

Climate and Nature Emergency Plan: Annual Report 2022/23 Cyngor Gwynedd



Content

| | | | |
|--|----|----------------|----|
| 1. The Council Leader’s Foreword | 2 | 7. Waste | 14 |
| 2. Background | 3 | 8. Governance | 16 |
| 3. Section 6 of the Environment (Wales) Act 2016 | 4 | 9. Procurement | 18 |
| 4. Reaching the current situation | 6 | 10. Land Use | 19 |
| 5. Buildings and Energy | 9 | 11. Ecology | 21 |
| 6. Mobility and Transport | 12 | 12. Next Steps | 23 |

1. The Council Leader's Foreword



I am pleased to be able to present the first Annual Report for Cyngor Gwynedd's Climate and Nature Emergency Plan 2022/23 – 2029/30. The report seeks to summarise all the work that has been undertaken in the first year of this important plan, since the Council's Cabinet adopted it in March 2022.

It is great news that carbon emissions that are the Council's responsibility have fallen by 20% between 2019/20 and 2022/23, but the biggest challenge is the one ahead, which is to reach a position of being 'net zero carbon'.

In my foreword to the Climate and Nature Emergency Plan I talk about the "huge challenges ahead" as we respond to the effects of climate change on our world. Those challenges certainly haven't diminished, indeed it's possible to argue that they have increased. We saw an alarming increase in energy costs during the year and that has put significant pressure on the Council's budgets and on Gwynedd residents. Our response to this crisis was to invest £2.8m in a 2 year plan to install more solar panels on our buildings that will generate electricity for us to use. This will result in financial savings but of course it will also go a long way towards reducing the carbon emissions of those buildings.

As the cost of living crisis is hitting the people of Gwynedd hard we have been running walk-in information sessions and workshops, and have been sharing information on how our residents can save money by saving energy in their homes. We are fully aware that no one should be left behind as society moves towards using methods to insulate and heat buildings that emit less carbon.

You will also see many examples in this report of wonderful collaboration between voluntary and community organisations with the Council, particularly on projects to conserve and promote nature. We as a Council are very grateful to every individual who gives up their time to make their local community a nice and healthy place to live, not only today but for future generations.

Although this report looks back at the work of 2022/23, my eyes are certainly focused on the future. There is much more work lying in that direction, and much of the work that has started during 2022/23 is going to take several years before we see its full impact. On with the work!

A handwritten signature in black ink, which appears to read 'Dyfrig Siencyn'.

Councillor Dyfrig Siencyn
Leader of Cyngor Gwynedd

2. Background

After a 'climate change emergency' was declared in the March 2019 Council meeting, a Climate Change Board was established that led to establishing a [Climate-and-Nature-Emergency-Plan.pdf \(llyw.cymru\)](#) (CNEP) that was adopted by the Cabinet March 2022.

The ambition of the Plan is - "Gwynedd Council will be net-zero carbon and ecologically positive by 2030." The 'ecologically positive' element was added to the original 'climate change emergency' statement to acknowledge the crisis situation of nature as well, since both elements are so co-dependent.

The plan's ambition corresponds to Welsh Government's target for the public sector *collectively* in Wales to be net-zero carbon by 2030 and for Wales to be a net-zero country by 2050.

Our plans include many work-streams within the main themes -

- buildings and energy
- mobility and transportation
- waste
- governance
- procurement
- land use
- ecology

Green Gwynedd is one of the 7 priority fields in the Cyngor Gwynedd Plan 2023-2028, and within that priority there are 7 projects, and implementing CNEP is one of them. However, every one of Green Gwynedd projects, and many other Cyngor Gwynedd Plan 2023-2028 projects contribute to the CNEP's main objective.

Since CNEP was implemented in 2022/23, this is the first annual report to be published that looks at what the Council achieved during that year. The plan is regularly monitored by the Nature and Climate Board, which has a membership of officers and Cabinet Members and representatives of the scrutiny committees.

3. Section 6 of the Environment (Wales) Act 2016

Our Climate and Nature Emergency Plan declares our ambition to be “...ecologically positive by 2030”. One of the steps we can take to reach this aim is to act upon Section 6 of the Environment (Wales) Act 2016.

According to Section 6 of the Environment Act (Wales) 2016 every public authority that operates in Wales has a duty to protect and improve biodiversity and to encourage the robustness of ecosystems. Whilst our protected sites and species are important, the requirements of Section 6 involves taking steps to protect nature in our towns, cities, public spaces and wider landscape, by practical actions, and in the way that all public actions are arranged.

Welsh Government published a national biodiversity strategy, namely the 'Nature Recovery Action Plan' in 2015 which outlined the commitment to overturn the loss of biodiversity in Wales, and the objectives for implementation. It includes 6 objectives for nature recovery in Wales:

- Objective 1:** Engage and support participation and understanding to embed biodiversity throughout the process of making decisions on every level
- Objective 2:** Protect species and habitats of utmost importance and improve their management
- Objective 3:** Increase the resilience of our natural environment by restoring habitats that have been degraded and create new habitats
- Objective 4:** Tackle key pressure on species and habitats
- Objective 5:** Improve our evidence, understanding and monitoring
- Objective 6:** Implement a governing framework and support for achieving the objectives

In order to comply with the Section 6 duty of the Environment (Wales) Act, public authorities are required publish their own plan that sets out what they intend to do to maintain and enhance biodiversity and promote resilience. Welsh Government guidelines note that public bodies should consider basing their Section 6 duty plan on the national Nature Recovery Action Plan.



















Cyngor Gwynedd are currently developing a reformed Nature Recovery Plan, but in the meantime we are also including relevant

information in the CNEP. Whilst protecting nature and biodiversity is intertwined through the whole CNEP, the Land Use and Ecology sections list the projects that will concentrate specifically on this work.

At the end of every section of this annual report you will see a description of how the work achieved contributes towards realising one or more of the 6 objectives above, that in their turn conform with Section 6 of Environment (Wales) Act 2016.

Section 6 of the Environment (Wales) Act 2016

Climate and Nature Emergency Plan

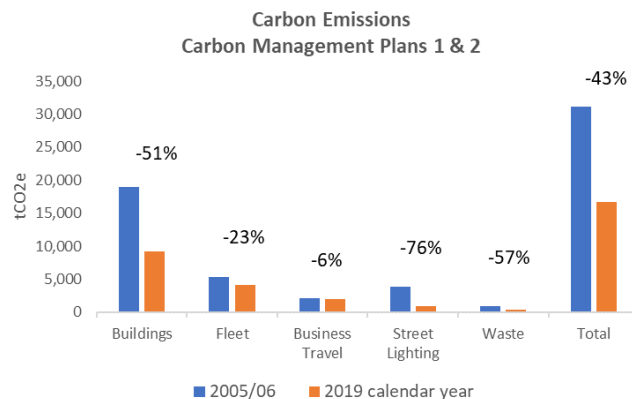
| | Objective 1 | Objective 2 | Objective 3 | Objective 4 | Objective 5 | Objective 6 |
|------------------------|---|---|---|---|---|---|
| Buildings and Energy | | | | |  | |
| Mobility and Transport | | | | | | |
| Waste |  | | |  | | |
| Governance |  | | | | |  |
| Procurement | | | | |  |  |
| Land Use |  |  |  |  |  | |
| Ecology |  |  |  |  |  |  |

4. Reaching the Current Situation

Before the Climate and Nature Emergency Plan's existence the Council has already been acting for years to try and reduce our carbon footprint. The Carbon Management Plan 1 was published in 2010 and Carbon Management Plan 2 in 2015.

We achieved a significant reduction of carbon emissions produced from our day-to-day activities. By investing approximately £8M in measures to reduce energy use over the last decade, we managed to reduce our carbon emissions by 59% in the fields of buildings, business travel, streetlights, fleet and waste.

The reductions for every field can be seen in the following graph and it is fair to say that our efforts have led to national recognition on many occasions:



Measuring our carbon emissions

When the council was implementing Carbon Management Plan 1 and 2 we followed the Carbon Trust's recognised carbon emissions measuring methods, and measured progress in 5 fields as the above chart shows. By now, we are following a methodology for measuring emissions that is set by the Welsh Government and there are minor variants between both procedures, so by creating CNEP we have used 2019/20 data as a new baseline.

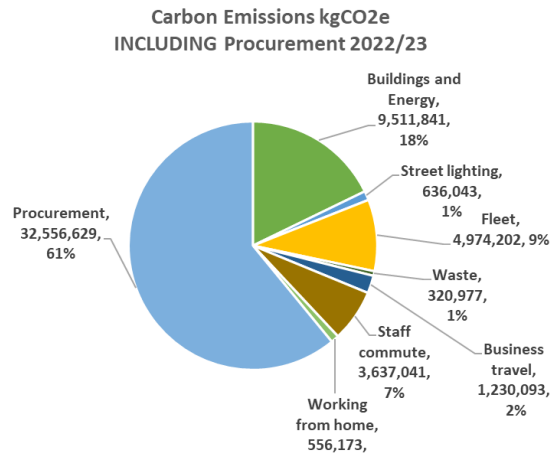
By now we also measure our carbon emissions in additional fields - procurement, commuting staff, and working from home (since 2021/22). We also measure how much carbon our lands absorb, and by counterbalancing that figure against the total of emissions we get a net figure, which is the gap to reach net zero. Our gap to net zero in 2022/23 was 17,695 tCO₂e.

Emissions
20,866 tCO₂e

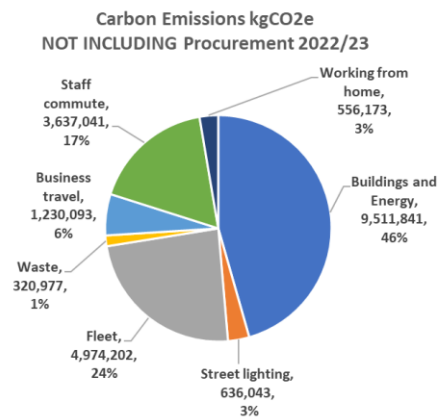


Sequestration
3,171 tCO₂e

Gap to net zero
17,695 tCO₂e

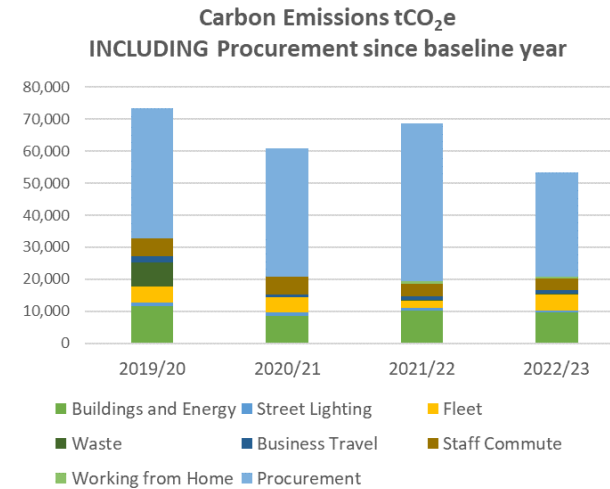


The methodology of measuring carbon emissions that derive from our procurement processes is imperfect because it is based on how much money we spend. The more we spend, the greater the emissions. Because the procurement data could create an imperfect picture, the following chart presents data for the 7 remaining headings having dismissed procurement.

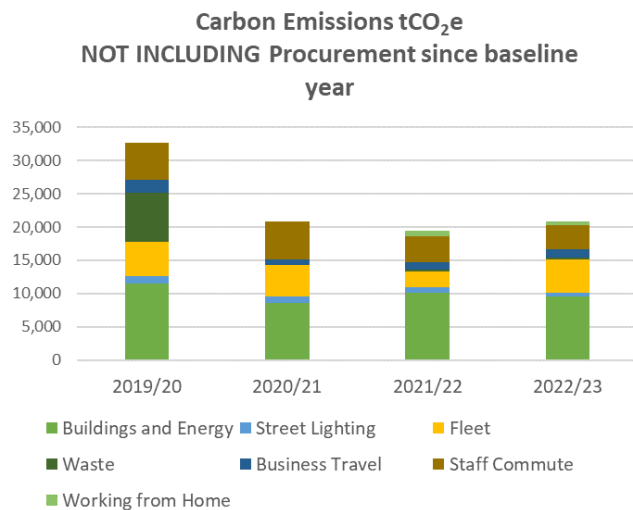


Where are we on the journey to reach net zero by 2030, and does 2022/23 data show that we are on the right track?

The chart below shows a 20% reduction in our carbon emissions from our procurement processes between the 2019/20 baseline year and 2022/23. It also shows a 34% reduction between 2021/22 and 2022/23, and although we have made an effort to support our suppliers to reduce their carbon emissions it is fair to say that minor changes in the measuring methods is what is mainly responsible for the reduction.



It has already been stated that procurement data could create an imperfect picture, therefore the chart below shows a 37% reduction in emission for the remaining 7 headings between 2019/20 and 2022/23.



Fleet and business travel are the two fields that have seen an increase in 2022/23, although the emissions are still less than that of 2019/20. Some travel restrictions were still in force in 2021/22 due to Covid-19, and so this increase is based on the increase in travel numbers by 2022/23. We have now started to implement our Green Fleet Plan at the end of 2022/23 to rationalise the size of our fleet and start to convert to electric vehicles. In turn, this work will influence our travel habits as staff and elected members as we are also reviewing our use of pool cars.

Local Flood Risk Management Strategy

Climate change is having a significant impact on flooding and the scale of land erosion as sea levels have been rising and storms and periods of heavy rainfall become more intense and occur more regularly.

Flood and coastal erosion risk management in Wales is about much more than building defences. Our approach to risk management encourages wider resilience, prevention and risk awareness so that better decisions can be made, both by the public and those who influence how land and water is managed.

The Local Flood Risk Management Strategy is a requirement of the Flood and Water Management Act 2010 and must be consistent with the National Strategy published last year. We are required to review Local Flood Risk Management Strategies in Wales (since the original ones in 2013) to align with the objectives, measures and related policies and legislation of the new National Strategy.

We need to complete this task by Spring 2024.

5. Buildings and Energy

What did we promise to do in 2022/23?

Short Term Priorities 2022/23 – 2023/24

1. Aim for long term benefits when planning building or renewing buildings work.
2. De-carbonise the Council's energy supply.
3. Use Passivhaus low carbon building methods when developing our innovative housing pilot scheme.
4. Offer Gwynedd residents advice and information regarding the benefits and opportunities of using low carbon building methods when building homes and low carbon heating/energy systems to maintain a home.
5. Set individual rooms heating controls to reduce the energy needed to heat a building.
6. Upgrade streetlights and traffic signs to use less energy.
7. Improve the energy infrastructure in Gwynedd and north Wales to maintain low carbon energy systems and transportation.

Medium Term Priorities 2022/23 – 2026/27

8. Save 5% of carbon emissions from buildings by bringing them up to CIBSE 'good practice' standard.
9. Reduce our carbon emissions by widening our use of PV to create renewable energy.
10. Electrify building heating systems to reduce carbon emissions.
11. Install EC ventilation fans in buildings to reduce the energy needed to run them compared to regular fans.
12. Upgrade specialist lighting in leisure centres to reduce the energy use.

Long Term Priorities 2022/23 – 2029/30

13. Increase our carbon 'credit' by installing solar farms to generate energy that the Council could use or sell.

Continuous Priorities

14. Improve the fabric of buildings that belong to the Council in order to make them as energy-efficient as possible.
15. Prevent the over-development of fossil fuel energy plans.

16. Maximise the benefits gained as a result of implementing our energy and heating policies as much as possible.
17. The equipment used within the Council's buildings to be as energy-efficient as possible.

What did we do?

The carbon emissions from buildings and energy in 2022/23 is 46% of the total (not including procurement) which is an 18% reduction since 2019/20.

The work of improving the fabric of buildings in order to make them as energy-efficient as possible (projects 1, 9, & 14) is continuous work that has been under way by us as a Council for over a decade. During 2022/23 we continued to maintain the work that had already been completed, as well as investigating if there would be any need to do any additional work for the future.

We offer support and advice to Gwynedd's residents (project 4) on how to save energy and money through the Nyth and Eco 4 schemes. Our officers have been holding face-to-face information sessions in our communities as well as answering enquiries through the website or over the phone.

We have central systems for managing heating in individual rooms therefore we do not see the need to move on to install individual rooms heating controls (project 5) at this moment in time. This need may change in the future if the Internet of Things project

(within the Digital Plan) shows that there is additional value in changing the current arrangement.

Since the project of changing streetlamps (project 6) to LED lights began in 2016/17, 17,811 lamps will have been changed by the end of 2022/23. Between the beginning of the scheme and the end of 2022/23 a reduction of 50% was seen in our use of energy and an 81% reduction in carbon emissions.

At the end of 2022/23 the Council commenced on the process of drawing up the Local Energy Plan (project 7), and it is work that is led by North Wales Ambition and ARUP. The intention of the Local Energy Plan is to create an integrated low carbon system for Gwynedd, improving the current infrastructure which, in its turn, will support every sector in transforming their current use of energy. The work continues throughout 2023/24 with the aim of completing the plan by end of March 2024.

During 2022/23 the Council's Cabinet decided to reserve £2.8m to achieve Phase 4 of the plan to install PV solar panels on the Council's property to generate electricity (projects 1 & 9). They went on to design the tender and the work has commenced during 2023/24.

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 5: Improve our evidence, understanding and monitoring.

Following significant fire damage we took advantage of the opportunity to restore the purpose-built bird-watching hide on the banks of the Menai Straits near Caernarfon. The new hide has been created by recycling and re-designing old shipping containers and installing them in specific sites that are accessible for everyone to be able to enjoy wonderful views of the Menai's inter-tidal lands.

6. Mobility and Transport

What did we promise to do in 2022/23?

Short Term Priorities 2022/23 – 2023/24

1. Moving away from using fossil fuelled vehicles towards a fleet of ULEV vehicles (cars and vans)
2. Install electric vehicle charging points for the Council's vehicles
3. Install electric vehicle charging points for the residents of Gwynedd
4. Reduce business travel
5. Reduce carbon emissions and parking problems in areas that are popular amongst visitors

Long Term Priorities 2022/23 – 2029/30

6. Have low carbon or non-carbon fuel options for the Council's heavy fleet

Continuous Priorities

7. Reduce carbon emissions through staff commuting habits

8. Encourage active travel amongst staff - for health and well-being and also to reduce carbon emissions
9. Encourage active travel amongst Gwynedd residents and visitors to improve physical and mental well-being and reduce short car journey carbon emissions
10. Increase the opportunities for community organisations to have access to EV or ULEV vehicles or use low carbon technology

What did we do?

The carbon emissions from the Council's fleet in 2022/23 is 24% of the total (not including procurement) which is a reduction of 3.5% since 2019/20. The carbon emissions from staff commuting in 2022/23 is 17% of the total (not including procurement) which is a reduction of 35.5% since 2019/20. The carbon emissions from business travel in 2022/23 is 6% of the total (not including procurement) which is a reduction of 37% since 2019/20.

There was quite a bit of delay in buying new electric vehicles during 2022/23 because of supply issues on the international market, but by the end of the year the Council will have 15 electric vehicles across our fleet (project 1). These are maintained by 23 charging points across 8 Council-owned sites (project 2).

By the end of 2022/23 the Council will have 16 operational charging points for the public in 4 locations (Bangor, Pwllheli, Bala and Dolgellau), and 1 additional charging point in Bala managed by Transport for Wales. As a Council we collaborate with Transport for Wales and Eryri National Park when planning public charging points. A much higher number of machines were installed, but we are waiting for the electric connection to be authorised. Our current programme to install a total of 114 public charging points will continue during 2023/24 and we will review it as we assess the needs of the future (project 3).

Many working habits changed during the Covid-19 period, but one habit that has continued for us in the Council is holding internal and public meetings virtually, significantly reducing the need to travel to work centres. Every one of the Council's main meetings - Full Council, Cabinet, Scrutiny, Planning - continue to be held virtually and in person, and this has reduced our emissions from business travel. As we start to implement our Green Fleet Scheme we have also started to challenge the need for business travel, but changes in this field will happen over the coming years (project 4).

One of the biggest successes of 2022/23 was the introduction of the Sherpa'r Wyddfa buses, namely a network of bus services around the Wyddfa catchment area. The Council is one of the partners which had been developing the provision, and its objective is to increase active travel options and reduce the parking problems in popular areas of Eryri (projects 5 & 9).

Transforming the fleet of heavy vehicles to use electricity or hydrogen as fuel is a long-term process, but the Council's officers

are collaborating with North Wales Ambition on their Hydrogen Hub projects and with the Welsh Local Government Association to share new developments and good practise amongst local authorities (project 6).

The Council has the Green Car Scheme and the Green Bike Scheme available to most staff, which are salary sacrifice schemes for buying a new electric car or bike. We have been encouraging staff to take full advantage of these opportunities, including holding several open days to trial electric bikes. A total of 376 bikes and 128 electric or hybrid cars have been bought by our staff since the beginning of the scheme in 2013/14.

We have also been looking into the other commuting options that could be available for staff, apart from travelling individually in a petrol/diesel car. We will be developing and promoting these schemes more in the future (projects 7 & 8).

The charging point for the Council's fleet in its car park in Caernarfon is also used to charge the community electric car under the care of the Deg/Co-wheels social enterprise (project 10).

Section 6 of the Environment (Wales) Act 2016

There is no direct link between the above projects and Section 6 objectives.

7. Waste

What did we promise to do in 2022/23?

Short Term Priorities 2022/23 – 2023/24

1. Promote the circular economy in order to reduce the number of items being disposed of and reducing carbon emissions in the supply chain from the purchase of new goods
2. Reduce street waste that goes to landfill and increase the street waste that is recycled
3. Reduce the use of paper

Medium Term Priorities 2022/23 – 2026/27

4. Reduce the number of items that reach waste incineration sites by encouraging people to repair and re-use (Repair Cafés)

Continuous Priorities

5. Repair and adapt equipment that would otherwise be disposed of and incinerated, and sell them

6. Reduce food waste by supporting community projects that try to re-distribute food that would otherwise be thrown away

What did we do?

The carbon emissions from the Council's waste in 2022/23 is 1% of the total (not including procurement) which is a reduction of 96% since 2019/20.

2022/23 was a very busy year for our business support team as they collaborated with many businesses and community enterprises across Gwynedd and Anglesey to apply for grants from Welsh Government to extend the current provision in the circular economy field. Our aim is to encourage people to reuse or repair goods, which emits less carbon than producing new goods or procession of waste. We are still waiting for a final judgement but in the meantime, we are promoting and supporting the work of our partners - Antur Waunfawr, Partneriaeth Ogwen, Siop Griffiths, Adra (Tŷ Gwyrddfai), BIC Innovation, Menter Môn, MSParc. The work of other community organisations such as GwyrddNi are also important and a valuable contribution to empower communities (projects 1, 4, 5 & 6).

During the year we continued to install bins in public spaces that accept recyclable materials, where there is a different, individual

bin for different materials. 8 sets of 4 bins and 7 sets of 3 bins were installed in 11 locations during 2022/23. This is a continuous work programme, and more recycling bins will be installed over the coming years (project 2).

We have been reviewing our internal use of paper in the Council's offices during the year, it was encouraging that the use had remained much lower than it was before the Covid-19 period. This assessment has led to changing printing habits, and by 2023/24 we will not be printing papers for meetings unless there is a reasonable exception for doing so (project 3).

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 1: Engage and support participation and understanding to embed biodiversity throughout the decision-making process at all levels.

When developing the plans that are a part of the grant application to promote a circular economy we have been continuously consulting with all our community partners, and officers on many levels within the Council have been considering the project's impact on biodiversity before developing the final plan.

Objective 4: Tackle key pressure on species and habitats

Priorities 4, 5 and 6 above contribute to objectives 2, 3 and 4 since our food hubs and community gardens are assessed on their impact on biodiversity, and developed in a way that will not harm the surrounding environment.

8. Governance

What did we promise to do in 2022/23?

Short Term Priorities 2022/23 – 2023/24

1. Publicly share information regarding the work the Council does to reduce carbon emissions to encourage others to change their habits.
2. Support communities to plan and provide local solutions to local needs.

Medium Term Priorities 2022/23 – 2026/27

3. Elected members and staff who:
 - understand the consequences of climate change
 - make decisions based on information about the impacts
 - act in the most positive way as possible towards mitigating the impact of climate change and being ecologically positive

Continuous Priorities

4. Encourage staff to develop careers in fields that reduce the impact of climate change or are ecologically positive.

5. Review the Council's current policies and strategies so that reducing carbon emissions or reducing the impact of climate change is a factor when making decisions.

What did we do?

The scarcity of resources has meant that we have prioritised time and resources on reducing the carbon emissions that derive directly from our own activity as a Council during the first year of the Climate and Nature Emergency Plan. However, this has not meant that we have not been engaging and supporting our communities and residents so that everyone can play their part on this journey to net zero.

The consultations held through the Ardal Ni plan has highlighted climate and nature matters are of high priority to residents in every area, and we continue to support the communities with their action plans. The Gwynedd and Anglesey Public Service Board has also been consulting with communities during the year, and that work has led to drawing up a new well-being plan that came into force during 2023/24 (project 1).

See also the report under the 'Waste' heading.

Our other projects as a Council also contribute to help and influence residents' habits - Clean and Tidy Communities,

supporting food hubs, Ffiws/Repair Café, energy saving travelling shows (projects 1 & 2).

The work of reviewing current policies and strategies (project 5) has highlighted the need to educate and train staff and members to understand and implement changes to those policies. We have been planning our training needs during 2022/23, and carbon literacy training has been held during 2023/24 (project 3).

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 1: Engage and support participation and understanding to embed biodiversity throughout the decision-making process on every level.

Work done with Town and Community Councils to let them know of their duty under the Environment (Wales) Act 2016.

Objective 6: Implement governance framework and support on achieving the objectives.

The work achieved under priorities 3 and 5 contribute to realising Objectives 1 and 6.

9. Procurement

What did we promise to do in 2022/23?

Continuous Priorities

1. Provide support for the market, especially to local providers, to be able to measure the impact of their activities on their carbon footprint.
2. Understand and measure carbon emissions to realise contracts in the procurement chain.

What did we do?

At the end of 2022/23 the Welsh Local Government Association published a report and support package for local authorities to use so that they can try to further incorporate sustainable procurement into daily habits. There was quite a wait on the package as a resource that would be useful to us as a Council to measure carbon emissions that derive from the services and the materials that we buy, and it is an initial step on this journey.

Following the publication of the support package we are now collaborating with WRAP Cymru to review our Sustainable Procurement Policy and to investigate further support to reduce the emissions of our largest contracts in terms of financial worth (such as food and care).

61% of the Council's carbon emissions during 2022/23 derived from our procurement processes, which was a reduction from the previous year where the total was 72%. We must acknowledge that changes in accounting methods is mainly responsible for this reduction, but we also continued to support our suppliers on their journeys to become net zero by promoting Wales Business services and offer our own advice.

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 5: Improve our evidence, understanding and monitoring.

Objective 6: Implement governance framework and support for achieving the objectives.

As we review our Sustainable Procurement Policy and receive advice from WRAP Cymru on how we can reduce our carbon emissions through the contracts we set up, we will review the current guidelines for suppliers on how they can protect and promote biodiversity.

10. Land Use

What did we promise to do in 2022/23?

Medium Term Priorities 2022/23 – 2026/27

1. Recognise the contribution of Council-owned trees and how they absorb and store carbon and reduce floods.
2. Recognise the contribution of the Council-owned lands and how they absorb and store carbon and reduce floods.
3. Establish tree nurseries to grow trees ready for planting.
4. Identify opportunities to plant trees as part of the Wales National Forest enterprise.
5. Protect agricultural land in Gwynedd and use it for competent purpose and manage forestation projects.

Continuous Priorities

6. Manage Ash Dieback disease in trees and make good for any carbon emissions that result from felling trees.
7. That Council-owned woodlands are protected in order to make the best of their potential to absorb carbon and be habitats to nature.

What did we do?

During 2022/23, we have been doing essential maintenance work on 8 Council-owned woodland sites, and training staff to use the latest equipment to measure the volume of trees to measure their carbon worth (project 1 & 7). New trees were planted in 4 sites out of 8, and an application has been submitted for Parc Dudley in Waunfawr to receive recognition as a Wales National Forest site (project 4).

As well as the woodlands above, we have also planted or re-planted trees on streets in Pwllheli, Porthmadog, Tremadog and Cricieth. Discussions with partners will need to continue to assess the potential of establishing tree nurseries (project 3).

We are eagerly waiting for a new support package that is being developed by the Welsh Local Government Association to measure carbon value in different lands. It should be available during 2023/24, and it will be of assistance to us, not only to measure the carbon absorption capacity of our various lands, but also to plan the use of our lands in the future (project 2).

Unfortunately, the need to treat the increasing number of trees suffering from Ash Dieback puts increasing pressure on our scarce resources. However, we continue to respond to cases that arise and map where it may be possible to re-plant (project 6).

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 1: Engage and support participation and understanding to embed biodiversity throughout the decision-making process on all levels.

Following consultations by Town Councils the Nature Partnership supported them with the provision of projects that allow them to comply with Section 6 requirements, Biodiversity Duties and Welsh Government Ecosystems Resilience.

New woodlands were planted with the support of local schools, new orchards were created and significant pieces of grasslands were turned into habitats for the benefit of biodiversity.

Objective 2: Protect species and habitats of the utmost importance and improve their management.

Wern Mynach Friends are a very active crew that maintain and protect a piece of land on the outskirts of Barmouth. A piece of land that was previously an old waste site, but by now, with the hard work of volunteers, the site has been transformed for the benefit of biodiversity and the community.

There is always *'something happening'* in Wern Mynach and with investments by the Nature Partnership there were an opportunity to develop the site further by creating a pond and wet area for reptiles and pollinators as well as planting and education activities.

It is always a pleasure to work with the crew as they are so enthusiastic about their work and contribute so much to the local community.

Objective 3: Increase the resilience of our natural environment by recovering habitats that have been degraded and create new habitats.

Yr Heliwr, Nefyn's Community Garden volunteers have been busy transforming the piece of land that was 'polluted' by invasive species into a popular destination for the local community. By coming together to share friendships, a group of volunteers have created a busy and popular garden where a variety of vegetables and crops grow, and it is also a convenient resource in terms of accessibility where many workshops are held on the site for the benefit of local residents' health and well-being.

Objective 4: Tackle key pressure on species and habitats.

Every one of the priorities above contribute to Objectives 2, 3 and 4.

Objective 5: Improve our evidence, understanding and monitoring.

Our work on priority 6 depends on evidence and records, but all the woodland maintenance work is based on evidence and regular monitoring.

11. Ecology

What did we promise to do in 2022/23?

Short Term Priorities 2022/23 – 2023/24

1. Identify the steps needed to protect the nature habitats and biodiversity for the future.
2. Identify our valuable species and habitats and what measures need to be taken to protect and recover them.

Medium Term Priorities 2022/23 – 2026/27

3. Increase the number of pollinators by protecting or planting new habitats (landfill sites).
4. Support voluntary and community organisations and town and community councils that protect or promote nature.

Continuous Priorities

5. Foster and maintain Gwynedd residents' interest in ecology matters for them to want to help protect nature.
6. Protect valuable habitats for nature.

What did we do?

We opened a public consultation during 2022/23 to ascertain the views of Gwynedd residents regarding the nature surrounding them and the access they have to the local natural environment. The results of the consultation helped us draw up our reformed Nature Recovery Plan, and that plan will be published during 2023/24. Alongside the Nature Recovery Plan, we have also been assessing the biodiversity of nature reserves that we own to establish a baseline that can be used to measure the progress or the decline against it (projects 1 & 2).

There are two sites in Gwynedd that used to be landfill sites that have now been transformed into sites to protect and promote nature. Tree planting and maintenance work was done in Llwyn Isaf near Clynog and Ffridd Rasus near Harlech during the year, and the fruits of the labour in 2022/23 became obvious by the summer of 2023 (projects 3 & 6). Both sites have also received a 'gold standard' by Restor, the international hub for nature recovery.

2022/23 was also a very busy year as we prepared our lands for the National Eisteddfod's visit to Llŷn in August 2023. All of the primary schools in the Eisteddfod's catchment area took part in our project to plant wildflower meadows and the Council's highway teams planted wild flower meadows along the road verges leading

towards Pwllheli, and we will continue to assess and maintain these meadows in the future (projects 3 & 5).

Maintaining our nature reserves is a continuous task, but during 2022/23 we have been upgrading our facilities in Morfa Madryn near Llanfairfechan to install accessible paths, which has opened the reserve to more residents. We also installed a new bird watching shelter (made out of old shipping containers) in the Foryd near Caernarfon (projects 5 & 6).

Section 6 of the Environment (Wales) Act 2016

The projects above contribute to the following objectives:

Objective 1: Engage and support participation and understanding to embed biodiversity throughout the decision-making process on all levels.

All of the work that we undertake as a Council through the Local Nature Partnership is planned or provided alongside local establishments, communities or schools.

Objective 2: Protect species and habitats of the utmost importance and improve their management.

The Llŷn and Eifionydd Beekeepers' Association are a busy crew that not only collect honey from over a 100 local beehives but also work has to promote the Welsh Black Bee species here in Gwynedd. The association has new resources by now, including new educational resources, purpose-built display beehives and new equipment for producing honey of high standard. This will allow them to promote their association in the local area, as well as ensuring that the Welsh Black Bee is safeguarded and protected here in Gwynedd.

Objective 3: Increase the resilience of our natural environment by recovering habitats that have been degraded and create new habitats.

Objective 4: Tackle key pressures on species and habitats.

Every one of the priorities above contribute to Objectives 2, 3 and 4.

12. Next Steps

Financial

Currently, inflation impacts on the capital cost of every investment plan, but it also means that savings from reducing our energy use is also higher. Despite this, it is very hard to predict energy costs from month to month, and that is also true about inflation in capital costs. It is clear that our own budgets have been hit very hard by national economic circumstances and it is likely that this will leave us in a situation where our aspiration to invest in this field will have to compete against our duties to provide core services to the residents of Gwynedd.

Renewable Energy

Generating our own energy does not only mean less dependency on using electricity from the grid (which is unlikely to be zero net for many years, if at all), but will also provide us with some energy guarantee for us locally. Unfortunately, no recognition is being given to us as an establishment if we generate electricity to export to the grid and we cannot claim the carbon credit for it. In addition to this, the infrastructure is not good enough to send electricity to the grid from renewable sources in this area, e.g. there would be a need to invest millions of pounds to be able to use some of our lands to establish solar farms. Therefore, generating electricity at a commercial scale from renewable sources will not be of any assistance to our ambition of being carbon zero.

Having said that, the Council, along with county partners, are developing a Local Area Energy Plan which will set a foundation to develop a low carbon energy system for Gwynedd for the benefit of residents, the industry and transportation. We will have to wait to see which projects the plan will recommend, and what resources will be available to deliver them.