



**NORFOLK WATER
STRATEGY PROGRAMME**

The Norfolk Water Fund: from concept to action - demonstrating how Nature-based Solutions can deliver for water security

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Norfolk faces a growing water security challenge. As one of England's driest counties, it contains globally rare chalk rivers, wetlands and productive farmland that are increasingly exposed to growth, agricultural pressures and climate change. Flooding, drought and deteriorating water quality are already affecting habitats, communities and economic growth (WRE, 2023). The Norfolk Water Strategy Programme (NWSP) was established in 2021 by Water Resources East, Norfolk County Council, Anglian Water and The Nature Conservancy to test whether Nature-based Solutions (NbS) can be delivered at scale as part of a practical, investable response to these pressures.

THE NORFOLK WATER STRATEGY PROGRAMME APPROACH

i) Identify the right interventions in the right places

The programme's objective is to move from concept to implementation by identifying priority NbS opportunities, quantifying their water security benefits, testing the commercial case for investment and supporting early project delivery. Five intervention types were assessed: runoff attenuation and infiltration features, riparian restoration, soil management, land use change and floodplain reconnection (Figure 1). Catchment scale modelling tested potential impacts on groundwater recharge, storage, river low flows and nutrient export.

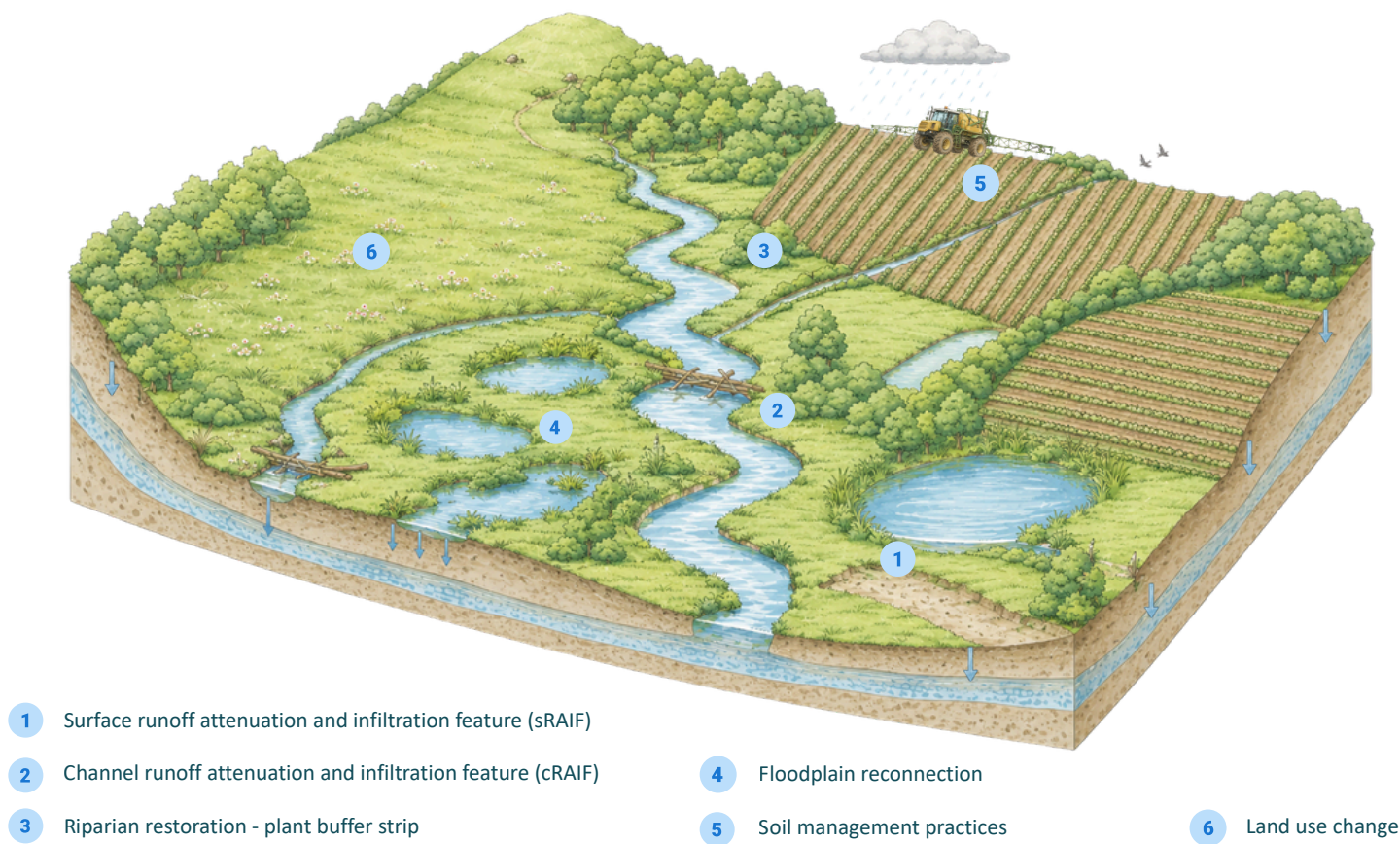


Figure 1: Nature-based solutions in the catchment

ii) Build the business case for investment

A notional £30 million NbS portfolio was developed by combining biophysical modelling with estimated construction, management, monitoring and governance costs. The resulting business case showed a Benefit: Cost ratio of 6.7:1 (Figure 2), with potential credit revenues of £44m from nutrient and biodiversity markets, alongside wider public benefits such as carbon sequestration, air quality improvements and unlocking housing development stalled by nutrient neutrality (WRE, 2024).

iii) Enable delivery through tools and grants

To translate analysis into action, NWSP has made NbS opportunity mapping available through a web platform developed by The Rivers Trust (Figure 3), and developed an NbS Prioritisation Tool that allows users to upload land parcel data and generate bespoke maps and benefits assessments. NWSP has established the Norfolk Water Fund, which is funding feasibility and delivery across the county through grants with landowners, eNGOs and emerging nature market companies (Figures 4 and 5). NWSP is supporting Anglian Water to deliver their Advanced WINEP (AW, 2025), including the Catchment Regeneration Fund grant scheme, and the Partnership Centre of Excellence.

iv) Monitor outcomes and build confidence

Monitoring and evaluation are central to building confidence in NbS performance. NWSP and the University of East Anglia (UEA) have produced practical monitoring guidance for landowners and delivery bodies (WRE, 2025). NWSP is working with the Environment Agency and other partners to build and monitor a runoff attenuation and infiltration feature to test groundwater recharge benefits. WRE has partnered with UEA to employ a Senior Research Associate to coordinate monitoring, analyse data and share learning.



Figure 4: Whitlingham Country Park (WCP) scrapes delivered by WCP trust



Figure 5: Runoff attenuation and infiltration features delivered by Norfolk Rivers Trust and the Environment Agency

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Aiming for a £30 million portfolio of Nature-based Solutions for improved water security



Attenuation and infiltration features



Riparian restoration



Soil management practices



Arable conversion to grassland

More water in the landscape
3.7
million m³/year

Improved river water quality
273
kgs of phosphorus & 13,794kgs of nitrogen offset/year

Improved habitats for wildlife
25,800
hectares benefiting from NbS interventions

Unlocked housing development
1,721
houses 'unlocked' worth £158 million

Climate & air quality benefits
£10.8
million worth of CO₂ capture and removal of micro plastics

Each £1 invested
in Nature-based Solutions
unlocks £6.70 in benefits

£44.5 million of new revenue for farmers
from Nutrient Neutrality and Biodiversity Net Gain environmental markets

Significant opportunity to create **jobs and generate social, health and wellbeing co-benefits**

Figure 2: Summary of the Norfolk Water Fund business case (WRE 2024)



Figure 3: NbS opportunity mapping

CONCLUSION

The NWSP demonstrates that NbS can be framed as investable infrastructure when spatial targeting, benefits modelling, commercial mechanisms and delivery support are brought together. The next priority is scaling NbS implementation through aligning water company investment programmes with catchment resilience, ensuring water security is included in local nature recovery strategy delivery (NCC, 2025), and exploring ways for supply chain and risk reduction stakeholders to buy water outcomes.

REFERENCES

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Full details of the Norfolk Water Strategy Programme can be found at <https://wre.org.uk/norfolk-water-strategy-programme/>



SCAN FOR FULL
DETAILS ON NWSP

