

# Holistic Water Management

Proposal for an innovative approach in case study communities across Norfolk and Suffolk, to increase resilience to flood risk through beneficial water reuse by agriculture, industry, communities and the environment. Funded by Defra, £6m over 6 years.

## 1. The problem we are trying to solve

Suffolk and Norfolk both face considerable local flood risk, as well as a water resource scarcity being the driest region in the UK.

The national partnership funding calculator currently favours large coastal and fluvial protection schemes for substantial urban settlements. This leaves smaller, rural communities with relatively small number of homes at flood risk, typically found across Norfolk and Suffolk, struggling to source national funding.

This lack of funding results in little or no action to support smaller, rural communities from the FCERM authorities, leaving the settlements with a growing vulnerability to future flood risk.

Suffolk and Norfolk are situated in the most water stressed region of the UK with a predicted unmitigated water demand to supply deficit of around - 200 MI per day by 2050 (Water Resources East, 2020). The changing climate and future growth will exacerbate this further.

There is significant water demand by local agriculture to produce crops for the market. In England, agricultural irrigation only accounts for 1% of water use on average, however, in the East of England, Defra (2011) acknowledges this rises to 16%. Innovation is required as future abstraction from aquifers and watercourses is likely to be limited or even reduced to improve environmental indicators.

East Anglia is rich in natural habitats, which not only support biodiversity, but are closely linked to tourism, health, and well-being. Over 10% of each county is subject to a special environmental protection status due to the high quality of the habitat (UEA 2020). Water scarcity not only threatens a sustainable water supply, but also the ongoing health of water sensitive habitats and the local economy.

This leaves rural communities that are strongly connected to their environment vulnerable to fluctuations in the amount of water and reduces the communities' resilience to environmental and climatic change. This negative spiral needs to be broken, with an innovative, more holistic approach to managing water that supports community resilience.

## 2. Proposal Summary

**The joint Suffolk and Norfolk County Councils project aims to promote and deliver a partnership approach to holistic water management that reuses surface water runoff to reduce flood risk and support the local community's water resource needs while enhancing the local environment.**

The project is in the conceptual stage and will be developed into a Business Case with support from partners. The starting point will be to identify specific communities at risk of flooding that would benefit from holistic water management.

Once communities and their catchments have been selected, the scheme would seek to:

- Reduce flood risk to the community using catchment based Natural Flood Management and retrofitting SuDS or other similar appropriate measures;
- Reuse surface water runoff through the installation of water capture and reuse measures for use by agriculture, industry, or the local community facilities to improve water security;
- Engage closely with local communities to benefit from their local knowledge, rebuild trust in Risk Management Authorities (RMAs) and to initiate changing a communities' perspective to flood risk management;
- Maximise additional multi-purpose benefits for the environment and society; and
- Provide evidence of the effectiveness and cost of holistic water management projects in rural towns and villages through ongoing monitoring.

**Main Resilience Activities**

- Installing integrated water management solutions
- Installing nature-based solutions

**Supporting Resilience Activities**

- Installing local monitoring
- Agriculture more resilient to climate change
- Dealing with surface water drainage in urban areas

### 3. Partner Organisations

The joint proposal would work with partner organisations to develop new and existing partnerships such as RMAs, local voluntary organisations, community governance, technical organisations, and local interest groups.

Currently the following organisations have confirmed support for the overarching principles of the proposal and willingness to support the development of the details of its delivery:

- Anglian Water
- Water Resources East
- Appropriate teams and departments within both the County Councils
- Norfolk and Suffolk Innovation Partnership
- National Farmers Union
- Country Land and Business Association (CLA)
- Water Management Alliance – representing internal drainage boards
- Groundwork Norfolk and Suffolk – community engagement specialists
- East Suffolk Water Abstraction Group – landowners with abstraction interests
- Sustainable Water Solutions- – local hydrological consultants working with farmers