

Climate & Ecological Change Newsletter



Welcome to the latest instalment of the Climate and Ecological Change Newsletter to update on Denbighshire County Council's actions to respond to the climate change and ecological emergency.

Denbighshire County Council declared a [Climate Change and Ecological Emergency](#) in July 2019. In response, by 31 March 2030, the Council aims to become a:

- Net Carbon Zero Council
- Ecologically Positive Council
- Reduce supply chain emissions by 35%

Climate & Ecological Change Newsletter

The [Climate and Ecological Change Strategy 2021-22 to 2029-30](#) tells you more about those two aims and the tasks we are going to seek to deliver to achieve our 2030 goals. This strategy was formally adopted by Council in February 2021.

Projects and activities to meet the aims are being delivered across Denbighshire County Council. This newsletter showcases some of the excellent work, projects and interventions to reduce the Council's carbon emissions, increase council's carbon sequestration and improve biodiversity as part of strategy delivery and achieving our 2030 goals.

How the Council is doing

The Council is 2,374 tonnes of carbon closer to being Net Carbon Zero.

We've reduced our carbon emissions by 1,748 tonnes since 2019 and increased the amount of carbon our land absorbs by 626 tonnes.

The Council has increased the amount of its lands with high species richness to 584 hectares, getting us closer to our Ecologically Positive Council goal.

We are busy collating our carbon and ecology data for 2022/23 and will be able to update on our latest performance soon.

Net Carbon Zero Council – project highlights

Reducing carbon emissions

Reducing carbon emissions from our Fleet

A number of new electric vehicles (EVs) continue to be added to our fleet to replace fossil fuel powered vehicles where appropriate. Currently the number of EVs stands at 65 with another 25 on order to replace existing fossil fuel vehicles.

New EVs include a Polaris Ranger EV, with a single 48-Volt, High-Efficiency, AC-Induction motor, based at Loggerheads Country Park offering countryside rangers a zero emission

Climate & Ecological Change Newsletter

option to carry out their daily duties. It joins the recently acquired Renault Kangoo Z.E van mobile observatory electric which is kitted out with astronomical equipment, including telescopes in support of the Dark Skies initiative.



We added two Dennis Eagle e-Collect lorries to the waste collection fleet. Both lorries are used on the county's northern rounds which will include Rhyl, Prestatyn and down to the Trefnant area. They are able to put in up to 100 miles and 1000 bin lifts per single charge.

The Oaktree Integrated Children's Centre moved to a greener form of transport by welcoming two Citroen e-Spacetourer nine seat minibuses with a range of up to 136 miles and also a Peugeot e-Expert van with a range of 143 miles.

The centre will be using the buses four times a day to transport children to and from schools and also Christchurch School will be using them for transporting their children to events.

Reducing carbon emissions from our non-domestic buildings

Ysgol Dinas Bran, at Llangollen saw the school's green energy project commended at a National Awards. The green project at Ysgol Dinas Bran and Llangollen Leisure Centre saw a 150Kw array of solar panels installed on the school roof which generate electricity for the school onsite using the sun's energy. Other elements of the work include heating control upgrades and LED lighting. The whole project is expected to reduce the school's carbon emissions by 73 tonnes per year. The green project was shortlisted listed in the 2022 Education Business Awards Environmental Practice category and was commended.

The Pavilion Theatre in Rhyl operated by Denbighshire Leisure LTD underwent a green energy refit project on the site to help reduce the attraction's carbon footprint. This was the largest project the Council has undertaken to help reduce carbon emissions. Work included the installation of a new heating system, ventilation system, modified gas connection, introduction of a new control system set up, solar panels added to the roof and

Climate & Ecological Change Newsletter

LED lighting introduced in the building. It is expected to reduce emissions at the site by around 203 tonnes of CO₂ per year.

Work carried out in partnership with DLL at Canolfan Hamdden Huw Jones and the North Wales Bowls Centre, both of which are operated by DLL are recent examples of the Council's continuing drive to reduce Carbon emissions. An advanced heat recovery system was installed along with upgraded pool and central heating systems. The work carried out, which included the installation of solar PV and LED lighting internally and externally has seen the carbon emissions reduce by nearly 35 percent. Installation of Solar PV at the highly renowned international North Wales Bowls Centre and Café 21 has helped the complex reduce carbon emissions output by over 5 tonnes.

Since Easter 2022, ten Denbighshire schools will have seen carbon reduction work take place on site. Work at the schools include loft insulation, installation of: solar PV, LED lighting, air source heatpumps, battery storage, replacement boilers, improved heating controls and the addition of energy efficient water heaters. Schools involved in this work include Ysgol Carrog, Ysgol Betws Gwerful Goch, Ysgol Frongoch, Ysgol Bryn Clwyd, Ysgol Tir Morfa, Ysgol Gellifor, Ysgol Bro Dyfrdwy, Ysgol Cae Drewyn and Christchurch CP School. By carrying out this work the Council has reduced the combined output of Carbon from these schools by around 64 tonnes.



UK boiler manufacturer Ideal provided two Ecomod air source heatpumps for installation at Ysgol Tir Morfa as part of a field trial. The equipment uses air temperature and electricity to generate heat in place of a gas boiler. The efficiency of the system will help lower carbon emissions and costs compared to a traditional boiler. In addition to the

air source heatpumps, the Energy Team has installed a solar PV and battery storage to also support the reduction of carbon emissions on site. Solar battery storage was installed as well to store any 'excess' and otherwise exported electricity produced by the solar PV, further reducing fuel bills and carbon emissions. Ideal has also trained and accredited a Denbighshire installer to be able to install heatpumps, supporting the upskilling of the local supply chain.



The Council led entirely on the design, specification procurement and delivery for a green project at Ysgol Betws Gwerful Goch. A new heat pump was installed to heat the building and the Council also installed a solar PV array and storage batteries at the school. Other work carried

out at the school includes retrofitted cavity wall insulation, loft insulation and modern double glazing as well as smart heating controls that modify the flow temperature based on the outside air temperature.

Reducing carbon from our street lights

The Council completed an energy reduction project to convert all its street lights to lower wattage LED's. We maintain a total of 11,690 street lights and following some small initial trial programmes, it was decided to replace the remaining units with low energy LED lights over a 7-year project in order to achieve savings in both carbon output and electricity costs. The project has reduced carbon output from street lights over the seven-year period from 1,800 tonnes annually during 2015/16 to 400 tonnes for 2021/22.



Increasing carbon absorption

Denbighshire County Council Tree Nursery

The Council established a local provenance tree nursery at St Asaph which aims to grow 5,000 trees and 5,000 wildflower plants each year



A horticultural specialist with international experience is bringing his skill set to a grow a Council biodiversity initiative. Neil Rowlands picked up the baton of Tree Nursery Officer to guide the growth of the Council's site at Green Gates Farm, St Asaph.

The tree nursery produced nearly 8,000 plants during its first growing season surpassing the target set of 5,000. The wildflower plants will go out to existing Denbighshire meadows to boost biodiversity on the sites.

Volunteers have regularly visited the nursery to help out with supporting the growth of the trees and plants on site.

Pupils from the county have also visited the site, the biodiversity team gave Prestatyn Hugh pupils a tour around the poly tunnels on site where the plants and trees are grown from seeds sourced across the county. They also took up the chance to test out their green fingered skills by re-potting some of the wildflowers grown on site.

Work is underway at the nursery to protect and improve the future of the Black Poplar to help support the local biodiversity. These trees are very rare in Denbighshire, native to the ecology of the county's riverbanks and floodplains. Staff have brought to the tree nursery a number of male and female trees which were cloned using cuttings from an original surviving tree. These will be used as a source of cuttings to grow more black poplars and increase the population within Denbighshire. The team will also collect cuttings from other known trees in the county.

Thanks to volunteer help over 10,000 acorns have been collected and planted at the nursery and are currently growing well on site.

Woodland creation and tree planting

22,000 trees have been planted since 2019 to strengthen biodiversity and help reduce the impact of carbon emissions around schools, parks and residential areas.

Climate & Ecological Change Newsletter



The wider Woodland Creation Project 2023 saw nearly 17,000 trees planted across 18 new county sites, including schools, to help with the drive to reach net carbon zero in Denbighshire by contributing to the amount of carbon sequestered (or absorbed) and tackle nature's emergency.

Other benefits include improved air quality, volunteer, training and educational opportunities at the sites through volunteer days and helping with site monitoring and maintenance, as well as the benefits of nature spaces for community health and wellbeing.

Sites that were enhanced with tree planting included Dol Corwenna in Corwen, Ffordd Parc Bodnant in Prestatyn, Coronation Gardens in Rhyl, several residential grassland areas and local schools.

School pupils, volunteers from communities and local members joined Council Countryside, StreetScene and Biodiversity staff who worked to improve local biodiversity for



nature and surrounding communities by newly creating 27.5 hectares of enhanced land.

Currently the total carbon sequestration of the 18 sites is estimated to be 17 carbon tonnes per year, raising to 149 carbon tonnes each year after 20 years when all the trees mature.

[Training our staff and councillors to be Carbon Literate](#)

Climate & Ecological Change Newsletter

Denbighshire County Council formally received a Carbon Literate Organisation Bronze Award in 2022. The award was presented to the Council at an event held on Thursday July 14 at the Whitworth Art Gallery, Manchester, by the Carbon Literacy Project. Over 200 staff and councillors were taken on an intensive one-day course to improve carbon literacy across the organisation and all staff are now able to access a new online E-Learning package which introduces them to Climate Change issues and how they can play their part to make a difference in their daily role and at home

Ecologically Positive Council- project highlights

Wildflower Meadow Project



Biodiversity is blooming in Denbighshire thanks to the continued expansion of the wildflower meadow project.

The 2023 season for the project starts with extra native meadows providing more support and protection for the county's biodiversity by allowing wildflowers and insects to thrive.

The project is funded by Welsh Government, through the Local Nature Partnerships Cymru ENRaW project

and Local Places for Nature grant,

Work to expand the project has taken place thanks to feedback gathered with the support of local members.

In total there will be approximately 129 meadows this season supporting biodiversity improvement which include highway verges, footpath edges, cycleways and amenity grasslands.

Along with the county roadside nature reserves which take the total number of wildflower sites up to 140, there will be just over 70 acres of meadows helping and protecting local nature thanks to the additional 15.2 acres coming on line this year.

Climate & Ecological Change Newsletter

The project continues to provide a helping hand for rarer plants in the county. Bithynian Vetch, a species of flowering plant in the bean family Fabaceae was located single project site. Since 2019, this is the only place in Wales it has been recorded growing in the wild.



Team members while surveying the site, recorded the plant in flower and also several plants in the area. They collected a small number of seeds from the Bithynian Vetch. These were taken back to the Council's tree nursery at St Asaph to be grown on site.

Across the meadows the maximum number of wildflower species recorded on any site during the 2022 season reached 55. The top five wildflower species recorded were ribwort plantain, creeping buttercup, white clover, daisy and dandelion.

Protecting our wildlife

Denbighshire County Council's Countryside staff have protected the Gronant Dunes Little Terns colony for nearly 20 years. This year marks the 19th year they have looked after Wales' largest Little Terns colony. At the end of the 2022 season, the project saw 211 breeding pairs recorded, the highest count seen at Gronant, marking an increase of 23.4 percent from the previous count in 2018. In addition, a total of 209 fledglings were confirmed, the second highest recorded at Gronant.

Our Adder Monitoring Project recently completed its first full year of surveying since 2019 after being put on hold due to the Covid-19 pandemic. Within North East Wales, Denbighshire is blessed with having a large amount of suitable habitat which could provide homes for this special UK conservation priority species. Thirteen sites were surveyed by volunteers across



Climate & Ecological Change Newsletter

Denbighshire and 11 adults and one juvenile snake were recorded. A new species record was made at one site when volunteers also found a grass snake.

Our Otter Monitoring project became operational again in 2022 after a hiatus from 2020 due to the impact of the pandemic. The project also includes recording data on water vole, American mink and non-native invasive vegetation. Otters signs were recorded on nine occasions when the monthly surveys took place. Animal tracks were found four times and spraint on six occasions. The team of volunteers also recorded Water Vole signs on 14 different occasions during the monthly survey of the county sites and found signs of an American Mink during a single site visit.

Involving Young People



School pupil's views on tackling climate change were heard by the Council.

At a meeting of the Full Council in February 2023 the winning entries for the Council's Postcards from the Future competition were read out by Councillor Arwel Roberts, Chairman of Denbighshire County Council and Cllr Barry Mellor, Lead Member for Environment and Transport.

Pupils were asked to imagine we had moved to 2050 and send a postcard back to their younger selves to explain how climate change is potentially impacting on their lives and help us understand how to create a better future for ourselves in the county and across the world.



Climate & Ecological Change Newsletter

A total of 350 entries for the competition and the winning entries were chosen by Zero Carbon Britain at The Centre for Alternative Technology from a competition designed to tackle climate change back from the future.

Supporting climate action and nature recovery in our communities – project highlights

'Design Differently' Bws Benthyg



Denbighshire County Council took part in a program with the Design Council called 'Design Differently'. The programme looked to discuss, better understand and celebrate how community organisations are working together to tackle the challenges produced by climate change.

Throughout the programme we worked on ideas around the circular economy with staff from ReSource CIC and Bryson's Recycling. Bryson's Recycling worked with Resource CIC to intercept items destined for landfill which could be donated and reused through the Bws Benthyg project.

Bws Benthyg has many items ranging from lawn mowers to chocolate fountains and allows people to borrow the items for a short period rather than buying new.

This supports the reduction of non-recyclable waste materials harmful to the environment that are thrown away when needing newer items.

Electric Vehicle charging points

Two new electric vehicle charging points were installed at Prestatyn's Kings Avenue car park. Each 50kw charger provides 'rapid' charging facilities over four fully accessible parking bays. Funding for the 'rapid' destination chargers which are capable of

Climate & Ecological Change Newsletter

replenishing most vehicle batteries to 80% in under an hour was secured from the Welsh Governments Ultra Low Emissions Vehicle Transformation Fund



Following this the Council opened the West Kinmel, Rhyl car park site, the largest charging hub in Wales, funded by the Welsh Government. Rhyl's 36 vehicle capacity hub is a mix of 'fast' 7kwh chargers for local users who have no access to off street parking and 'rapid' 50kw chargers for a quick charge top up and

also to help local taxi drivers on the uptake of electric vehicles by minimising disruption to operational work time. All the chargers at the hub are open for public use. Three of the parking bays and charging units are specifically allocated for disabled users. The charging units also offer a range of bilingual payment options including, contactless card, App driven and RFID Card.

Eight more charging facilities based in car parks across Denbighshire will be coming online in Summer 2023. These are based at St Asaph, Denbigh, Ruthin, Llangollen, Rhyl and Prestatyn.

Ruthin Fflecsi bus service

The Ruthin Fflecsi service was launched during Spring 2022 to provide a demand responsive public transport scheme in the town and surrounding area.

Introduced by Denbighshire County and Transport for Wales, it is also operated by the country's first-ever zero emission 100 per cent battery-operated 16-seat minibus. This is thanks to support from the Welsh Government and the Welsh Government Energy Service.



Climate & Ecological Change Newsletter

Electric Taxi Scheme

The Electric Taxi Scheme gives licensed taxi drivers in Denbighshire the chance to trial a fully electric, wheelchair-accessible taxi for 30 days and view the financial and environmental benefits of zero-emission vehicles.

A new addition was added to the pilot green taxi scheme in Denbighshire. Following feedback gained through the hosting of the only North Wales pilot of the zero emission green taxi scheme, the Council introduced a new longer range electronic vehicle.

Hackney licensed taxi drivers can try the vehicle free of charge for 30 days, including free electric charging at specific locations in the county, vehicle licensing, breakdown cover and insurance.

The current fleet was joined by a Kia EV6 that can cover up to 328 miles on a single charge and is designed to allow taxi drivers to confidently work a complete shift including airport transfers without the need for charging.

Reuse Shop at Rhyl Recycling Centre



A brand new, innovative charitable re-use shop opened its doors to the public in July 2022. This pioneering project, developed by Bryson Recycling, Denbighshire County Council and St David's Hospice, aims to extend the life of reusable household items while generating profits for a very worthwhile

charity. The shop has been opened thanks to support from the Welsh Government's Circular Economy Fund to improve recycling and reuse opportunities. The shop is open seven days a week from 9am to 4.30pm (9am – 4pm from November to March) and from 9am – 3.30pm on Sundays.

Climate & Ecological Change Newsletter

To find out more

Visit our Climate and Ecological Change news section on our website [here](#).

Sign up to be on green mailing list by emailing climatechange@denbighshire.gov.uk.

Or drop by our Climate and Ecological Change webpages [here](#).

