Environment Agency Monitoring of Water Quality in the New Forest

Analysis & Reporting Team Leader

Shirley Medgett

Environment Agency

Monitoring WQ - Physiochemical elements

pH
Ammonia
Nitrate
Phosphate
Dissolved oxygen
Temperature

Suspended solids

Environment Agency

EA Specific Chemical Monitoring

- PAHs, drugs including caffeine, mood stabilizing drugs, insect repellent, solvents/solvent stabilizers, plastic additives, agricides, precursor to nylon 6-

Environment Agency

Ecological elements

Sensitive to organic enrichment, pollution by toxic chemicals, acidification, abstraction

Primarily sensitive to abstraction of water and morphological alterations

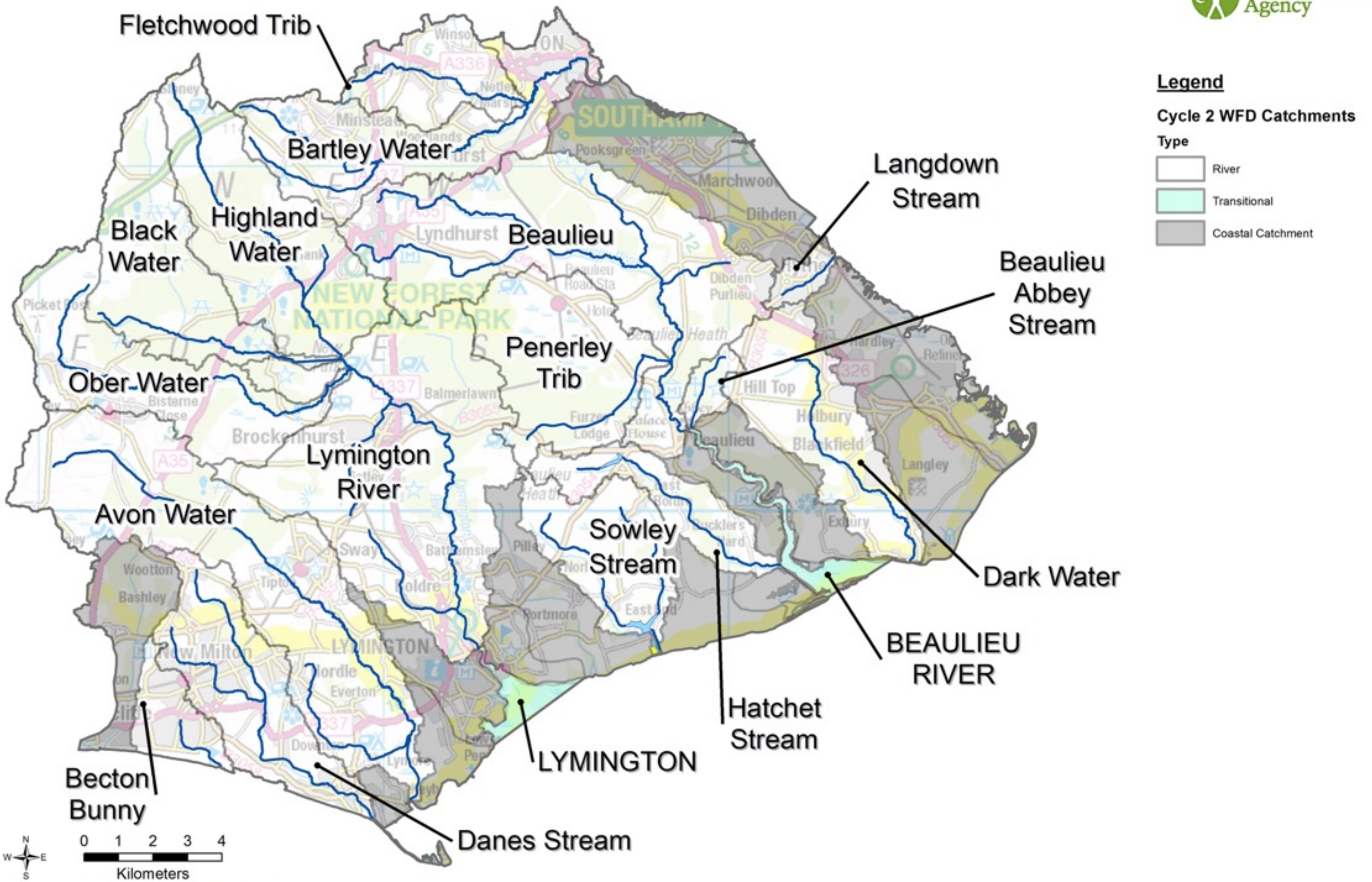
Sensitive to nutrient enrichment and morphological alterations

Environment Agency

WQ investigations – 24 hour monitoring

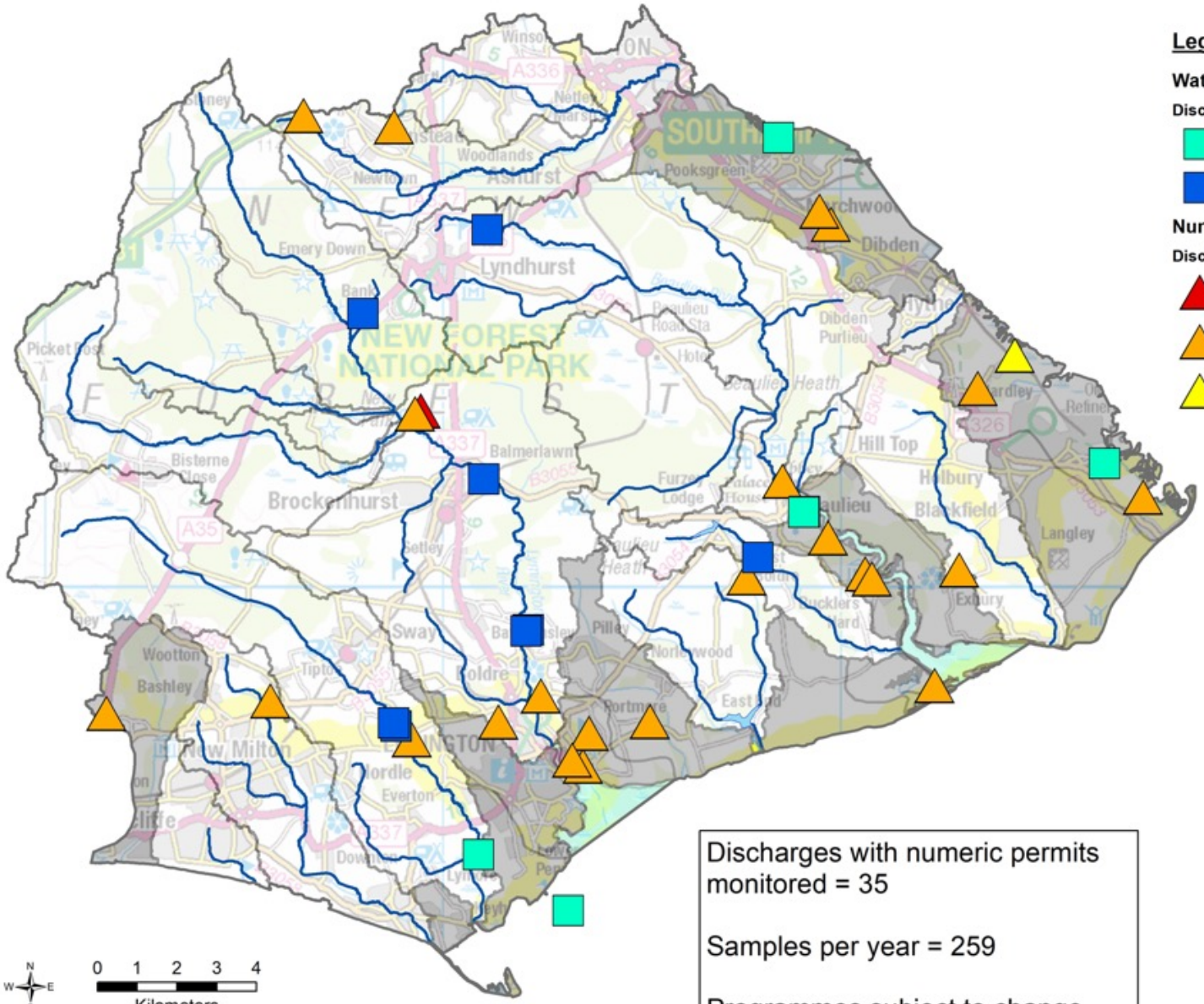
Environment Agency

Water Framework Directive (WFD) Catchments



© Environment Agency copyright and/or database rights 2022.
© Ordnance Survey copyright and/or database rights 2022.
All rights reserved. Ordnance Survey Licence No 100024198.

Discharge Monitoring (Numeric Permits)



Legend

Water Company Waste Water Treatment Works

Discharge Environment

- Estuary/Tidal
- Freshwater

Numeric Permits

Discharge Activity

- Sewage and Trade combined
- Sewage - not water company
- Trade

Discharges with numeric permits monitored = 35

Samples per year = 259

Programmes subject to change.

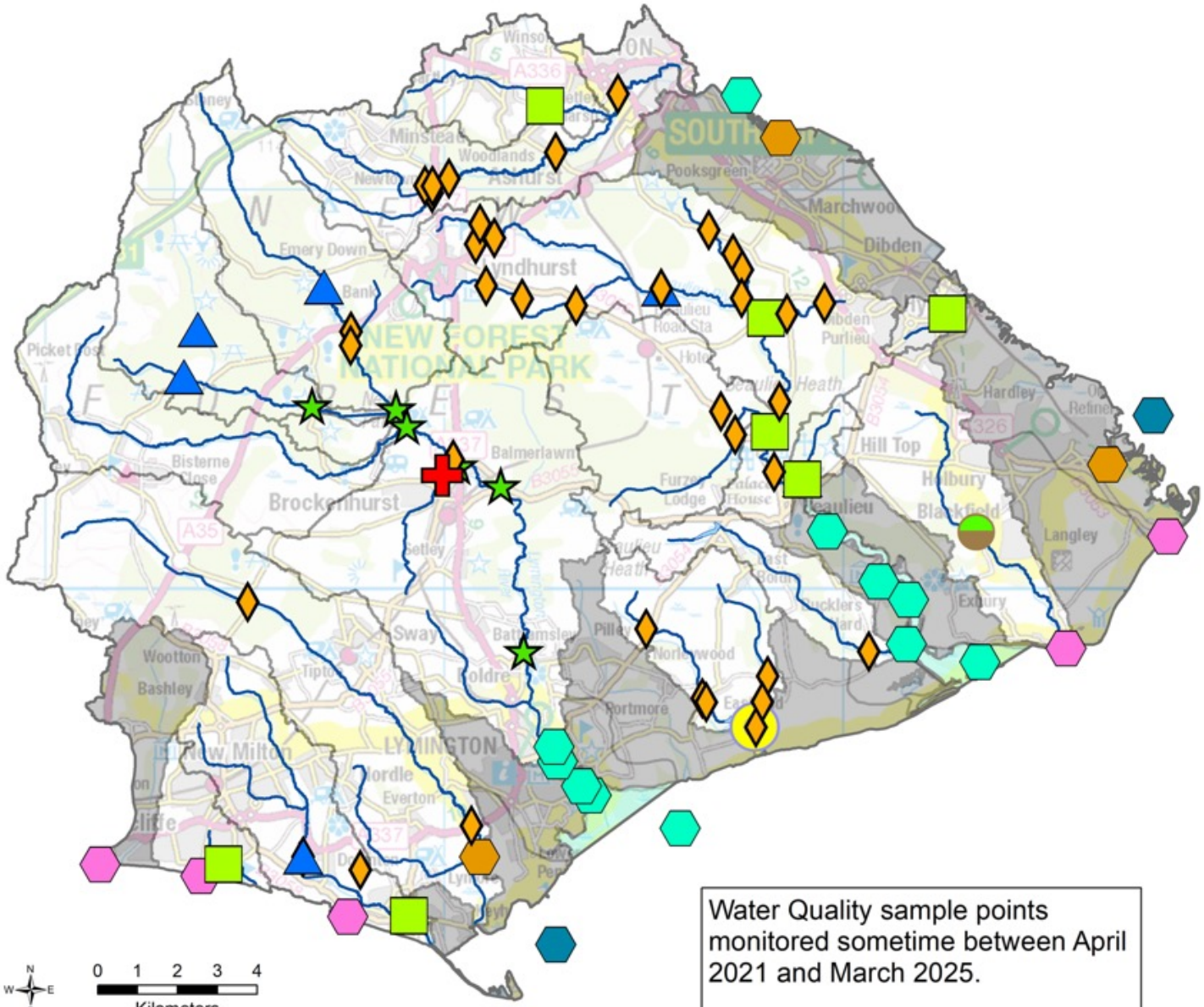
N W E S

0 1 2 3 4

Kilometers

© Environment Agency copyright and/or database rights 2022.
© Ordnance Survey copyright and/or database rights 2022.
All rights reserved. Ordnance Survey Licence No 100024198.

Water Quality Monitoring



Legend

Freshwater WQ

- Common Standards Monitoring
- Catchment Sensitive Farming
- Rivers Surveillance Network
- Phys-Chem
- Phys-Chem Lakes
- Phys-Chem Plus
- River Temperature Only

Marine WQ

- Bathing Waters
- Nutrients (inc. Chlorophyll)
- Nutrients (inc. Chlorophyll, Phyto- and Zooplankton)
- Nutrients (Effluent)

Water Quality sample points monitored sometime between April 2021 and March 2025.

Programmes subject to change.

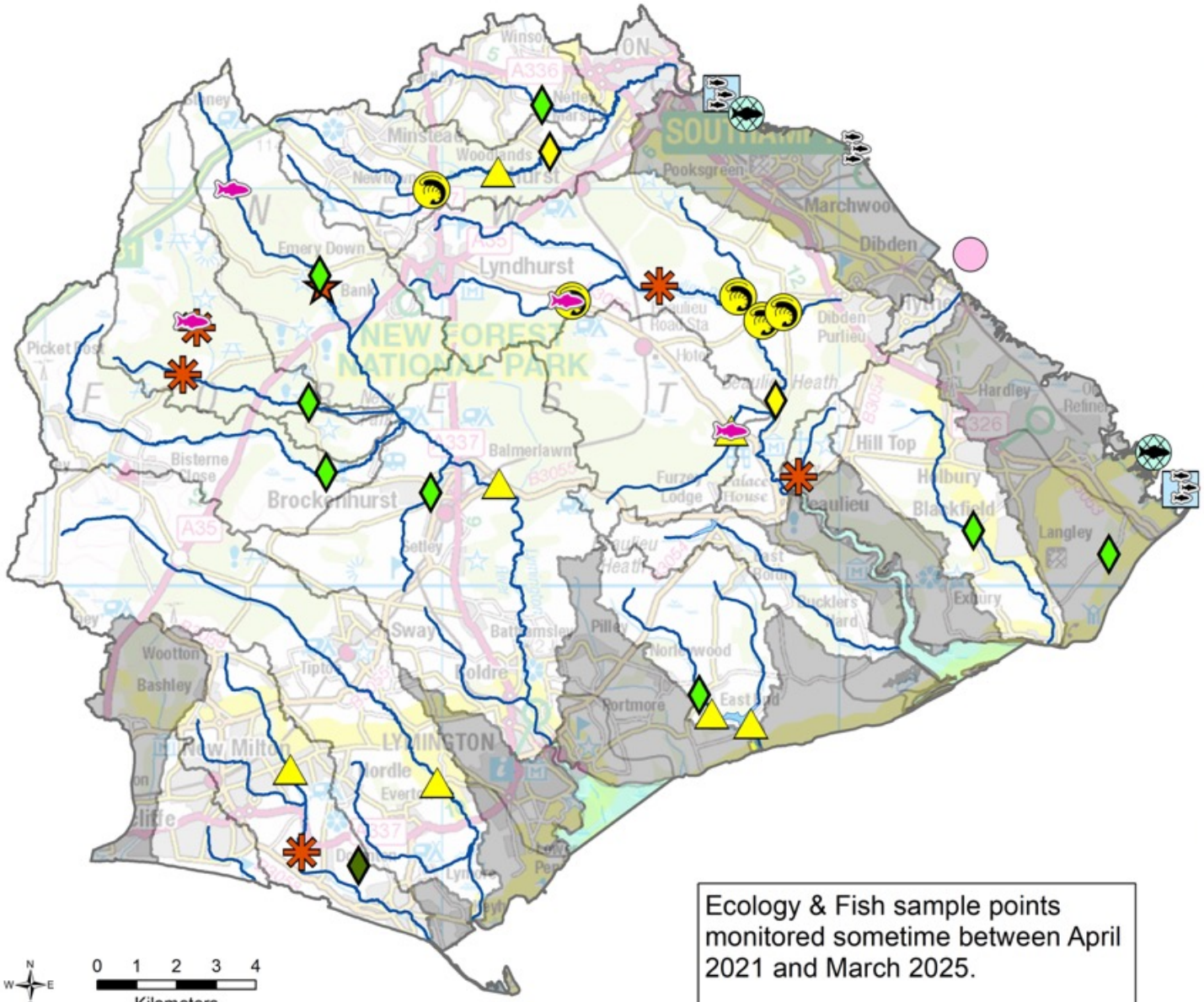
N W E S

0 1 2 3 4

Kilometers

© Environment Agency copyright and/or database rights 2022.
© Ordnance Survey copyright and/or database rights 2022.
All rights reserved. Ordnance Survey Licence No 100024198.

Ecology & Fish Monitoring



Legend

Core Fisheries: Coarse Fish and Brown Trout

Ecological Surveillance: Estuarine & Coasts Fish

- Marine fish (beam trawl netting)
- Marine fish (fyke netting)
- Marine fish (otter trawl)
- Marine fish (seine netting)

Diatoms Only

- WFD and Weight of Evidence

Diatoms and Invertebrates

- Catchment Sensitive Farming
- Natural Capital & Ecosystem Assess.: Small Streams
- WFD and Weight of Evidence

Diatoms, Invertebrates and Plants

- Rivers Surveillance Network (RSN)

Diatoms, Invertebrates & River Habitat Survey

- National Drought Monitoring Network

Diatoms, Invertebrates, Plants & RHS

- Rivers Surveillance Network (RSN)

Inverts Only

- WFD and Weight of Evidence

Ecology & Fish sample points monitored sometime between April 2021 and March 2025.

Programmes subject to change.

0 1 2 3 4

Kilometers

© Environment Agency copyright and/or database rights 2022.
© Ordnance Survey copyright and/or database rights 2022.
All rights reserved. Ordnance Survey Licence No 100024198.

How do we use the data?

- WFD Compliance with environmental standards
- Trend analysis
- Hot Spots
- Investigations in cause/source of problems
- Evidence on health of the environment (incl prosecutions)
- Influence environmental management
- Target resources effectively eg Water Company investments

Environment Agency

https://environment.data.gov.uk/appgallery

ged Links | A&R (Monitoring)... | Monitoring Commi... | Aquatic Plant Proje... | Returns Policy | Buy... | AEM News | Monito... | MDC Login

App gallery

Our Data is used in a wide range of Defra and third-party applications. Some of the applications below have been designed to meet a particular need, but they also provide examples of how the data can be used.

Asset data requirements library

The terminology and categories we use to classify and describe Environment Agency assets. We also document the attributes we use to describe the properties of each Asset Type and its Element Types.

API

Asset information

Records relating to assets for environmental activities, particularly flood defences. This includes some assets owned or managed by others, and information on planned maintenance activities for the assets.

API

Bathing waters

Our Bathing Waters app, SWIMFO allows you to look up details of a designated bathing water by name or location.

API

Bathing water signage

Create a sign for one or more bathing waters you control.

Bathing water widget

Show up-to-date bathing-water quality information from the Environment Agency

Catchment data explorer

Explore and download information about the water environment in your area and

Environment Agency

Supporting and using Citizen Science in the EA

Matt Owen-Farmer

Environment Agency