



**Catchment  
to Coast**

# **The Flood & Coastal Resilience Innovation Programme (FCRIP)**

## **Catchment to Coast**





# Catchment to Coast

HM Government

**Flood and coastal erosion risk management**  
Policy Statement

July 2020

**National Flood and Coastal Erosion Risk Management Strategy for England**



### Strategy Ambition 1: Climate Resilient Places

People and places will be more resilient to flood and coastal change in a changing climate

People and places will be able to plan for future flooding and coastal change and adapt to future hazards

People and places will make greater use of nature based solutions to enhance flood and coast resilience and nature recovery

Farming and land management practices will better support rural resilience to both floods and droughts



### Strategy Ambition 2: Growth and Infrastructure

New homes will be safe from flooding by avoiding inappropriate development in flood risk areas

Flood and coastal risk management investments will drive environmental improvements and sustainable growth

More people will take action to build back better and recover more quickly when flooding happens

Flood risk assets will be safe and resilient to current and future risks from flooding and coastal change

National infrastructure will be more resilient to current and future risks from flooding and coastal change



### Strategy Ambition 3: A nation ready to respond and adapt to flooding and coastal change

People will understand and will be better prepared to respond to flooding and coastal change risks

People and businesses will get back to normal quicker after flooding

More people will have the education and skills they need to develop careers in flood and coastal risk management

World leading research and international best practice will underpin flood and coastal risk management

Carbon emissions from flood and coastal risk management investments will be significantly reduced to meet net zero targets

**Help communities at risk of flooding & coastal change to respond, recover and adapt better in a changing climate**



## Flood and Coastal Innovation Programmes

Share learning from the £200 million funding which is testing innovative action on flooding and coastal change through three key programmes:

- **Flood and Coastal Resilience Innovation Programme (FCRIP)**
  - **Coastal Accelerator Transition Programme (CTAP)**
    - **Adaption Pathways Programme (APP)**

**AAP - Thames Estuary 2100, Humber Strategy, River Severn Partnership, South and West Yorkshire.**

The four locations are working together to develop, test and share guidance, resources and tools to better integrate adaptation to future flooding and coastal change into projects, investments and strategic plans.

**CTAP - East Riding of Yorkshire and North Norfolk**

The Coastal Transition Accelerator Programme (CTAP) will explore how we can adapt to the effects of climate change on the coast.

Working with communities on the coast that cannot sustainably be defended from coastal erosion.



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**Flood and coastal resilience involves the capacity of people and places to:  
Plan for, better protect, prepare and be ready to respond, and recover from flooding and coastal change**

## Programme Aims

<p><b>1</b> Encourage local authorities, businesses and communities to <b>test and demonstrate innovative practical resilience actions</b> in their areas</p>		<p><b>2</b> Improve the resilience of 25 local areas, <b>reducing the costs of future damage and disruption</b> from flooding and coastal erosion</p>	
 	 	<p><b>3</b> Improve <b>evidence on the costs and benefits</b> of the innovative resilience actions and demonstrate how different actions work together across geographical areas</p>	<p><b>4</b> Use the evidence and learning developed to <b>inform future approaches to, and investments in, flood and coastal erosion risk management</b></p> 

## Resilience Actions/Activities

1. Integrated water management solutions
2. Nature based solutions
3. Property flood resilience
4. Community infrastructure resilience
5. Monitoring and management of local assets
6. Minimise damages and disruption to small and medium sized businesses
7. Community and voluntary sector action to be better prepared and recover more quickly
8. Local emergency response equipment
9. Enhanced flood warning systems
10. Investigate policy challenge areas
  - Balancing agricultural, flood and environmental priorities in low-lying agricultural land.
  - Meeting the need for major new developments in areas with flood risks
  - Retrofitting drainage and water management arrangements in urban areas



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## Overview of the Catchment to Coast Project

### Partners

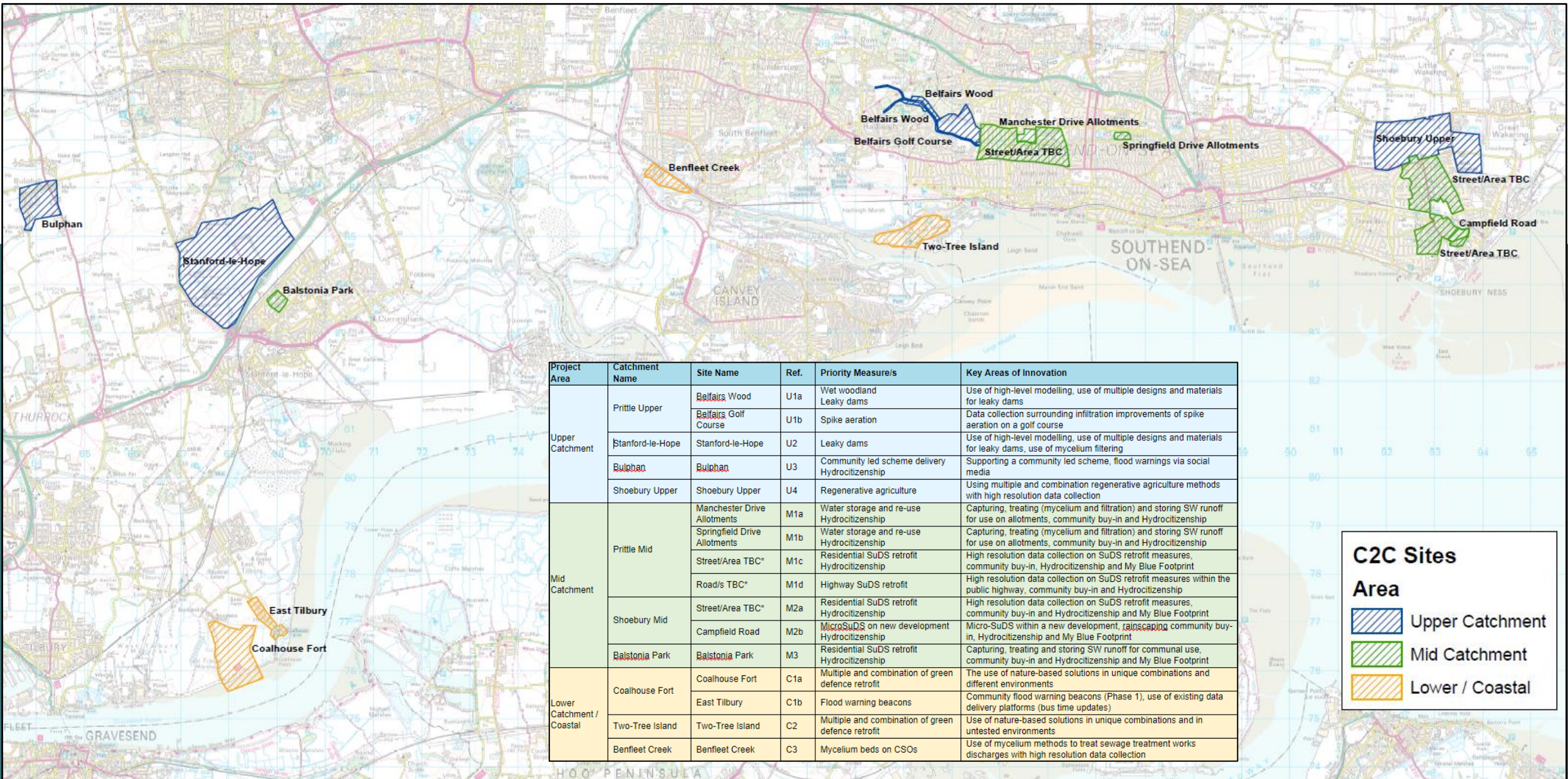
Southend-on-Sea City Council & Thurrock Borough Council – Lead Partners

Castle Point Borough Council, Rochford District Council, Anglian Water, Environment Agency, Essex Wildlife Trust, Thames 21, AmbioTEK, Kings College London,

University of Essex & Mott MacDonald

### Project Objectives

1. The Catchment to Coast project will take a strategic approach to FCERM across the whole hydraulic catchment.
2. Use of complementary, interconnective nature based solution across the upper, middle and lower catchment; site specific and cumulative impacts will be monitored and evaluated.
3. All nature based solutions will be innovative, or traditional NBS will be used in an innovative way or combination.



Project Area	Catchment Name	Site Name	Ref.	Priority Measure/s	Key Areas of Innovation
Upper Catchment	Prittle Upper	Belfairs Wood	U1a	Wet woodland Leaky dams	Use of high-level modelling, use of multiple designs and materials for leaky dams
		Belfairs Golf Course	U1b	Spike aeration	Data collection surrounding infiltration improvements of spike aeration on a golf course
	Stanford-le-Hope	Stanford-le-Hope	U2	Leaky dams	Use of high-level modelling, use of multiple designs and materials for leaky dams, use of mycelium filtering
	Bulphan	Bulphan	U3	Community led scheme delivery Hydrocitizenship	Supporting a community led scheme, flood warnings via social media
	Shoebury Upper	Shoebury Upper	U4	Regenerative agriculture	Using multiple and combination regenerative agriculture methods with high resolution data collection
Mid Catchment	Prittle Mid	Manchester Drive Allotments	M1a	Water storage and re-use Hydrocitizenship	Capturing, treating (mycelium and filtration) and storing SW runoff for use on allotments, community buy-in and Hydrocitizenship
		Springfield Drive Allotments	M1b	Water storage and re-use Hydrocitizenship	Capturing, treating (mycelium and filtration) and storing SW runoff for use on allotments, community buy-in and Hydrocitizenship
		Street/Area TBC*	M1c	Residential SuDS retrofit Hydrocitizenship	High resolution data collection on SuDS retrofit measures, community buy-in, Hydrocitizenship and My Blue Footprint
		Road/s TBC*	M1d	Highway SuDS retrofit	High resolution data collection on SuDS retrofit measures within the public highway, community buy-in and Hydrocitizenship
	Shoebury Mid	Street/Area TBC*	M2a	Residential SuDS retrofit Hydrocitizenship	High resolution data collection on SuDS retrofit measures, community buy-in and Hydrocitizenship and My Blue Footprint
		Campfield Road	M2b	Micro-SuDS on new development Hydrocitizenship	Micro-SuDS within a new development, rainscaping, community buy-in, Hydrocitizenship and My Blue Footprint
	Balstonia Park	Balstonia Park	M3	Residential SuDS retrofit Hydrocitizenship	Capturing, treating and storing SW runoff for communal use, community buy-in and Hydrocitizenship and My Blue Footprint
Lower Catchment / Coastal	Coalhouse Fort	Coalhouse Fort	C1a	Multiple and combination of green defence retrofit	The use of nature-based solutions in unique combinations and different environments
		East Tilbury	C1b	Flood warning beacons	Community flood warning beacons (Phase 1), use of existing data delivery platforms (bus time updates)
	Two-Tree Island	Two-Tree Island	C2	Multiple and combination of green defence retrofit	Use of nature-based solutions in unique combinations and in untested environments
	Benfleet Creek	Benfleet Creek	C3	Mycelium beds on CSOs	Use of mycelium methods to treat sewage treatment works discharges with high resolution data collection

**C2C Sites Area**

- Upper Catchment
- Mid Catchment
- Lower / Coastal

# The Upper Catchment



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# The Middle Catchment



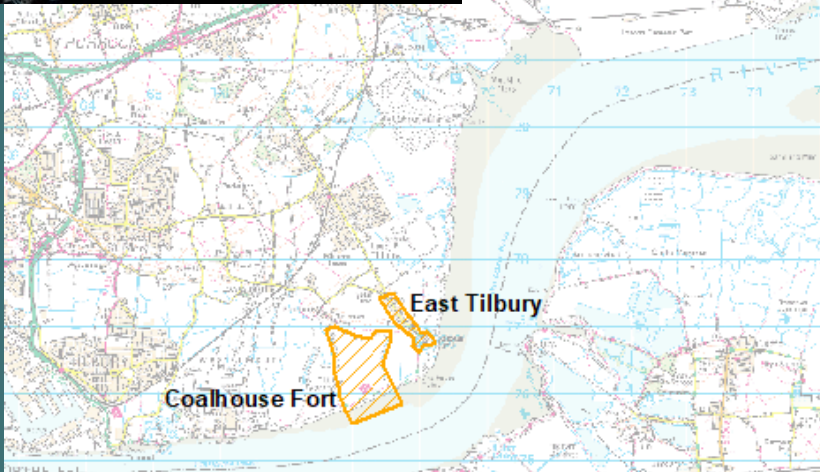
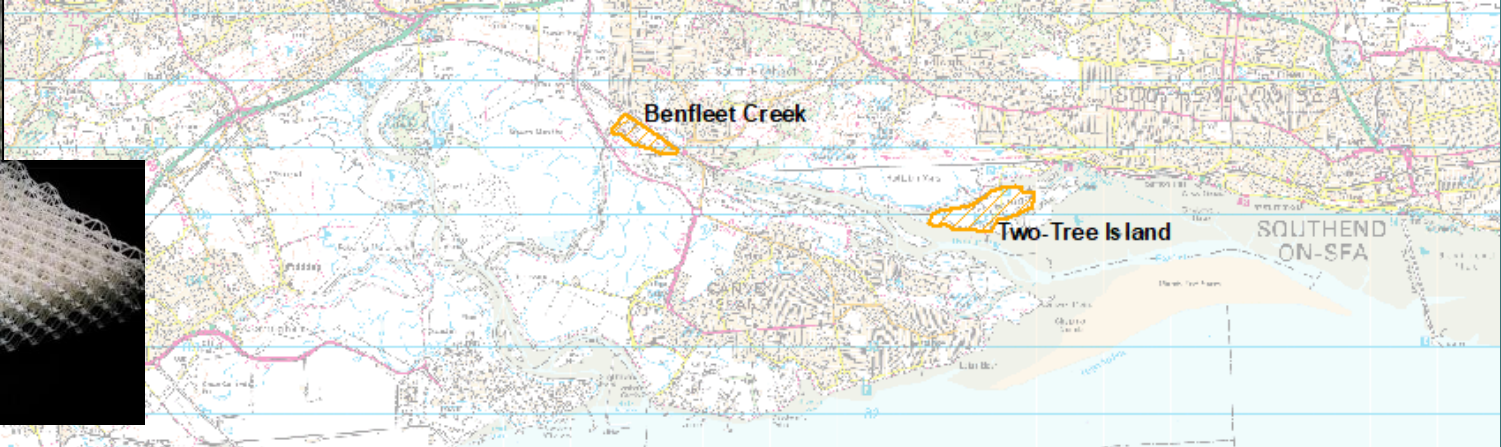
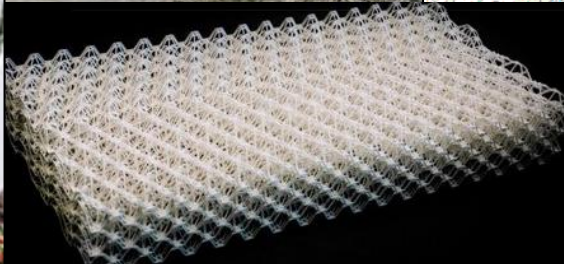
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# The Lower Catchment – Flood & Coastal



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# Data Collection & Monitoring



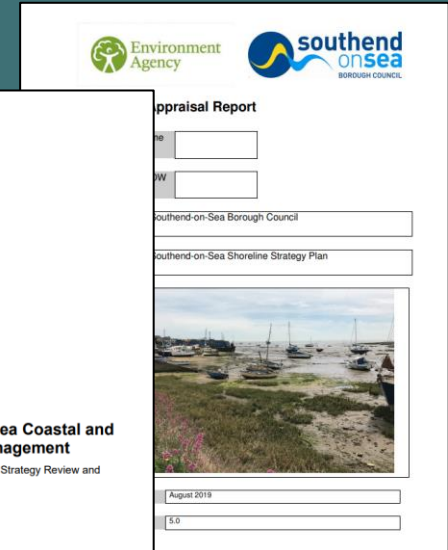
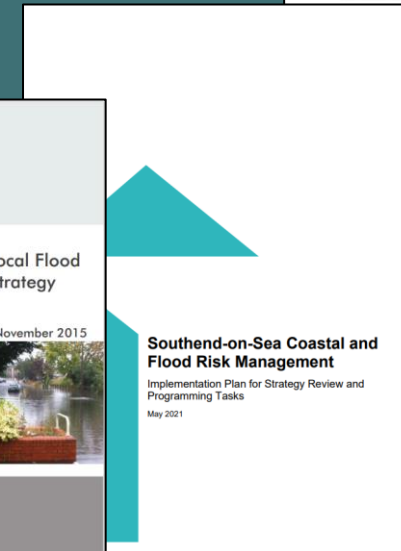
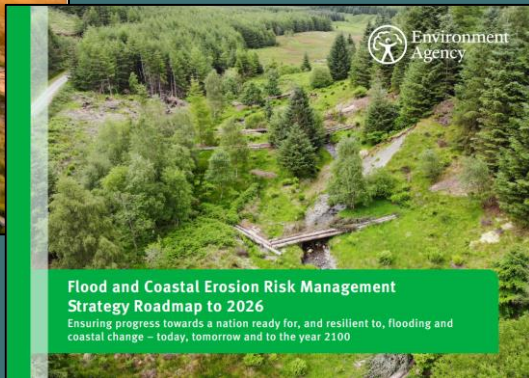
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# Future Aspirations



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Thank you & any questions





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