# Solving the Climate Change Challenge: Too much water… too little water… at the wrong time…

## Nature Based Solutions

**H2O Source2Sea** aims to reduce the impact and financial cost of flooding through improved implementation of NFM (Natural Flood Management) and NDM (Natural Drought Management) systems.

More effective NFM and NDM strategies will lead to significant reduction in the public costs of flooding, as well as increases in water quality and reductions in nutrients, water course pollution and sedimentation. Citizen science will be used to monitor results and aid in further development of new GIS tools in pilot areas.



**Key Outcomes:**

- Establish nature based solutions for both flood and drought risk management
- Produce tools (GIS and financial mechanisms) to support the implementation of NFM and NDM
- Improve business-case for NFM and NDM through better natural capital assessments

**Our Role:**
KCC is leading the NDM pilot to make best use of water when it is available. We will work with partners including landowners and land-using businesses to implement and test water storage and trading schemes.

## Green/Blue Infrastructure

Cool Towns aims to combat the increasing effects of heat stress and improve understanding of effective heat management in small and medium sized cities in the 2 Seas region.


Climate change is already causing hotter summers and more frequent droughts, as well as increasing the number and intensity of hot days and heatwaves. Cool Towns will improve stakeholder ability to understand and manage overheating risks through effective urban design.

**Key Outcomes:**

- Increasing awareness of green/blue infrastructure solutions to reduce heat stress
- Identification of heat-vulnerable populations
- Delivering multi-functional infrastructure solutions

**Our role:**
KCC will identify key heat stressed areas in Kent and deliver heat resilience measures. Our pilot will make use of partner knowledge to effectively manage and reduce heat stress and surface water flooding as well as improve public health outcomes.


## Holistic Approach

**C5a** brings together the outcomes of 7 North Sea Region projects to develop a holistic management approach to managing water resources effectively across the region.

Recognising that adaptation measures taken upstream or in the upper catchment may have unintended negative consequences downstream, C5a is developing a new, whole of system approach to ensure coherent adaptation across the constituent systems (catchment, coasts, cities and infrastructure networks) to effectively manage flood risk.

**Key Outcomes**

- Building public sector capacity to plan for climate change
- Improving understanding of building adaptation capacity across the water system
- Developing more sustainable, integrated, multifunctional solutions that can be applied in practice

**Our Role**

For C5a we are Constituent Systems lead for Infrastructure Networks and are leading the Medway Catchment pilot, where we will be using nature based solutions, green/blue infrastructure, multi-layered safety and adaptive planning to reduce the impact of flooding across the catchment.

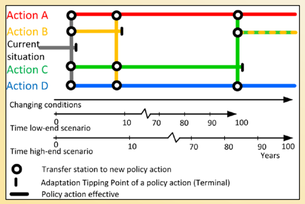
## Adaptive Planning

**STAR2Cs** aims to overcome the 'implementation gap' between national plans and local adaptation action and reduce the impacts of flooding and climate change by:

- developing a versatile method to identify cost-effective mechanisms to deliver local adaptation measures
- building stakeholder knowledge and the ability to participate in effective 'future proofed' decision making
- demonstrating the success of this approach to encourage wider rollout across the 2 Seas area and beyond to stimulate adaptation action.

**Key Outcomes:**

- Reduction of long-term impacts of flooding
- Public property and infrastructure is better adapted to climate change
- Adaptation actions integrated into local policy, strategy, decision-making and business-as-usual.





**Our role:**
KCC is leading on development of the Adaptation Catalyst. We will also be developing an Adaptation programme for Kent based on outcomes of the Kent Climate Change Risk and impact Assessment.

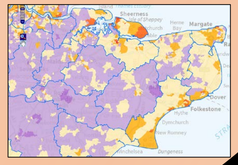
## Multi-Layered Safety

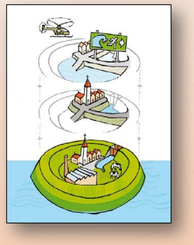
**FRAMES i**s developing the concept of Multi-Layered Safety to include recovery from flooding events as well as planning, preparing for and responding to them.

Stakeholders will be better prepared for flooding, and able to recover to a state that is better than their pre-flood state, building long term resilience and reducing the potential future cost of flooding to residents and taxpayers.

**Key Outcomes:**

- More resilient health and social care facilities
- Tools to support increased flood resilience adopted by key sectors
- Increased emergency preparedness and response capacity
- Improved flood prevention measures



**Our role:**
KCC is working to improve flood resilience in the health and social care sector. We have assessed flood vulnerability and disadvantage to communities, as well as flood risk to health & social care properties.

We are reviewing the CCRA to develop a Kent Climate Change Risk and Impact Assessment (CCRiA) to better understand the impacts of climate change on key sectors and motivate action.

For more information, contact climate.change@kent.gov.uk