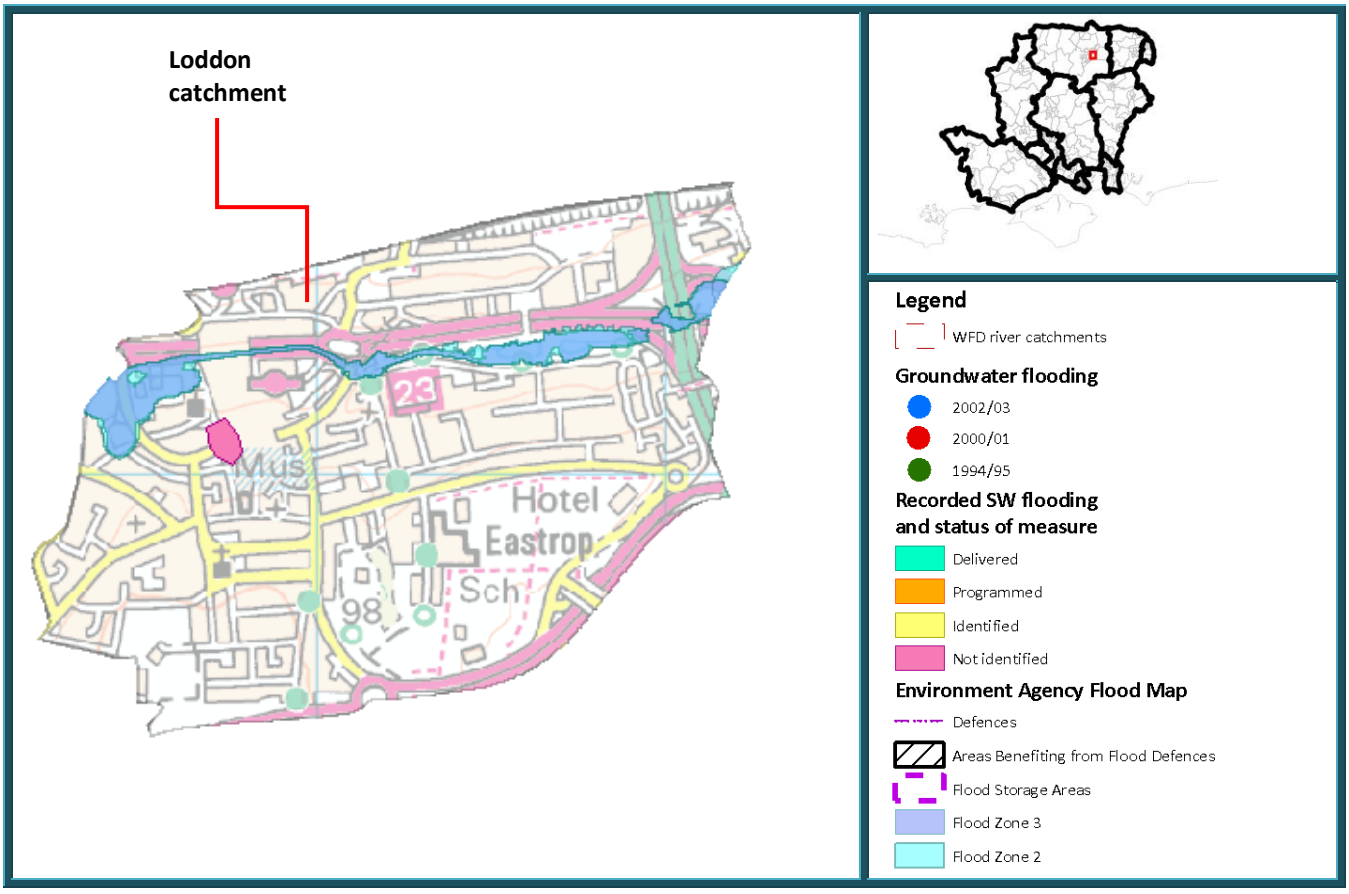
The calculated annualised costs of flooding are approximately £200k, and this ward ranks highest in Hampshire for the combined risk.

utilities

Ward specific action plan
Eastrop

About the Ward					
Ward area (km^2)	2.2	**District**	Basingstoke and Dean	**Catchment**	Loddon
No. Residential properties	2859	**No. other buildings**	1149	**Critical Infrastructure**	122

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	None	EA surface water	Highest
HCC incident database	Moderate	Flood risk to property from other sources (river/sea)	Yes



Summary

The ward of Eastrop lies in the east of Basingstoke, north of the M3 motorway. The ward contains a number of residential social or mental care homes, a homeless hostel, medical centre, college, schools, businesses with hazardous substances, electricity substations, police stations and a telephone exchange.

Groundwater flooding has not been recorded in the ward. Hampshire County Council has recorded surface water flooding which affected residential properties in the north west of the ward. The Environment Agency Flood Map for Surface Water indicates that properties and roads to the north and west of the ward are probably at risk of surface water flooding. The north of the ward may also be at risk of flooding from rivers.

Current risk

The ward is known to be a risk from surface water flooding. Hampshire County Council has recorded incidents of flooding in Church Street, Eastrop. The flooding appears to be caused to be due to surface water flowing rapidly down a hill and flooding a number of shops. It is thought inadequate or blocked drains exacerbate the problem as they cannot carry the flow resulting from heavy rainfall. The frequency of flooding is less than 1 in every five years, and the risk of flooding can be exacerbated by local drainage ditches not be cleaned / maintained.

Groundwater flooding is not known to have occurred within the ward.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for 'deep' surface water flooding illustrates that a wider area may be at risk from internal flooding to property than is known to have experienced flooding in the past. In particular, areas to the west of the ward and scattered areas towards the north of the ward appear to be at risk from surface water flooding greater than 0.3m depth.

The Flood Map for Surface Water indicates that there is a possibility of shallow flooding (0.1 - 0.3m deep) in much of the ward. This suggests there is a chance of flooding affecting roads, and external areas of homes and buildings.

There is also a chance of interaction between surface water flooding and river flooding in the north of the ward.

Measures already delivered to reduce risk

The flooding recorded by Hampshire County Council appears to be a result of heavy rainfall overwhelming the existing drainage network. Measures to manage the risk have not been identified, although this ward falls within the Basingstoke SWMP.

Future measures needed to reduce risk

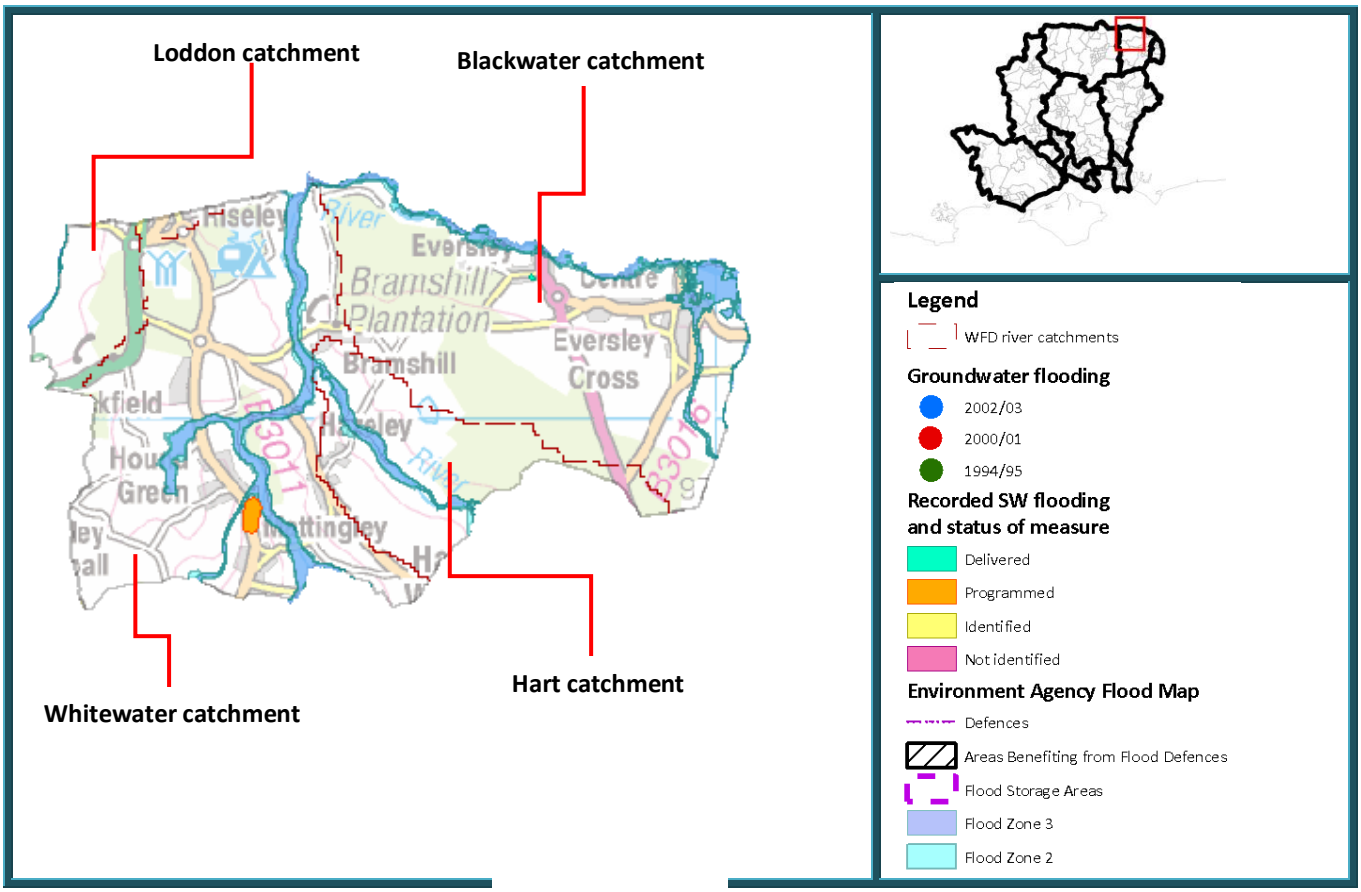
Other than one reported incident, the risk assessment for this ward is based entirely on modelled flooding. With limited incidents to verify this modelling, we do not recommend that any capital interventions be considered for this ward. This recommendation may be amended by the Basingstoke SWMP. Measures to be delivered for this ward therefore are based on monitoring and communication:

- Communication of the modelled risk of surface water flooding in this ward to the community
- HCC to establish ownership of local drainage ditches through the SWMP and agree or enforce a maintenance plan with the owner
- Ongoing monitoring and reporting of incidents to validate the risk
- Further risk review and measures identification through the Basingstoke SWMP

Ward specific action plan
Eversley

About the Ward					
Ward area (km^2)	44.5	**District**	Hart	**Catchment**	Blackwater, Whitewater, Hart, Loddon
No. Residential properties	1090	**No. other buildings**	1582	**Critical Infrastructure**	28

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High - wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Low		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	None	EA surface water	Low
HCC incident database	Highest	Flood risk to property from other sources (river/sea)	Yes

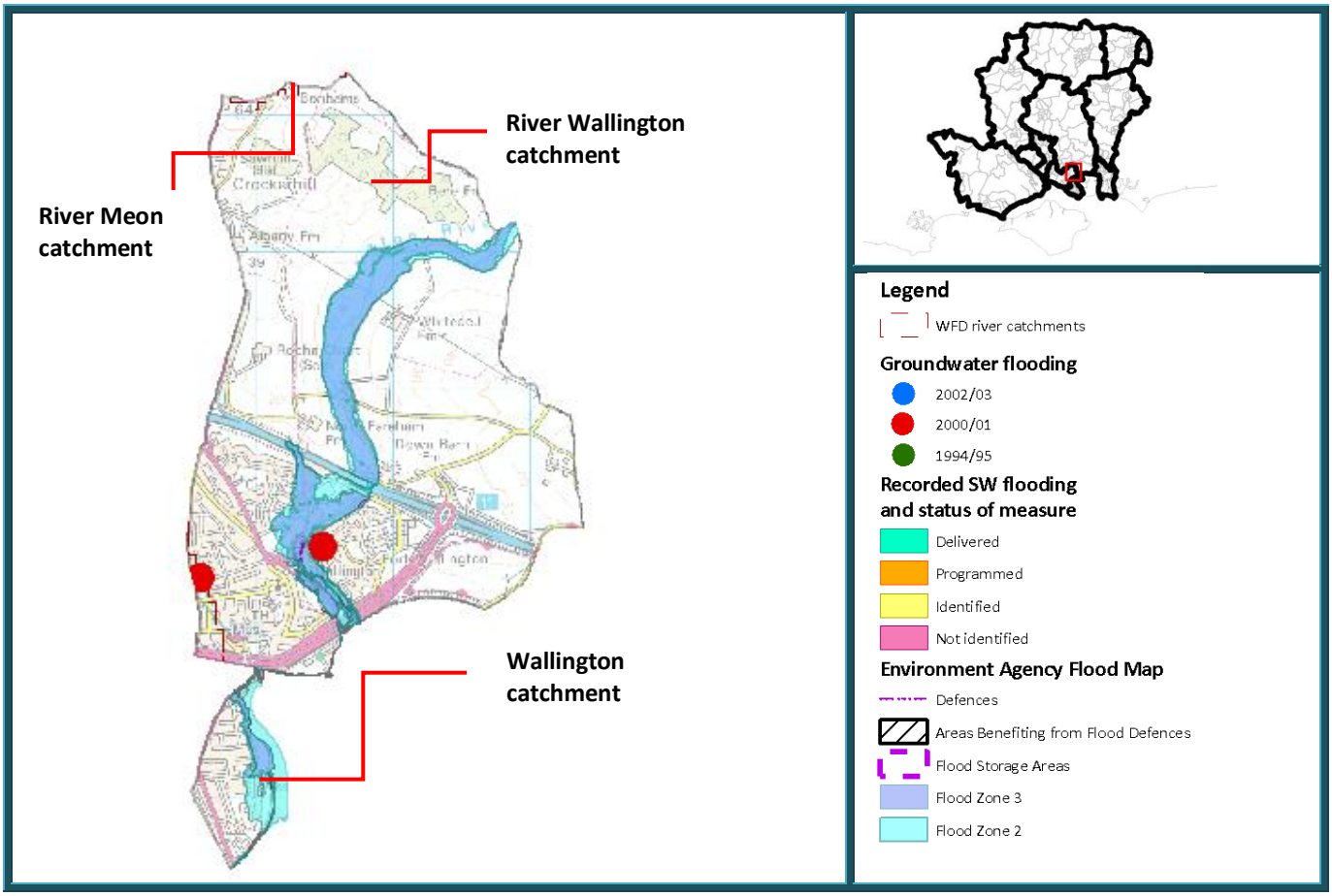


Summary
The ward of Eversley lies to the north East of Basingstoke. The A33 runs through the north western part of the ward and the A327 in the eastern part of the ward. The towns and villages within the ward include Risely, Branshill, Eversley, Eversley Cross, Branshill, Hazeley, Mattingley and Hound Green. Two caravan parks are located in the north of the ward, near Riseley. Other infrastructure within the ward includes sewage works, telephone exchange, water pumping station, electricity substation and schools. There are no records of groundwater flooding in 1994/95, 2000/2001 or 2002/2003 within the ward. HCC have recorded surface water flooding in the vicinity of Mattingly and Hound Green. The Environment Agency Flood Map for Surface Water also indicates the potential for surface water flooding in the areas surrounding Hound Green and Mattingly. The Flood Map for Surface Water indicates a risk of river flooding from the River Hart and its tributaries, which may affect the B3011.
Current risk
There have been no recorded incidents of flooding from groundwater within the ward. There is a recorded risk of surface water flooding within Eversley. Hampshire County Council has records of internal flooding affecting between 1 and 4 properties between Mattingley and Hound Green in the south of the ward, with up to 30 properties being affected by external flooding. The flooding was thought to be caused by inadequate drainage, with tree root ingress into the drainage system exacerbating the problem.
Potential Surface Water Flood risk
Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding. The Environment Agency Flood Map for Surface Water indicates that there is a risk of deep (greater than 0.3m) flooding throughout the ward, but particularly near Mattingly, Hound Green, Baseley and Bramshill. This risk of surface water could result in internal flooding to properties. The Environment Agency Flood Map for Surface Water also indicates that extensive parts of the ward could be at risk of shallow (0.1 - 0.3m) surface water flooding. There is therefore a risk of flooding affecting areas such as roads, gardens, pathways and drives within the ward. The Environment Agency Flood Map indicates risk of fluvial flooding along the River Hart and its tributaries. There may be a risk of interaction between river and surface water flooding in these areas.
Measures already delivered to reduce risk
The recorded flooding near Mattingley and Hound Green is thought to be a result of rainfall overwhelming inadequate drainage systems. Hampshire County Council has undertaken high pressure water jetting of drains in the area and it was found that the carrier drain appears to have been infested with tree roots. In 2011/2012 a scheme was developed to bypass the current outfall point, and to provide additional capacity.
Future measures needed to reduce risk
A measure has been delivered to reduce the risk of surface water flooding, therefore further intervention is not recommended at this stage. The success of the scheme will be determined by the presence of absence of property flooding in coming years. Local residents should be made aware of the flood reporting and investigation mechanism, and made aware of the importance of reporting flooding through this mechanism.

Ward specific action plan
Fareham East

About the Ward					
Ward area (km^2)	9.4	**District**	Fareham	**Catchment**	River Meon, River Wallington, Wallington
No. Residential properties	3294	**No. other buildings**	1264	**Critical Infrastructure**	111

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the following categories. Highest – 5% of wards at greatest risk, High – 10% of wards at greatest risk, Moderate wards at 10 to 50% greatest risk, Low – 50% of wards with least risk, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Highest	EA surface water	Low
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes



Summary
Fareham East covers an area of 9.4 km^2 to the east of Fareham in the south of Hampshire. The area of Wallington lies to the south of the ward. Critical infrastructure within the ward include a telephone exchange, health centre, residential

mental health and social care centres, a caravan/camping centre, primary school, water pumping stations and electricity sub stations

Groundwater flooding was recorded in two areas in 2000/01. In Wallington at total of 65 properties were affected.

Hampshire County Council has no recorded incidents of internal surface water flooding to properties in the ward. However the Environment Agency Flood Map for Surface Water indicates that surface water flooding could occur in central Wallington and further north within the ward. Historic records indicate that combined groundwater, surface water and fluvial flooding have affected around 40 properties in the centre of Wallington.

The Environment Agency Flood Map indicates there is a risk of flooding from rivers or the sea through central Wallington and further north in the ward at similar locations to the potential surface water flooding. The M27 runs through the ward and this may be affected by river flooding between junction 10 and 11.

Current risk

Hampshire County Council has no records of internal surface water flooding within the ward.

In 2000/2001 there were 2 reported incidents of groundwater flooding in Wallington with a total of 45 properties affected by ground floor flooding and 20 by external flooding.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for Surface Water flooding indicates that a small area through the centre of the ward along the river may be at risk from deep (greater than 0.3m depth) surface water flooding with a 1 in 30 and 1 in 200 return period. This suggests the potential for surface water flooding affecting properties internally in these areas.

The Environment Agency Flood Map for Surface Water indicates that shallow (0.1 – 0.3m deep) surface water flooding may pose a risk to slightly larger areas around the main river channel. Therefore there is a risk of shallow or nuisance flooding to roads, driveways and gardens in these areas.

The Environment Agency Flood Map indicates potential for river flooding in similar locations to potential surface water flooding. Surface water and river flooding may therefore interact along the river channel.

Measures already delivered to reduce risk

41 properties in Wallington have benefited from property level protection funded through a funding mechanism no longer open for applications. Other measures to address flood risk, beyond those identified in the Halcrow 2002 report on groundwater flooding, have not been identified or delivered.

Future measures needed to reduce risk

Although property level protection has been implemented for 41 properties at highest risk of river and surface water flooding, this ward remains at a high risk of groundwater water flooding. Hampshire groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the ground water flood warning service, and potential capital schemes. However, there is a residual risk combined flooding within this ward. Therefore Hampshire County Council should act as coordinating authority for a SWMP team, which includes representation from the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding
- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies

- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

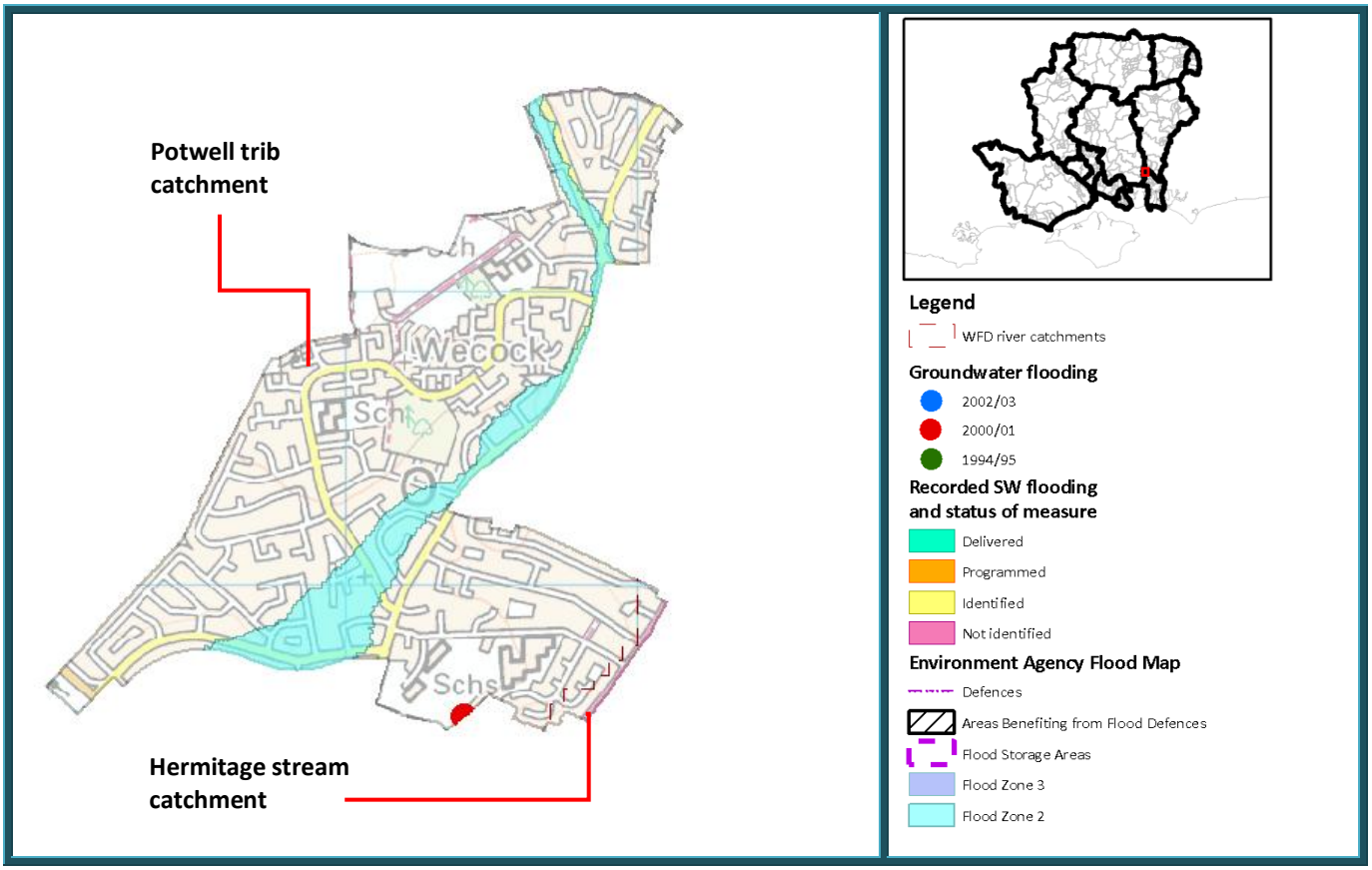
Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.

The calculated annualised costs of groundwater flooding are approximately £150k, and this ward ranks second highest in Hampshire for the combined risk.

Ward specific action plan
Hart Plain

About the Ward					
Ward area (km^2)	2.1	**District**	Havant	**Catchment**	Potwell Trib and Hermitage Stream
No. Residential properties	4208	**No. other buildings**	329	**Critical Infrastructure**	55

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	High		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Moderate	EA surface water	Highest
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes

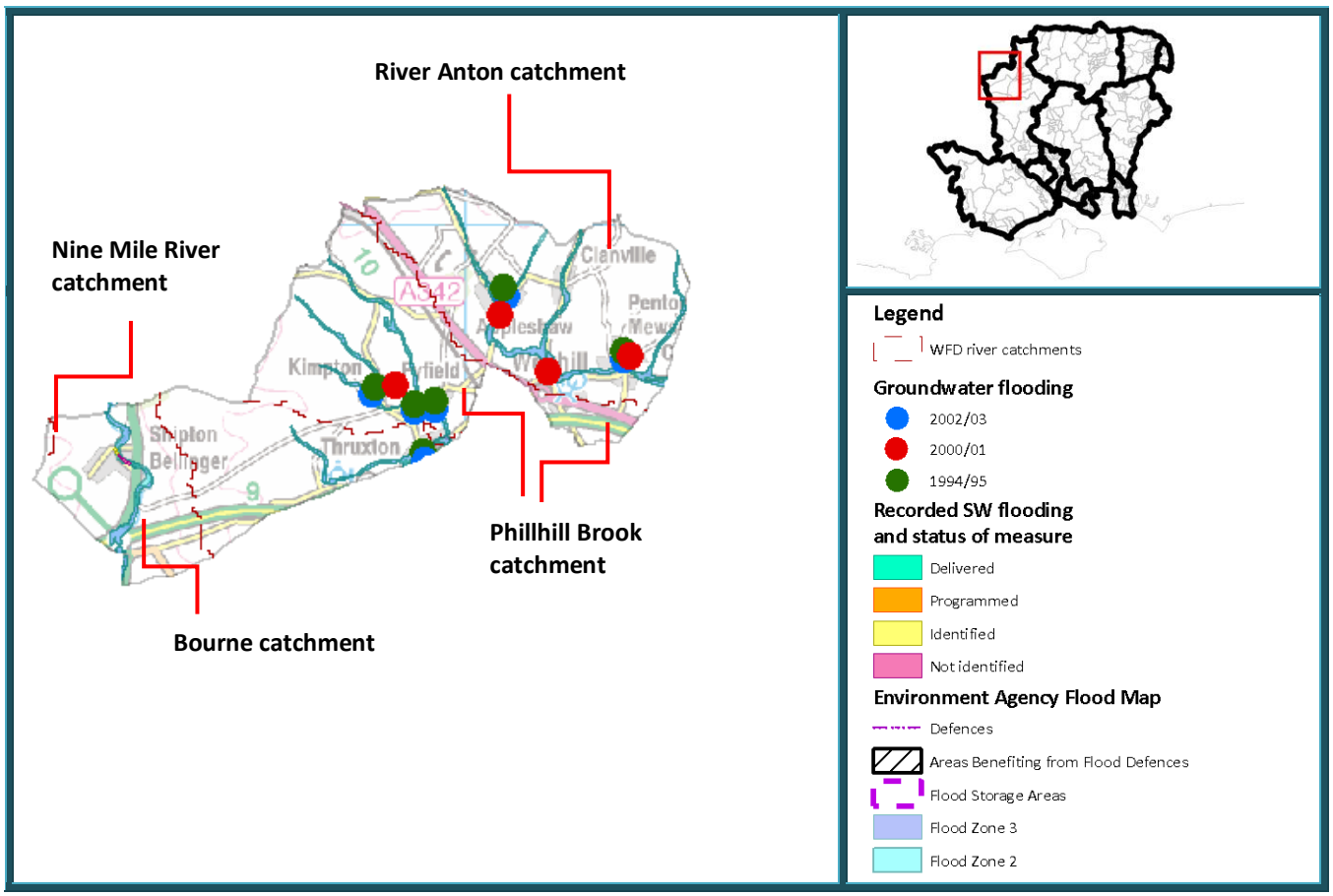


Summary
Hart Plain ward lies within south Hampshire in the borough of Havant. It covers a predominantly urban area of 2.1km^2. Critical infrastructure within the ward includes numerous electricity substations and a number of schools. Hampshire County Council has no record of internal flooding to properties from surface water within the ward. Groundwater flooding was reported in 2000/2001 in the south of the ward, this affected 1 property. The Environment Agency Flood Map for Surface Water indicates a risk of surface water flooding through the centre of the ward. The Environment Agency modelled data also indicates that these areas may also be at risk from river flooding.
Current risk
The single groundwater flooding incident occurred in 2000/2001, and was on the border of the Waterloo ward in the south of Hart Plain.
Potential Surface Water Flood risk
Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding. The Environment Agency Flood Map for Surface Water flooding indicates that an area through the centre of the ward along the river may be at risk from deep (greater than 0.3m depth) surface water flooding with a 1 in 30 and 1 in 200 return period. This suggests the potential for surface water flooding affecting properties internally in these areas. The Environment Agency Flood Map for Surface Water indicates that shallow (0.1 – 0.3m deep) surface water flooding may pose a risk to slightly larger areas around the main river channel. Therefore there is a risk of shallow or nuisance flooding to roads, driveways and gardens in these areas. The Environment Agency Flood Map indicates potential for river flooding in similar locations to potential surface water flooding. Surface water and river flooding may therefore interact along the river channel. Therefore there is a risk of combined river flooding and surface water flooding. The incident of groundwater flooding does not appear in this risk area.
Measures already delivered to reduce risk
Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered.
Future measures needed to reduce risk
Other than one reported incident, the risk assessment for this ward is based entirely on modelled flooding. With limited incidents to verify this modelling, we do not recommend that any capital interventions be considered for this ward. Measures to be delivered for this ward therefore are based on monitoring and communication: • Communication of the modelled risk of surface water flooding in this ward to the community • Ongoing monitoring and reporting of incidents to validate the risk

Ward specific action plan
Penton Bellinger

About the Ward					
Ward area (km^2)	47.9	**District**	Test Valley	**Catchment**	River Anton, Pillhill Brook, Bourne, Nine Mile River
No. Residential properties	1928	**No. other buildings**	1305	**Critical Infrastructure**	61

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	High	EA surface water	High
HCC incident database	High	Flood risk to property from other sources (river/sea)	Yes



Summary
Penton Bellinger is located in the north west of Hampshire, just west of Andover, in the Test Valley district. A number of towns and villages lie within the ward including Shipton Bellinger, Kimpton, Fyfield, Appleshaw, Clanville, Weyhill and Penton Mewsey. Critical infrastructure within the ward includes Visit Britain Assessed properties, electricity sub stations, sewage works, water pumping houses and schools. In 1994/95 and 2002/03 groundwater flooding occurred in Kimpton, Thruxton, Fyfield, Appleshaw and Penton Mewsey. In 2000/01 groundwater flooding occurred in Kimpton, Appleshaw, Weyhill and Penton Mewsey. The HCC database has recorded surface water flooding in two areas of Shipton Bellinger. The Environment Agency Flood Map for Surface Waters and Environment Agency Flood Map indicate there may be a risk of surface water and river flooding in Shipton Bellinger, Kimpton, Fyfield, Thruxton, Appleshaw, Clanville, Weyhill and Penton Mewsey. A number of roads are also affected.
Current risk
The reported surface water flooding in Shipton Bellinger is thought to be due to a combination of fluvial and pluvial flooding. It is believed that the cause of pluvial flooding is poorly designed highway drainage. In total up to 10 properties have been affected by internal flooding from the highway. In 1994/95 and 2002/03 groundwater flooding occurred in Kimpton, Thruxton, Fyfield, Appleshaw and Penton Mewsey, although property level flooding data is not available. In 2000/01 groundwater flooding occurred in Kimpton (16 properties), Appleshaw (12 properties) Weyhill (2 properties)and Kimpton (7 properties)
Potential Surface Water Flood risk
Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding. The Environment Agency Flood Map for Surface Waters and Environment Agency Flood Map indicate there may be a risk of combined surface water and river flooding in Shipton Bellinger, Kimpton, Fyfield, Thruxton, Appleshaw, Clanville, Weyhill and Penton Mewsey. A number of roads are also affected. The Environment Agency Flood Map for Surface Water follow the lines of valleys and show flood risk in approximately the same places as the fluvial Flood Zone maps. The shallow water Environment Agency Flood Map for Surface Waters show similar patterns, but with a greater extent of flooding. Therefore there may be a risk of flooding due to a combination of sources.
Measures already delivered to reduce risk
No measures have yet been delivered to reduce the flood risk, but it has been identified that changes to the drainage system could improve the pluvial flooding problem.
Future measures needed to reduce risk
Minor highway drainage remodelling (approximate cost £10k – 50k) would reduce the risk in Shipton Bellinger. However, given the combined risks from groundwater, surface and fluvial flooding, a a more detailed investigation is recommended before capital works are considered. This ward remains at a high risk of flooding from all sources. The groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the ground water flood warning service, and potential capital schemes. However, this risk assessment identifies that there is a risk of combined flooding. Therefore Hampshire County Council should act as coordinating authority for a delivery team, which includes representation from the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

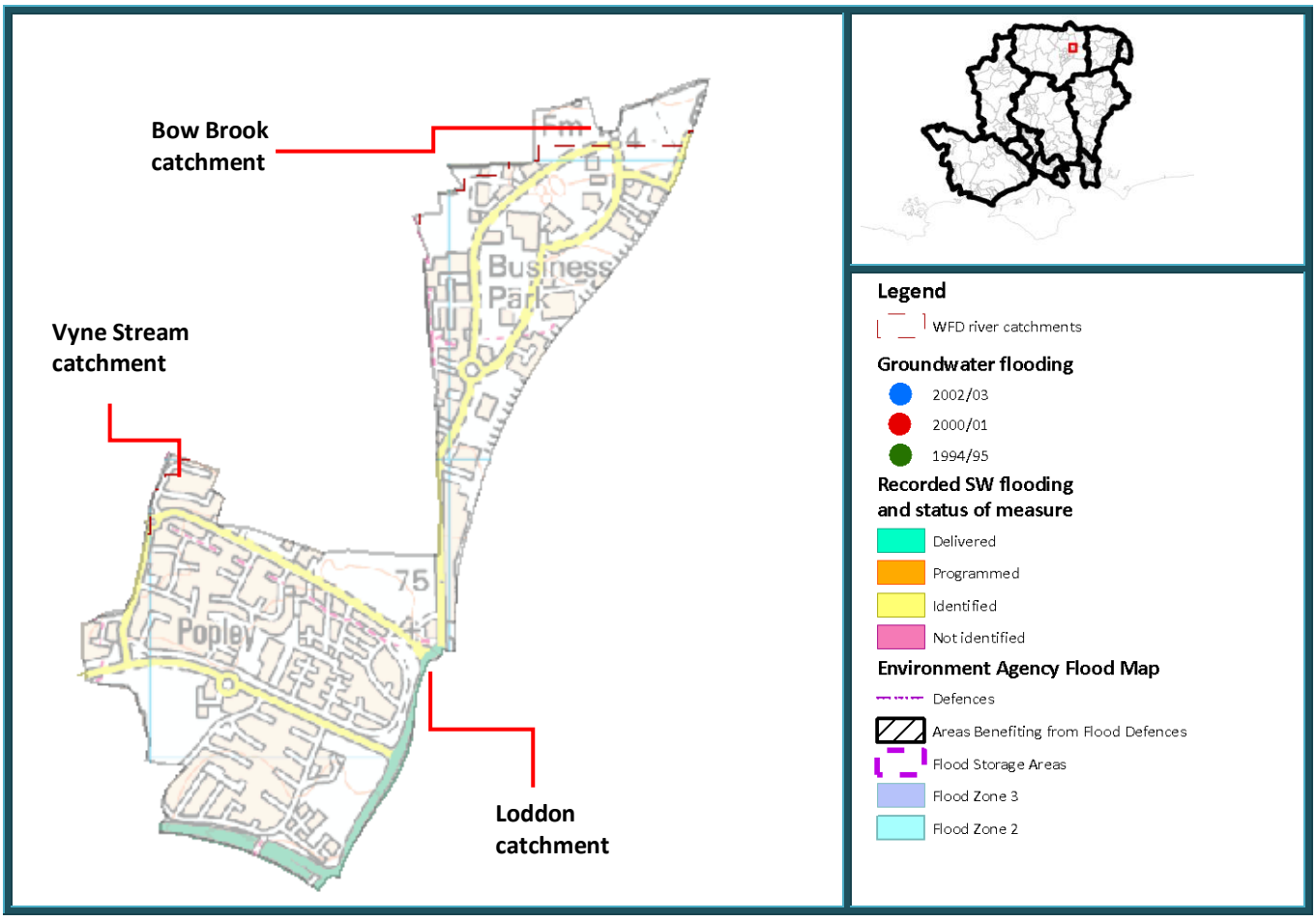
- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding
- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies
- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.
The calculated annualised costs of flooding in this ward are approximately £150k.

Ward specific action plan
Popley East

About the Ward					
Ward area (km^2)	1.7	**District**	Basingstoke and Deane	**Catchment**	Loddon, Bow Brook, Vyne Stream
No. Residential properties	2083	**No. other buildings**	295	**Critical Infrastructure**	34

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	None	EA surface water	Highest
HCC incident database	None	Flood risk to property from other sources (river/sea)	No



Summary

The ward of Popley East lies to the north east of Basingstoke. It is bounded on the east by the railway line and to the west by Sherborne St John. Critical infrastructure within the ward includes a number of schools, electricity substations and a telephone exchange.

There are no recorded incidents of groundwater flooding and Hampshire County Council has no recorded incidents of surface water flooding affecting properties internally. However the Environment Agency's surface water mapping indicates that there is a potential risk for surface water flooding of properties and roads throughout the ward.

The Environment Agency Flood Map suggests that the ward is not at risk of flooding from rivers.

Current risk

There is no record of groundwater flooding and Hampshire County Council has no records of internal surface water flooding within the ward.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for Surface Water indicates a large area in the south west of the ward that is at risk of deep surface water flooding (greater than 0.3m deep) with a return period of 1 in 30 and 1 in 200 years. There is also a small area at risk in the north of the ward as well as in the centre. Deep surface water flooding suggests the potential for flooding to affect properties internally in these areas.

The Environment Agency Flood Map for shallow surface water flooding (0.1 – 0.3m deep) highlights slightly larger areas in the same locations in the ward as at risk. There is therefore the risk of shallow or nuisance flooding to roads, driveways and gardens throughout much of the ward.

Measures already delivered to reduce risk

Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered. However, this ward falls within the Basingstoke SWMP, therefore the SWMP group will be assessing the risk and potential measures to be delivered in further detail.

Future measures needed to reduce risk

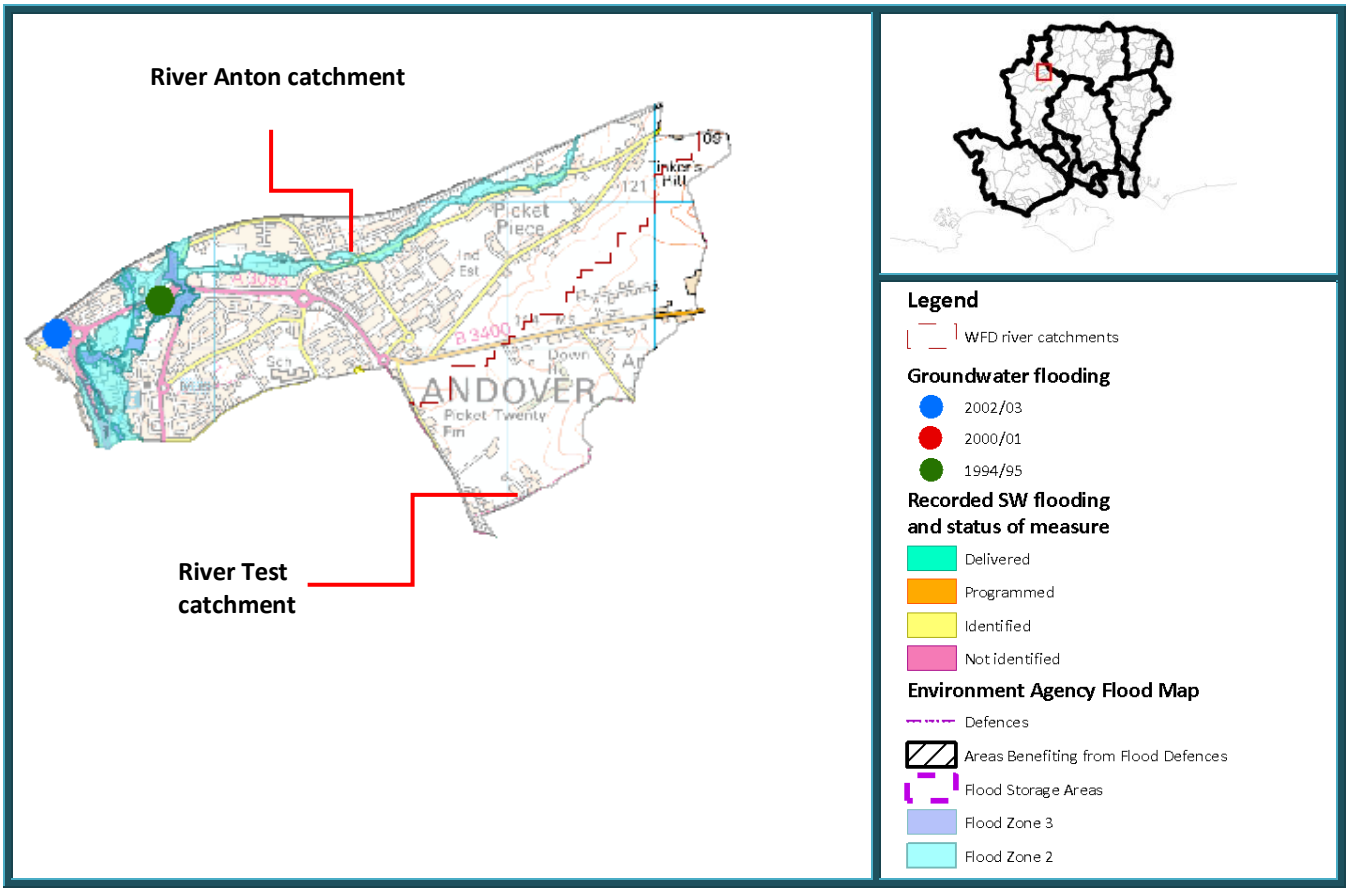
The risk assessment for this ward is based entirely on modelled flooding. With no reported incidents to verify this modelling, we do not, at this stage, recommend that any capital interventions be considered for this ward. This recommendation may be amended by the Basingstoke SWMP. Measures to be delivered for this ward therefore are based on monitoring and communication:

- Communication of the modelled risk of surface water flooding in this ward to the community
- Ongoing monitoring and reporting of incidents to validate the risk
- Further risk review and measures identification through the Basingstoke SWMP.

Ward specific action plan
St Mary's

About the Ward					
Ward area (km^2)	6.8	**District**	Test Valley	**Catchment**	River Anton, River Test
No. Residential properties	3588	**No. other buildings**	1511	**Critical Infrastructure**	121

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Highest		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	None	EA surface water	Highest
HCC incident database	Moderate	Flood risk to property from other sources (river/sea)	Yes

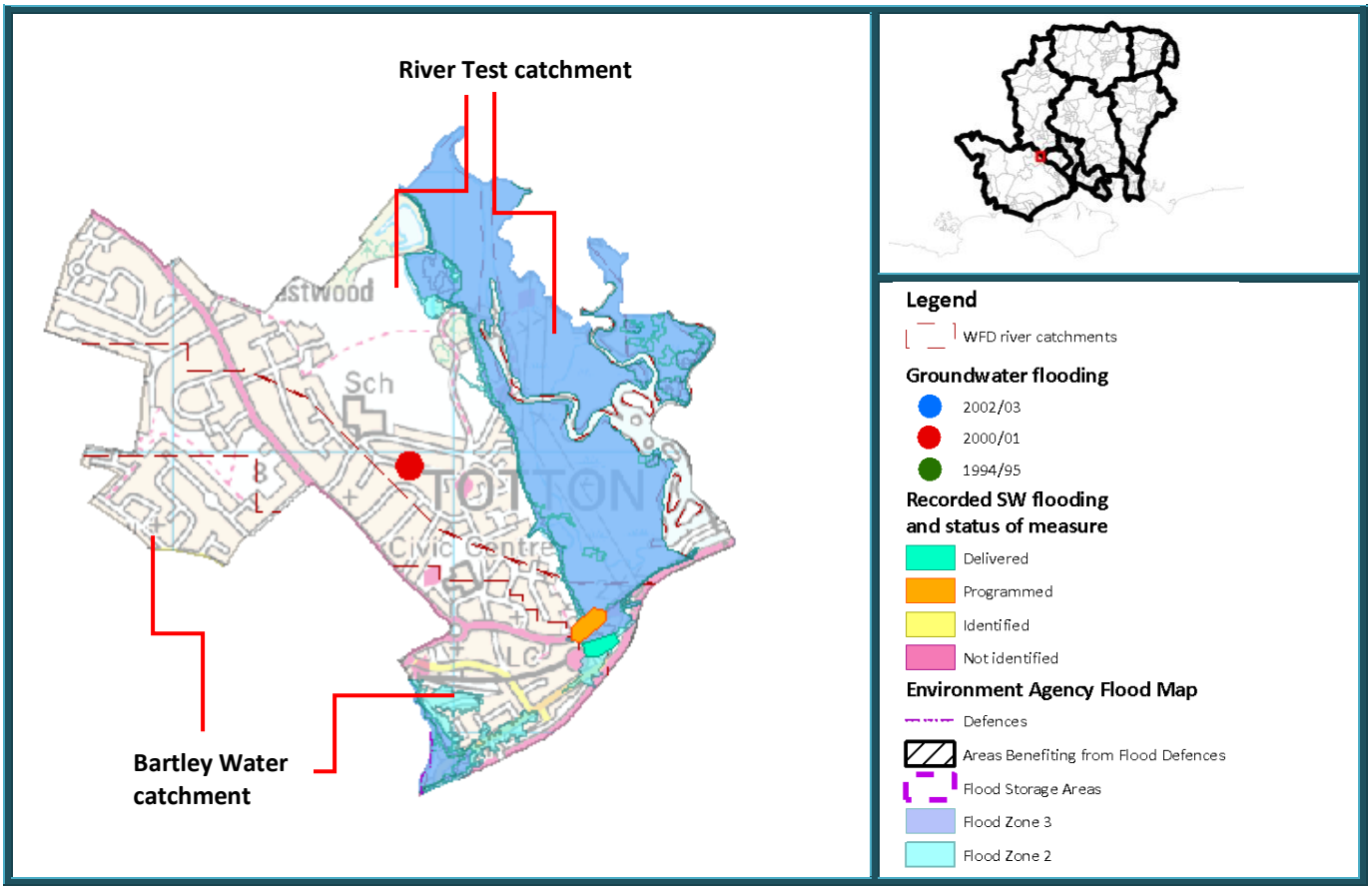


Summary
The ward of St Marys is in the north of Hampshire and covers the urban area of central and west Andover. Infrastructure within the ward includes a day centre, caravan park, a number of schools, a pumping station, electricity sub stations, leisure centres and medical centres. Groundwater flooding was reported in the west of the ward in 1994/19985 and 2002/2003. Hampshire County Council has records of internal property flooding from surface water in the centre of the ward and has identified measures to address this. The Environment Agency Flood Map for Surface Water indicates that property and roads to the west and north of the ward may be at risk from surface water flooding. The Environment Agency Flood Map indicates that those areas with potential surface water flood risk may also be at risk from river flooding.
Current risk
Groundwater flooding has been reported in the west of the ward in two locations, once in 1994/95 and once in 2002/03. Hampshire County Council also has one recorded incident of internal surface water flooding in the south of the ward, which affected 1 property and has an estimated return period of 1 in 30 years. The source of flooding was thought to be pluvial and caused by damage to pipework and unsuitable pipe sizes.
Potential Surface Water Flood risk
Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding. The Environment Agency Flood Map for deep surface water flooding (greater than 0.3m deep) indicates the possibility of surface water flooding with a return period of 1 in 30 or 1 in 200 years over small areas in the west of the ward as well as along the northern edge and in one small area in the south. This suggests the potential for surface water flooding affecting properties internally in these areas. The Environment Agency Flood Map for shallow surface water flooding (0.1 – 0.3m deep) indicates only slightly larger areas at risk of flooding than the deep surface water flooding map. This suggests a few areas around the edge of the deeper flooding zones could be at risk of shallow or nuisance flooding to roads, driveways and gardens. The Environment Agency Flood Map indicates potential for river flooding in the west and northern edge of the ward. In the west a large amount of this is has a less than 0.1% chance of happening annually whilst the areas indicated in the north have between 1 and 0.1% chance of occurring in a year. These areas coincide with those identified as at risk of surface water flooding and therefore there is potential of these types of flooding interacting.
Measures already delivered to reduce risk
The one incident recorded by Hampshire County Council has only been identified as at risk of internal surface water flooding with no programmes planned. It has been identified that flood protection may be difficult because the property is below the level of the road, and hence individual property protection may be required (approximate cost of £20k).
Future measures needed to reduce risk
Other than one reported incident, the risk assessment for this ward is based entirely on modelled flooding. With limited incidents to verify this modelling, we do not recommend that any capital interventions be considered for this ward. Measures to be delivered for this ward therefore are based on monitoring and communication: • Communication of the modelled risk of surface water flooding in this ward to the community • Ongoing monitoring and reporting of incidents to validate the risk

Ward specific action plan
Totton East

About the Ward					
Ward area (km^2)	2.7	**District**	New Forest	**Catchment**	River Test, Bartley Water
No. Residential properties	2740	**No. other buildings**	528	**Critical Infrastructure**	54

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	Low		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	High	EA surface water	Moderate
HCC incident database	Highest	Flood risk to property from other sources (river/sea)	Yes



Summary

Totton East is a small ward to the north of Southampton. Within the ward are Totton Fire Station and Health Centre, schools and colleges and electricity substations.

Groundwater flooding has been recorded in 2000/2001 in the centre of the ward. In addition Hampshire County Council has recorded surface water flooding in the south east of the ward. The Environment Agency Flood Map for Surface Water indicates risk of surface water flooding in the west and south of the ward.

The Environment Agency Flood Map indicates that a large area to the east of the ward is at risk of flooding from rivers or the sea.

Current risk

The groundwater flooding which affected the ward in 2000/01, affected 11 properties in total. Eight of these were flooded at ground floor level, some of which were also affected by foul water flooding.

Surface water flooding is known to be a risk in this ward. Hampshire County Council has two records of surface water flooding, both affecting Totton. One affected about 2 properties but the source of the flooding was not identified. The other event affected about 10 properties and is thought to have been caused because an outflow pipe is too small, resulting in backing up into the system.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for Surface Water indicates there may be a risk of deep (greater than 0.3m depth) flooding, which could cause internal property flooding, in areas of the ward that do not currently have records of flooding. Areas of possible shallow surface water flooding (0.1 - 0.3m) also occur throughout the ward suggesting that nuisance flooding external to properties could occur.

The Environment Agency Flood Map indicates there may be a risk of flooding in the east and south of the ward. There is limited mapped surface water flooding within these areas, although there is some potential for interaction between the flooding sources.

Measures already delivered to reduce risk

HCC have undertaken initial investigations of the causes of surface water flooding. It is believed that incapacity in the outfall structures in the primary cause of the surface water flooding, and measures are in place to resolve improve the outfall structures.

Future measures needed to reduce risk

Although this ward has a potential for combined sources of flooding, the overall combined risk is low, with this ward being ranked 87th overall. Therefore, we do not recommend that any further investigation is carried out on combined sources.

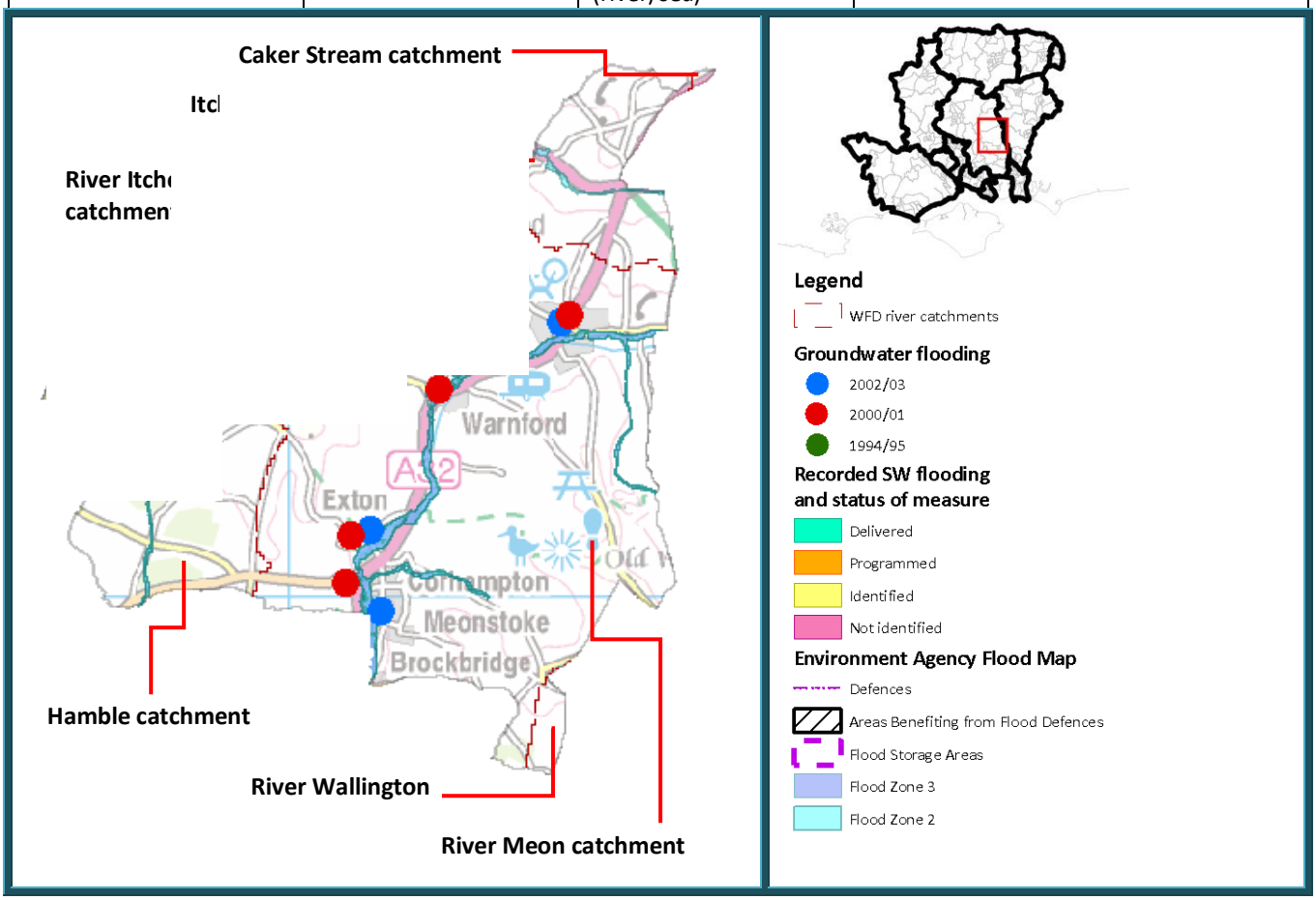
Measures, beyond those already planned, to be delivered for this ward therefore are based on monitoring and communication:

- Communication of the modelled risk of surface water flooding in this ward to the community
- Ongoing monitoring and reporting of incidents to validate the risk

Ward specific action plan
Upper Meon Valley

About the Ward					
Ward area (km^2)	55.8	**District**	Winchester	**Catchment**	Itchen, River Meon, River Wallington, River Itchen, Hamble, Caker Stream, Bow lake
No. Residential properties	858	**No. other buildings**	1152	**Critical Infrastructure**	34

About the Local Flood Risk			
Local Flood Risk defined in relative terms between wards using the relative rank of economic damages. Highest – top 5 wards, High -wards ranked 6 – 20, Moderate - wards ranked 20 to 50, Low – wards ranked less than 50, None – wards with no reported flooding			
Overall local flood risk	High		
Current local flood risk assessment		**Potential local flood risk**	
Groundwater	Highest	EA surface water	Low
HCC incident database	None	Flood risk to property from other sources (river/sea)	Yes



Summary

The Upper Meon Valley ward lies in the centre of Hampshire. It contains a number of towns and villages including West Meon, Warnford, Exton, Corhampton and Meonstoke, which lie along the A32 in the centre of the ward.

Critical infrastructure within the ward includes pumping stations, sewage treatment works, doctors surgery, primary school, electricity sub stations, telephone exchanges and a mobile home park

Hampshire County Council has no record of internal flooding to properties from surface water within the ward. Groundwater flooding, was reported in 2000/01 and 2002/03. In 2000/01 properties were affected in West Meon, Warnford, Exton, Corhampton and Meonstoke. In 2002/03 groundwater flooding was reported in Meonstoke, Exton and West Meon.

The Environment Agency Flood Map for Surface Water indicates the risk of surface water flooding in the vicinity of the A32. This may affect the road as well as the villages of West Meon, Warnford, Exton, Corhampton and Meonstoke. Environment Agency modelled data also indicates these areas may also be at risk from river flooding.

Current risk

The ward of the Upper Meon Valley is known to be at risk from groundwater flooding. In 2000/01 four locations flooded: West Meon, Warnford, Exton and Corhampton/Meonstoke area. In 2002/03 groundwater flooding was reported in West Meon, Exton and the Corhampton/Meonstoke area.

During the 2000/01 event 12 properties were affected in Corhamtpn and Meonstoke, 11 suffered internal flooding. In Exton, 7 properties were flooded internally and another 7 suffered external flooding. Four properties were flooded internally in Warnford and in West Meon 16 properties were affected, with 14 flooding internally.

Potential Surface Water Flood risk

Even if properties haven't experienced past flooding, it does not mean that they are not at risk of future flooding. Therefore this section reviews the risk of future flooding.

The Environment Agency Flood Map for Surface Water indicates there is a risk of deep (greater than 0.3m) surface water flooding in the vicinity of the A32. Properties within West Meon, Warnford, Exton, Corhampton and Meonstoke may therefore be at risk of internal flooding from surface water. The maps also show that extensive areas of the ward may be at risk from shallow (0.1 - 0.3m) surface water flooding, which could affect, for example, roads, gardens and driveways.

The Environment Agency Flood Map also indicates there is a risk of flooding from rivers in the vicinity of the A34. This area may therefore be at risk from combined sources of flooding.

Measures already delivered to reduce risk

Hampshire County Council has no records of internal property flooding in this ward, therefore measures to combat flood risk, beyond regular maintenance of drainage assets that are the responsibility of Hampshire County Council, have not been identified or delivered.

Future measures needed to reduce risk

This ward remains at a high risk of groundwater water flooding. The groundwater surface water management plan will be reviewing the pathways of groundwater flooding within this ward, and will consider future measure and actions to mitigate the risk. This will include reviewing maintenance regimes, the ground water flood warning service, and potential capital schemes. However, this risk assessment identifies that there is a risk of combined flooding. Therefore Hampshire County Council should act as coordinating authority for a delivery team, which includes representation from the Water Company, the Environment Agency, the District Council and residents.

This delivery team should work alongside the GWSWMP and:

- Ensure that residents are aware of the risk of flooding
- Promote the groundwater flood warning system to residents
- Ensure that residents are made aware of advice on how to protect themselves and their property in times of flooding

- Ensure that RMAs, individuals and riparian owners maintain and manage their drainage systems and waterbodies
- Undertake a detailed investigation into the sources, pathways and receptors of flooding, to assess the feasibility of a flood risk management scheme to reduce the risk in the ward.

Specific policies should be considered by the Planning Authority to control development within this risk area, ensuring suitable property resilience levels until such time as the source, pathways and receptors are understood at a detailed enough scale to ensure that new development is not at risk of flooding. Any new development must not increase flood risk elsewhere.

The calculated annualised costs of flooding are approximately £120k.