

**DRAFT SWMP ACTION PLAN - ROCHFORD DISTRICT COUNCIL**

ID	Action		Location		Priority Ranking	Cost			Benefit	Potential Funding Source	Timing			Action Type	Responsibility			Other Stakeholders	EU Related	Review	
	What?	How?	CDA ID	Where		Investigation/F easibility	Capital	Other			Timeframe	Start Date	Approx. Duration		Lead Organisation	Dept.	Primary Support			Frequency	Next Review Date
<b>Action ROC 1</b>	Further Investigation	Undertake further investigation of the preferred options, and alternative options across ROC 1 to determine the suitability, feasibility and function of each. This should be undertaken, where required, with the riparian owners, Rochford DC, the EA and Essex CC (as LLFA). The outcome of this will determine whether or not actions <b>ROC 2, 3, 4, 5, 6 and 7</b> are required.	ROC 1	CDA Wide	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.		Short		3 months	Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
<b>Action ROC 2</b>	Flood Storage - Sweyne Park	This is dependent on the outcome of Action <b>ROC 1</b> . A detention basin could be created to provide recreational space and temporary flood storage during extreme flood events. Within Sweyne Park, a detention basin of 1,800 m <sup>2</sup> by an average depth of 0.2 m would provide 360 m3 of capacity for surface water runoff.	ROC 1	Sweyne Park	Medium		<£25k		Actions <b>ROC 2, 3, 4 and 5</b> combined could reduce flood risk to 15% of the properties which have been modelled to be at risk of flooding of 0.1m or greater during the 1% AEP rainfall event.		Medium		12 months	Flooding Mitigation Action	Rochford DC						
<b>Action ROC 3</b>	Online Storage - Rawreth Brook	This is dependent on the outcome of Action <b>ROC 1</b> . Alternatively the channel of the Rawreth Brook passing through Sweyne Park could be developed into a two stage channel. This would provide online storage of excess water during times of high flow. A flow control at the outlet would ensure water accumulates in the two stage channel instead of flowing towards more vulnerable areas	ROC 1	Sweyne Park	Medium		Unknown				Medium		12 months	Flooding Mitigation Action	Rochford DC						
<b>Action ROC 4</b>	Flood Storage - Sweyne Park School	This is dependent on the outcome of Action <b>ROC 1</b> . A larger flood storage area within Sweyne Park School could help to alleviate the flood risk to the school as well as the surrounding areas. A detention basin with an area of 6,700 m2 would have the capacity or 1,340 m3 of surface water runoff.	ROC 1	Sweyne Park School playing fields	Medium		£26k to £50k				Medium		12 months	Flooding Mitigation Action	School						
<b>Action ROC 5</b>	Further Investigation - Ordinary Watercourse	This is dependent on the outcome of Action <b>ROC 1</b> . Further investigation is needed of the ordinary watercourse that flows from Heron Close towards the A129, to determine the channel condition and potential obstructions that could prevent the conveyance of stormwater	ROC 1	Heron Close towards the A129	Medium	<£25k					Medium		6 months	Investigation / Feasibility / Design	Rochford DC		Riparian Owners / AWS				
<b>Action ROC 6</b>	Resilience	This is dependent on the outcome of Action <b>ROC 1</b> . Providing resilience measures through demountable flood defences or structural changes such as raising the floor levels in Sweyne Park School is an alternative option that will ensure that this building is protected from surface water flooding	ROC 1	Sweyne Park School	Low		£26k to £50k		Will allow the ongoing function of the building whilst reducing damages from flood waters.		Medium		12 months	Flooding Mitigation Action	Rochford DC		School Authorities				
<b>Action ROC 7</b>	Source Controls: Water Butts	This is dependent on the outcome of Action <b>ROC 1</b> . Wide scale implementation of water butts across the residential buildings at the head of the catchment will help attenuate surface water runoff at the source of generation.	ROC 1	Residential buildings at the head of the catchment	Low	£101k to £250k			Provides a non - potable water supply for residents to use.		Medium		6 months	Flooding Mitigation Action	Rochford DC		Residents				
<b>Action ROC 8</b>	Further Investigation	The causes and mechanisms of flooding within ROC 2 need to be further investigated to determine any possible mitigation measures. The outcome of this will determine whether or not actions <b>ROC 9</b> is required.	ROC 2	CDA Wide	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
<b>Action ROC 9</b>	Resilience	This is dependent on the outcome of Action <b>ROC 8</b> . Provision of resilience measures, such as temporary flood defences or raising the floor levels of buildings, to buildings identified to be at risk by 0.3m or more of surface water flooding.	ROC 2	Buildings in the PSWFH	Medium		£501k - £1m		Protects the most vulnerable buildings from damage resulting from floods.					Flooding Mitigation Action	Rochford DC		Residents				
<b>Action ROC 10</b>	Further Investigation	Undertake further investigation of the preferred options, and alternative options across ROC 4 to determine the suitability, feasibility and function of each. This should be undertaken, where required, with the riparian owners, Rochford DC, the EA and Essex CC (as LLFA). The outcome of this will determine whether or not actions <b>ROC 11, 12, 13 and 14</b> are required.	ROC 4	CDA Wide	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
<b>Action ROC 11</b>	Flood Storage - Greensward Academy	This is dependent on the outcome of Action <b>ROC 10</b> . Creation of a multifunctional storage space through the relandscaping of existing green spaces. A detention basins the playing field area of the Greenward Academy with a capacity of 1200 m3.	ROC 4	Greensward Academy	Medium		£26k to £50k		Actions <b>ROC 11, 12, 13 and 14</b> combined could reduce flood risk to 55% of the properties which have been modelled to be at risk of flooding of 0.1m or greater during the 1% AEP rainfall event.					Flooding Mitigation Action	Rochford DC		School Authorities				
<b>Action ROC 12</b>	Flood Storage - Plumberow Primary School	This is dependent on the outcome of Action <b>ROC 10</b> . Utilise the car park of the Plumberow Primary school the retain surface water which has been modelled to accumulate at this point. Storage created by increasing curb height or reducing the depth of the car park	ROC 4	Plumberow Primary School car park.	Medium		Unknown							Flooding Mitigation Action	Rochford DC		School Authorities				
<b>Action ROC 13</b>	Flow Restriction - Eastern Boundary of Marylands Wood	This is dependent on the outcome of Action <b>ROC 10</b> . Two bunds could be created along the eastern boundaries of Marylands Wood, by Maryland Avenue and Plumberow Avenue, totalling 225 m in length. These would act to restrict the flow of water from Marylands Wood to a controlled rate intended to prevent the inundation of downstream areas.	ROC 4	Eastern Boundary of Marylands Wood - Maryland Avenue and Plumberow Avenue	Medium		<£25k							Flooding Mitigation Action	Rochford DC						
<b>Action ROC 14</b>	Further Investigation - Sewers	This is dependent on the outcome of Action <b>ROC 10</b> . A number of DGS sewer flooding incidents have been recorded across the CDA. An investigation of the sewer network is recommended to determine the condition and efficiency of the surface water drainage network	ROC 4	CDA Wide	Low	<£25k			This could highlight work required to reduce the flood risk to a large number of properties in this area.					Investigation / Feasibility / Design	AWS		Rochford DC				
<b>Action ROC 15</b>	Further Investigation	Undertake further investigation of the preferred options, and alternative options across ROC 6 to determine the suitability, feasibility and function of each. This should be undertaken, where required, with the riparian owners, Rochford DC, the EA and Essex CC (as LLFA). The outcome of this will determine whether or not actions <b>ROC 16, 17, and 18</b> are required.	ROC 6	CDA Wide	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
<b>Action ROC 16</b>	Flood Storage	This is dependent on the outcome of Action <b>ROC 15</b> . Developed the green space of Napier Road and the Grove Nature Reserve to create multifunctional flood storage spaces, by re-landscaping of the existing space. For both locations, a detention basin of 5,700 m2 could be utilised to have capacity of 1,140 m3 to attenuate surface water.	ROC 6	South of Napier Road and the Grove nature Reserve.	Medium		<£25k		This could reduce flood risk to 55% of the properties which have been modelled to be at risk of flooding of 0.1m or greater during the 1% AEP rainfall event. Flood storage areas in the nature reserve can be developed to provide ecological systems to suppo					Flooding Mitigation Action	Rochford DC		Land Owner	Land Owner, EA			

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Action ROC 17	Further Investigation - Sewer Network	This is dependent on the outcome of Action <b>ROC 15</b> . There are a number of DG5 sewer flooding records along Thorington Road, The Chase and Napier Road. Additionally investigation into the sewer capacity across areas indicated by the pluvial modelling to be at risk of surface water flooding is recommended. This will determine the efficient and capacity of the sewer system.	ROC 6	The area around Thorington Road, The Chase and Napier Road.	Medium	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Flooding Mitigation Action	AWS		Rochford DC				
Action ROC 18	Preferential Flow Path	This is dependent on the outcome of Action <b>ROC 15</b> . Modification of roads, identified through the pluvial modelling to have a tendency for the conveyance of surface water. Modification by the increase in curb height and channel capacity to ensure surface water	ROC 6	Albert Road, Bull Lane, The Chase	Low		Unknown		Ensures surface water remains in specified channel and does not flow towards vulnerable buildings.					Flooding Mitigation Action	Rochford DC			Highways Authority			
Action ROC 19	Further Investigation	Undertake further investigation of the preferred options, and alternative options across ROC 7 to determine the suitability, feasibility and function of each. This should be undertaken, where required, with the riparian owners, Rochford DC, the EA and Essex CC (as LLFA). The outcome of this will determine whether or not actions <b>ROC 20, 21, 22, 23, 24 and 25</b> are required.	ROC 7	CDA Wide	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
Action ROC 20	Flood Storage	This is dependent on the outcome of Action <b>ROC 19</b> . Flood storage could be developed in Spencer's Park to accommodate surface water runoff prior to draining towards the south. A detention basin, with an area of 17,000 m <sup>2</sup> could accommodate 3,400 m <sup>3</sup> of surface water runoff. This could be landscaped to provide a diverse recreational area.	ROC 7	Spencer's park	Medium		£51k to £100k		Actions <b>ROC 20, 21 and 22</b> combined could reduce flood risk to 50% of the properties which have been modelled to be at risk of flooding of 0.1m or greater during the 1% AEP rainfall event.					Flooding Mitigation Action	Rochford DC		Rochford DC				
Action ROC 21	Flow Restriction	This is dependent on the outcome of Action <b>ROC 19</b> . Creation of a 200m bund across the perimeter of the field north of Rochford Garden Way to intercept the flow of surface water to the urban area to the south.	ROC 7	The field to the north of Rochford Garden Way	Medium		<£25k							Flooding Mitigation Action	Rochford DC		Land Owner	Land Owner			
Action ROC 22	Further Investigation	This is dependent on the outcome of Action <b>ROC 19</b> . Accumulation of surface water runoff to the east of the network rail embankment around the Banyard Way is potentially due to an undersized culvert. Investigation into the potential cause of flooding at this point is recommended	ROC 7	Rail embankment around Banyard Way	Medium	<£25k								Investigation / Feasibility / Design	Rochford DC		Rochford DC	Network Rail			
Action ROC 23	Source Controls	This is dependent on the outcome of Action <b>ROC 19</b> . Residential buildings of Pollards Close, Union Lane and Ashington Road could all potentially develop rainwater harvesting or green roofs systems due to the large, flat roof surfaces. A total of 30m <sup>3</sup> , or more, of rainwater harvesting could be implemented across these buildings.	ROC 7	Residential buildings of Pollards Close, Union Lane and Ashington Road.	Low		£26k to £50k		Provides a non - potable water supply for use in site maintenance.					Flooding Mitigation Action	Rochford DC		Residents / Building Owners				
Action ROC 24	Flood Storage	This is dependent on the outcome of Action <b>ROC 19</b> . Utilise the car parks off Pollards Close, Union Lane and Ashington Road to store flood water. Modification of the curb height, or car park depth will allow for the accumulation of surface water.	ROC 7	Car parks off Pollards Close, Union Lane and Ashington Road.	Low		Unknown		This would maintain the existing site usage, however would provide temporary storage of surface water when required.					Flooding Mitigation Action	Rochford DC		Land Owner				
Action ROC 25	Infrastructure Resilience	This is dependent on the outcome of Action <b>ROC 19</b> . Apply resilience measures to the Rochford fire station through raising of floor levels or installation of temporary flood defences.	ROC 7	Rochford fire station	Low		£26k to £50k		To ensure the continued running of the services during a flood event.					Flooding Mitigation Action	Rochford DC		Building Owners				
Action ROC 26	Further Investigation	Investigation in they causes and mechanisms of flooding within this CDA, especially in relation to the Bartonhall Creek and pluvial flooding in Great Stambridge. Once this has been completed, options for mitigation should be developed. The outcome of this will determine whether or not action <b>ROC 27</b> required.	ROC 8	Bartonhall Creek and Great Stambridge	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
Action ROC 27	Resilience	This is dependent on the outcome of Action <b>ROC 26</b> . Two buildings have been identified to be at risk of pluvial flooding by 0.3m or greater. Provide resilience measures such as raising floor levels, or temporary flood defences.	ROC 8	Buildings identified to be at risk	Low		£501k to £1m		Ensures the buildings at greatest risk are protected against future flooding events.					Flooding Mitigation Action	Rochford DC		Building Owners				
Action ROC 28	Further Investigation	This CDA has been identified due to the number of historical surface water and sewer flooding incidents. Investigation into the cause of these would be recommended as the initial step in resolving the flooding problem. This should be focussed around Little Wakering Road where the majority of historical flooding incidences are recorded.	ROC 9	Little Wakering Road	High	<£25k			Provide a clearer understanding of potential options before further funding is invested in the design and implementation of capital schemes.					Investigation / Feasibility / Design	Rochford DC			EA, Riparian Owners and Essex CC.			
Action ROC 29	Flood Storage	This is dependent on the outcome of Action <b>ROC 28</b> . The creation of a flood storage space in the field behind Cronje Cottage could attenuate surface water and help to prevent the flooding of Little Wakering. A detention basin of 3000 m2 area could be created.	ROC 9	Land behind the Cronje Cottage	Low		<£25k		This would reduce the flood risk to the buildings further along the flow path of the surface water. This area could be developed to support a diverse ecology.					Flooding Mitigation Action	Rochford DC		Land Owner				