

Caring for Nature

'Caring for Nature' is the theme for May/June at the Totnes Climate Hub here in the main Mansion building. This exhibition continues near the library. Visit us in the Hub or find out more at totnesclimatehub.info.



May 1- 31, 2023

Water Stories

Water is a living entity that we all share and benefit from, and the health of living water is a common pool resource entrusted to us all. The movement of water through its cycle of rain, trickles, streams, rivers, seas and clouds is essential for the maintenance of all life. We can't take water for granted any more. It is up to all of us to plan together for a water-stressed future.



Bramble by Lerryn Korda



Groups of beavers living on farmland managed by Clinton Devon Estates in East Devon have created dams, which have helped to keep an area of wetland green and hydrated in comparison to surrounding fields. Photo: Jake Newman, KOR Communications (ITV News 26 August 2022)

Adapting to Constant Change

The South West is particularly vulnerable to climate change, given its 860 miles of coastline, and adjacency to the western approaches of the Atlantic Ocean, exposing the area to impacts from rising sea levels and storm intensity. We've already seen the impacts of this change with the 2022 drought, which was the fourth driest period since records began, over 130 years ago, alongside the hottest temperatures ever recorded in the region. Yet as demand for water increases, supply is becoming less reliable.

South West Water's Final Drought Plan was published in September 2022. The Adaptation Plan for Devon, Cornwall and the Isles of Scilly is due to be published for a public consultation this spring.

devonclimateemergency.org.uk/adaptation-plan



THE
BIOREGIONAL
LEARNING
CENTRE



A scene from the Bioregional Learning Centre's 2022 Totnes Water Walk. Photo: Jane Brady

Looking Below the Surface

It has been well over a century since the UK developed effective wastewater treatment processes, but they were never designed to cope with today's combined impact of population growth, impervious surfaces (urban creep), heavier rainfall and storm water.

All UK rivers are in poor health due to Combined Sewage and storm water Overflows (CSOs) discharging untreated sewage directly into watercourses. Chronic under capacity of our wastewater systems is a fundamental cause. Water and wastewater infrastructure should be a priority of the UK Government, but we can help to lessen the impact of blockages by not flushing wet wipes, and not pouring fat, oil, grease—or food waste in general—down the kitchen sink.

southwestwater.co.uk/environment/waterfit/waterfitlive



**THE
BIOREGIONAL
LEARNING
CENTRE**



Demonstrating how Citizen Science testing for phosphates works. Photo: Jane Brady

What Goes Into Our Water

Runoff—which happens when water from rain or irrigation doesn't sink into the soil—carries pesticides, fertilisers and animal slurry (as well as soil or silt) into streams and rivers and underground sources of drinking water. Phosphorus, which can leak from farms, leads to increased algal growth due to lower oxygen levels in the water.

Agricultural impacts alone account for 46% of the reasons for poor watercourse health in our region. Urban runoff carries oil, diesel and petrol. Current methods for treating wastewater fail to remove pollutants such as microplastics, shampoo, soluble drugs and flea medication for dogs. Sensors or sondes, immersed in the river and read by local community volunteers, can tell us much more than we can currently learn from water testing kits.

wrt.org.uk/westcountry-csi



THE
BIOREGIONAL
LEARNING
CENTRE



Photo by Frankie Mills, from an article called 'Meet the people who enjoy a daily dip in the River Dart', Devon Live, 28 February, 2021

Designated Bathing Waters

Designated bathing water status is awarded by DEFRA to places where people swim or paddle. They are the only places in the UK where levels of E Coli and Enterococcus bacteria are monitored by the Environment Agency between May and September and the data made public. These bacteria are found in human and animal faecal matter, the pollutants that pose the greatest risk to swimmers' health. Currently, Friends of the River Dart are working in collaboration with local land owners, river users, South West Water, Surfers against Sewage and Dart Harbour Authority to submit applications for multiple sites along the Dart. Bathing water status is a tool for accountability and raising awareness of the urgent need to improve water quality in our river.

facebook.com/groups/friendsoftheriverdart



THE
BIOREGIONAL
LEARNING
CENTRE



Photo: Till the Coast is Clear

Picking Up What People Dump

It takes dedication to clear riverbanks and shorelines of plastic and other litter day in, day out. Till the Coast is Clear use recyclable boats and a fleet of kayaks made from recycled fishing nets, crewed by volunteers, from all walks of life to do just that.

They have removed over 20,000 kilograms of plastic and other waste from the South Devon Coast as part of their goal to inspire positive change and promote sustainable and regenerative practices. Litter-picking neighbours and groups are to be found all over Devon, and although this work doesn't address the issue of carelessness and waste at source, it does foreground the fact that waste does not go away and puts pressure on manufacturers and consumers to do better.

tillthecoastisclear.co.uk



THE
BIOREGIONAL
LEARNING
CENTRE



Visuals courtesy of Richard Carman and the EU-funded Connecting the Culm project, managed by the Blackdown Hills AONB.
The River Culm flows to the west down from the Blackdown Hills to join the River Exe.

A Whole-River Vision

‘Connecting the Culm’ is about protecting and enhancing the River Culm valley in East Devon. The project brought community visioning and involvement together with Nature-based Solutions, which restore or mimic natural functions of a landscape in order to tackle drought, flooding and water quality. Approaches include conserving the soil to better store water temporarily for plants and soil organisms (2,000 cubic metres so far), planting trees and hedges, creating slow-release dams (172 to date) and buffer zones, all with the goal of creating a more naturally beautiful, healthy, resilient and abundant environment. Landowners received standard Countryside Stewardship rates to implement a range of solutions, and demonstration sites have been established, with more on the way.

connectingtheculm.com



THE
BIOREGIONAL
LEARNING
CENTRE



Common Sandpiper. Photo: South Devon Area of Outstanding Natural Beauty

Carbon Storage in the Dart Estuary's Saltmarshes

You might be surprised to hear that saltmarshes trap and bury carbon at a greater rate and store more carbon per unit area below ground than even their forest counterparts on land. They absorb tidal and wave energy, help protect shores and prevent flooding. They improve water quality by absorbing excess phosphates and nitrates as well as salt from the incoming tides. They are important habitats for fish and for wading birds to breed, spend the winter and stop off during migration. Often muddy and ranging in colour from green to grey and brown, the Dart's pockets of saltmarsh often go unnoticed but are great examples of resilience in the face of constant change.

bioregion.org.uk/project/thesaltmarshproject



THE
BIOREGIONAL
LEARNING
CENTRE



Photo: Mike Symes/Devon Wildlife Trust/PA

Reintroducing Species

Beavers bioengineer the landscape and ecosystems in and around waterways, with their dam-building helping to reduce pollution and boosting local wildlife populations, including fish and amphibians, according to a study from Exeter University. As the UK's climate changes beavers can help: their damming slows the speed of water downhill during storm water events preventing flooding downstream and providing water storage that stops rivers running dry during droughts.

The Devon Environment Foundation, which channels funds to the most innovative and impactful grassroots nature-based solutions, has supported several proposals for the reintroduction of species such as pine marten, water voles, beavers, and wildcats.

devonenvironment.org



**THE
BIOREGIONAL
LEARNING
CENTRE**

October, 2019

RIVER DART CHARTER at Dartington

Water is a living entity that we all share and benefit from. While the banks and river bed of the River Dart are owned, the health of living water is a common pool resource entrusted to us all. The movement of water through its cycle of rain, rivers, seas and clouds is essential for the maintenance of all life.

We the people who live, work and play here, name ourselves as stewards of the water in our catchment. We therefore uphold the rights and responsibilities of the River Dart from Staverton Weir to Totnes Weir:

- To be alive and to thrive so that it can give life and enjoyment to all.
- To be clean and unpolluted so that it can enable biodiversity to flourish.
- To flow freely from source to sea so that it can be a vital part of a healthy eco-system.

In this place of Dartington we especially value and name as our shared assets:

- The river's role as a wildlife corridor for otters, birds, especially kingfishers, and fish.
- Healthy water in sufficient quantity.
- Trees along the banks, particularly the oaks that give the Dart its name, and the stability of their roots.
- A cherished river that enhances our mental and physical wellbeing, provides tranquility, beauty and memories—now and for future generations.
- Respectful, agreed access along this sacred length of the river, from Staverton Weir to Totnes Weir, where we enjoy the water, both in, on and beside it.

Two River Keepers will represent the River Dart from Staverton Weir to Totnes Weir on behalf of the community: the Dartington Hall Trust's Conservation Warden and a volunteer from the community. Both are tasked with representing the Charter/River at the Estate Environment and Conservation Group.

To report an incident in this stretch of the river the Environment Agency should be contacted on their 24-hour incident hotline, 0800 80 70 60.

If the wellbeing of water in this place is infringed, or our assets harmed, or there is conflict around use of the water the Estate Environment and Conservation Group will be a place of resolution.

This River Dart Charter at Dartington is held by The Dartington Hall Trust. It was brought into being by Dartington's Estate Team, The Bioregional Learning Centre, members of the local community and visitors to the Dartington Hall Estate. Over 1,200 people contributed to its creation.

Putting the River Dart first means considering these needs:

Nature's water cycle
Home for aquatic animals
Plantlife and trees
Wildlife

as well as our water-related needs and desires, such as:

Agriculture
Bathing
Boating
Car washing
Cleaning
Cooking
Diluting
Drinking water
Farming
Firefighting
Fishing
Gardening
Growing food
Health & wellbeing
Heating
Hydroelectricity
Ice making
Industrial cooling
Irrigation
Kayaking
Machinery operation
Medical/dental
Power washing
Pressure cutting
Purification
Recreation
Rinsing
Showering
Street cleaning
Swimming
Toilet flushing
Transport
Washing



PEOPLE'S
POSTCODE
LOTTERY

Signed: _____ Date: _____
Email address: _____



Photos: Kingfisher at Newton Abbot by David Batten, devonbirds.org, Canoes at the Weir by Jane Brady

The UK's First River Charter for the Dart at Dartington

Our community wants our local river, the Dart, to be fish-able, swim-able, paddle-able and sustainable way into the future. In 2019, the Bioregional Learning Centre, together with over 1,250 people, made a Charter on behalf of the river, to give it a voice alongside ours and to name the things we really care about and want to protect. The Charter is public and is a living document. A big thank you to everyone who has contributed and signed up to the Charter so far.

bioregion.org.uk

You can sign the Charter on the Dartington Trust website, here:



THE
BIOREGIONAL
LEARNING
CENTRE